



AstroCon 2004

Program and Guide



The Astronomical League



American Association of Variable Star Observers

Association of Lunar and Planetary Observers

Astronomical Society of the Pacific



Hosted By:



Astronomical Association of Northern California

Eastbay Astronomical Society

San Jose Astronomical Association



20 – 24 July 2004

***Doubletree Hotel—Berkeley Marina
Berkeley, California***

ASTROCON 2004
20 – 24 July 2004
Doubletree Hotel—Berkeley Marina
Berkeley, California

Host Organizations

Astronomical Association of Northern California

Eastbay Astronomical Society
Oakland, California

San Jose Astronomical Association

Participating Organizations

The Astronomical League

Bob Gent, President

**American Association of Variable Star
Observers**

Elizabeth Waagen, Interim Director

Association of Lunar and Planetary Observers

Dr. Richard Schmude, Director

Astronomical Society of the Pacific

Mike Bennett, Director

Field Trips and Events

Chabot Space & Science Center
Lick Observatory

Muir Woods
Napa Valley

Astronomical Society of the Pacific Awards Banquet

Closing Banquet on board the USS Hornet

35th Anniversary of the recovery of Apollo 11

Astronaut Alan Bean, Apollo 12—Speaker

AstroCon 2004 Donors

Oceanside Photo and Telescope

Association of Lunar and Planetary Observers

Kitt Peak National Observatory

**JPL Solar System Ambassadors/Process Technology
& Development**

Mount Diablo Astronomical Society

Tri-Valley Stargazers

AstroCon 2004 Committee

Mike Bennett

Co-Chair

Astronomical Society of the Pacific

Dr. Mike Reynolds

Co-Chair

Association of Lunar and Planetary Observers

Debbie Dyke

T-Shirts and Pins

Dr. Terry Galloway

Field Trips

Alan Fisher

A/V and Papers Committee

Alan Gould

Audio/Visual Chair

Jane Houston Jones

Communications and Volunteers

Morris Jones

Communications and Webmaster Extraordinaire

Mike Koop

Field Trips and Volunteers

Ilona Magyary

Speakers and Papers

Terry Mann

The Astronomical League

Carter Roberts

Vendors and Reproduction

Dave Rodrigues

USS Hornet Volunteers and Observing Sessions

Don Stone

Treasurer

Elizabeth Waagen

American Association of Variable Star Observers

Beth Westfall

Hotel Arrangements

Association of Lunar and Planetary Observers

Dr. John Westfall

Papers Committee

Association of Lunar and Planetary Observers

Welcome to AstroCon 2004!

It is our pleasure and honor to welcome each and every one of you to the San Francisco Bay Area and AstroCon 2004! This is an historic meeting: the first time that these four organizations—The Astronomical League, American Association of Variable Star Observers, Association of Lunar and Planetary Observers, and the Astronomical Society of the Pacific—have met together.

This has been a huge undertaking, as one can imagine...but there was a terrific group that worked hard as the AstroCon 2004 Committee to pull together what we hope will be a memorable time for each of you. This is a labor of love for the Committee; all of us are volunteers but have toiled to make AstroCon 2004 an incredible event.

This will also be an uncharacteristically large meeting. In recent years these types of meetings have unfortunately seen a decline in attendance. But this will not be the case for AstroCon 2004, thanks to *you!* And we think we have a number of special activities — guest speakers, AAVSO, AL, ALPO, and ASP sessions, field trips, and a remarkable number of vendors to delight everyone.

With all large events, there might be an issue from time-to-time that will come up. Please work with us to resolve any problems. Remember: we are all volunteers who have given countless hours to host each of you.

The San Francisco Bay Area has a plethora of astronomical delights; we are just touching a few. Chabot Space & Science Center has an incredibly rich history that is intertwined with one of our host clubs: the Eastbay Astronomical Society. Everyone is familiar with the contributions of the Lick Observatory over the many years. And one of the most unusual closing banquets ever will be held on board the USS Hornet, the aircraft carrier responsible for recovering both Apollos 11 and 12. We will be celebrating the 35th anniversary of the recovery of Apollo 11 with a very special guest: Apollo 12 Lunar Module Pilot Alan Bean.

Let us know how we can help—enjoy AstroCon 2004 and thanks for being a part of this memorable meeting!

Looking Up,

Mike Bennett
Co-Chair
Executive Director, Astronomical Society of the Pacific

Mike Reynolds
Co-Chair
Association of Lunar and Planetary Observers
Eastbay Astronomical Society
NE Florida Astronomical Society

AstroCon 2004 Vendors and Exhibitors

American Association of Variable Star Observers
Association of Lunar and Planetary Observers
Apogee, Inc.—Galileo
Astronomical Tours—ICStars
Astronomical Society of the Pacific
Astronomy Magazine
Celestron International
Coronado Technology Group
Earth & Sky Telescopes & Binoculars
Everything in the Universe
Hardin Optical
Hawaii Institute for Astronomy
International Dark-Sky Association
JPL Solar System Ambassadors/Process Technology &
Development
Kitt Peak National Observatory
Mare Meteoritics

Meade Instruments
NASA Deep Impact Mission
NASA Night Sky Network
NASA Sun-Earth Connection Education Forum
Oceanside Photo and Telescope
The Planetary Society
The Random Factory
Star 'N Space Books
TeleVue
Tony & Daphne Hallas
Woodland Hills Camera
Astronomical Association of Northern California
Eastbay Astronomical Society
San Jose Astronomical Association

Our many thanks to our Vendors for their support in making AstroCon 2004 a huge success! Please support our AstroCon Vendors...

AstroCon 2004 is Dedicated to the Memory of Janet Akyüz Mattei

The AAVSO's Invariable Star

AAVSO Director Janet Mattei died on 22 March 2004 after a 7-month battle with acute myelogenous leukemia. In her 31st year as AAVSO Director, Janet was eagerly looking forward to AstroCon 2004 with its spirit of friendship, cooperation, and fruitful collaboration, and to seeing old friends and making many new ones. Sadly, it was not to be, and Janet is not with us, but we can share her excitement over the accomplishments and potential of amateur astronomers, and her keen passion for extending the reach of this very special group of people. Last year David Levy interviewed Janet and published a wonderful article about her in the December issue of *Sky & Telescope* in celebration of her 30th anniversary. We thank David and Sky Publishing Corporation for permission to reprint his article here. -- Elizabeth O. Waagen, AAVSO

To me, an observation of a variable star is not a number, not a statistic. It's something very much alive. I see the brightness estimate and imagine the observer's face light up as he or she looks at the star through a telescope.

— Janet Mattei

In the summer of 1969 in the US Northeast, a young astronomy student named Janet Akyüz was looking through the telescope at Maria Mitchell Observatory on Nantucket Island and studying photographs of V2584 Sagittarii, a faint RR Lyrae-type variable star that fluctuates in brightness in less than a day. That glorious, starlit summer night was hard to beat, and for Janet and the American Association of Variable Star Observers (AAVSO), it was a summer that changed the organization's history.

"Maria Mitchell Observatory is really something," Janet recalls. "It gives students an opportunity to do real research, to gather and analyze data. Each student would be given a star — our personal star — and then report about it at the annual meeting of the AAVSO the following October." This was her first real contact with the group. When October came around, the meeting was held at the same facility where she had spent her summer.

Observatory director Dorrit Hoffleit (*S&T.*, February 1999, page 89), who was attending a conference in Virginia, was due to return in time to run the AAVSO meeting, but a

terrible fog prevented her from getting to Nantucket. "I let Margaret Mayall, then AAVSO director, know that Janet would handle everything until I arrived," she says.

Like most AAVSO meetings, that one included a session at the observatory. "I had never seen observing as intense as that evening," says Janet. "John Bortle and Charles Scovil, two of the association's most enthusiastic observers, were looking at variables and calling out their brightness estimates one after another.

"Just as we were about to close the dome, two more guys came. One of them was my future husband, Michael Mattei. The two were hungry and wanted to know if there were any restaurants that were open late. The next day, we had the meeting and paper session, and that's where I gave my talk on V2584 Sagittarii."

Roots in Turkey

Janet was born in Bodrum, on Turkey's picturesque southwestern coast. After graduating from high school she traveled to the United States to study at Brandeis University, from which she graduated in 1965. "I started out as a physics major but wanted to take classes in as many sciences as I could," says Janet, "so I majored in general science. After graduating I still didn't know what to do with my life, so I worked at Beth Israel Hospital for a year and a half, running its cardio-pulmonary laboratory."

In 1967 she returned to her native country to teach physics and mathematics. Later on she quit teaching and began graduate studies in astronomy.

During this period she

heard about Hoffleit's summer program on Nantucket.

"Dorrit's decision to hire me as her assistant changed my life," says Janet.

Joining the AAVSO

At the end of 1969 Janet became a member of the AAVSO and, three years later, while a graduate student at the University of Virginia, she married Michael Mattei. She also joined the AAVSO staff as Mayall's assistant the year before the longtime director decided to retire. "Why don't you apply for the position of director?" Mayall encouraged Janet. The latter had been an assistant for only six months, but at the AAVSO's council meeting in the fall of 1973, the body chose her to be director, a position she has now held for 30 years.



Janet Akyüz Mattei celebrates her 30th year as director of the American Association of Variable Star Observers (AAVSO). Founded in 1911, the AAVSO is one of the oldest and largest amateur organizations in the world, with members in more than 40 countries and more than 10 million observations in its database.

Janet began her new job in awe. "I was frightened to death," she remembers. "Where could I direct the organization that would make a difference?" Her first decision was to begin digitizing incoming observations so computers could plot the stars' light curves automatically. It turns out that Janet began her career at the right time, just as technology was allowing the building of spaceborne observatories. In 1978 two satellites went into orbit that would have a profound influence on the future of the AAVSO. One was the High Energy Astrophysics Observatory No. 2 (HEAD 2), renamed the Einstein Observatory, carrying a sizable X-ray telescope; the other was the International Ultraviolet Explorer (IUE). These satellites put visual observations at a level of importance never before seen in the AAVSO's history.

Cataclysmic variable stars, which can climb several magnitudes in brightness in a matter of hours, helped turn the tide. The AAVSO's worldwide network of observers would monitor the behavior of these stars and report immediately when one of them, such as SS Cygni or U Geminorum, would go into outburst. Janet would then notify the satellites' observing teams. X-ray emissions were first detected in SS Cygni thanks to alert amateur observers.

Exciting Times

"My involvement with Janet and the AAVSO really took off in 1992 with the launch of EUVE, the Extreme Ultraviolet Explorer satellite," says Christopher W. Mauche (Lawrence Livermore National Laboratory). "I wanted to use EUVE to acquire extreme ultraviolet spectra of dwarf novae in outburst, and since these observations required [real-time] target-of-opportunity scheduling, I needed to rely on Janet and the AAVSO to inform us when one of my targets went into outburst. The first target, SS Cygni, went into outburst just as I was getting on a plane to go to Washington, DC, to serve on a NASA peer-review panel. I learned about the event when I arrived at my hotel — Janet had left a message. For some reason I was not able to get in touch with her that evening, and I spent part of a restless night trying to decide how and when to begin the EUVE observation. But when I contacted Janet in the morning, I found that she had already alerted the appropriate individuals at EUVE and NASA and had started the observations for me! I had left her with 'power of attorney' and she had exercised it!"

Mauche adds: "Subsequent to these studies, I have done observations of dwarf novae in outburst with the Hubble Space Telescope and the Chandra X-ray Observatory. In each case I've relied on Janet and her organization to trigger the target-of-opportunity observations."

"The recent discovery of the visual afterglow of a gamma-ray burst by South African amateur astronomer Berto Monard is further testament to the foresight and encouragement of Janet," notes gamma-ray astronomer Jerry

Fishman (NASA/Marshall Space Flight Center). Monard made the discovery last July 25th from his observatory near Pretoria.

"Janet was determined to enter the province of the 'Big Boys,' the elite professionals with their 4-meter, and larger, telescopes who are quick to seize the rapid GRB follow-up challenge every time a good location is found," says Fishman. "Her inspiration, together with the technical assistance of AAVSO members Aaron Price and Arne Henden, has now successfully thrown the organization into one of the hottest areas of high-energy astrophysics today."

I remember that one AAVSO member marveled at this turn of events at the organization's meeting I attended in 1978: "I had believed that the professional astronomers had all the data they needed from us," the member said. "Years ago we were all part of the excitement of observing for researchers who needed our work. Then there came a long period in which we wondered if there was any value to what we were doing at all. Now the old excitement, the freshness, is back again."

With new technology, advanced satellites, and education programs, that excitement still drives the AAVSO today. In the 1980s Janet decided to digitize all of the AAVSO's data, back to even before the organization's founding in 1911. In 1986 she welcomed AAVSO members to their new headquarters on Birch Street in Cambridge, Massachusetts, right next door to the offices of Sky & Telescope.

On her 30th anniversary with the AAVSO, Janet is leading the organization into the brave new world of CCD observing. She has also begun the massive project of validating 10.5 million observations of nearly 5,000 stars against the original observing reports.

"The AAVSO has grown tremendously in worldwide importance under her leadership," notes Hoffleit. "The AAVSO is made up of remarkable, dedicated amateur astronomers," Janet says. "The camaraderie is truly special and unique. I feel that the future holds even more exciting things as more observers extend their observations to fainter targets with CCDs, as more variables are discovered by professional all sky surveys, and as more data become available via the Internet. It's easy to get distracted in view of so many options that we have today. The challenge is to think big, to have a vision, and to move toward that vision."

— David Levy

David joined the AAVSO in 1974. He is the author of Observing Variable Stars: A Guide for the Beginner (Cambridge University Press, 1998).

Some AstroCon 2004 Information...

Luncheons

We all need a lunch break...so purchase your lunch at the Doubletree's restaurant right next to the ballrooms and join ninety-nine of your friends to hear a special guest speaker! We have a wonderful selection of speakers who will touch on all types of topics.

These luncheon sessions are first come, first seated and begin right after the close of the morning sessions. There is no AstroCon "ticket" or additional fee necessary! Lunch will cost \$15.95 — the Executive Buffet — and this price includes drinks (served in the Quarter Deck room). At about 12:25 p.m., we'll introduce the speaker, who will have about one hour for his talk and a Q&A session. We'll end the session by about 1:25 p.m. so you can be off to your afternoon session — whether that's more outstanding papers, a trip to one of the local bookstores, some solar observing, or just to relax by the pool!

Luncheon Speaker Schedule includes:

- Wednesday, July 21st — Don Machholtz: The Messier Marathon: A Short Course
- Thursday, July 22nd — Michael Bakich, *Astronomy Magazine*: The Other Side of Amateur Astronomy
- Friday, July 23rd — David Levy
- Saturday, July 24th — Tony Hallas: Astrophotography

The Luncheons will all take place in the Quarter Deck, located along the same hallway as the Ballrooms. There will be no tickets for these luncheons, so again just buy your lunch from the Restaurant and join us!

Tours

All tours leave from the front of the Doubletree unless otherwise announced. Please be there a little early...we don't want to leave you behind! There will be two buses going to the Chabot Space & Science Center on Thursday, July 22nd, one at 6 p.m. and the second at 7 p.m. These buses will return at 11 p.m. and 12 midnight.

AstroCon 2004 Tours include:

- Wednesday, July 21st — Lick Observatory (sold out); leaves at 3:45 p.m.
- Thursday, July 22nd — Muir Woods-Redwoods; leaves at 9 a.m., returns by 5 p.m.
- Thursday, July 22nd — Chabot Space & Science Center; 6 p.m. and 7 p.m., returns at 11 p.m. and 12 midnight; Chabot's gift shop and cafe will be open!
- Friday, July 23rd — Napa Valley-Wine Country; leaves at 9 a.m., returns by 5 p.m.

Support our AstroCon Vendors and Exhibits

One of the prime reasons for selecting the Doubletree as the site for AstroCon 2004 (besides the location) is that it

afforded adequate space for sessions as well as a location for vendors and exhibits next to all the action! The number of vendors and organizations wanting to display at AstroCon was so overwhelming that we had to expand our Vendor and Exhibit space to the hallways around the ballrooms.

On Wednesday, July 21st, we plan on having the vendor and exhibit areas open later since the paper sessions end a little early that day due to the Lick Observatory trip. That will give all of us not going to Lick an opportunity to spend more time spending money...

Vendor and Exhibit hours will vary from day to day. On Wednesday, July 21st we hope to have the Vendor/ Exhibit areas open by 12 noon and then close at 7 p.m. Thursday and Friday, July 22nd and 23rd we should be open by 9 a.m. and close at 6 p.m., and on Saturday, July 24th again open at 9 a.m. and close by 2:30 p.m.

Door prizes

Everyone looks forward to the doorprizes and we can assure you our vendors have not let us down! Doorprizes will be drawn for daily (if you are registered for one day at AstroCon, your doorprize ticket will be good for that day only).

At the end of AstroCon when we draw for the big doorprizes, everyone will have an opportunity to win — even if you have already won a doorprize. Make certain you keep your doorprize ticket safe — and handy. Many people keep their ticket in the back of their nametag.

T-Shirts and Pins

There are a few of the beautiful AstroCon 2004 t-shirts and pins available for purchase. The t-shirts are \$25 each and pins \$5; see the AstroCon staff at the registration desk to purchase.

AstroCon 2004 Group Photo

A little something unusual: free! We'll take the AstroCon group photo (at a time to be announced) and post it on the website. You can download once you return home.

AstroCon Banquet

This year's closing banquet is unique in a number of ways. First, it will be held on the USS Hornet, featuring Apollo 12 Lunar Module Pilot Alan Bean. Al is a terrific speaker and an outstanding artist. Plus — he's very personable.

The buses will leave the Doubletree no later than 5:30 p.m. (please listen for any updates to this time). We will board the Hornet and be ready to begin by 6 p.m. The first hour will be dedicated to awards. This will be held at

AstroCon 2004 Information

Continued from previous page

one end of the Hornet's middeck (if you've never been on an aircraft carrier, you will be amazed at the size of the USS Hornet). By 6:45 we will move to the other end of the middeck for the banquet itself, where we will be joining the USS Hornet's official celebration of the 35th Anniversary of the recovery of Apollo 11. We should have a reserved section, so we will be directed to that area. The dinner is a buffet, so enjoy your favorite foods!

After Al Bean's talk and Q&A, we'll have an opportunity to look around the Hornet, including the Apollo 14 Mobile Quarantine Facility and a flight-flown Apollo Block 1 spacecraft. Also a very limited number of special items will be available for purchase:

- a) An autographed photo of Alan (\$35);
 - b) A copy of *Apollo — Eyewitness to History* autographed by Alan (approximately \$75); and/or
 - c) A copy of the hot-off-the press new book *Splashdown — NASA and the Navy* autographed by Don Blair (\$50).
- (Please note: as of this writing, there are no plans for an opportunity to ask Al Bean to autograph other items. If each person at the Banquet — expected to be around 450 — took one minute each, it would take 7–1/2 hours!)

Bay Area amateurs will set up telescopes on the flight deck for observing. Imagine going home and telling friends you observed the moon from the flightdeck of the carrier that recovered Apollo 11 thirty-five years earlier, to the day! And after the banquet, the buses that brought those of you who requested bus transportation will return you to the Doubletree by 10:30 p.m., thus closing AstroCon 2004.

Driving in Berkeley...

Driving in Berkeley and other Bay Area cities can be, well, a little different. The most important thing: pedestrians have the right-of-way. They will literally walk right in front of a car, never looking to see if you are going to stop for them.

Many local cities now use traffic cameras to image cars that run red lights. Parking meters are monitored on a regular basis; don't contribute to the local community by thinking they'll never check on a regular basis. And your rental car company will send you the citation!

Message Board

There will be a message board located near the registration desk. AstroCon schedule changes and messages will be posted there (as well as announced at the opening of each day's session). You can also leave a message for a friend on the AstroCon message board; we'll have post-it notes available for you to use.

AWARDS TO BE PRESENTED

AstroCon 2004

The Astronomical League

- 2004 National Young Astronomer Award
- 2004 Horkheimer Youth Service Award
- Astronomical League's Webmaster of 2004 Award
- Newsletter Editor of 2004 (Sterns Award)
- 2004 Bob Wright Service Award
- 2004 Peltier Award for Outstanding Observer
- 2004 Astronomical League Award (for exceptional contributions to astronomy at a national level)

Sky and Telescope

- Astronomy Day Awards

American Association of Variable Star Observers

- AAVSO Observer Awards
- Director's Award for 2004

Association of Lunar and Planetary Observers

- The Peggy Haas Service Award
- The Walter H. Haas Award

Astronomical Society of the Pacific

- The Catherine Wolfe Bruce Gold Medal
- The Thomas J. Brennan Award
- The Klumpke-Roberts Award
- The Maria and Eric Muhlmann Award
- The Robert J. Trumpler Award
- Amateur Achievement Award
- The Las Cumbres Amateur Outreach Award

Astronomical Association of Northern California

- AANC Amateur Award
- AANC Professional Award
- AANC Commercial Award
- AANC Special Award

AstroCon 2004 Program

TUESDAY, JULY 20TH

Registration and information desk: 5:30 p.m. to 7:30 p.m., hotel foyer (across from ballrooms)

Opening reception and welcome: 6:30 p.m. to 7:30 p.m., Doubletree Patio

Evening opening talk: 7:30 p.m., Belvedere and Treasure Island ballrooms

Moderators: Mike Bennett and Mike Reynolds

Time	Title	Speaker
6:30-7:30	<i>Opening Reception and Welcome</i>	
7:30-9:00	<i>What is a Planet?</i>	Dr. Gibor Basri

WEDNESDAY, JULY 21ST

Registration and information desk: 8:00 a.m. to 7:00 p.m., hotel foyer (across from ballrooms)

Vendor and Exhibit hours: 12:00 Noon to 7:00 p.m., Angel ballroom and hotel foyer

Opening General Session, 9:00 a.m. – 12:00 Noon

Yerba Buena-Treasure-Belvedere ballrooms

Moderators: Mike Bennett and Mike Reynolds

Time	Title	Speaker(s)
9:00-9:10	<i>Welcome and Announcements</i>	Bennett and Reynolds
9:10-9:20	<i>A tribute to Janet Mattei</i>	Elizabeth Waagen, AAVSO
9:20-10:00	<i>An Introduction to the Organizations Participating in AstroCon 2004</i>	Dr. Mike Reynolds, Moderator
	<i>American Association of Variable Star Observers</i>	Elizabeth Waagen
	<i>The Astronomical League</i>	Bob Gent
	<i>Association of Lunar and Planetary Observers</i>	Dr. Richard Schmude, Jr.
	<i>Astronomical Society of the Pacific</i>	Mike Bennett
10:00-10:15	<i>Break</i>	
10:15-12:00	<i>Exploration of the Solar System — A Panel Discussion</i>	William Borucki Virginia Gulick Jane Houston Jones Don Parker Cynthia Phillips

Luncheon, 12:00 Noon – 1:25 p.m.

The Quarter Deck

Moderator: Iona Magyary

Time	Title	Speaker
12:00 noon	<i>Lunch</i>	
12:25-1:25	<i>The Messier Marathon: A Short Course</i>	Don Machholz

AstroCon 2004 Program — WEDNESDAY, JULY 21ST (Continued)

Afternoon Sessions, 1:30 p.m. – 3:30 p.m.

Association of Lunar and Planetary Observers Session I

Treasure-Belvedere ballrooms

Moderator: Dr. Richard Schmude, Jr.

Time	Title	Speaker(s)
1:30-1:40	<i>The state of the ALPO</i>	Dr. Richard Schmude, Jr.
1:40-2:00	<i>Visual Intensity Estimates of Low Latitude Features on Saturn 1947-2004</i>	Walter Haas (will be given by Dr. Schmude)
2:00-2:40	<i>The 2003 Mars Apparition</i>	Dr. Richard Schmude
2:40-3:00	<i>Break</i>	
3:00-3:30	<i>The 2003 Mars Apparition: A Unique Event!</i>	Dr. Don Parker

The Astronomical League Session I

Yerba Buena ballroom

Moderator: Bob Gent

Time	Title	Speaker
1:30	<i>Opening and Introduction of Session</i>	Bob Gent
1:30-2:00	<i>Inspiring Youth in Astronomy</i>	Ryan Hannahoe
2:00-2:30	<i>An Update on the Amateur Space Telescope</i>	Terry Mann, Astronomical League Vice President, ASP Board
2:30-2:45	<i>Break</i>	
2:45-3:15	<i>Preserving Dark Skies</i>	Bob Gent
3:15-3:45	<i>(Open session, to be announced)</i>	

Evening Events

Lick Observatory tour*

Tour Coordinator: Mike Koop

Time	Activities	Notes
3:45 p.m.	<i>Buses leave for Lick from the Doubletree Hotel; meet in Lobby area</i>	Snacks and dinner will be provided.

*Ticket required

Movie

Location to be announced

Time	Activities	Notes
8 p.m.	UNIVERSE — The Cosmology Quest A documentary film — Randall Meyers, Producer, Floating World Films	Will also be shown on Thursday evening

AstroCon 2004 Program — THURSDAY, JULY 22ND

Registration and information desk: 8:00 a.m. to 6:00 p.m., hotel foyer (across from ballrooms)

Vendor and Exhibit hours: 9:00 a.m. to 6:00 p.m., Angel ballroom and hotel foyer

Muir Woods-Redwoods tour*

Tour Coordinator: Dr. Terry Galloway

Time	Activities	Notes
9:00 a.m. (to 5:00 p.m.)	<i>Buses leave for Muir Woods-Redwoods from the Doubletree Hotel; meet in lobby area</i>	Admission to Muir Woods included

*Ticket required

Astronomical League Executive Council Meeting, 9:00 a.m. to 7:00 p.m.
Berkeley (in the Doubletree's Executive Conference Center)

Morning Session, 9:00 a.m. – 12:00 noon

Association of Lunar and Planetary Observers Session II
Yerba Buena-Treasure-Belvedere ballrooms
Moderator: Matthew Will

Time	Title	Speaker(s)
9:00-9:30	<i>Identification and Classification of Meteorites: A Primer</i>	Dr. Mike Reynolds
9:30-10:00	<i>Your A.L.P.O. Membership Report</i>	Matthew Will
10:00-10:30	<i>Break</i>	
10:30-11:00	<i>Thermal Management in Newtonian Reflectors</i>	Alan Adler
11:00-11:30	<i>It's Now History: The 2004 Transit of Venus</i>	Dr. John Westfall
11:30-12:00	<i>Mars</i>	Dan Troiani

Luncheon, 12:00 noon – 1:25 p.m.

The Quarter Deck
Moderator: Ilona Magyary

Time	Title	Speaker
12:00 noon	<i>Lunch</i>	
12:25-1:25	<i>The Other Side of Amateur Astronomy</i>	Michael Bakich, <i>Astronomy Magazine</i>

AstroCon 2004 Program — THURSDAY, JULY 22ND (Continued)

Afternoon Session, 1:30 p.m. – 5:00 p.m.

American Association of Variable Star Observers Session I

Yerba Buena-Treasure-Belvedere ballrooms

Moderator: Elizabeth Waagen

Time	Title	Speaker
1:30-2:00	<i>BZ UMa and Var Her 04; Keeping Us Up At Night</i>	Aaron Price
2:00-2:30	<i>Mira Variable Stars: Spectroscopic and Photometric Monitoring of this Broad Class of Long Term Variable and Highly Evolved Stars</i>	Dale E. Mais
2:30-2:50	<i>Poster Paper Introductions: The Rice University CCD Imager for the AEOS Telescope Deep Impact Mission Gamma-ray burst optical afterglow observations of Nyrola Observatory Analyzing Online Data on Variable Stars: An Authentic Research Experience for Teachers</i>	R. J. Dufour Mary Ann Kadooka Arto Oksanen Pebble Richwine
2:50-3:20	<i>Break</i>	
3:20-3:40	<i>The AAVSO Data Validation Project: Opening the Treasure Chest</i>	Elizabeth O. Waagen
3:40-4:00	<i>Secular Evolution in Mira Variables</i>	Matthew Templeton
4:00-4:30	<i>Transitsearch: A Collaboration with Amateur Astronomers to Discover Transiting Extrasolar Planets</i>	Tim Castellano
4:30-5:00	<i>Double Vision: Chandra and AAVSO</i>	Donna Young

Evening Events

Chabot Space & Science Center tour*

Tour Coordinator: Dr. Terry Galloway

Note: Chabot's Celestial Café will be open for AstroCon Chabot attendees for dinner!

Time	Activities	Notes
6:00 p.m.	Bus Number 1 leaves for Chabot from the Doubletree Hotel; meet in Lobby area.	Bus Number 1 will leave Chabot at 11 p.m.
7:00 p.m.	Bus Number 2 leaves for Chabot from the Doubletree Hotel; meet in Lobby area.	Bus Number 2 will leave Chabot at 12 Midnight

*Ticket required

Movie

Location to be announced

Time	Activities	Notes
8:00 p.m.	UNIVERSE — The Cosmology Quest A documentary film — Randall Meyers, Producer; Floating World Films	Will also be shown on Wednesday evening.

AstroCon 2004 Program — FRIDAY, JULY 23RD

Registration and information desk: 8:00 a.m. to 6:00 p.m., hotel foyer (across from ballrooms)

Vendor and Exhibit hours: 9:00 a.m. to 6:00 p.m., Angel ballroom and hotel foyer

Napa Valley–Wine Country tour*

Tour Coordinator: Dr. Terry Galloway

Time	Activities	Notes
9:00 a.m. (to 5:00 p.m.)	<i>Buses leave for the Napa Valley - Wine Country from the Doubletree Hotel; meet in lobby area</i>	Wine tasting included

*Ticket required

Astronomical Society of the Pacific Board meeting (closed meeting)

9:00 a.m. to 5:00 p.m., Berkeley (in the Doubletree's Executive Conference Center)

Lunch in the Captain's Quarters

Astronomical Society of the Pacific Members meeting

Current active members, reservations not required

5:00 p.m. to 6:00 p.m., Yerba Buena ballroom

Association of Lunar and Planetary Observers Board meeting (closed meeting)

6:00 p.m. – 9:00 p.m., Captain's Quarters

Morning Session, 9:00 a.m. – 12:00 Noon

American Association of Variable Star Observers Session II

Yerba Buena-Treasure-Belvedere ballrooms

Moderator: Elizabeth Waagen

Time	Title	Speaker
9:00-9:30	<i>Charts & Comparison Stars: A Roadmap to the Future</i>	Aaron Price
9:30-9:50	<i>Unexpected Benefits (Preliminary research results from the AAVSO chart and sequence teams)</i>	Mike Simonsen
9:50-10:10	<i>Self-Correlation Analysis of R Coronae Borealis Stars at Maximum Light</i>	John R. Percy
10:10-10:50	<i>Break (late paper may be scheduled 10:35-10:50)</i>	
10:50-11:10	<i>Observing Cataclysmic Variables</i>	Arto Oksanen
11:10-11:30	<i>The Future of Visual Observations in Variable Star Research</i>	Mike Simonsen
11:30-12:00	<i>William Tyler, meet Janet: How two extraordinary people made variable stars accessible to the rest of us</i>	David Levy

Luncheon, 12:00 noon – 1:25 p.m.

The Quarter Deck

Moderator: Ilona Magyary

Time	Title	Speaker
12:00 noon	<i>Lunch</i>	
12:25-1:25		David Levy

AstroCon 2004 Program — FRIDAY, JULY 23RD (Continued)

Afternoon Session, 1:30 p.m. – 5:00 p.m.

Special invited speaker
 Contributed paper session
 Treasure ballroom
 Moderator: Mike Reynolds

Time	Title	Speaker(s)
1:30-2:15	<i>Solar Sails</i>	Dr. Louis Friedman, The Planetary Society [Invited special guest speaker]
2:15-2:40	<i>Advances in Precision Video Recording and Timing of Occultations</i>	Sandy Bumgarner
2:40-3:00	<i>Creating and Operating a Comprehensive Astrophysics Outreach Program in Oregon</i>	Rick Kang
3:00-3:20	<i>Break</i>	
3:20-3:45	<i>The Small Telescope Science Program for the NASA Deep Impact Mission</i>	S.A. McLaughlin, L.A. McFadden and G. Emerson
3:45-4:05	<i>Results of Observations of 14 Mutual Events of Galilean Moons of Jupiter between December 2002 and April 2003</i>	Arto Oksanen and Apostolos Christou
4:05-4:30	<i>Teaching and Learning Astronomy: Effective Strategies for Educators Worldwide</i>	John Percy
4:30-4:55	<i>Amateur Near-Space Exploration: The Poor Man's Space Telescope</i>	I. Paul Verhage

The Astronomical League Session II
 Belvedere ballroom
 Moderator: Bob Gent

Time	Title	Speaker
1:30-2:00	<i>Precision Mounts</i>	John Davis, 2004 Horkheimer Service Winner
2:00-2:30	<i>Service in Astronomy</i>	Anna Czoski, 2004 Horkheimer Service Winner
2:30-3:00	<i>Searching for Supernovae</i>	Wayne Johnson, 2004 Peltier Winner
3:00-3:15	<i>Break</i>	
3:15-4:15	<i>A Special Meeting with Young Astronomers</i>	David Levy
4:15-4:45	<i>Professional-Amateur Collaboration</i>	Kelly Beatty

Evening events

Astronomical Society of the Pacific Banquet Reception*
 Astronomical Society of the Pacific Awards Banquet*
 Yerba Buena-Treasure-Belvedere ballrooms

Time	Activities	Notes
6:30 p.m.	<i>ASP Banquet Reception</i>	Belvedere Ballroom
7:30 p.m.	<i>ASP Awards Banquet</i> <i>Talk by Dr. Geoff Marcy</i>	Yerba Buena-Treasure-Belvedere Ballrooms

*Reservation and ticket required

AstroCon 2004 Program — SATURDAY, JULY 24TH

Registration and information desk: 8:00 a.m. to 4:00 p.m., hotel foyer (across from ballrooms)

Vendor and Exhibit hours: 9:00 a.m. to 2:30 p.m., Angel ballroom and hotel foyer

American Association of Variable Star Observers Membership Meeting (All welcome)

9:00 a.m. – 12:00 noon, Yerba Buena ballroom

Astronomical League Membership Meeting

1:30 p.m. – 4:00 p.m., Yerba Buena ballroom

Morning Session, 9:00 a.m. – 12:00 noon

Astronomical Society of the Pacific

Treasure-Belvedere ballrooms

Moderator: Mike Bennett

Time	Title	Speakers
9:00-12:00	<i>ASP Outreach Workshop — A hands-on workshop illustrating techniques that will leave participants with a starter kit of ideas to help keep your audiences fascinated and involved at any level, and to keep it exciting and fresh for yourself as well.</i>	Marni Berendsen Suzanne Chippindale

Luncheon, 12:00 noon – 1:25 p.m.

The Quarter Deck

Moderator: Ilona Magyary

Time	Title	Speaker
12:00	<i>Lunch</i>	
12:25-1:25	<i>Astrophotography</i>	Tony Hallas

Afternoon Session, 1:30 p.m. – 5:00 p.m.

Association of Lunar and Planetary Observers Session III

Treasure-Belvedere Ballrooms

Moderator: Richard Schmude, Jr.

Time	Title	Speaker
1:30-2:30	<i>Visual Comet Searching: A Requiem?</i>	David Levy
2:30-3:00	<i>The 2003-04 Jupiter Apparition: a Preliminary Report</i>	Dr. Richard Schmude, Jr.
3:00-3:30	<i>Break</i>	
3:30-4:00	<i>The 2003 Apparitions of Uranus, Neptune and Pluto</i>	Dr. Richard Schmude, Jr.
4:00-4:30	<i>The A.L.P.O. and Saturn: Programs and Recent Observations</i>	Dr. Julius Benton (will be given by Dr. Schmude or somebody else)

AstroCon 2004 Program — SATURDAY, JULY 24TH (Continued)

AstroCon Closing Banquet aboard the USS Hornet*

Note: AstroCon visitors, please wear your conference badge on the USS Hornet

Bus coordinator: Dr. Terry Galloway

Time	Activities	Notes
5:15 p.m.	<i>Buses leave for the USS Hornet from the Doubletree Hotel; meet in lobby area</i>	Buses will leave as each is filled
6:00 p.m.	<i>Awards Ceremony, USS Hornet</i>	Assemble for awards on the Middeck
7:00 p.m.	<i>Buffet dinner and talk by Apollo 12 astronaut Alan Bean</i>	Reserved AstroCon tables as a part of the USS Hornet's Apollo Splashdown Celebration Banquet
9:00 p.m.	<i>Observing on the Hornet's flightdeck, purchase autographed items, and tour of the Hornet.</i>	
11:00 p.m.	<i>Buses depart from the Hornet back to the Doubletree Hotel</i>	Please listen for announcements

Close of AstroCon 2004

Great door prizes awarded daily, contributed by AstroCon 2004 vendors, exhibitors, and friends!

Our wonderful list of fabulous door prizes includes these special prizes from these friends of AstroCon 2004:

TeleVue — A 2-inch Panoptic eyepiece!

Scope City — Parks 48mm filter set, Lumicon filters, and two pair of Parks binoculars!

Welcome to the Doubletree Berkeley Marina

