UPCOMING EVENTS:

1-14 Saturday: First Quarter Moon
1-19 Thursday: Lecture by Harvard's Dr. R.P. Kirshner on "The Supernova of a Lifetime," at Regener Hall, UNM, at 7:30 p.m.
1-21 Saturday: Annual Meeting of the Society -- Election of officers
Full Moon
1-26 Thursday: Society Board of Directors Meeting at UNM Physics & Astronomy building, room 186, at 7:30 p.m.
1-30 Monday: Last Quarter Moon
2-4 Saturday: Dark Sky Night at Gran Quivira
2-6 Monday: New Moon
2-12 Sunday: First Quarter Moon
2-18 Saturday: Monthly Meeting of the Society -- Program on "Astronomical Computing"

THE JANUARY MEETING:

This month's meeting will be far more than just a meeting of our Society -- it will be an important milestone in our history. This event will begin with a ceremony to kick off the campaign to build the Albuquerque Astronomical Society's observatory. In this ceremony, President George Pellegrino will accept both the deed to four acres of land donated by Mr. Nathan Twining for the observatory and the title to the 16-inch Newtonian telescope donated by our member, Lt. Col. Bill Isengard, USAF (Ret.).

This ceremony will put our observatory project into high gear, and we are working to give the project the maximum possible amount of public visibility -- and support -- by ensuring wide coverage of the ceremony in the news media. You may already have seen word about our observatory in the media and there will be more coverage in the coming days. Be sure to attend this meeting -- we need all our members to be a part of this exciting event. At the meeting, you'll hear about all the recent developments in this project and the plans for this facility, which, we believe, may become the most significant amateur initiative of the coming decade.

After the observatory kickoff ceremony, we'll have our annual elections. Don't worry about getting "railroaded" into an office -- our nominating committee has come up with a full slate of nominees for the 1989 offices!

Following the elections, we will have an informal display program of your best astronomical efforts of 1988. This is the time to bring your Mars photos and drawings, your deep-sky astrophotos, the gadgets you've built or that innovative new telescope design that made its way out of your workshop during 1988. Come and share your astronomical work or collections with your fellow members -- and don't miss what everyone else has to show. Members of the news media present to cover our observatory kickoff ceremony will want to know just what amateur astronomy is all about -- let's show them!

-- Dave Finley, Vice President

MEMBERSHIP UPDATE:

The Society presently has 142 general members, 51 family members, and 3 honorary members. There have been 3 renewals. Thank you to those of you who have renewed. The Society wishes to welcome the following new members who have joined during the last month:

Richard Piggott  Stephen, Shiela, and Debra Quintana  Greg Poulter  Sheldon Yue
CALLING ALL COMPUTER JOCKEYS:

Next month, our spotlight will turn on Astronomical Computing as the topic for our monthly meeting. From your responses on our membership application forms, astronomical computing is the number one special interest among our members. This is why we'll devote the February meeting to this topic.

We want this program to have something of interest to all members, regardless of their experience or lack of experience with computers. Because of this, we'll open the session with a brief overview of astronomical computing -- what it is, what types of equipment are common among amateurs, and what uses amateurs make of their computers. Then, we want to have a more informal series of very short descriptions by members of how they use their computers, followed by a "swap shop" type of show-and-tell session.

Our software coordinator, Mike Fish, will bring along a collection of public-domain and shareware programs accumulated by several of our members, so bring blank disks if you want a copy.

We need for all of you with computers to participate -- either by bringing a machine to demonstrate software you have written or by bringing software that can be traded. If you can bring something, or give a short talk on how you use your computer for astronomy, please call Dave Finley or Mike Fish.

"YES INDEED":

The deed has arrived! Members who attended our annual "Winter Solstice Celebration and Pot Luck Dinner" were surprised and delighted to learn that the deed to the land we need for an observatory site has finally arrived! (Please see the article on the January meeting for additional details.)

The good news went well with the good food. Our society's chefs brought their "World Famous" culinary delights and fed the masses to contentment. Some members brought telescopes and other items related to astronomy: post cards, photos, slides, posters, and more.

The society's librarian, Lee Resibo, brought our entire library complete with videos. Alan Trever, our telescope curator, brought in one of our three telescopes. (The other two were out on loan.) All together, nine twelve foot tables were needed to hold all the items on display. More than fifty people attended this event and a great time was had by all.

Many thanks are given to St. Paul's United Methodist Church for allowing us to utilize Chapam Hall and to John Hockemeyer for making the arrangements for us.

UNIVERSITY OF NEW MEXICO CAMPUS OBSERVATORY PUBLIC OPEN HOUSES:

The Campus Observatory has been closed for the last few weeks during the Winter break before classes are to start up again for the Winter semester. The observatory is scheduled to reopen for the Friday evening open houses starting on January 20th. Dr. Robert Kirschenr, Chairman of the Harvard Astronomy Department and Associate of the Smithsonian Center for Astrophysics, will be present for the rededication of the UNM Campus Observatory. All of us are invited to attend this event an hour prior to the observatory opening up for the public. The Observatory viewing hours are from 7:00 p.m. to 9:00 p.m. during Mountain Standard Time and an hour later when the clocks are moved ahead in Spring. If you are interested in becoming a docent to help the University and our Society in interfacing with the public, please contact Bruce L. Levin at 299-0691.

ALBUQUERQUE ASTRONOMICAL SOCIETY TO EXPAND ITS EDUCATIONAL PROGRAMS:

Our Society is reaching out to educate the public about astronomy! Art Jacobs, our Events Coordinator, has volunteered to interface with other organizations in setting up programs to teach people about astronomy. We are looking at helping the public schools and organizations such as the YMCA, Boy and Girl Scouts, 4-H Clubs, and others. If you are interested in providing some of your time and services for this worthwhile endeavor, please contact Art at 299-6311.

NEWSLETTER EDITOR'S NOTE:

All of our members should feel free to send any undated astronomical filler articles for future newsletters of the SIDERAL TIMES. Thank - B.L.L.
Undoubtedly spurred by the launching of Sputnik and the beginning of the Space Age, a small group of amateur astronomers, most of whom owned small and medium-sized telescopes, began to meet in Albuquerque for discussions and observing sessions in the late 1950s. They generally met at a member's home, though some early meetings centered around visits to a 24-inch telescope owned by Sandia Laboratory.

When the group became interested in joining the Astronomical League, a national umbrella organization of amateur astronomical societies, they found it necessary to draft a constitution and to formally organize. This they did on August 12, 1959, establishing the Albuquerque Astronomers. The first president was Carson Sammons, with Bill Seelbach as vice president and Dan Judd as secretary-treasurer. With the formal organization, they made a more concerted effort to obtain professional scientists as guest speakers, and one of the first to accept their invitation was Dr. Lincoln La Paz, director of the University of New Mexico's Institute for Meteoritics.

Serious astronomical observations and public service events have been featured activities from the early days of the organization. On March 12, 1960, members gathered to photograph and make timed observations of a total lunar eclipse. In October of 1961, the organization teamed with the Albuquerque High School Moonwatch team to set up 14 telescopes at Winrock Shopping Center for a public star party, where more than 1,000 people came to get a view of the moon and several planets.

In 1962, the Albuquerque Astronomers, then 35 strong, decided to host the national convention of the Astronomical League. The convention, held over the Labor Day weekend, was held at the Western Skies Hotel. The convention proved a success, with more than 150 amateur astronomers from all over the U.S. coming to hear several nationally-prominent speakers on the theme, "The Moon and Its Exploration," and to observe under the clear New Mexico skies. Though the visitors paid a registration fee and other expenses, the Albuquerque Astronomers were left with a deficit of $377 by this convention. On the plus side, the convention drew wide coverage in the local press.

In 1968, the group organized some sessions on astronomical mirror grinding, and one member, Dennis Donnelly, took his newly-made telescope to view the launching of the first manned mission to the Moon in 1969.

In late 1969 and early 1970, the officers drafted a set of bylaws to supplement the constitution of 1959, and these bylaws were adopted on January 15, 1970.

In addition to the classes and sessions on telescope making, the group became quite active in astronomical education and observation in the early 1970s. Classes were organized to teach astronomical fundamentals and to familiarize members with basic observing techniques. Many members made observations of Mars during its favorable apparition in 1971, and their data was sent to the Association of Lunar and Planetary Observers, which records and archives planetary data. Special interest groups were formed within the Albuquerque Astronomers to observe meteors, satellites, variable stars and to do astronomical photography.

In 1972, the club again hosted a major convention of the Astronomical League, this time of the League's Southwest Region. The convention was held at the White Winrock Hotel and featured lecture sessions, an observing session atop Sandia Crest and a banquet. Speakers came from Lowell Observatory in Flagstaff, Arizona, and from the Jet Propulsion Laboratory in Pasadena, California. Once again, the club went into debt by hosting a convention, but this time only by $98.

At the end of 1972, a donation from the Albuquerque Astronomers helped enable a local student to attend a meeting of the American Junior Academy of Science in Washington, D.C.

By 1973, several members performed some needed adjustments and repairs to this instrument, and it then was made available for members to check out and use. Since then, this telescope has been used by many members, not only for their own enjoyment, but also to show the wonders of the sky to school and youth groups.

By 1976, the club's newsletter had evolved from a one- or two-sheet, irregularly issued notice of meetings and other club events to a regular monthly publication, The Sidereal Times, which has since grown to a 6-8-page newsletter. This publication contains not only meeting information but a summary of upcoming astronomical events, lectures scheduled around the state and articles on a wide variety of astronomical topics.

Regular events now sponsored by our organization include not only the monthly meetings, which regularly feature lectures by professional and distinguished amateur astronomers, but two star parties each month and expeditions to observatories and other professional installations. The monthly meetings, with their lectures, always have been open and free to the public.
Each year for the past several years, we have hosted Astronomy Day, a nationally-observed event designed to bring astronomy and astronomical education to the public. The most recent Astronomy Day, in April of 1988, featured two talks by astronomer Mike Mullane, who drew large crowds filled with young Albuquerqueans.

A major milestone came at the beginning of 1988, when a new charter and bylaws were adopted and our group was renamed the Albuquerque Astronomical Society. The new legal documents were designed to serve a group that has grown into a serious and respected scientific and educational organization. This reorganization, which makes our legal structure completely concomitant with the non-profit corporation statutes of New Mexico, will provide a solid organizational framework for a dynamic group that now has more than two hundred members and is still growing.

1988 has seen a great deal of public service activity by the Albuquerque Astronomical Society. In June, we hosted a public lecture by Dr. Clyde Tombaugh, the discoverer of the planet Pluto. Dr. Tombaugh's talk to a packed hall of paying listeners raised more than $1,100 for New Mexico State University's Clyde Tombaugh Scholars Fund, a fund that finances postdoctoral study at NMSU for young astronomers. In September, the planet Mars made its best appearance in the sky for the remainder of this century, and we organized "Mars Madness," a public star party which gave nearly 1,500 people a chance to look at Mars and other celestial objects through more than 25 telescopes set up by our members.

The Society also began a volunteer docent program at the University of New Mexico's campus observatory. Under this arrangement, our members volunteer their time to help the university open the campus observatory to the public on Friday nights. The Society members operate the university's permanently-mounted 12.5-inch telescope and also set up other university-owned telescopes in the observatory's courtyard. In addition, many members bring their own telescopes to these public observing nights. The volunteer docents not only help operate the telescopes, but assist with crowd control and answer numerous questions from the visitors about astronomical topics. It is not uncommon for 300 to 500 people to attend one of these open-house nights.

The Albuquerque Astronomical Society's plans for the near future center around the establishment of a permanent observatory. Donors are already prepared to provide land and a research-grade telescope for this observatory. Once funds are raised to erect a building, we will build a facility that will be available not only to our members but for public-education programs and, through cooperation with the University of New Mexico, for serious professional research by faculty and graduate students. The site and the instrument ready for this observatory are well-suited to enable our members to make observations that contribute to scientific knowledge as well as to provide a research facility highly useful to professionals. We intend that this observatory serve many purposes, including amateur observations, public education, professional research, and training of young astronomers, both amateur and professional. Building this observatory, while at the same time continuing our programs and activities to advance astronomy as a science and as a hobby and to bring scientific knowledge to the public, will be a tremendous challenge. With the support and talents of all of us, we can meet this challenge.

Dave Finley, Vice President

WE MADE NEWS IN 1988!

In order to grow and fulfill its goals, our Society must gain the attention of the public. To this end, we have expended considerable effort over the past year to get out the word about our activities. This has included regular monthly press releases about our meetings and additional press releases about our special events, in addition to telephone and personal contact with media people. The results have been good -- During 1988, the Albuquerque Astronomical Society was covered more than forty separate times in the local media. The breakdown by type of outlet is:

Newspaper: 25 times  Radio: 3 times
Television: 12 times  Magazine: 1 time

Naturally, press releases alone don't bring media attention. Our Society has been presenting good speakers and organizing interesting, newsworthy events, and the media coverage we received is confirmation of this.

-- Dave Finley, Vice President
EL CIELO ESTRELLADO
(The Starry Sky)

Comet Prospects for 1989

After the record-breaking comet shower of 1987 (16 discoveries and 17 periodic comet recoveries), the past year was almost sure to be anticlimactic. Even so, 1988 was not a bad year for comets: P/Tempe 2 (1987g) put on a respectable, long-running show in the evening sky and Comet Liller (1988a) became a well-observed object, achieving faint naked-eye visibility in April and May. As 1989 dawns, it is appropriate to consider the outlook for the next twelve months. Of course, there is no way to forecast either the number or brightness of new visitors in 1989—that's part of the distinctive charm of comet watching! The ever-present periodic comets, on the other hand, provide ample opportunity for discussion (and speculation). In terms of the number of comets arriving at perihelion, 1989 appears to be a fairly average year (as many as 13 such objects are predicted). The list includes several well-known visitors; however, unfavorable returns are expected for P/Tempe 1, P/d'Arrest, and a few others as well. All things considered, the most interesting candidates for amateur observation appear to be (1) the "Halley-like" intermediate-period comet, P/Brosen-Metcalf, and (2) the enigmatic P/Schwassmann-Wachmann 1. The accompanying star chart depicts the apparent paths of these two objects. More precise positions may be obtained from the ephemerides given below (data obtained from Ephemerides Astronomiques 1989).

P/Brosen-Metcalf was discovered by the Danish astronomer Theodor Brosen on July 20, 1987. Near visual magnitude 9.5 at discovery, the comet brightened to mag. 6.5 by mid-August. With the comet receding from the earth on its way to perihelion, observations continued for only a month thereafter. While calculations revealed that the comet possessed a period near 75 years, the short duration of visibility (56 days) prevented the determination of a definitive orbit. Assuming a 75-year period, Comet Brosen was expected to appear again around 2222; however, the Rev. Joel Metcalf unexpectedly swept up the returning comet on August 21, 1919 (incidentally, Metcalf was "on a roll" at this time—only two days later, he discovered another comet, 1919 V). Based on the present understanding of its orbital motion, an appropriate nickname for P/Brosen-Metcalf might be "the Ghost of Halley" inasmuch as it exhibits a very similar period, eccentricity, argument of perihelion and perihelion distance. It is intrinsically several magnitudes fainter than its more famous cousin. The 1989 apparition is expected to provide moderately favorable observing conditions, especially at the time of new moon near the end of August and beginning of September (C. E. Spratt, J. Roy. Astr. Soc. Canada 81:95-103, 1987). An interesting feature of the 1919 return was a tail separation event that occurred a few days past perihelion. Perhaps a similar event will be observed this time around.

P/Schwassmann-Wachmann 1 is a very different comet. This distant object moves in a nearly circular orbit lying entirely outside the orbit of Jupiter. Normally very faint (mag. 16-18), the comet is well-known for occasional large outbursts which bring it within range of backyard instruments. Observations with apertures as small as 8" have been reported (B. G. Marsden and B. Roemer, Quart. J. Roy. Astr. Soc. 19:38-58, 1978). Watching for an outburst of P/Schwassmann-Wachmann 1 is similar to monitoring a recurrent nova, except in this case you have a moving target. Unless you own a mag. 12-14 star atlas, it will probably be necessary to compare the field surrounding the comet's calculated position with a careful drawing made on a previous night.

**COMET BROSEN-METCALF**

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**COMET SCHWASSMANN-WACHMANN 1**

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Note: Coordinates are for Epoch 2000.0; Distances in a.u.

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Wayne M. Trott
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:
Albuquerque Astronomical Society, P.O. Box 54072, Albuquerque, NM 87153
or give them 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 & Telescope and Astronomy Magazine publications are available through our Society. Include any publication renewal mailers and subscription payment as part of your renewal check. Membership dues are $10.00 per year and $2.00 per additional family member. Membership Packets cost $1.75 each for new members or renewing members without the Packet.

ARTICLES: If you would like to submit an article for the Sidereal Times, contact Bruce Levin at the listed number below. Please submit articles within two weeks after the latest Society meeting. Computer files in ASCII format are preferred.

- Club Staff -

President: George Pellegrino 821-8516 (home)
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Newsletter Editor: Bruce Levin 299-0891 (home)
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Telescope Curator: Alan Trever 275-2601 (home)
Occultation Coordinator: Mac Morgan 296-3983 (home)
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Board Member: Chris Hilleary 298-0093 (home)
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Board Member: Paul Maestas 883-1086 (home)