

San Diego Astronomy Association

Celebrating Over 40 Years of Astronomical Outreach



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 A Non-Profit Educational Association
 P.O. Box 23215, San Diego, CA 92193-3215

November 2004

SDAA Business Meeting

Next meeting will be held at:
 SKF Condition Monitoring
 5271 Viewridge Court
 San Diego, CA 92123
 November 9th at 7:00pm

LAST
 Program Meeting
 for 2004!
 November 17th 7:00 pm
 Gadget Night
 Annual Board Nominations

 Mission Trails Regional Park
 Visitor and Interpretive Center
 1 Father Junipero Serra Trail

Presidential Notes by Brian V. Staples

As year-end approaches, it's time to look back at our accomplishments, and forward to new challenges. During the November Program Meeting, the Nominating Committee will announce their selections for the open Board positions. In addition, members may nominate, or be nominated for the open positions. There are articles later in this newsletter describing the process, responsibilities of the various positions, and the available openings. I encourage all interested in helping run the association to vie for one of the positions, even mine!

Before I talk about what the association has accomplished this year, I want to address some issues that members may have, and perhaps dispel any misconceptions. The Yahoo group is a very interesting, informative, and vibrant portion of the membership. Even though the Board has decided that it is not an official venue for SDAA business, it is vital nonetheless. These discussions spur free and critical flow of thought, which extends to other e-mail exchanges, discussions at Program Meetings, and at TDS. And like most widely disseminated information, a good amount falls on the ears of the Board. Some might be surprised by what I hear when walking between the public pads at night, or from what concerned members e-mail me. I truly experience the "fly on the wall" syndrome.

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Banquet News!

By Scott Baker

Mark your calendars, the annual SDAA Banquet and New Officer Installation is coming soon! The Banquet will be held at the Town and Country Resort in Mission Valley on the 22nd of January. That's a near full moon weekend, so there's no reason not to attend. Our guest speaker this year will be Tim Castellano, an astronomer at NASA's Ames Research Center, Mountain View, California. This year it will be a sit-down dinner (no buffet lines, yeah!) with two choices of main course, either Chicken Floresco or California Tri-Tip. Of course there will be the usual raffle and live auction with an added silent auction on some special items. Invitations will be mailed the first week in December, so watch your mailbox! You'll also have the ability to order tickets on-line using PayPal, just like last year. Ticket prices are still being negotiated but will be in the invitations and next month's newsletter. The club has decided to pick up the parking so that will be free to members. Mark you calendars now and I hope to see all of you there!

Address Change?

Submit your new information to: treasurer@sdaa.org to ensure you don't miss out on SDAA news. If you ordered a magazine subscription through the club, you will still need to notify the magazine as well (see each magazine for change of address instructions).



San Diego Astronomy Association

Astronomy 101

By Scott Baker

Camelopardalis – The Giraffe

This month's constellation is Camelopardalis (Ca-mel-o-par-da-lis), the leopard with a camels head, or a giraffe by modern terms. Camelopardalis is a relatively new constellation and is the 18th largest, in area, of the 88 named constellations. Since it contains no significant bright stars, the early civilizations failed to give a name to this area of the sky, so it has no tale to tell of how it came to be. The constellation was given its modern name it's believed, by a Dutchman known as Petrus Plancius. Petrus was a chart and mapmaker, in the early 17th century, working for the Dutch East India Company. His maps of the world of 1592 and 1594 were famous and well used by mariners. His work on star maps was awarded fame when they were published in Jakob Bartsch's book of constellations in 1624. It's believed Petrus gave the name of Camelopardalis to the stars to honor the Biblical camel that carried Rebecca to Isaac. Petrus is also acknowledged for creation of Columba, the dove and Monoceros, the unicorn.

Although Camelopardalis contains no Messier or other bright, well know objects, it does contain a wealth of fine and beautiful objects to look at. Another nice feature is that some part of the constellation is always above the horizon, but viewing is easiest in the winter and spring when it's higher in the Northern sky. We'll start our highlight tour with double stars.

Struve 485 - A beautiful double, with nearly equal components is embedded in the open cluster NGC1502. This double, along with the dimmer Struve

484, make up two doubles in this great little cluster (more on the cluster to follow). S485 has a separations of 18.1" and S484 has 5.3". Struve 1051 is a beautiful triple system of like stars. Magnitudes of the three are 6.5, 7.7 and 7.8. Separations are 1.1" (a challenge) and 31.5". Beta Camelopardalis, the brightest star in the constellation, features a pale yellow primary and a very wide, much fainter, companion: 4.0, 9.0 with a separation 80". Component B has a closer companion, named "b", an 11-magnitude star separated by 14.8".

For the open cluster fan, Camelopardalis has a large number of nice clusters. I mentioned earlier, NGC1502, a nice open cluster of about 15 stars. Once you find NGC1502, look through your finder scope and view the magnificent asterism known as "Kemble's Cascade". This asterism is a chain of about 10 or eleven, eighth magnitude stars, forming a line that "pours" down into NGC1502. The cascade is best observed with binoculars. Other open clusters worth a look are Lorenzin Collinder 464, Lorenzin Tombaugh 5 and Stock 23. Most of these clusters are made up of faint stars and will require either a wide field eyepiece or binoculars to really enjoy their beauty.

For the Planetary Nebula fan, again, Camelopardalis has something. The brightest is IC3568 also known as the "Baby Eskimo Nebula". Although I don't see an Eskimo, this planetary has a little detail in its rounded face and shines at 11th magnitude. The other planetary, NGC1501, is not far from Kemble's Cascade. This planetary has a "hint" of green in it and is a very neat, round object with little surface features. It shines at 13th magnitude.

For the galaxy hunter, especially those with large apertures, you could spend

many nights in the giraffe and not see all the galaxies. For those observers with moderate instruments, take a look at NGC2403, this nearly face on spiral is fairly easy to see and shines at 8.9 Mag. IC342, a member of our local group, is not as well know as other members due to it being partially attenuated by dust and gas in our own galaxy. This galaxy, at 9.1 magnitude, is thought to be a good representation of what our galaxy looks like. A little more challenging, and maybe requiring more glass, is UGC3697 also called the "Integral Sign". This elongated wisp of an edge on galaxy has a peculiar "flip" at each end, giving it the look of a integral sign ~. It shines at a magnitude of 13.5. Another challenging object is NGC2523, an extremely faint barred spiral galaxy with very interesting features.

I hope you get a chance to spend some time in this often overlooked constellation; it has a treasure just waiting for you to discover.

Astro 101 continued on page 3

Treasurer's Report by Michael Finch

With the addition of our new members we now have a total of 585 SDAA members. We had several new members join last month. Please welcome Fred Bruenjes, Brae Canlen, Coby Castro, John Daglas, John Douda, Kenneth Potts Jr., and Jim Ward. Welcome to SDAA and may you enjoy clear dark skies!

Do you have questions about SDAA membership? Has your address changed? Please contact me at treasurer@sdaa.org. Thank you.

Second Site Fund balance: \$6,672.79



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(All positions are epoch 2000)

Beta Camelopardalis

Spectral: G0A5

Magnitude: 4.2

RA: 05h 03m 24.1s Dec: +60°26'48"

Struve 1051 (WDS 6028)

Magnitude: 7.0

RA: 07h 26m 32.3s Dec: +73°04'30"

NGC 1502 (Struve 484, 485 and

Kemble's Cascade)

Other description: Open cluster rich.

Constellation: Cam

Dreyer description: Cluster, westward rich in stars, considerably compressed, irregular figure.

Magnitude: 5.7

RA: 04h 07m 42.0s Dec: +62°20'00"

Size: 8.0'

Lorenzin Collinder 464

Magnitude: 4.0

RA: 05h 22m 00s Dec: +73°00'00"

Description: 2 degs diameter; very, very large and sparse with 50-plus members; binocular and naked-eye object

Stock 23

RA: 03h 16m 18s Dec: +60°02'00"

Size: 15.0 x 15.0

Object type: Open Cluster

Lorenzin Tombaugh 5

Magnitude: 8.4

RA: 03h 47m 00s Dec: +59°06'00"

Mag: 8.40

Notes: 17' diameter; large, fairly populous group of 60-plus 12-13M members.

IC 3568

Dreyer description: Planetary nebula or nebulous 9.5th magnitude star; 13th magnitude star westward 15".

Magnitude: 12.0

RA: 12h 32m 54.0s Dec: +82°33'00"

NGC 1501

Dreyer description: Planetary nebula, pretty bright, pretty small, very little extended, 1' diameter.

Magnitude: 13.0

RA: 04h 07m 00.0s Dec: +60°55'00"

Size: 0.9'

UGC3697 "Integral Sign"

Spiral Galaxy

Magnitude: 13.5

RA: 07h 11m 21.3s Dec: +71°50'06"

NGC2403

Dreyer description: Very remarkable! Considerably bright, extremely large, very moderately extended, very gradually much brighter middle nucleus.

Magnitude: 9.0

RA: 07h 36m 54.5s Dec: +65°35'58"

IC342

Dreyer description: Pretty bright, very small, 12th magnitude star close north.

Magnitude: 9.0

RA: 03h 46m 48.0s Dec: +68°06'00"

Size: 20.0'

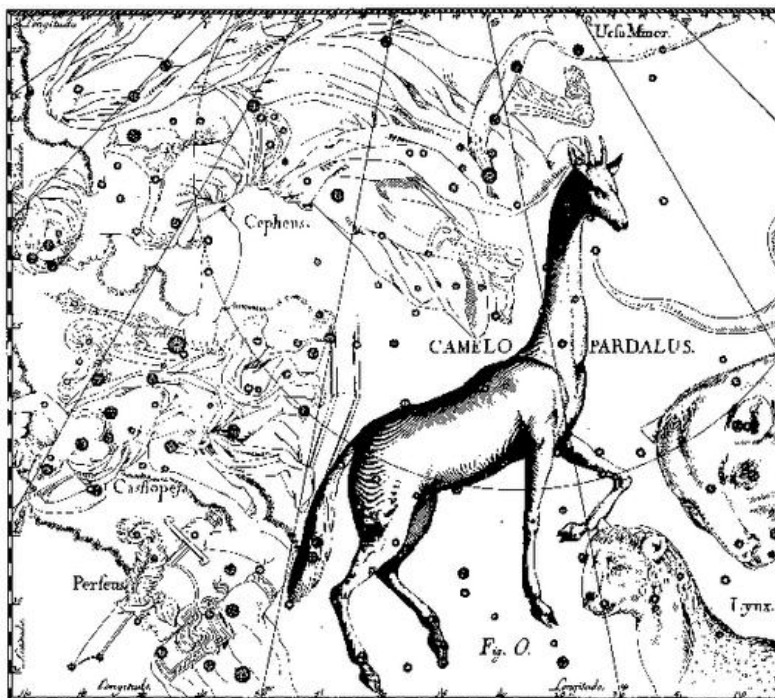
NGC 2523

Dreyer description: Pretty bright, pretty large, little extended, little brighter middle, star nearby.

Magnitude: 12.0

RA: 08h 15m 00.0s Dec: +73°35'00"

Size: 0.4' x 0.3'





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Who Runs This Club?

By Scott Baker, VP

Being a volunteer run and non-profit organization, means we operate by a set of bylaws and the hard work and dedication of people willing to give their free time to keep this organization in existence. Many members never bother to read the bylaws, but I think it's important that every member know who-does-what in the organization, so I've put together a list of the positions and what the job entails, so you'll know the amount of work that goes into this club. The italicized sections are directly from the bylaws.

President: The President shall preside at all meetings of the membership and of the Board of Directors, shall appoint the chairmen of standing and special committees, shall coordinate the work of the officers and committees in order to promote the purposes of this corporation, and shall, with the Recording Secretary, when properly authorized, execute all legal documents in the name of the corporation. The President is also the key media contact for events, the Master of Ceremonies at the annual banquet and the principal fire fighter for problems in the club.

Vice-President: The Vice-President shall act as aide to the President, shall perform the duties of the President in his absence or inability to serve, and shall be ex-officio chairman of the Program Committee. The VP is responsible for setting up and running the Monthly Program Meetings, which requires him to make sure the facility is available, find and arrange for guest speakers, and that all necessary requirements, projectors, etc, are available. He also find a guest speaker for the annual banquet, and if necessary, organize the banquet.

Recording Secretary: When required, the Recording Secretary shall record the minutes of all membership meetings and all Board of Directors meetings, shall be the custodian of the official copy of Articles of Incorporation and By-Laws, shall, with the President and properly authorized, execute all legal documents in the name of the corporation, and shall perform such other duties as may be delegated to the Recording Secretary. Minutes of all meetings of the Board of Directors and membership shall be read at the next succeeding meeting. This pretty much covers it.

Corresponding Secretary: The Corresponding Secretary shall keep the correspondence records of the organization and prepare and send such communications as may be authorized by the membership or Board of Directors and shall perform such other duties as may be delegated to the Corresponding Secretary. Basically, our Corresponding Secretary writes all the club communications. Emails with questions about the club, letters to government officials, media, etc. are all written by the Corresponding Secretary. The Corresponding Secretary also is responsible for retrieving and responding to voice messages left at the main SDAA phone number, and updating the recorded announcement.

Treasurer: The Treasurer shall receive all moneys of the corporation, shall keep an accurate record of receipts and expenditures including the official Membership Book and Dues accounts, and shall disburse treasury funds for all obligations of the corporation provided they are incurred in accordance with the provisions of the Articles of Incorporation and By-Laws. The Treasurer shall present a financial statement when requested by the Board of Directors. An annual report shall be available to the membership. The Treasurer's accounts shall be examined annually by an auditing committee of not less than three members who, satisfied that the Treasurer's annual report is correct, shall sign a statement of that fact at the end of the report. The Auditing Committee shall be appointed by the Board of Directors. The Treasurer is one of the most time consuming jobs in the club. He's responsible for:

- Picking up the mail at the post office each week.
- Works with Private Pad with membership info.
- Renews member subscriptions.
- Regularly communicates with members via telephone, mail, and e-mail.
- Financial activities of the annual banquet including onsite sales.
- Activities require accounting, computer, database entry and strong organization skills.
- Monthly time investment: 20 to 30 hours minimum.

Who runs the club continued on page 5



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Who Runs the Club Continued from page 4

Directors: The Board of Directors shall direct the affairs of the Corporation and determine its policies insofar as may be consistent with these By-Laws and to the extent authorized or permitted by law. The directors attend each Business Meeting of the club and are expected to act as a chairperson for one of the many chair positions of the club.

Chair positions currently within the club:

Education: Is the point of contact for all matters dealing with schools (not star party related), science fairs, conventions, etc.

Star Party: Organizes and manages the activities of the regional Star Party Coordinators in setting up public outreach star parties at locations throughout San Diego County.

Observatory: Maintains the Lipp Observatory and telescope. Organizes training sessions for members to be hosts. Organizes the hosts, making sure a host is available on every public star party night. Schedules use of the observatory on non-star party nights. Schedules the star party nights at the site.

Private Pad: Oversee the management of the club's 67 private pads. Duties to include enforcement of the usage requirements, maintaining the waiting list, and providing or coordinating (in coordination with the Site Maintenance Director) maintenance, upkeep, and improvements of the pad area roads and electrical service.

TDS Site Maintenance: Organizes work parties, buys materials and supplies, does maintenance and repair on the grounds and facilities as required.

Library: Maintains the club library.

Newsletter Editor: Creates the newsletter from submissions by members and outside sources.

Webmaster: Maintains the club website.

AISIG: Acts as the liaison between the Board and the Astro Imaging Special Interest Group.

New Member Mentor: Sends out the New Member Handbook packet to each new member. Using email, phone and personal contact, answers questions about the club, TDS and membership in general.

A member can be a chairperson without being a Director, but we ask a Director to be the chairperson of one of these positions.

How Does Someone Get a Position on the Board of Directors

by Scott Baker

Fellow Members, I'm sure a lot of you pay your dues, read your newsletter and visit TDS on occasion to take advantage of the dark skies, without any real care on how the club is run. But some of you may like to know how the club is run, and how you could maybe even volunteer to be a member of the Board. This article is to inform you of how the election process works in our club.

The Board of Directors consists of five Officers and four Directors. The Officers are the President, Vice President, Treasurer, Corresponding Secretary, and Recording Secretary. All Officers serve two-year terms. The Directors serve one-year terms. For a list of the functions of what each position does, see my other article in this

newsletter. The Officers are on alternating year terms, meaning that in one year President, Vice President and Corresponding Secretary are up for election, How to get elected continued on page 8

Program Meeting

by Scott Baker

The October Program Meeting saw about 35 members, brave inclement weather, and enjoy a very nice presentation by Rich Strobel on the SDAA Star Party Outreach Program. Rich showed us some great pictures and some of the letters the club has received from kids who enjoyed our visits. Some of the letters were quite humorous, others quite touching. Special thanks to all the members who make the Star Party Program the success it is!

The November Program Meeting, on the 17th, will be the last one for the year. This meeting will be our Gadget/Photo night, which is always popular and I'm hoping for a big turnout. So get all those gadgets you've built to help your hobby, and you photographers, burn a few CD's so that we can see the great stuff you do, and bring it to our November meeting.

This will also be my last meeting as Vice President; I'm stepping down and not running for a second term, due to health and schedule problems. I'm sure the next VP will do an even better job at running the meetings and that you'll appreciate their efforts as much as you've appreciated mine.

The Program Meetings are held at the Mission Trails Regional Park Visitor Center Theater on the third Wednesday of the month. Doors open at 6:30 and the program starts promptly at 7:00. Directions to the Visitor Center can be found on the MTRP web page www.mtrp.org.



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SkyWatch for November, 2004

John Mood



[Times PST]

[* = 1 star = EZ] [** = 2 stars = Moderate] [*** = 3 stars = Difficult]

Sun., 31 Oct. — Daylight Savings Time ends; move clocks back an hour this morning.

— HAPPY HALLOWEEN tonight!

Sat., 6 Nov. — PUBLIC STAR PARTY @ Tierra del Sol.

Fri., 12 Nov. — NEW MOON, 6:27 a.m.

Sat. Nov. 13 — "New Moon Night."

Wed., 17 Nov. — LEONID METEOR SHOWER peaks this morning.

Sat., Nov. 20 — PUBLIC STAR PARTY @ Tierra del Sol; explore the Moon's "terminator" (where dark turns to light) for spectacular views of mountains, craters & rills.

Fri., 26 Nov. — FULL MOON, 8:08 p.m.

EVENING PLANETS:

MERCURY [**] peaks above the horizon in Ophiuchus the Serpent Bearer later in the month but you'll need an unobstructed SW horizon to spot it in twilight. Pale bluish NEPTUNE [**] in Capricornus the Goat & pale greenish URANUS [* 1/2] in Aquarius the Water Carrier are now visible fairly high in the sky. They require telescopes to resolve their discs, but you sharp-eyed younger viewers can spot Uranus naked eye if you have a good finder chart. { I used to be able to myself! }

MORNING PLANETS:

Spectacular SATURN [*] is in Gemini the Twins but doesn't get high enough for good telescopic viewing 'til midnight or later. Gigantic JUPITER [*] is in Virgo the Virgin. VENUS [*] & MARS [* 1/2] both go from Virgo into Libra the Scales.

{ N.B. Because of the recent discovery of 2 relatively large trans-Neptunian objects, many professional astronomers no long consider Pluto a planet. I'll go along with them! }

BEGINNING & EXPERIENCED OBSERVERS:

Because several morning planets are close together, there a number of close passes, all with less than a degree of separation!! Great opportunities for naked eye observation &/or advanced astrophotography. Here they are:—

VENUS & JUPITER, mornings of the 3rd & 4th.

MOON & JUPITER, morning of 9th (east of the Mississippi, the Moon occults Jupiter in daylight!!).

MOON & VENUS, morning of 10th.

MOON & MARS, morning of 11th.

MOON & MERCURY, evening of 13th.

TIERRA DEL SOL

LAT = 32° 36' 48" N (± 0.1"), LONG = 116° 19' 55" W (± 0.1"), ELEV = 3710' (± 5'), at the bathroom, as determined from USGS 7.5 min 1/24000 map.

Send comments & questions to me by phone (619/225-9639), USPS (4538 Long Branch Av., San Diego, CA 92107) or my e-mail address (1happyalien@cox.net).

¡HAPPY VIEWING!



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Some of the comments were:

No barbecue this year. Actually we had two this year. We had two TDS Clean-Up parties, and afterward all in attendance enjoyed barbecues hosted by the SDAA.

The banquet was lacking. I'm not sure what this means. We had a very nice banquet, catered by El Indio, with a fabulous guest speaker, thousands of dollars in door prizes, and the camaraderie of over a hundred members. Another fabulous banquet is planned for January 22, 2005.

Our search for a new dark sky site is faltering. With the problems surrounding TDS, a new site is a necessity for the association to stay viable. But the search for appropriate land, and the fiscal means to acquire it may take more than a couple of months, even several years. But we are working on it.

The next two kind of bother me. First, I was accused of "firing" a certain Board member/Chair. This particular member was not nominated by the previous Nominating Committee, was not nominated from the floor, and therefore did not retain their seat on the Board. The position as a vital committee chair was passed to a sitting Board member. Several months later, allegations that they were fired are going around. I, nor the Board, have ever "fired" anybody. It's not even within our power to do so.

Then, we were accused of "ousting" a newly appointed committee chair from a newly created, radically new and vital committee for the SDAA. In reality, this person "ousted" us, as evidenced by the e-mails they sent several Board members.

Another comment heard was that the association lacked "true" leadership. This was followed by an e-mail insinuating that the Board is off track, that with the upcoming elections "this is our big chance to get the association back on the

right track so let's do it." Are we off-track? If we are, why not tell us, rather than rile up the membership with unfounded accusation? If any member feels change is needed, they have ways to affect change, the best being to approach and work with those in a position to execute change.

Which brings me to tooting the horn of this "off-track" Board. We actually accomplished many things this year, and it was not the Board alone who did it. There were many dedicated and focused volunteers who helped convert these major project plans into reality.

At TDS, we have: installed the requisite fire suppression system; cleaned out and serviced the septic system; upgraded the well, pump, and water systems; repaired a portion of the private pad grid, and continue to complete the project; replaced old fuse-style circuit boxes with new circuit breaker systems; completed a major clean-up, removing almost 500 cubic yards of debris from TDS; currently adding more gravel throughout the site to erosion-prone areas; and are currently installing a new payphone system.

Just in the telescope arena alone, we have: insulated the Lipp Observatory's west wall to eliminate the solar heating of the wall; rebuilt and enhanced the 8-inch refractor and mount; are rebuilding and enhancing the 14.25-inch reflector and mount; and increased the exposure to and availability of the lending telescope program.

As for site concerns, we have: worked with the border patrol to shield their new lights and minimize the impact on TDS; and begun an earnest search for second dark sky sites to supplement the needs of the membership.

Member benefits have been enhanced also, including: continued support of the public star party programs; updating and enhancement of our beautiful and informative Web site,

including the establishment of the online lending library; the establishment of the AISIG and fast-track plans to grow the AISIG for the increasing number of imagers in the association, and better Program Meetings to include a wider variety of presentations and the addition of door prizes and refreshments.

Above and beyond all this, the Board works hard to make sure the day-to-day operations of an association of this magnitude continues, transparent to most of the membership. When your astronomy magazines arrive in the mail, or you plug your telescope into an outlet at TDS, or you need to check the weather on the Web site, it's because someone is working hard to make sure it's always available to you.

I would say for being off-track we've done pretty well this year. I'll close by quoting one of the Board members: "What should we have done instead, or, which of these should we not have done? What's the right direction? The answers to these questions will not only assist the current officers and directors, but those who follow, too."

Clear Skies!

SDAA Editorial Staff
Editor

Douglas Searles
newsletter@sdaa.org
Contributing Writers

Brian Staples
Scott Baker
Mike Finch
John Mood
Jerry Hilburn
Diane Fisher



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How to get elected continued from page 5

with the following year, the Treasurer and Recording Secretary coming due. The four Director positions come up each year.

So what happens next? A Nominating Committee needs to be formed. At the October Board meeting, the Board chose a member to be the Nominating Committee Chair person. Then, at the October Program meeting, two members were asked to sit on the committee and they were approved by the membership at the meeting. The newly formed Nominating Committee has the task to find volunteers to fill the upcoming vacancies in the Board, either from the existing Board Members (the incumbents) or from the general membership. This year's committee consists of Michael Finch as the Chair and Bret Akers and Shawn Kelly as the other two members.

The Nominating Committee will attend the November Board meeting and present the nominations at that time. Then, at the November Program Meeting, those nominees will be announced and then we ask the members present if they have any other nominations from the floor. Nominations are closed at the end of the meeting.

So then what happens? If we have more than one nominee for a single position then an election is held. In December, ballots, with biographies of each candidate, are sent via mail to each member. The ballots are mailed back, counted, and the winner, by simple majority, is announced. If only one person is found for each open position, no election is necessary, the Recording Secretary casts a single vote for those people and they become the new Officers and Directors.

Finding volunteers for the open positions is always the toughest job. In the past 15 years, there's only been one "real" election.

Now everyone knows the process for getting elected to the SDAA Board of Directors. If you wish to run for one of the open positions, please contact one of the Nominating Committee members as soon as possible.

SDAA Board Meeting Minutes, October 12, 2004

The meeting was called to order at 7:07 pm on October 12, 2004. In attendance were Brian Staples, Brian McFarland, Chris Watson, Scott and Diana Baker, Jerry Hilburn, Lou Jackson, Joshua Johnson, Bob Austin, Michael Finch, and Rich Strobel.

The minutes of last month's meeting were read via email. A motion was made to approve the minutes: it was seconded and voted approved.

Michael Finch gave the Treasurer's Report: the memberships are decreasing as more contributing members switch to the basic membership. The Second site fund is at \$5442.79. A motion was made to approve the treasurer's report: it was seconded and voted approved.

The Site Maintenance Report was given: the cleaning party went well, might get two trucks of gravel for repairs, the garbage will be picked up, and the roads will be prepped for gravel.

Brian Staples gave the Observatory Report: the warming room was cleaned up, and may put liquid vinyl on the floor to make it easier to clean in the future.

Brian McFarland gave the Private Pad Report: 3 pads are on evaluation, and 4 might be available. The electricity for the pads has been worked on.

Rich Strobel gave the Star Party Report: There were 7 Star Parties in September, and 10 scheduled for October, 6 of which are complete.

Jerry Hilburn gave the Library/Education Report: no books have been recently checked out from the library.

Scott Baker gave the Membership Report: Last month's program meeting showed the Cosmology Quest DVD; at this month's meeting, Rich Strobel will speak; next month will be gadget and photo night.

Jerry Hilburn gave the AISIG Report: There are 8 new members, the meeting will be on Saturday. Might get new equipment to be checked out at the site. Chris Watson gave the Newsletter Report: Doug Searles took over the newsletter; extra copies of current newsletters to be given to OPT for advertising purposes.

Chris Watson gave the Website report: new things have been added: an interactive map for Star Party coordinators; the links have been fixed for the TDS conditions; there are 630 people registered at the website.

In Old Business: the telephone has been installed, but is not fully working and will need a manual for final tweaking; we gave a woman representing Congressman Filner some dates for him to visit the site in order to see the full effects of the lights; Terry Stuart will be the nominating committee, and the open positions are President, Vice President, Corresponding Secretary, and the four directors; a motion was made that the observatory host will be able to use a green light laser up until 10 pm, it was seconded and voted approved; we are trying to get more people to advertise in the newsletter to generate more revenue; Second sites are being researched, some would have no electrical or septic systems in the wilderness, but would have private pads, we are working on it and will need a picture to submit; The banquet will be held January 22 with Jim Castellano as the speaker, decided to have it at the Town and Country and have a choice for sit-down meals, there will be a separate mailing for the invitations, and Paypal



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will be set up in December for online ticket purchases.

In New Business: For membership dues, private pad and observatory owners aren't allowed any gapping, and must pay the same month of the following year from the original renewal, and all other members will have their memberships roll back upon renewal, and after a 12 month gap, a rejoining member is considered a new member; Concerning the Board Communications to the membership, it will not be changing from its current system; The locks on the front gate will be changed on January 1. A motion was made to adjourn at 9:08 pm.

A Summer Vacation Tracking Down UFOs by Diane K. Fisher

Jet Propulsion Laboratory (JPL) in Pasadena as part of the Summer High School Apprenticeship Research Program, or SHARP.

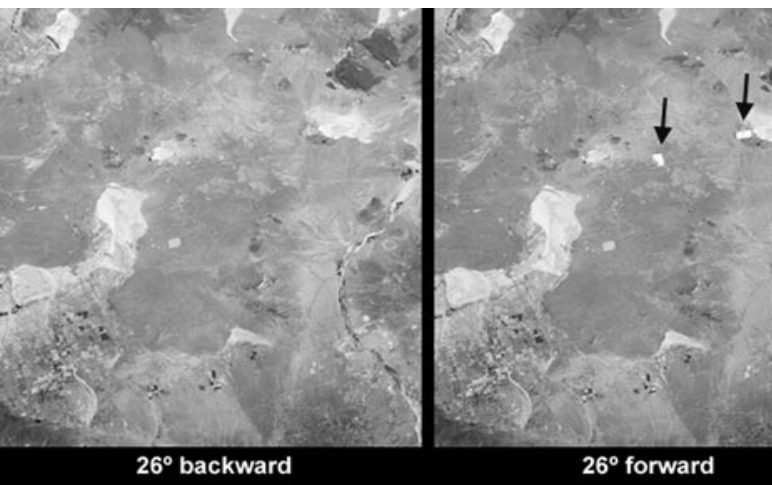
But is studying UFOs a useful kind of NASA research? Well, it is when they are "unidentified flashing objects" that appear in certain images of Earth from space. Erin worked with scientists on the Multi-angle Imaging SpectroRadiometer (MISR) project to track down these mysterious features. MISR is one of five instruments onboard the Earth-orbiting Terra satellite. MISR's nine separate cameras all point downward at different angles, each camera in turn taking a picture of the same piece of Earth as the satellite passes overhead. Viewing the same scene through the atmosphere at different angles gives far more information about the aerosols, pollution, and

the nine angles. Such flashes are caused by sunlight bouncing off very reflective surfaces and can be seen if a camera is pointed at just the right angle to catch them. Because the satellite data contain precise locations for each pixel in the images, Erin could figure out exactly where a flashing object on the ground should be. Her job was then to figure out exactly what it was that made the flash-in particular, to see if she could distinguish man-made objects from natural ones.

When Erin began working at JPL, scientists on the MISR project had already identified two large flashes out in the middle of the Mojave Desert in Southern California. These turned out to be from solar power generating stations. Soon, Erin began finding flashes all over the place. She learned how to apply her math knowledge to figuring out how the objects would have to be oriented in order to be seen by a particular MISR camera. One time, she and a team of MISR scientists and students went on a field trip to the exact locations of some flashes, where they found greenhouses, large warehouses with corrugated metal roofs, a glass-enclosed shopping mall, and a solar-paneled barn. For some flashes, they could find nothing at all. Those remain "UFOs" to this day!

Learn more about SHARP at www.nasasharp.com and Earth science applications of MISR at www-misr.jpl.nasa.gov. Kids can do an online MISR crossword at spaceplace.nasa.gov/en/kids/misr_xword/misr_xword1.shtml.

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Two cameras on MISR made these images of the same part of the Mojave Desert. The camera pointed at an angle of 26 forward saw the flashes from two solar electric power generating stations. These objects are nearly invisible at the other angle.

Erin Schumacher's summer job for NASA was to look for UFOs. Erin is a 16-year-old high school student from Redondo Beach, California, attending the California Academy of Mathematics and Science in Carson. She was one of ten students selected to work at NASA's

water vapor in the air than a single view would give. Ground features may also look slightly or dramatically different from one viewing angle to another.

Erin's job was to carefully examine the pictures looking for any flashes of light that might be visible from just one of

THE BACK PAGE

Board Elections Nominating Committee

SDAA will be holding annual elections to the board this fall and nominations for the following positions on the board.

President
Vice-President
Corresponding Secretary
4 Director Positions

If you are interested in serving on the board of the SDAA then please submit a request to be included on the ballot to:
nomcom@sdaa.org.

Classifieds

Do you have aperture fever and need to upgrade? List your used equipment here.



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