

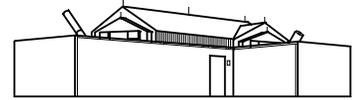
The Guide Star

Newsletter of the Amateur Astronomers Association of Pittsburgh Inc.

A Section of the Academy of Science & Art of Pittsburgh

April, 2003

Vol. 37, No. 1



Nicholas E. Wagman Observatory

Jill Tarter Highlights "Astronomy Weekend '03"

Astro-Weekend Features Real-Life "Ellie Arrowway" of SETI Fame



Jill Tarter portrait photo courtesy of Ly Ly/SETI Institute.

It is said that the character of Ellie Arrowway, played by Jodie Foster in the movie "Contact" (based on the novel), was the late Carl Sagan's salute to **Jill Tarter**, the acknowledged leader Search for Extra-Terrestrial Intelligence (SETI) field. Thanks to the efforts of the CSC/Buhl's John Radzilowicz, Ms. Tarter is the featured speaker at "Astronomy Weekend '03", the AAAP's largest indoor exposition of the astronomical art. The club welcomes you and your help on **Saturday, April 5** and **Sunday, April 6** at the **Carnegie Science Center**, where we show the visiting public everything under the stars about astronomy and its related fields. "Astronomy Weekend" is part of the larger Sci-Tek 2003 Festival sponsored by the CSC and a variety of local companies and associations. The theme of our show is "Amateur Contributions to Professional Astronomy" where we will make note of observational discoveries such as comets and supernovae to empirical measurements such as disappearance of asteroid-occulted stars. But because of Ms. Tarter's appearance, we are also promoting "Astronomy Weekend '03" as the perfect venue for young girls interested in learning more about astronomy and science in general. Here's the facts and nothing but the facts about the program:

- ➔ Club members wishing to bring displays or scopes should report to the CSC's lower service entrance (faces the parking lot) at about **9:00 am** each day. There you will be directed to our display area by CSC staff or security. Doors open for the public at 11:00 pm; members without special gear can arrive through the main entrance any time of the day Saturday or Sunday. Just ask any CSC staffer for directions to our display area (to be announced).
- ➔ AAAP members are encouraged to bring table-top displays and/or portable scopes for set-up in our designated display area. If you are equipped for solar observing, we may park a few scopes outside for this purpose as well (weather permitting).

(continued on page 2, column 1)

Amateur-Launched Satellites Proposed At April 18 Meeting

We're already familiar with amateur astronomers keeping just a few steps behind the pros when it comes to digital imaging and processing, high-resolution optics, perhaps even adaptive optics in the near future. So, how are the amateur astronautical engineers doing in their respective field? While our space flight colleagues are nowhere near launching people or stations into orbit, they have made impressive strides with high-altitude sounding rockets. At the AAAP **April 18** meeting (**7:30 pm** at the **Carnegie Science Center**) Francis G. Grahm of Kent State University will describe the prospects/progress for amateurs launching a satellite into low Earth orbit with a large staged version of a sounding rocket (Francis gave this same talk at LHSC several years ago). Getting something moving 17,500 miles per hour would be an impressive feat given that most amateur sounding rockets get up to perhaps several hundred or 1000 mph. Our guest speaker will fill you in on just how orbit might be reached with garage-built launchers.

Wagman Star Parties: Get Your Last Glimpses of Jupiter and Saturn

Even though this is the "Year of Mars", let's not forget those other cosmic gems, Jupiter and Saturn, which will soon be receding into the Sun's glare. If you're not among the lucky members to get some good views of the Gas Giants this winter, consider attending the Wagman Observatory public star parties on **April 11 and 12** (starting at **Sunset**), so that you can delight in these planets one last time until late Fall. After all, it takes a great Mars to equal a fair Jupiter or Saturn (that was an editorial comment ☺). Of course, our star parties are for the enter-tainment and enlightenment of the visiting public, so make certain to put these planets high on your observing agenda if you have your own scope.

(continued on page 2, column 1)



Our Biggest Indoor Show & Tell: Astronomy Weekend

(continued from front page)

- ➔ Jill Tarter's lecture ("Life, the Universe, and SETI In a Nutshell") begins at 7 pm on Saturday night. Let's make certain to have a large AAAP contingent on-hand for this extra-worldly-famous guest. See page 8 for more on Ms. Tarter's remarkable career.
- ➔ Our own **Paula Meddings** will be on hand to report the latest NASA-JPL projects and plans.
- ➔ In addition to astronomical displays, we'll have the always-kid-popular face painting area, staffed by our skilled artists **Dave Smith**, **Diane Yorkshire** and others.

We always manage to amass a large contingent of AAAP members at Wagman Star Parties and Laurel Highlands Star Cruise. Let's do the same for "Astronomy Weekend '03".

We're "Go" for Observing Start At April 11 and 12 Wagman SP's

(continued from front page)

As always, we appreciate any and all forms of help in addition to portable scope operation including parking cars, directing crowds inside the building, helping at the reception desk, assisting guests with the set-up of their own scopes, etc. **Note: Let's give a break to that small cadre of members (e.g. John Holtz, Ed Honkus, etc.) who always wind up parking cars.** It's an important task and, unlike working in the reception room, keeps the sky in view at all times.



More NEWO News

Group Scheduling Coordinator Needed

From Director Tom Reiland: "Paula Meddings just informed me that because of new work and other responsibilities she must resign as group coordinator at Wagman Observatory. We are looking for a volunteer to fill this position. Contact me if you are interested and want more info on this position."

Help with Much-Needed Groundskeeping

In the aftermath of Wagman Winterfest mudbath, we plan to perform some major repairs to the grounds and related work that has already been under consideration, such replacing/adding to the concrete "tiles" on the Brashear Room south wall, adding topsoil, seeding the bare spots, etc. If you would like to help with these tasks (muscle and/or material), contact Tom Reiland or Flacc Stifel.



L-R: Larry McHenry, Terry Trees and Alison Conte will not be running this year. Perhaps you are the ideal person to fill one of these member's shoes as an AAAP officer.

AAAP Elections Approaching; Several Key Openings Available

by Larry E McHenry (from AAAP Listserver)

Well it's that time of year again! Time to start planning for the AAAP May elections. Bill Roemer has been appointed chairman of this year's Nominating Committee. Additionally, Pete Zapadka, Mark Arelt, and JoAnne Trees 'volunteered' to help Bill as committee members ☺. They will present a list of officer candidates at the April meeting, and conduct the May election. The following AAAP club offices are open this year:

- President,
- Vice-President,
- Corresponding Secretary.

Additionally, anyone is welcomed to run for the other offices, excluding Treasurer, (he has a five year sentence).

We are fortunate to have a number of men and women who would make fine officers. I would like to encourage those who are interested in serving the club as an officer to contact Bill, or one of the other Nominating Committee members. Thanks.

Faster Than A Speeding Photon, S.H.O. Project Presses On

There's no way to overstate the intense interest of Washington County officials in our proposed South Hills Observatory for Mingo Park. Almost as fast as we propose an idea or ask for help, they respond and offer even more help and suggestions. Here's the latest since we reported on SHO progress in last month's Guide Star:

- ✓ The formal lease between the AAAP and Washington County was signed by our officers during Wagman Winterfest, and was due to be signed by their County Commissioners on March 20.
- ✓ The lease includes statements that Washington County will help limit light pollution and development in the area around the observatory.
- ✓ The Washington County Tourism Bureau has offered to help promote, at their own expense, star parties and other programs at the Mingo site.
- ✓ Handicapped access is a high priority for the observatory. Plans call for a hardened (but not paved) handicapped parking space just outside the building. Other visitors will park at a lower lot, while members park at a "back" lot.

(continued on page 5, column 1)

Big Winterfest Crowds Undeterred by the Mud and Mush

Unlike many a past Wagman Winterfests, this year's installment benefited from moderate temperatures, as it turned out, a little too moderate. As a result of the rapid thaw of the soil, much of the grounds were rendered impassable by ankle-deep mud and cars left a tangle of deep ruts. But that didn't prevent members and guests from having a grand time. Thanks to seven or 8 bales of hay brought in by Flacc Stifel, people were able to navigate in and out of the building as well as the two (vendor and guest speaker) tents. There were enough breaks in the clouds for everyone to get a good look at the Waxing Crescent Moon, Jupiter, Saturn and the many dazzling objects in the Greater Orion region of the sky. Special thanks to Mari-Jo and Wayne Meyers and their friends for setting up an (as usual) terrific food and refreshments area behind the building (your GS Editor oinked out on four of their great hot dogs!).
(Note: All images below taken by Pete Zapadka.)

As of GS press time, we did not have a formal written list of all the helpers. Just a few of AAAP members in attendance*, i.e. that your GS Editor recognized at the event:

- | | | |
|------------------|----------------|----------------|
| Pete Zapadka | Mary DeVaughn | Ann Norman |
| Tom Reiland | Lori Dzura | Tim Hagen |
| Bill Roemer | Wayne Meyers | George Kepple |
| Erik Hekathorn | Mari-Jo Meyers | George Guzik |
| Bill Yorkshire | John Holtz | Joe McCafferty |
| Diane Yorkshire | Ed Honkus | Brian Melchar |
| Wade Barbin | Tim Manka | Marca Melchar |
| Flacc Stifel | Ed Moss | Geoffrey Trees |
| Dave Houggy | Larry McHenry | Joann Trees |
| Mary Jean Cancel | | |

*Apologies to anyone and everyone else I missed in this list. We'll have a more complete tabulation in the next Guide Star.



Nothing "tentative" about these guys as they set up the guest speaker's tent.



The "Julia Child" of the AAAP, Mari-Jo Meyers, sets up the food/refreshment area behind the observatory.



The always-capable Tim Manka helps North Allegheny High School Students with their astronomy field assignments.



It didn't take long for the Wagman grounds to look like a mud-racing arena as more and more cars arrived.



\$10 Gift Cert. Incentive

Tempo Building for LHSC 2003: Show Your Support

by George Guzik

Laurel Highlands Star Cruise keeps getting bigger and better each year. We need a big team of volunteers to ensure that key activities in this year's big event function smoothly and efficiently. We need volunteers to help in these areas (Wednesday 6/25 through Saturday 6/28):

☛ Registration: Wed. Noon - 9 PM, Thur. 11 AM - 9 PM, Fri. 9 AM - 9 PM, Sat. 8:30 AM - 6 PM)

☛ Souvenir Sales: Roughly the same hours as Registration

☛ Audio-Visual Equipment Security: Late morning to 10 PM Wed. through Sat.)

☛ Children's Activities:

- Weds 2:00 - 3:30 PM - Water Bottle Rockets
- Thurs 2:00 - 3:00 PM - Solar System Model
- Fri 2:00 - 3:30 PM - Making Rocket Trackers
- Sat 9:00 AM - Noon - Rocket Building and Launching

☛ Video Presentations: Operate AV equipment 10 PM to midnight Wed. through Sat. and for about an hour mid-morning Thur. and Fri.)

☛ Vendor Security: Afternoons Wed. through Sat.

We also need volunteers to help with event set up (weekend of 6/21) and event tear down (Sunday 6/29).

This year we're adding an incentive for volunteers. Help us in one activity or help us in several. Each volunteer who registers for service and who provides a total of 4 or more hours of service in the areas listed above will receive a certificate worth \$10 toward the purchase of AAAP merchandise. Please contact me (724-863-8008, georgeguzik@aol.com) to volunteer or if you have questions about the LHSC Volunteer Program.

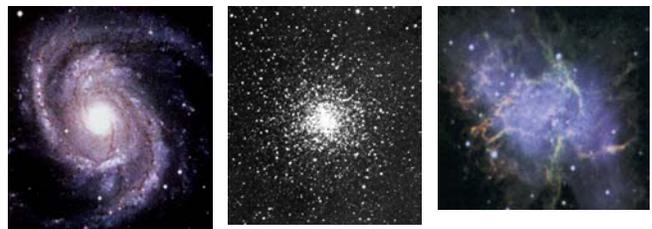
(Editor's note: Also check the LHSC web site (www.lhstarcruise.org) for the on-line registration form, meal menus, list of guest speakers and a bundle of other useful information, including the kitchen sink.)

Tip of the Month

If you notice the Wagman Observatory trash cans over-stuffed with garbage, feel free to seal up the bag and take it home for disposal with your garbage. We don't have trash collection at the observatory site. Several members have taken turns with this necessary responsibility.

Unbreaking News

- * "Bravo" to **Jeff Ball**, who gave a spectacular multi-media presentation on astronomical imaging at the March meeting. The presentation was given in the Buhl Planetarium theater, which made the program all the more impressive. Jeff and his production assistants have taken Powerpoint programs to a new level of sophistication with space music sound tracks, dissolve effects, special graphics, color play, etc. Much of Jeff's program included his own telescopic and wide-field photos taken from the dark confines of his home in Huntington, West Virginia.
- * Hey, haven't you climbed out of the "Paper Age" yet? ☺. More and more members are signing up for the Guide Star On-Line (GSOL), which is really starting to help save the club money and newsletter production/delivery toils. To unsubscribe to the snail-mail GS and access to the newsletter via the Internet, simply contact our Corresponding Secretary Alison Conte at alison.conte@wordwritepr.com
- * On a related matter, make sure to use the word "**Vega**" (initial caps) as the password to gain access to the members' section of the club's Internet web site.
- * Anyone who is or knows a reputable CPA and would like to help audit the club's financial records is asked to contact Treasurer John Holtz.
- * Speaking of Mr. Holtz, he recently reached a kind of sad milestone in February when that's month's interminable bad weather broke his string of 173 consecutive months of variable star observations. But congratulations to John on achieving a string of observations that most of us couldn't come close to matching in the first place.
- * With the Mars close approach looming later this year, this recommendation from **Bob Schmidt**: "*Just in time for the 2003 approach... 'Observing the Craters of Mars' by R.W. Gordon just off the press. This 52-pg. softbound will appeal to the Mars aficionado, the astronomy historian, and all who love a good controversy. \$15.00 (includes shipping), available from: Typographica Publishing, 313 Raphael Ave., Middlesex, NJ 08846-1224*"
- * On April 18 at 7:30, at Allegheny Observatory Dr. Andrew Hopkins of the University of Pittsburgh will discuss "Measuring Star Formation in the Universe." Come early at 7:00 and there will be refreshments. The Lecture is free and open to the public, but reservations are required. Call 412-321-2400.
- * Late March/early April is Prime Time for conducting a "Messier Marathobn" (max. no. of M-objects in one night; now done all over the country). To learn more about this challenge, contact Tom Reiland, one of the marathon's originators.



Donations from AAAP Noted and Appreciated

by John Holtz (from AAAP Listserv)

Thanks to donations received before, during, and after the Feb 14 meeting, I am mailing the following contributions on behalf of the AAAP:

- \$320 for the Mt. Stromlo Redevelopment Fund. Among the many instruments and facilities destroyed by the January brush fires around Canberra Australia was a telescope built by the John Brashear Co.
- \$110 for the Space Shuttle Children's Trust Fund.

If you intended to send a donation but did not get the chance to, individual contributions can be made to either or both organizations directly. (That is, I am not collecting any more donations on behalf of the AAAP.) Contact me for details on where to send direct donations.

CSC/Buhl 16" Scope Awaits Your Skilled Touch

by Jean Philpott
Buhl Planetarium & Observatory Office Manager

How would you like to have at your fingertips a 16" computerized telescope and to share your knowledge of the night skies with interested, curious people? This opportunity can be yours every clear Saturday night by volunteering at the Buhl Observatory. Here's an opportunity for some professional experience and personal enjoyment. Show visitors the wonders of the night sky and learn to operate a 16" Meade reflecting telescope. Light pollution is not as bad as you would think, being so close to the city lights. Work in beautiful surroundings with a great view of the city and the three rivers, as the Observatory is located on the fifth floor overlook of Carnegie Science Center. Currently, sessions are held on Saturday evenings beginning at 7:00 PM. This changes with the changing sunset times (later in the summer, earlier in the winter). Training will be provided for interested people in need of it. Please call Jean Philpott (412) 237-3397 if you are interested. Thank you for your consideration.

South Hills Observatory Progress

(continued from page 2)

- ✓ Interest is also high in making one or both of the main scopes remotely accessible so that students and others can dial up (e.g. via the Internet) telescopic images.
- ✓ In a related vein, plans call for video camera hook-ups and monitors that will allow people standing in line to see what's in the scope; the same type of system was tested last year at Wagman Observatory.
- ✓ Now that the basic design of the observatory has been settled (see last month's G.S.), an architect will soon start work on the formal construction drawings.
- ✓ More money is needed for the overall project, as well as the above-mentioned enhancements. Contact John Holtz if you would like to help make the SHO a reality this year.

Two "Franks" Among Membership Milestoners

Congratulations to these firmly-planted AAAP members.

25 Years

Frank Uouski (4/78) Frank W. Byrnes (5/78)

10 Years

John J. Chiotti (4/93) Nelson J. Merrick (5/93)
Leslie Johnson (4/93)

5 Years

Sean C. Brown (6/98) Herschel Jaffe (4/98)
Steven Geib (4/98) Dan G. Miles (4/98)
Thomas J. Herbster (4/98) Edward J. Moss Jr. (4/98)
Mark Jablonowski (6/98)

Praise for Club Web Site/Master

Note these kind words recently received about the AAAP web site (mastered by Kenn Lippert): "Awesome! This is an extremely nice web page, just bursting with great information, and it is very nicely done! User friendly, too.... This is great!....I appreciate your commitment to public star parties. The average person just does not have access to decent telescopes or have the knowledge of the sky to know where to look for the beautiful things that are up there. Keep up the great work!"

Amateur Astronomers Association of Pittsburgh, Inc.

A section of the Academy of Science and Art of Pittsburgh
Founded June 9, 1929 by Chester B. Roe and Leo J. Scanlon

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President:	Larry McHenry	412-884-4924
Vice President:	Terry Trees	724-337-3231
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Recording Sec:	Dennis Derda	724-224-4688
Membership Sec:	Brent Hudock	724-437-5990
Guide Star Editors:	Eric Fischer (news)	412-487-7011

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Wade Barbin** (724-443-3404)	Tom Reiland* (412-487-8326)
Ed Moss (412-734-0255)	Dave Smith (412-390-0870)
Bob Novack (724-538-4242)	Flacus Stifel** (412-486-8067)
John Radzilowicz (412-388-1562)	Bill Yorkshire (412-793-9552)

*Wagman Observatory Director, **Associate Directors

AAAP Homepage: 3ap.org

AAAP Webmaster: Kenn Lippert (lippert@nauticom.net)

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Ann Norman (412-242-6806) Cathy Rivi (412-782-4605)
Guide Star Classified Ads: Cathy Rivi (crivi@mindspring.com)

AAAP Member Dues***:

AAAP Dues:	\$18.00
Junior Member (under 18):	\$13.00
<u>Sky & Telescope Magazine:</u>	Add \$30.00
<u>Astronomy Magazine:</u>	Add \$29.00

***Basic Procedure for Paying Dues:

1. Make check payable to "AAAP Inc."
2. Send check to John Holtz, Treasurer, 176 Hidden Hill Rd, Sarver, PA 16055-8907

Columbia Observed On Final

by Mary DeVaughn

I had only viewed a space shuttle separate from the International Space Station (ISS) twice before. I'm always up before 6:00 am on workdays, so, last week, I made a point of stepping outside and looking for it on the days it should have been visible. The only morning it was really clear (I think it was Wednesday), I did not see the shuttle. Maybe the Heavens Above prediction was a few minutes off or maybe I just got out there late. The next day was cloudy. However, Friday morning there were a few small breaks in the cloud cover around the area where the space shuttle was to emerge from Earth's shadow. Sure enough, I was able to see Columbia gliding through the spaces between the clouds. I even waved to the astronauts.

Saturday morning I planned to get up in time to see the last pass. We were at our Girl Scout winter camp weekend. Either my watch alarm didn't go off or I slept through it, but I didn't waken until about 20 minutes after the 5:56 AM pass. It was completely overcast anyway.

We didn't learn of the tragedy until around noon on Saturday, when one of the folks cooking lunch turned on a radio in the kitchen. Of course, we were shocked and saddened by the terrible news.

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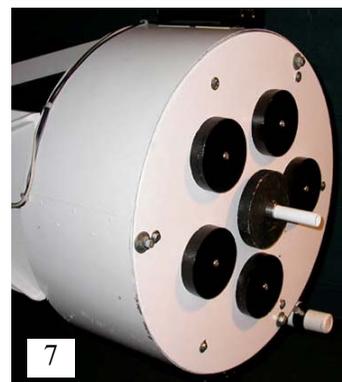
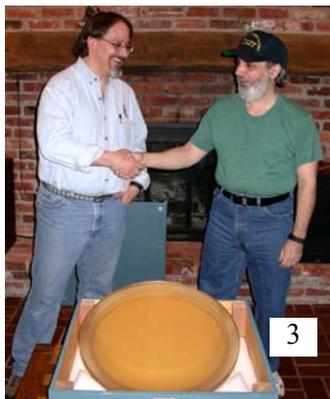
Columbia Vigil at CMU. Photo by Jerry Zhu

We debated going down and lowering the flag to half-staff. The leaders of the Brownie troop decided that it was better not to tell these little ones about the accident, since quite a few of them were at camp without a parent. We didn't want to have to explain a lowered flag to the young children, so we left it up -- but our spirits were certainly lowered.

I don't think I'll ever forget waving to that shuttle on Friday. I've seen at least 50 ISS passes, and Mir passes before that, so it's become sort of routine to go out and watch them. It'll be a long time before I take these things for granted again.

New Manka Scope Mirror Progress

Here's an informative photo essay from Flacc Stifel showing recent progress on the new 21" mirror for the Manka telescope at Wagman Observatory.



- 1. Mike Ailor builds box to transport new mirror from Brashear L.P., then eventually to Klausing for coating.
- 2. New 21" Zerodur mirror in its shipping box.

- 3. Wagman Director Tom Reiland (L) gratefully receives new Manka Telescope mirror from member Phil Breidenbach. Phil played a major part at Brashear L.P. in the fashioning of the new mirror.
- 4. Wade Barbin inspects the newly-received mirror.
- 5. Temporary plywood mount for existing 20" mirror (allowed existing mount to be used by Brashear L.P. as guide for new mirror mount.)
- 6. Existing 20" mirror attached to its temp. plywood mount.
- 7. Existing 20" mirror reattached to Manka telescope. Black counterweights compensate for reduced weight of temporary plywood mirror mount.

April 2003

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 	2 First Photograph of Sun 1845	3 	4	5 Astronomy Weekend, SciTech Festival Carnegie Science Center
6 Astronomy Weekend, SciTech Festival CSC	7 SciTech Festival Mars Odyssey launched 2001	8 SciTech Festival CSC	9 SciTech Festival 	10 SciTech Festival CSC	11 SciTech Festival CSC Star Party Wagman	12 SciTech Festival CSC Star Party Wagman
13 	14	15 The hardest thing in the world to understand is the income tax. -- Albert Einstein	16  Passover begins at sundown	17	18 AAAP Meeting 7:30 p.m. Carnegie Science Center Good Friday	19 Dark Sky/Moonrise Star Party Wagman
20  Easter	21  Lyrids	22 Lyrid meteors	23 	24 Hubble Space Telescope launched 1990	25 	26
27	28 POSSE spacecraft flies by Pluto and Kuiper Belt 2015	29 	30 Birthday, AAAP Co-Founder Leo Scanlon 1903	31		

Looking ahead: May 9, 10 Star Parties at Wagman Observatory and Mingo Creek State Park May 15 Star Party (Lunar Eclipse Special) at Wagman Observatory June 6, 7 Star Parties at Wagman Observatory	<u>AAAP Long-Range Meeting Schedule</u> May 16 Summer PICNIC Sep. 12 Oct. 10 Nov. 7 Dec. 5 Jan. 9, 2004 Feb. 6, 2004
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Cosmic Life and Times of Jill Tarter

Jill Tarter holds the Bernard M. Oliver Chair for SETI (Search for Extraterrestrial Intelligence) and is Director of the Center for SETI Research at the SETI Institute in Mountain View, California. Tarter received her Bachelor of Engineering Physics Degree with Distinction from Cornell University and her Master's Degree and a Ph.D. in Astronomy from the University of California, Berkeley. She served as Project Scientist for NASA's SETI program, the High Resolution Microwave Survey, and has conducted numerous observational programs at radio observatories worldwide. She has published scores of technical articles, has been elected to many professional societies, and has served on a number of scientific advisory committees. Tarter's work has brought her wide recognition in the scientific community, including the Lifetime Achievement Award from Women in Aerospace, two Public Service Medals from NASA, Chabot Observatory's Person of the Year award (1997), Women of Achievement Award in the Science and Technology category by the Women's Fund and the San Jose Mercury News (1998), and the Tesla Award of Technology at the Telluride Tech Festival (2001).

Tarter is deeply involved in the education of future citizens and scientists. In addition to her scientific leadership at NASA and SETI Institute, Tarter is the Principal Investigator for two curriculum development projects funded by NSF, NASA and others. The first, the Life in the Universe series, created 6 science teaching guides for grades 3-9 (published 1994-96). Her second project, *Voyages Through Time*, is an integrated high school science curriculum on the fundamental theme of evolution in six modules: Cosmic Evolution, Planetary Evolution, Origin

(continued at right)

Classifieds

FOR SALE: 24-inch f4 truss-type portable telescope with Nova optics. Good to about 16.8 mag. Only 6 years old. Includes shroud, crayford focuser, telrad; will not include ladder. Local support if wanted. Mirror weight is 72 lb; mirror box ~100 lb; wheels and encoders could be installed, if needed. Signed by John Dobson at Astroblast in 1998. Asking \$6895, with a 10% discount to any astronomy club member. See <http://www.ncinter.net/~alonmac/ecmog> Contact Tom Whiting in Erie, PA at 814-866-6710.

(Jill Tarter story – continued from left)

of Life, Evolution of Life, Hominid Evolution and Evolution of Technology. National field tests were conducted in 28 US states during academic year, 2001-2002; publication is expected in 2003. Tarter is a frequent speaker for science teacher meetings and at museums and science centers, bringing her commitment to science and education to both teachers and the public.



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