THE MARCH MEETING

Did you know that there are huge voids in the structure of the universe? Voids were an unexpected result of studies performed almost 20 years ago and described by Dr. Stephen Gregory, the guest speaker for the March general meeting of The Albuquerque Astronomical Society. Dr. Gregory, who has been at UNM for about 10 years, described the techniques used to map galaxy distribution in the universe. What is most intriguing about the voids; one void as much as a billion light-years across, is that they are very transparent to photons. The method Dr. Gregory used to map the three-dimensional distribution of galaxies made use of Hubble’s Law. Hubble’s Law relates a galaxy’s velocity or redshift to its distance. Using previously obtained spectra of many galaxies and gathering spectra of additional galaxies at Kitt Peak, Dr. Gregory and his colleagues were able to map slices of the sky. These maps showed clusters of galaxies arranged in sheets and filaments with large amounts of empty space in between. One conclusion that Dr. Gregory and other astronomers have made is that these voids are the most dominant thing in the universe. It is quite possible that they amount to some 98 to 99 percent of the total volume of the universe!

Concluding his presentation with a question and answer period, Dr. Gregory touched on some of the problems that remain to be solved. Are the voids truly empty or could dark matter be involved somehow? Could there be unresolved objects populating the voids and how does the existence of voids relate to the thorny problem of the missing mass required to close the universe? Interesting things to ponder...After Dr. Gregory finished his presentation, Brock Parker had an update on the status of the three public events he is coordinating. George Pellegrino presented recognition awards to Gordon Pueg and Jeff Bender for completing the Messier observation list and to Lee Mesibov for completing the Herschel 400 observation list. Way to go, Lee!!

The meeting concluded with the usual sampling of tasty edibles and lively conversation.

Gordon Pueg, Treasurer

THE APRIL MEETING

The guest speaker for the April 15th monthly meeting (at 7:00 p.m., Saturday, April 15 at Regener Hall on the UNM campus—see map on back of newsletter) will be Dr. Michael Rupen. Dr. Rupen is a leading observer/expert on supernovae. He uses both the VLA and the VLBA facilities in his research. Some of his recent work has been on SN1993J and SN1994I as well as other sources. Dr. Rupen comes to us courtesy of NRAO/VLA, and Dave Finley.

Don’t forget to bring those cookies for our social hour after
the meeting.

"SORRY OBSERVERS, YOU GOT ROBBED HA HA"

This was the message left by the person or persons who broke into our observatory and stole anything of any value...whether or not they knew what it was (for details, please read "GNTO Robbery" in this issue of the Sidereal Times).

This senseless act was more than just a robbery, it was a violation of our goodneas, our kindness and our generosity. What is a thief going to do with a two inch eye piece and an oxygen III filter? And why would anyone topple a bunch of shelves with nuts and bolts, paint cans and old paint rollers on them...and then unload our fire extinguisher over the pile of dishveled hardware?

When I first got word of this incident, I was filled with rage and anger. Later that evening, while I listened to reports from the members who rushed down to the observatory to salvage and protect what was left behind, I began to reflect on this incursion into our "sanctuary" with a more philosophical heart.

We will get over this violation. We will be stronger and wiser because of it. We will rebuild what was torn down, purchase what was taken from us and move on.

Our wounds will heal with the passage of time...the memory will fade but not be forgotten. We will be drawn closer together. The bonds we share in our enjoyment of the night sky and our growing knowledge of the cosmos will be enhanced as we grow through this experience.

As we help one another come to terms with the true nature of the crime that was perpetrated here, we will grow even closer to each other.

We will move on in the procession of life...the thieves will not.

These people, whoever they are, will remain trapped outside the community we serve. They will only have the spoils of their deed. The equipment they took from us will be all they ever get. It will not bear them any lasting joy. They will never be able to enjoy a sense of connection with the universe...they will not experience the serenity that accompanies the knowledge that we are part of the Whole.

George Pellegrino, President

PRESIDENT'S UPDATE

By now, you've already heard about the break-in at the General Nathan Twining Observatory. If you have not, you may want to read "GNTO Robbery" and the article entitled "Sorry observers, you got robbed." For periodic updates on the progress of new security measures and any other news surrounding this incident, read future installments of the observatory committee reports.

Since the subject of the break-in is already covered elsewhere in this issue, I will not cover it again here. It's time to move on to a brighter note...this year will be as fun filled as last year was. On our "fun filled calendar of fantastic events," we have made the following entries:

(P) (Public); (M) (Members); (C) (Commercial)

(P) Valencia Campus Public Star Party
(P) Astronomy Day*
(M) & (P) Star Party in Cuba Mill
(M) Camping/Observing at Chaco Canyon
(M) Camping/Observing at Sun Spot/
Apache Point*
(M) TAAS Annual Family Picnic
(M) Tour of Starfire Observatory*
(M) Camping/Observing at Aztec Ruins
& planetarium show, Farmington*
(M) Tour of the VLA
(C) Enchanted Skies Star Party
(M) Camping/Observing atop Mt. Withington
(M) & (P) Special TAAS meeting @ the Museum of Nat.Hist.*
(M) Annual Potluck Dinner*

(P) Public Star Party
Sat, April 22
Sat, April 29
Fri, May 5
Sat, May 27
Sat, June 24
Sat, July 1
Sat, July 8
Sat, July 22
Sat, Aug 19
Sat, Sept 20-24
Sat, Oct 21
Sat, Nov 4
Sat, Dec 9

events have already been made. The dates for some of these events may change but no changes are anticipated at this time.

As for news on other fronts:

By the time you read this, the names "The Albuquerque Astronomical Society" and "The Albuquerque Astronomers" along with our logo, including some variations, should be registered with the Secretary of State. This move is the first step in an effort to preserve and control the use of our name and a part of our history.

Good news for teachers! The Board of Directors has allowed the creation of an "Education" class membership. This class of membership is $12 per year and carries with it some of the restrictions of a "Family Member" class membership.

TAAS members in these two classes cannot hold office nor can they hold a seat on the Board. Further, "Family Member" membership cannot be obtained by members who have an "Education" class membership. To qualify for an "Education" class membership, you must earn a substantial part of your income (51% or more) by teaching.

If you have any questions or suggestions, please give me a call at
my home at 821-8516.

George Pellegrino, President

**SUMMARY OF THE MARCH BOARD MEETING**

George Pellegrino called the meeting to order at 7:05 p.m.

Gordon Pegue made a motion to transfer $500 from the General Fund to the Observatory Fund. Bruce Levin seconded, passed unanimously. Gordon presented the treasurer's report; there was a net change of +$421.38. He also noted that a $500 donation was received, with equal amounts being placed in the Observatory and Education funds.

The monthly cost of newsletter mailing was discussed. It was determined to total $102 each month.

Gordon and George presented the board with a variety of items that have been received in the mail, including several newsletters from other societies.

Jay Harden reported upon efforts to contact new and lapsed members.

Gordon reported on the Observatory committee's progress. There was a work party on March 4 at Twining at which time various repairs were made. The 16" tube and 6" reflector were taken to George's house for further repairs. George and Kevin McKeown will strip the mirror April 8. Repairs to the observing platform were discussed as well as the proposed lightning protection system. Brad Hamlin will look into various on-site battery recharging systems. Lisa Wood recommended installing child-restraint gates. Another work party is scheduled for March 25/26 to install the dome rotation system as well as for taking measurements for the lightning protection system.

The matter of who should be permitted to obtain or retain observatory keys was also discussed. Numerous methods were proposed to control key distribution.

Brock Parker presented an Astronomy Day update. A panel painting session will be held March 18 at the UNM Campus Observatory. The panel/posters will be finished April 1 at Carl Frisch's home. All exhibits must be displayed by 10:00 a.m. and may be removed at 9:00 p.m. April 29. Volunteers will be needed for display set-up, display tear-down, and assistance during the day. In general, the event will proceed as last year. For the evening observing at the UNM Observatory, Leo and Travis Allen will provide additional telescopes.

Brock noted that the April 22 star party at Valencia campus may attract large crowds and is requesting for as many telescopes to be present as possible. Setup is 6:00 p.m., and vehicles will be allowed to park near the telescopes.

Brock also mentioned that the NM Museum of Natural History's store "Natureworks" is interested in stocking astronomy paraphernalia. George expressed interest in assisting them in the selection of equipment.

George suggested revising and updating our newsletter mailing list. Bruce Levin will chair the committee, with Barry Gordon, George Pellegrino, and Ellie Gates residing. They will review the current list and make recommendations at the next meeting.

George proposed a special membership for educators. The cost will be $12/year. Educators would not be able to hold office, sit on the board, or serve on any committee. There was a unanimous agreement to implement this new classification, with the exception of one abstention.

Blair Johanson will select April's guest speaker.

George recommended publishing newsletter articles of upcoming events 2-3 months prior to the actual event to inform members ahead of schedule.

George presented a request from the International Dark Sky Association for club membership. After some discussion the vote to subscribe was unanimous.

The need for a new battery at GNTO was discussed and approved. It was agreed upon to create guidelines upon which the Observatory Committee may make routine purchases without the approval of the Board.

George presented his design for observing accomplishments of club members. They are to be presented to those who complete various observing lists such as the Herschel 400 and the Messier.

After newsletter assignments were distributed, the meeting was adjourned at 9:42 p.m.

**ASTRONOMY DAY, 1995**

As you may know, our Astronomy Day celebration is scheduled for the 29th of April at Coronado Shopping Mall, here in Albuquerque. Last year, this event was a huge success...this year's version will be truly "latest and greatest." Some of the major exhibitors will include Phillips Laboratories, The Meteoritics Museum from UNM, The Museum of Natural History, The National Radio Astronomy Observatory (VLA), Sandia Labs, The National Atomic Museum, and last, but not least, The UNM Department of Physics and Astronomy.

In addition to the exhibits and telescopes displayed in the Mall, there will be solar observing on the south patio Mall entrance led by Bruce Levin, a new hands on mirror grinding exhibit presented by Michael Pendley, a "kids area" under the guidance of Lisa Wood and Heather Vogel, and a major Star Party at UNM Campus Observatory in the evening, run by Greg Hansen and John Hockemeier. If all of this wasn't enough, this year marks the first appearance of a twenty-one foot "Sky Dome" portable planetarium supplied, complete with operators, by the Space Center and Space Hall of Fame in Alamogordo, NM.

The Astronomy Day schedule is as follows:

Friday, 28 April 1995: 8:30 p.m. until Midnight: Setup at Coronado Mall

There is a "March Midnight Madness" sale at the mall until 11:00 p.m. on Friday, which means that we cannot set up until the Mall closes. The display panels can, however, be placed in the service halls earlier in the evening. This "late" crew will be responsible for placing the display panels in the Mall, and to insure that all the tables and chairs supplied by the mall are placed at least close to the areas where they will be used.

Saturday, 29 April, 1995 7:00 a.m. until 9:30 a.m. Setup at Coronado Mall

Continue the setup process and direct those people from the museums, labs, etc. who will be setting up displays. Set up the mirror grinding area with its pavilion as well.
as the Kids Area. Deal with any last minute "adjustments" that may have to be made.

8:30 a.m. until 9:00 a.m. Set up the solar viewing area

9:30 a.m. Those people who have volunteered for the first shift should be in place

10:00 a.m. Mall opens. (Comfort the director and provide medical (Psychiatric) care for the nervous breakdown that he might have.)

8:30 p.m. until 10:00 p.m. Set up the Star party at UNM Observatory

9:00 p.m. until complete 'Break down' exhibits, go home, put ourselves on the backs...and expire!

Astronomy Day so far has not been without a lot of labor on the part of the Board of Directors, especially by our Vice President and Librarian, Lisa Wood. With hours spent on the telephone and in front of a keyboard, she has managed to gather an impressive amount of material from the observatories in the Southwest. Laminated by Blair Johanson, these items will be placed on our repainted and refurbished display panels. These panels are the effort of two Saturdays spent at UNM Observatory with paint brushes and rollers.

All that remains to be done with the panels is pasting the laminated posters to the panels, to be completed at the house of Carl Frisch in early April. Mike Pendley has obtained several donated mirror blanks and will set up a mirror grinding demonstration and hands on area on the patio of the south Mall entrance.

Please Help!!
Volunteers Are Still Needed!!!!

An event of this size and complexity has to have the complete support of the membership in order to be successful. The problem of set up and transport of the display panels is of particular concern.

The biggest challenge we have is getting the rather delicate completed panels from Rio Rancho to and from the Mall. If anyone has a cargo van or a covered, full-size pickup that will carry a 4'x8' panel please give us a call.

We also need people to help with the telescopes and displays inside the mall. If you can give us a hand, Sidereal Times April, 1995

even for an of hour during the day or evening, please give us a call.

General help and displays:
George Pellegrino 821-8516
Brock Parker 298-2792

The "kids area" at the Mall:
Lisa Wood 344-8308
Heather Vogel 889-7919

Mirror Grinding at the Mall:
Michael Pendley 296-0549

Solar observing at the Mall:
Bruce Levin 299-0891

Star Party, UNM Observatory:
Greg Hansen 243-2279
John Hockemeier 293-5133

As a final note, Allen Green will be shooting video of the Event for possible publication. Our event is large and unique enough to qualify for national coverage. We have also contacted the local media and expect that they will have coverage of Astronomy Day as well.

All in all, this promises to be one heck of an Astronomy Day. One well worth the effort of everyone who has (and will!) give up time and energy.

Brock B. Parker
Director, Astronomy Day

CUBA, NM STAR PARTY

The Albuquerque Astronomical Society has been invited by The Cuba Independent School District to hold a star party in Cuba, NM on May 5, 1995. What sets this star party apart from one of our usual educational star parties is that the Cuba Schools have offered to reimburse Society members for travel, accommodations, and meals.

NM 44 is not the safest of highways, late at night, so we decided rather than to risk the safety of those Society members who wish to attend, accommodations would be provided. This, I believe, is a first for the Society.

Mileage will be paid at a rate of $0.20/mile, and an evening meal as well as breakfast will be provided. Accommodations will consist of a camping area for those so inclined, a dormitory (with showers) used for visiting teams at the High School, and a limited number of motel rooms for those who may need them (on a first come, first served basis).

The star party itself will, of course, be a public event and will end around 10:00 p.m. After that, we will have those scrumptious dark skies all to ourselves. Since no one has to drive all the way back to Albuquerque, we can ‘play’ as late as we like.

All of the details have not been worked out, but as can be imagined, participation will be limited. Therefore, a first come, first served roster will be developed, beginning with this notice.

The star party will be held on the football field at the high school. With the few security lights in the area turned off, this area is at least as dark as GNTO, and comes close to Grand Q. This area has the advantage of being adjacent to the dormitory area.

The School District also owns several parcels of land a little farther up the mountain, that are even darker. They aren’t on the list at this time, but the possibility of these dark areas for future events is something being considered for a future date.

I think of this trip as a personal reward for all our hard work to put on Astronomy Day. After recovering for a week, I’ll be ready to do some observing. This will certainly fill the bill. Any one who is interested should contact me at 298-2792. Hope to see you there!

Brock Parker

CHACO CANYON STAR PARTY

On Saturday, May 27, we will have our second star party and campout at Chaco Canyon, N.M. Our host and tour guide, and guest speaker at this event is Great Bear Cormocopia, a ranger at Chaco Canyon. Great Bear will speak on Archaeoastronomy at Chaco Canyon.

This is of course, a dark sky location, so the “seeing” will be good. Last year at this event, all those present got to see the Horsehead Nebula in Bill Tondreau’s 20 inch Obsession scope. The Horsehead is considered to be the “Holy Grail” for amateur astronomers. So those of you who want to see it in real time, or, if you just want to get some good eyepiece time, this is the place to be on May 27.

The drive to Chaco takes about two and a half to three hours. Our campsite has a restroom with run-
ning water, but no other facilities. If you do not have a RV you will need a tent, sleeping bag, warm clothes and food.

We are meeting at the campgrounds at Chaco between noon and 5 p.m. on Saturday, May 27th. At 5 p.m. there will be an orientation. After breakfast on Sunday, Great Bear will lead us to numerous sites in the canyon to look at ruins and petroglyphs. Bring a camera and enjoy the many photo opportunities.

If you have any questions, bring them to the monthly society meeting on April 15th. Additional updates will appear in the May newsletter, and will also be announced at the monthly meeting on May 13th. That meeting on the 13th is two weeks before the Chaco campout, and would be a good time to work out carpooling or car caravan details. Come with us and observe "In The Shadows Of The Ancient Ones."

Blair Johanson

OBSERVATORY COMMITTEE REPORT

John Triarchis hosted the Observatory Committee Meeting on March 9th. Chairman Gordon Pogue summarized the results of the last work party, which among other things installed new, sturdy reflector posts along the approach road. Blair Johanson presented a scheme for preloading the telescope bearings to solve some vibration problems. Lisa Wood brought up various "people" considerations such as a child safety gate at the top of the stairs and a simplified method of hooking up the batteries. A letter from Richard Morgan was read, outlining steps towards installing a lightning protection system.

On March 25 and 26 a major milestone will be reached—a dome rotation system will be installed! It will now be possible for a single person to rotate the dome by simply turning a handwheel. All those who have ever attempted to rotate the dome by the old brute-force method will know what a big step forward this is. Dennis Mitchell will do the installation welding. Blair Johanson and Gordon Pogue have worked very hard on this system, and deserve everyone's thanks.

As you read this, the 16" mirror will be getting its new coatings at QSP Optical. The enhanced coatings on our superb Cave Optical mirror will help make the Isengard Telescope one of the finest society scopes in the country. All these improvements to telescope and facility will make the GNTO much easier to use, and a far more pleasant place to be. In the coming months we can expect to see more use of the Observatory than ever before. Be sure to come down for as many observing nights as possible this Spring and Summer—you won’t be disappointed! And don’t forget to bring your family and friends.

While the Isengard Telescope is undergoing its overhaul, John Sellick's 25" equatorial base Obsession Telescope and ST6 CCD camera remain in full operation on the GNTO platform. If you are interested in CCD photography you simply must come down and see this awesome setup. Brad Hamlin has mastered the art of CCD imaging on this system, and has made many amazing astrophotos. Hopefully, Brad will show some of his recent work at an upcoming General Meeting.

The next Observatory Committee Meeting will be April 6 at Lisa Wood’s house. If you are interested in joining the committee, or have questions about the Observatory, call any of the committee members listed here:

Ch Gordon Pogue 299-5944 
Asst: John Triarchis 293-0883
Kevin Beverage 821-5376
Blair Johanson 296-9320
Kevin McKeeon 254-9137
Dennis Mitchell 877-3741
Granvil Morgan 864-6438
Richard Morgan 271-0164
Bill Tondreau 263-5944
Lisa Wood 344-8308

GNTO ROBBERY

Well folks, the inevitable has finally happened. Sometime between 10 p.m. Monday, March 20 and 9 a.m. Tuesday, March 21, 1995 the General Nathan Twinning Observatory was burglarized by some very determined thieves.

I was at work when I received a call at just a few minutes past noon, Tuesday, March 21st, from Brad Hamlin. Brad told me that Cowboy, a friend of the Society who works the cattle ranch down there and keeps an eye on the observatory, had just called and said that our observatory had been broken into. What a gut wrenching moment! All I could think of was, I hope the thieves didn’t touch fellow member John Sellick’s 25" telescope.

After the initial shock, I told Brad that I would call Bill Tondreau and see if he could go on down to GNTO ASAP. When I spoke with Bill, he said he’d leave immediately. I called Brad back and asked if he could get in touch with the Socorro County Sheriff’s Department and have someone meet Bill at GNTO. While Brad was attempting to reach them, my mind was racing—if there’s anything left of the 25" scope, someone has to get it the heck outta there! Me! I’ve got a nice pickup—I’ve gotta go!! I spoke with my boss who said “Go on, gitt!” and I was on the road within 10 minutes. Bill had already arrived when I got to GNTO and Brad was there a few minutes later. What the three of us found was the steel door looking like someone had tried to peel off the steel facing material. The thieves managed to peel back enough of the facing to expose the lock dead-bolts which were then completely ripped out. We shook our heads in amazement because they didn’t even touch the hinges.

We then entered the observatory carefully and saw a total mess! Stuff thrown everywhere, wall hangings ripped from their mountings, broken glass and dust all over everything. I couldn’t stand it any longer—I raced up the stairs and miracle of miracles, the 25" telescope was not touched! The donation box didn’t fare so well...kicked in and paper money removed. A few minutes later, Deputy Gilbert Barela of the Socorro County Sheriffs Department arrived and performed his investigation which included dusting for fingerprints, photographing tire tracks and footprints and canvassing the area residents. After Deputy Barela completed his investigation, the three of us proceeded to dismantle the 25" telescope for transport back to Albuquerque.

Items belonging to the Society that are missing include the generator, an eyepiece case with three 2" eyepieces, two 1 1/4" eyepieces and a 2" oxygen III filter, and some tools. Bill’s power inverter is gone as well as many items belonging to John Sellick. John’s losses include a 386 laptop computer, a 14" color monitor, a snowmobile suit, a toolbox with collimation tools and numerous eyepieces, a 3" refractor spotting scope, a propane space heater and a couple of 12 volt batteries.

We owe John a debt of gratitude for allowing the Society to use his equipment and because we are responsible for his equipment, I...
would like to make a request: If any member wishes to make a tax-deductible donation to help defray fellow member John Sefick's loss, as well as our own, I'm sure that the Board of Directors would be suitably grateful. Contact George Pellegrino or Gordon Pegue if you wish to make a donation.

Results of the clean-up party scheduled for Saturday, March 25 in lieu of the dome drive installation as well as a report on security issues at GNTO—Where do we go from here?—will be published in next month's Sidereal Times.

Gordon Pegue
Chairman, Observatory Committee

1995 SCIENCE FAIR RESULTS

The 36th Northwestern New Mexico Regional Science and Engineering Fair was held on the 17th and 18th of March at Johnson Gym on the UNM campus. I had the honor of being one of three special judges for Astronomy related topics. My fellow judges were George Pellegrino and Brock Parker. There were six Astronomy related entries, one in Senior Division, and five in Junior Division. The five criteria used for judging were as follows: Creative Ability, Scientific Thought, Thoroughness, Skill, and Clarity.

TAAS normally awards one First Place and two Honorables Mentions in each division. Since there was only one applicable entry in senior division, the three judges agreed to move the two unused "Honorable Mentions" over to the Junior division. This change gave us four honorable Mention awards to bestow on a Junior Division entries. The first place winners receive $50.00, and a one year membership in TAAS. Honorable Mention recipients receive a one year membership in TAAS.

In Senior Division, the lone entry was, in scope and detail, far, far above the level of complexity expected of a high school student. I confess that I could not follow the equations shown in the display, and, once upon a time I was a math teacher. I was told by another judge from another area that this young man had used about 20 hours of computing time on the Los Alamos Labs' CRAY computer to complete this project. The name of the Senior Division winner is Nathan J. Hillson. Mr. Hillson attends the Albuquerque Academy.

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I had better confess at this time to an oversight made by all three of your humble judges: None of us wrote down the titles of any of these projects (boy! are we gonna get razzed!!!). You see, all these displays were identified, and subsequently judged, by an entry number. The only time we used the project's full title was as a backup confirmation on the awards list turned in to the Review committee. As a result of this oversight, I can only give you the entries' names and their place in the rankings at this time (oops!). I feel that this is a better way out than to give their work names like the "Snowball Meteor Project" or the "2nd, Black Hole Project" (gasp).

The Junior Division results are as follows: First Place goes to Sydney F. Henning, of McKinley Middle School; First Honorables Mention goes to Cynthia L. Leathern, of Hope Christian School; Second Honorables Mention goes to Victoria S. Horan, of Queen of Heaven School; Third Honorables Mention goes to Laurie D. Francis, of Jefferson Middle School.

The name of the Fourth Honorable Mention awardee is not available at this time due to a reporting oversight (not my fault), and will be available, as well as the proper names of the projects, at the April General meeting. Your humble and forgetful judges will also be available at the April meeting to receive their just rewards.

Blair Johanson

LIBRARY NEWS

Many thanks to Jim Palmer for providing us with two instructional video tapes made by Helix Fairweather and the Internet Users Group. These tapes are available for checkout, and provide basic information on use of the astronomy Internet.

The Librarian

OBSERVER'S NOTEBOOK

Which 'M' is it???

I haven't been a member of the club this long, but rumor has it we have been clouded out of the Messier Marathon for seven years running. This year we got lucky with crystal clear skies lasting from a short time after sunset to just after 3 a.m. Some marathoners file their reports:

Bill Tondreau:

Bill spent much of the day digging postholes for the reflectors that line the road to the observatory. Although sore of hand and stiff of neck he managed to make his way back to the Twinning and enjoy the dark night sky. He was able to view some new objects and credits this to his greater dedication to preparation on this night.

Brad Hamlin:

Brad and Michelle arrived at the Twinning at about 8:30 p.m. and began observing with the 25 inch and CCD camera by 9:00. Along with Dennis Mitchell's help at the monitor, Brad managed to capture images of 8 Messier Objects including M97, 105, 87, 82, 81, and 100. He spent most of the night under the dome and left at about 3 a.m.

Michelle Sena:

Michelle reports that this was a wonderful night of CCD observing. This was the first time she had worked with the 25 inch telescope and seen the CCD process, and she was quite impressed by it.

Dr. Linda Hixson and daughter Kelly:

New member and Belen resident Dr. Linda Hixson and Kelly enjoyed looking through various telescopes and making plans for the purchase of their own. Young Kelly expressed interest in seeing various "M" objects and uttered that immutable observer's lament, "But, which 'M' is it??"

Leo Broline:

Leo Broline was unavailable for comment, but was last seen sitting on the sideboard of his van with his guest eating apple pie. They found numerous objects, and won the contest by default for being the last ones to leave. They also receive the most thoughtful award for actually pushing their van several feet when it proved to be blocking their view, rather than start up the engine and activate the interior lights and deactivate everyone else's retinas.

And as for me, I decided to attack the "Heartbreak Hill" of marathoning first by approaching the dozen or so galaxies in Virgo and very quickly found myself wondering, "But, which 'M' is it??"
While it is a little unsettling to recall that this list of about 100 objects is really just a "nuisance list" completed by comet hunter Charles Messier in 1784, it certainly is a fun excuse to get together and enjoy a sparkling, shimmering sky.

Lisa Wood

**VISUAL DISCOVERY OF SUPERNOVA IN NGC 1643**

A new phase has recently been opening up in my supernova hunting efforts. A modest amount of observing time has recently begun to be allocated to me on the forty-inch telescope at Siding Spring Observatory for visual searching.

This is a medium-sized telescope in much demand by the Mount Stromlo professional astronomers. (The 2.3 metre is in even heavier demand, but the 16 inch and 24 inch are rarely used.) It is usually fitted with one of several CCDs, but for my use has a 1.25 inch eyepiece holder fitted. It is a thirty-year old Boller and Chivens reflector of Ritchey-Chretien design, and operates at f/8 through the cassegrain port.

This telescope has to be electronically positioned from the control panel at all times, and is very heavy and solid. So, to be efficient in making a succession of visual observations of galaxies, it is necessary to have a helper to operate the telescope. This task has been done for me at different times by John Shobbrook and Tom Cragg. On several nights, young Queensland amateur Samantha Beaman has also taken part in the observing at the eyepiece.

The scheduled observing times began with part of a five-night period just after Christmas, when 567 different galaxies were searched in 26 hours of observing.

Three more nights in mid-January were affected by bad weather, yielding only 81 observations in just under 4 hours.

Of the session from February 22-26, four of the nights were fine, and 827 observations were made in 27 hours observing, improving the hourly average somewhat.

Observation number 932, after 38 hours of work, was of NGC 1643, and revealed a faint star just north of the galaxy, and slightly east. The only comparison photograph I had was from the Palomar Survey, and this was over-exposed at the site of the star. So, I had to wait until next day to visit the U.K. Schmidt in search of other photos of this field.

The equatorial "J" survey was also overexposed at this point, so that it was not possible to decide whether the star I had seen was normal or not. However, the "OR" survey had a copy of this field which was not so heavily exposed, and showed that no star was recorded at the place where I had seen the star the previous night.

Considering that the large telescopes on Siding Spring did not have suitable equipment on them that night for purpose of verifying this discovery, the best path to follow was to request a short exposure to be made with the U.K. Schmidt that night.

Paul Cass not only took the ten-minute exposure first thing that evening (Friday 24th Feb.) but also took the trouble to process the film straight away. By 1:30 a.m. next morning the film was dry and ready to examine. By placing this new image of the galaxy next to the older survey picture it was possible to see clearly that our star was indeed new.

A phone call was promptly made to Dan Green at the Central Bureau for Astronomical Telegrams, and his announcement soon produced other results. Alex. Filippenko hurriedly arranged for spectra to be made at the Lick Observatory, revealing that the supernova was of Type 2, but had strange narrow emission lines which had been seen in only a few other supernovae. Rob McNaught also used Paul's film to measure an exact position for the supernova.

The supernova was, I thought, about magnitude 15.5. And attempts to view it at home with my 41cm telescope several nights later showed me that I probably would not have discovered it with this smaller telescope. The supernova was just visible at times, and only with high magnification.

This supernova is almost twice as distant as any of the others I have found. The redshift of the other parent galaxies have been 2800 kms/sec, or much less. NGC 1643 has a redshift of 4850 kms/sec. So, the search with this telescope opens up the possibility of finding supernovae visually to a much greater distance than before, and also fainter supernovae in the nearby galaxies. This discovery proves the point.

This first discovery will also hopefully provide a good support for my applications for more observing time in the months ahead.

I am grateful to the Director of Mount Stromlo and Siding Spring Observatories, Professor Jeremy Mould, and to the members of the Time Allocation Committee, for their support of this project.

SN 1995G in NGC 1643.

McNaught's position of the supernova:

R.A. 04 43 44.22 DEC. -05 18 53.8

(2000.)

Offsets, 16.1" north. 4.5" east.

Rev. Robert Evans
Coonabarabran, Australia

**ASTEROID NAMED AFTER NEW MEXICO ASTRONOMER**

Minor Planet, Asteroid 5799, discovered by Carolyn Shoemaker at Palomar Observatory on October 9, 1980 was named in honor of comet hunter Howard Brewington. This asteroid was renamed (5799) Brewington on March 17, 1995 by the international Astronomical Union.

Howard found his first comet from South Carolina and then moved to southern New Mexico near Cloudcroft with his wife Trudy. He then discovered three more comets from that location. Howard has logged in excess of 400 hours since discovering his last comet, recovered periodic comet Metcalf-Brewington. With a little luck, we expect to hear of another comet discovery by Howard. Congratulations for your continued work and contributions to amateur and professional astronomy.

For those of you with gigantic Dobsonians, see the associated chart for the recent location of the asteroid.
<table>
<thead>
<tr>
<th>Galaxy</th>
<th>Globular</th>
<th>Open Cl</th>
<th>Planetary</th>
<th>Clust+Neb</th>
<th>Bright Neb</th>
<th>Dark Neb</th>
<th>Asterism</th>
<th>Unknown</th>
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**Leo**

- 5799 Brotin
- Asteroid

- Uranometria 144
- 244979.6250 JD UT
- Mar 23 1995 3:00 UT
- Mar 22 1995 20:00 LT
- 09h 58.988m
- +23° 55.57' Mag: 18.4
- % Illum: 98
- Earth Dist: 2.2255 AU
- Sun Dist: 3.0581 AU
- Sun Elong: 140°
## May 1995 Lunar Almanac

<table>
<thead>
<tr>
<th>Sunday</th>
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### Albuquerque, NM
- Time Zone: MDT
- Latitude: 35.08
- Longitude: 106.65

**Definitions:**
- **MR** = Moonrise, upper limb on horizon.
- **TR** = Translit, moon is due south and also highest in the sky.
- **MS** = Moonset, upper limb on horizon.
- **RA** = Azimuth of rising moon.
- **TA** = Altitude of 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 Roy Sterner
- Laurel, MD 20707

## May 1995 Solar Almanac

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### Albuquerque, NM
- Time Zone: MDT
- Latitude: 35.08
- Longitude: 106.65

**Definitions:**
- **MA** = Morning astronomical twilight, sun is at -18 degrees attitude.
- **MN** = Morning nautical twilight, sun is at -12 degrees attitude.
- **MC** = Morning civil twilight, sun is at -6 degrees attitude.
- **SR** = Sunrise, upper limb on horizon.
- **TR** = Translit, 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 attitude.
- **EN** = Evening nautical twilight, sun is at -12 degrees attitude.
- **EA** = Evening astronomical twilight, sun is at -18 degrees attitude.

Times are rounded to nearest minute.

Calendar by Roy Sterner
- Laurel, MD 20707
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 ($20/12 issues), Astronomy ($18/12 issues) and Odyssey ($19.51/12 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. Membership dues are $20.00 per year and $3.00 per additional family member. Membership Packets cost $1.75 each for new members or renewing members without the Packet. Contact the Treasurer for more information.

NEWSLETTER ARTICLES: Personal astronomical classified advertisements and articles can be submitted within 3 days after the latest Society meeting in order to make it into the next newsletter. Business card size advertisements for businesses related to astronomy are accepted with the same deadline as articles and personal classified advertisements. Rates for business card size ads are $10/ad per issue of the Sideral 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 personal classified or business card size advertisement. Computer files in ASCII format are preferred. Contact the Newsletter Editor for more information.

TAAS LIBRARY: Please call the Librarian at the number below to check out a book.

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