

Preserving and Observing

The Dark Sky

The thirty-eighth annual RTMC Astronomy Expo will carry on the great traditions, and add a few new wrinkles. The theme of the weekend will be "Preserving and Observing the Dark Sky." And nature has gotten in on the act by providing a new moon and a comet for this Memorial Day weekend.

This year's Keynote Speaker, Mike Brown of Caltech, will tell us about "Beyond Pluto: Discovery of the Tenth Planet." The discovery of 2003 UB₃₁₃ has fueled the "What is a Planet?" controversy and Dr. Brown has some interesting things to say about it.

2006 Features:

- **New Moon**
- **Imaging Workshop**
- **Beginner's Corner**
- **Naked Eye Comet**

Highlights

- Friday—
 - Open (9:00 a.m.)*
 - Vendor Sales (afternoon)*
 - Merit Award Judging (1:00 p.m.)*
 - Show and tell (after dinner)*
- Saturday—
 - Swap Meet (morning)*
 - Speakers, Beginner's Corner (all day)*
 - Merit Award Judging (morning)*
 - Merit Awards (evening)*
 - Keynote Presentation (after dinner)*
 - Door Prizes (after dinner)*
 - Hands-On Beginners Observing (evening)*
- Sunday—
 - Speakers, Beginner's Corner (all day)*
 - Astro Imaging Workshop (afternoon)*
 - Astronomer's Choice Award (evening)*
 - AstroImaging Awards (evening)*
 - Door Prizes (after dinner)*
- Monday—
 - Cleanup*

New for this year will be a premium Astro-Imaging Workshop where renowned photographer Tony Hallas will demonstrate to a small group how to capture and process photons to make stunning images of the heavens.

An expanded Beginner's Corner and observing field will feature night time observing for those who want guided hands-on experience with their new hobby. Star Hopping, Collimating, Setup, Alignment, and all those procedures that look so complicated in print will be brought to life in a special corner of the observing field. This is in addition to the other comprehensive presentations of the Beginner's Corner.

As if that were not enough, this year features the return of 73P/Schwassmann-Wachmann 3, which is predicted to be a naked eye object in Cetus before dawn during RTMC Astronomy Expo.

All this will be happening amid the Vendors and Swap meeters, campers, and astro-friends that gather here annually. As always, Camp Oakes will be providing for the non-astronomically inclined with a full set of family activities.



May 26-29, 2006
Camp Oakes,
Big Bear, California

Beyond Pluto:

Discovery of the Tenth Planet

For the past seven years Mike Brown, Associate Professor of Planetary Astronomy at Caltech, and his colleagues have been scanning the skies for planets beyond Pluto. In 2005, after they had searched half of the sky and discovered dozens of objects almost the size of Pluto, they finally found 2003 UB₃₁₃, the first object larger than Pluto, and the first that might be called a new planet.

Of course in the avalanche of scientific questions, the biggest was one that astronomers have been debating for years: "What is a planet?"

Mike Brown, as keynote speaker Saturday night, will discuss the story of the discovery, give a perspective on why the question of planethood is difficult, and tell us what the real answer should be.



Artist view of sun viewed from orbit around 2003 UB₃₁₃



The same folks who sponsor the RTMC Astronomy Expo at Big Bear in May also produce an early autumn event called "Nightfall" in Borrego Springs. Nightfall is unique because it takes place at a desert resort that cooperates in creating a dark, red-light only environment throughout its sprawling property.

This is a great opportunity to bring family and friends to a star party with amenities such as pools, high-speed Internet access, and air conditioned rooms, as well as dark, steady skies. In the daytime, the nearby Anza Borrego Park is a terrific place for hiking or off-roading.

This year, Nightfall has been extended an extra day -- Thursday through Sunday. We are also planning special workshops on digital astrophotography, and guided four-wheel trips to nearby geological formations.

The headquarters hotel for Nightfall is the Palm Canyon Resort (800-242-0044); you can choose between a hotel room or fully equipped RV slots. This event is often sold out by summer so make your reservation early.

For more information on Nightfall 2006, check out www.rtmcastronomyexpo.org/nightfall.htm

**October 19th-22nd, 2006
BORREGO SPRINGS, CA**

Safety Plan... New Requirements

The Fire Marshal has added a few wrinkles to the camp safety plan. The big impact will be reduced parking near the swap meet and a requirement for all established vendors (not swap meeters) to have (1) a specified type of fire extinguisher and (2) safety certification on vendor tents and canopies. Our Safety Plan also includes:

- Monitors who will assure that fire roads are kept clear, specific areas are closed to auto traffic, and lines of cars are properly parked off the road (especially while awaiting Friday morning's opening). Please cooperate with the requests of RTMC Staff.
- Evacuation plans to be given to all who come to the conference.
- Prohibition of outdoor fires, including charcoal fires and white gas stoves. (Propane is acceptable.)
- Limitation of smoking to the concrete patio behind the meeting hall, with disposal of cigarette butts in a fireproof container.
- Regular inspection of the premises by the fire marshal, **who has the authority to stop the proceedings.**

Conference Notes, Arrival Information...

Speakers, Workshops, Panel Discussions: We are seeking talks related to observing, telescopes, and equipment, and especially Preserving and Observing the Dark Sky. If you would like to make a presentation, lead a workshop, chair a panel, or reserve time for a special interest group meeting, please send an abstract and audio-visual requirements by April 1st to Alson Wong, 10787 Laurel Street, Rancho Cucamonga, CA, 91730, program@rtmcastronomyexpo.org. The opinions expressed in the talks and workshops are those of the presenters, not of RTMC, Inc.

Merit Awards: All telescopes entered for Merit Awards must be located on the Telescope Field, Telescope Alley, or Meadow. Judging is on Friday afternoon and Saturday morning. Announcement of Merit Awards will be Saturday evening. Afterwards, you will have the opportunity to vote for the Astronomer's Choice Award, which will be presented Sunday evening.

Power for Telescopes and Computers: A limited number of outlets are available for running **ONLY** telescopes or computers. These outlets are located near the cabins around the camp and at the observatory. You must supply your own three-conductor extension cord and use only the marked outlets.

Lighting Considerations: Please use red flashlights and be careful to point them only at the ground, so as not to ruin someone's night vision inadvertently. Remember, those doing astroimaging are extremely sensitive to stray light.

Lasers and Laser Pointers: The use of lasers, except for collimation or as a pointer by a speaker in the meeting hall or the Beginner's Corner sky orientation, is **STRICTLY PROHIBITED**. Thank you for your cooperation.

Door Prizes: Drawings will be held for thousands of dollars worth of door prizes on Saturday and Sunday evenings. Tickets are free, but you must be present in or around the dining hall to win.

Swap Meet: The Swap Meet will be held Saturday morning in front of the meeting hall. Swap meeters do not need sellers permits or vendor registration.

Video and Photography: Many people make photos, video, and audio recordings at RTMC Astronomy Expo. By entering the grounds, you grant permission for taping and photography, including rights to publication and broadcast of images and audio.

Arrival Time: The conference grounds will open at about 9:15 a.m. on Friday May 26. YMCA operations and insurance restrictions require us to stop all cars and pedestrians entering Camp Oakes, and allow only registered staff and Silver or higher-level donors into the camp before 9:00 a.m. Friday. The safety plan requires RTMC monitors to assure that cars are parked to the side of the road and access is clear. If you arrive early, be prepared to camp overnight along the road at the entrance to the camp. No restrooms or other facilities are available outside the camp. In previous years a few "sooners" have attempted to stake out campsites. Signs, tents, bedding, and other items placed in an attempt to reserve space before 9:15 a.m. Friday will be removed and may be recovered at the Lost & Found.

Early Set-Up: Silver, Gold, and Platinum Sponsors of the RTMC AE may erect tents and store merchandise at their assigned vendor spots (at their own risk) starting at noon Thursday before the event. Anyone is welcome to become a sponsor. Please contact Glenn Malcolm (951-360-1030 home, or 951 354-5388 work, or gmalcolm@charter.net).

Vendor Priority Parking: The Parking Crew will reserve priority parking spaces for Vendors who arrive before 6:00 a.m. Friday. This will allow Vendors to enter the grounds and begin setting up at 9:00 a.m., ahead of the general public. Vendors arriving after 6:00 a.m. will park and enter with the general public.

Parking/ Driving: All vehicles must be parked, and all equipment set up, off roadways, with adequate room for other vehicles, including large emergency vehicles, to pass. Please drive below the posted speed limit. Faster driving is not only a safety issue, but it raises an inordinate amount of dust. Please be alert to pedestrians walking along the roadways, especially at night. Expo attendees may park along the side of the dirt road that enters Camp Oakes, behind the sign designating where parking begins. Please maintain quiet; the camp's community neighbors and other early arrivers should not be disturbed.

Tony Hallas Workshop

The Evolution of Dynamic Processing

Renowned Astro Imager Tony Hallas will present a premium workshop that will help you get the most out of your imaging and processing sessions. You can follow him, step by step, as he shows how he captures photons from distant objects and then works with the precious photons to bring out all the detail and color in his magnificent photos.

Tony has been imaging the heavens since before hypered film, and will bring some of that experience to you in five hours of demonstration and interactive discussion, with plenty of opportunity for you to watch and ask questions.

This is a premium workshop, available to no more than the first 50 to register. You may register on the same form you use for general registration by specifying the number of tickets you will need and including the \$40 per person fee along with your other fees.

Tony Hallas' stunning M42. Learn his imaging techniques at a special premium workshop at RTMC Astronomy Expo.



COMMERCIAL EXHIBITORS, VENDORS, AND CLUBS

Space is available to display, explain, and sell your astronomical products, or for club participation.

Cost: The cost is \$50.00 for one site, \$100.00 for two adjoining sites, and \$25.00 for each additional site. Outdoor sites are approximately fifteen feet wide. Space in the Cyber Astronomy Center is large enough for two five foot tables and displays. Astronomy clubs will be charged only if they are selling. Commercial enterprises (those that are not 501 (c) (3) organizations) will be charged whether or not they intend to sell products. The vendor or club must provide tables, displays, and other equipment for the site.

Fire Department Regulations: New this year, the Fire Department is requiring compliance with *Large Group Event Regulations*. For Vendors this means, among other things, that tents and canopies must be certified as flame resistant. In addition, each vendor must have one 2-A:10-B:C fire extinguisher (certified or purchased within one year) in a visible and acces-

sible location. See vendor information with your registration materials for details on the fire regulations.

Registration/ Deadline: Please complete the registration form carefully. Those desiring a display or sales site must register by May 1. After you register, you will be contacted with detailed information about your site. If you have not received this information by May 8 or if you need further details, contact: Allan Guthmiller, vendor@rtmcastronomyexpo.org, or 702 558 3548

Commercial Exhibitors: A California Resellers license is required. Operating without a permit puts the RTMC, Inc. at risk. If you do not already have a permit, you may apply for a temporary sellers permit. For information see: <http://www.boe.ca.gov/info/reg.htm#sales>.

Swap Meeters set up in the Swap Meet Area on Saturday need not pay site fees or have a resellers license.

2006 SYMPOSIUM ON TELESCOPE SCIENCE

The Annual Symposium on Telescope Science, which for more than two decades has met just preceding the RTMC Astronomy Expo, will be held on Wednesday and Thursday, May 24 & 25, with a special series of supplemental workshops on Tuesday, May 23. This collaboration among professional and amateur astronomers in the fields of imaging, photometry, astrometry, and spectroscopy encourages attendees to coordinate observing programs to make real and effective contributions to science. In addition, several sponsors present their newest products. For more information, go to our web site at www.socastrosci.org.



CALL FOR PAPERS

If you want to be a speaker, please email the Program Committee at program@socastrosci.org. You must submit a title and abstract of your talk by February 25, 2006. Accepted presenters must submit final papers by April 22. These papers will be published in the proceedings and distributed at the symposium. All attendees will receive a printed copy of the proceedings. Last year's proceedings filled 180 pages.

**Center for
Backyard Astrophysics**

**The CBA will meet jointly
with the SAS at the sym-
posium and feature pres-
entations on cataclysmic
variables.**

HOTEL REGISTRATION

All activities will be held at the Northwoods Resort in the City of Big Bear Lake. You must register separately for your hotel room by contacting the resort at **(800) 866-3121**. We have blocked rooms at the daily rate of \$89.00 plus tax if you reserve by April 23, 2005. When you call, be sure to mention you are with the **SAS Group** to receive the group rates.

MEMBERSHIP

The Society for Astronomical Sciences is a membership organization. Dues are \$25 per year and entitle you to a quarterly newsletter and a discount on registration.

Name:		Organization (if applicable):		
Address:		Email (optional):		
City: :		State:	Zip:	
Name/Other Info (e.g. organization, city/state, observatory code) for your badge:				
	# People	Before May 1	After May 1	Total
Membership Dues		\$25	\$25	
Registration Fee		\$25 member/ \$45 non-	\$35 member/ \$65 non-	
Thursday Dinner	<i>Sirloin Steak</i>		\$29	
	<i>Chicken Ambassadeur</i>		\$29	
	<i>Salmon</i>		\$29	
<i>Supplemental Workshops --Tuesday, May 23</i>				
Essentials-- Jerry Foote (includes all three Essentials workshops--morning)			\$30	
Binary Maker 3-- David Bradstreet (morning)			\$55	
Binary Maker 3-- David Bradstreet (afternoon)			\$55	
MPO Photored-- Brian Warner (morning)			\$30	
MPO Photored-- Brian Warner (afternoon)			\$30	
PerAnSo-- Tonny Vanmunster (morning)			\$30	
PerAnSo-- Tonny Vanmunster (afternoon)			\$30	
Total Remitted				

Send to: Society for Astronomical Sciences, Inc., 8300 Utica Avenue, Ste. 105, Rancho Cucamonga, CA 91730

Note: You can pay online using PayPal through our website at: www.socastrosci.org

Registration, Meals, Camping, Accommodations, and Prices...

Due to the need to plan this conference far in advance, prices are discounted for all registrations received before May 1, 2006.

Registration: You may register using the enclosed form, or by clicking the "Online Registration" link at <http://www.rtmcastronomyexpo.org/registration.html> and using **PayPal** with your credit card or direct transfer. Commercial Exhibitors, Vendors, and Clubs seeking space must register by May 1. **NOTE: If you are not registered by May 15, do not send registration by paper mail or Paypal. It will not be processed. You may register at the entrance.**

Confirmation: Confirmation of your registration will be mailed to you. Also included will be meal and workshop tickets (if any), car pass, map to Camp Oakes, and rules of the conference. Please register early to ensure timely delivery of your materials.

Food: Four **Meal Plans**, which include admission, dorms, or camping, are offered. Individual meals may be sold the day of the conference at a premium, and only if meal plans are not sold out. Meal plans are limited. The **Snack Bar**, operated by Camp Oakes, will be open for short orders at 1:00 pm Friday.

Camping/ Dorm Space: Only 800 camping plans and 400 meal plans (including camping or dorm) will be sold on a first-come, first-served basis. If you have paid for camping or a meal plan, you may stay overnight on the grounds, or in one of the 18 three-sided bunk bed shelters. If you paid for meals, you may also stay in the Dorms. You must bring your own equipment, including sleeping bags or other bedding. All space in dorms, shelters, or camp areas is first-come, first served. Signs, tents, bedding, and other items placed in an attempt to reserve space before the Astronomy Expo opens on Friday will be removed.

Day Use: Those not staying overnight may pay a Day Use admission. No overnight camping is permitted. The number of Day Users is unlimited. Day Users arriving after 9:00 a.m. Saturday will be directed to special parking areas.

Pets: Camp Oakes requests that you keep your pet on a leash at all times and away from other animals or crowds. Please pick up after your pet.

Recreational Vehicles/ Camp Sites: There are no picnic tables, fire pits, or marked spaces in Camp

Oakes. RV's may not park on the telescope field or in a way that will impede traffic or damage the environment at Camp Oakes. RV and trailer owners need to be especially careful of interior lights. Please park so that doors open away from observers, block windows to prevent light trespass, and mask interior lights with red cellophane as necessary. Generators may run only from 11:00 a.m. until 8:00 p.m. **No RV's are allowed to connect to the camp electrical system except at the Indian Guide Village!**

Quiet Times/ Active Locations: Not everybody sleeps at the same time. Many attendees will be observing from dusk until the wee hours of the morning. Please be courteous to your neighbors at all hours by minimizing noise. If you play music, play it quietly. On the other hand, please realize that your sleep may be disturbed by observers talking, using equipment, and in other ways as they stay up late. Locate your campsite accordingly.

Cleanup: When you leave, please make sure your area is trash free. Please leave Camp Oakes better than you found it.

Dusty Conditions: Outdoor carpeting under your scope and a tarp or other cover for the daytime are highly recommended to protect equipment from dust.

AstroImaging Exhibition and Contest

We will continue to feature your work as part of the AstroImaging Exhibition in the Pavilion. You are encouraged to bring a print of a favorite film or digital image you have produced since last year's conference in any or all of four categories--Solar System, Deep Sky, Eclipses/Transits, and Meteors and Atmospheric Effects. Pictures must be unframed and from 8x10 to 16 x 20 (if matted, do not exceed 16 x 20 mat). Register from Friday at 1:00 until Saturday at 1:00 in the Pavilion. Entry and contest rules are at www.rtmcastronomyexpo.org.

Attendees will enjoy your work and have an opportunity to name their favorites. Awards will be made Sunday night.



NAME _____ New Address? _____
 COMPANY _____
 ADDRESS _____
 CITY _____ STATE _____ ZIP _____

TO REGISTER

1. Complete the registration form.
2. Make checks payable to:
Riverside Telescope Makers Conference.
3. Mail your Registration to:
Riverside Telescope Makers Conference
c/o Fox and Stephens, CPA's
8300 Utica Avenue, Suite 105
Rancho Cucamonga, CA 91730

OR

You may use **PayPal** to register online at:

www.rtmcastronomyexpo.org/registration.html



Pre-registration closes May 15.
Do not mail your registration or use
Paypal after May 15.
Your request will not be processed.

***We reserve the right to
 refuse any application.***

Vendors and Clubs register by May 1

Vendors/Clubs

Register by May 1. If you have special requests for Vendor Sites, including preferred sites or location in Cyber Astronomy Center, please submit additional sheet(s) with your registration and payment. **All vendors selling goods must bring a California's sellers permit.** For questions, contact Allan Guthmiller at 702 558 3548 (vendor@rtmcastronomyexpo.org).

Refunds: Notify the conference in writing by May 13 for meal plans and June 6 for other fees.
Paypal Service Fees are not refundable.

MEALS/ CAMPING/ DORM Includes three nights of dorm or camping	Cost Before May 1	Cost After May 1	Times # of People	Equals Amount
5 Meals Camping or Dorms plus Saturday Lunch-Sunday Dinner	\$78	\$88		
6 Meals Camping or Dorms plus Friday Dinner-Sunday Lunch	\$86	\$96		
7 Meals Camping or Dorms plus Friday Dinner-Sunday Dinner	\$92	\$102		
8 Meals Camping or Dorms plus Friday Dinner-Monday Breakfast	\$98	\$108		

CAMPING ONLY No meals, No Dorms, Three nights camping	Cost Before May 1	Cost After May 1	Times # of People	Equals Amount
Adults	\$35	\$45		
Children Ages 5 to 13-under 5 free	\$8	\$8		

DAY USE ONLY Per day, no meals, camping, or dorms	Cost Before May 1	Cost After May 1	Times # of Days 3 days max	Times # of People	Equals Amount
Adults	\$15 Per day	\$20 Per Day			
Children Ages 5 to 13-under 5 free	\$8 Per Day	\$8 Per Day			

Tony Hallas Astro Imaging Workshop \$40 per person (In addition to Camping or Day Use Admission)	Times # of People _____	
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CAR PASSES	How many vehicles? _____ How many people in each vehicle? _____	
Vendor/ Club Booth Needed Must register by May 1	Number of Sites/ Fee 1 site= \$50 2 sites= \$100 3 and more= \$25 per site after first 2 (Free to Astronomy Clubs not selling.)	# _____ Number of Sites
		\$ _____ Site Fee

VENDORS/ CLUBS REQUESTING BOOTHS

Phone _____ Email _____

TOTAL



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STANDARD
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SAN DIMAS, CA

8300 Utica Avenue, Suite 105
Rancho Cucamonga, CA 91730

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Platinum



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Bronze



Fun for the Family...

The RTMC Astronomy Expo includes fun for the entire family. Astronomers and non-astronomers alike enjoy the pool, canoeing on the lake, hiking, nature walks, archery, mountain biking, wall climbing, and horseback riding. (A fee is charged for climbing and horseback riding. Visit the corral and simulated rock wall for fee information).

Location

Longitude 116° 45' 15" West
Latitude 34° 13' 50" North
Altitude 7250 feet (2210 meters)

Moonrise and Moonset (PDT)

Friday, May 26 Moonrise 4:54 AM, Moonset 7:50 PM
Saturday, May 27: Moonrise 5:39 AM, Moonset 8:57 PM
Sunday, May 28: Moonrise 6:31 AM, Moonset 9:58 PM

Contact Information

Message Phone: (909) 948-2205
Registration: registrar@rtmcastronomyexpo.org
Vendor Chairman: vendor@rtmcastronomyexpo.org
Speaker Chairman: program@rtmcastronomyexpo.org
Workshop Chairman: workshop@rtmcastronomyexpo.org
Merit Awards: gmalcolm@charter.net

[http:// www.rtmcastronomyexpo.org](http://www.rtmcastronomyexpo.org)

To be a sponsor, contact **Glenn Malcolm** (951-360-1030 home, or 951 354-5388 work, or gmalcolm@charter.net)