

ABOVE THE FOG

• BULLETIN OF THE SAN FRANCISCO AMATEUR ASTRONOMERS •

Vol. 55, No. 11 – November 2007

NOVEMBER GENERAL MEETING CANCELLED

BENEATH AUTUMN'S CHANGING SKY
LIKE A GENTLE BREEZE
THROUGH LEAVES OF RED AND GOLD
IN SHARED TRADITIONS
AMID TEMPTING AROMAS --
THANKSGIVING ARRIVES

OUR NOVEMBER GENERAL MEETING NIGHT FALLS
ON THE EVE OF THANKSGIVING DAY
AND HAS THEREFORE BEEN CANCELLED

HAPPY THANKSGIVING



2007 CLUB OFFICERS & CONTACTS

<i>President</i>	Kenneth Frank	president@sfaa-astronomy.org
<i>Vice President</i>	Jorge Morales	vicepresident@sfaa-astronomy.org
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<i>Treasurer</i>	Vivian White	Treasurer1@sfaa-astronomy.org
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<i>Honorary Director and Board Member Emeritus</i>	John Dobson	(415) 665-4054
<i>Board Members</i>	John Dillon	(415) 332-8096
	Robert English	(415) 383-6475 Citystarparty1@sfaa-astronomy.org
	Annette Gabrielli	
	Dirk Lammerts	(415) 242-1464
	Elan Morpurgo	(415) 242-1464
	Michael Portuesi	(415) 550-9366
	Peter Schumacher	(415) 566-6864
<i>Alternate Board Members</i>	Joe Amato	Web-master@sfaa-astronomy.net
<i>Webmaster</i>	Lon Carter	
	Joe Amato	Web-master@sfaa-astronomy.net

CLUB TELESCOPES

The SFAA owns eight very fine, easy to use, loaner telescopes well-suited for deep sky, planets, and star parties. All scopes are available to any SFAA member. The loaner custodians for the majority of our fleet are Pete & Sarah Goldie. Please contact them at pg@lbin.com for details if you are interested in borrowing a scope or if you have items you can donate for the loaner program (eyepieces, star maps/books, red flashlights, collimator, etc.). Please contact the appropriate member indicated below if you are interested in borrowing one of the telescopes.



- 1) 6" f/10.3 Dobsonian/Ken Frank president@sfaa-astronomy.org
- 2) 8" f/7 Dobsonian/Pete Goldie
- 3) 8.5" f/6 Dobsonian/Pete Goldie
- 4) 10" f/8 Dobsonian/Pete Goldie
- 5) 114mm f/4 Newtonian StarBlast/Pete Goldie
- 6) 8" f/10 Celestron SCT/Annette Gabrielli/agabrielli@sfaa@sbcglobal.net
- 7) 8" f/10 Meade SCT/Stefanie Ulrey/treasurer@sfaa-astronomy.org
- 8) 9.5" f/5.6 Celestron Newtonian/Ken Frank/kennethfrank@planitarium.net

CLUB ASTRONOMY VIDEOS

The SFAA owns a series of astronomy videotapes featuring Alex Filippenko, a world-renowned professor of astronomy at UC Berkeley. The videotapes provide an introduction to astronomy and cover topics such as the Solar System, the lifecycles of stars, the nature of galaxies, and the birth of the Universe. The SFAA loans the tapes free to all members. If you are interested in viewing these tapes, you may check them out at any of the SFAA General Meetings. These tapes were kindly donated to the SFAA by Bert Katzung. For information on the course tapes themselves:



<http://www.teach12.com/ttc/assets/coursedescriptions/180.asp>

MEMBERSHIP DUES

Membership is billed for each upcoming year on June 30. Members may receive no more than one bulletin after the expiration of membership.

SFAA Website and Online Services



The SFAA web site at sfaa-astronomy.org is provided to our members and the general public for the sharing of club information and services. The web site contains links for club [star parties](#), [events](#), [newsletters](#), [lectures](#) and [meetings](#). If you wish to interact with other people who are

interested in astronomy, the SFAA web site offers public and members only [bulletin board forums](#). If you wish to remain up-to-date on club activities, then we encourage you to subscribe to one or both of our public [mailing lists](#), which will allow you to receive our newsletter and/or club announcements via email. Other useful and interesting information and services are available on the site such as [observing location reviews](#), member [astronomy photos](#), and [members only telescope loans](#). Information about SFAA's membership, organization and by-laws are available at the club's online public document [archive](#). If you need to contact a representative of the SFAA, then please visit our [contacts](#) page to help in finding the right person to answer your questions.

Above the Fog is the official bulletin of the San Francisco Amateur Astronomers. It is the forum in which club members may share their experiences, ideas, and observations. We encourage you to participate by submitting your articles, announcements, letters, photos and drawings. We would also like to hear from our new members. Tell us about yourself – what you have done in the past and what other clubs you have joined. **The deadline for the next issue is the 20th day of the month.** Send your articles to Editor@sfaa-astronomy.org.

FOCAL POINT

Well, after watching Lights Out SF! from Lands End at the last City Star Party, I realize that's a great first step. Of course there is a lot more we can do to prevent light pollution and regain the night sky.

As you may know, John Dobson is back in town and doing his thing at 9th and Irving every first quarter Moon. If you have a mirror that's not quite finished or you want to make a mirror, he's got ongoing telescope making classes at the Randall every Thursday at 7:00 pm thru December 10th with the exception of Thanksgiving week. He's doing his flavor of cosmology from his home on Tuesday eves as well. Take full advantage of this living treasure we have in our own front yard.

After our last Mt. Tam star party, I left my astrogear in Halley's Comet, woke up early that next am and decided to start my Mars observing to get a jump start on December's best viewing of the pumpkin-colored planet before Opposition. It was the usual red blob naked eye looking down on Orion. Once the scope settled down, and between better seeing conditions, I could make out the features first named by Giovanni Schiaparelli <http://csep10.phys.utk.edu/astr161/lect/mars/features.html>. Most easy to see was Syrtis Major. Sky and Telescope has there java applet you can download from here: <http://www.skyandtelescope.com/observing/objects/planets/3307831.html#> OK, so it's not as big as back in '03, but it's still worth observing.

Some spectacular happenings in the past couple of days are Comet 17P/Holmes, a periodic comet in Perseus that looks more like a planetary nebula rather than a comet. Dean Drumheller at College of San Mateo's 20 inch RC telescope captured it on the 25th of October looking like this: <http://www.planitarium.net/csm/comet17p-holmes.jpg> and Richard Crisp's revealing image: http://www.narrowbandimaging.com/comet_17_p_holmes_stokes_page.htm Catch it while you can. We only have two months left in the year. Upcoming we have November 10, 4:56 p.m. and December 8, 4:44 p.m. for our Mt. Tam Member's only observing nights; November 13 and December 11 for Board Meetings.

I must reiterate again, you make the club what it is. Alarmingly almost one-half of the board or officers of SFAA are moving or need a break ... myself included. Won't you help? The San Francisco Amateur Astronomers is a unique group of people; some are purely observers, some are armchair amateurs who love the lecture series and discourse we're so lucky to have and some are outgoing and want to spread their enthusiasm and love of this pastime to others. Most of us are all three to some extent, in different proportions. Whatever our makeup, we do need a well-functioning administration to keep all of this running.

On December 19th at the General Membership meeting, we'll vote for who keeps the club going the way it is. Please vote, better yet write in your name on the ballot! Let's not repeat the drama we had to go thru before John Dillon stepped up to the plate and took over as president.

See you on Member's Night at the Randall, where we'll introduce the new (and old) officers and judge awards.

KEN FRANK
President

IMPORTANT DATES

SFAA GENERAL MEETINGS & LECTURES

Wednesdays

NOVEMBER MEETING CANCELLED

DECEMBER 19 – MEMBER'S NIGHT

JANUARY 19 – ANNUAL DINNER

7:00 p.m. Doors open. 7:30 p.m. Announcements. 8:00 p.m. Speaker
Randall Museum, 199 Museum Way (Near 14th Street and Roosevelt)

BOARD MEETINGS

Tuesdays

November 13, December 11

7:00-8:30 p.m.

Randall Museum, 199 Museum Way
(Near 14th Street and Roosevelt)

MT TAM STAR PARTIES – SPECIAL USE PERMIT – MEMBERS ONLY

SATURDAYS -- November 10, 6:39 p.m. – Gatekeeper **VOLUNTEER NEEDED**

December 8, 4:44 p.m. – Gatekeeper **VOLUNTEER NEEDED**

December 19 - DECEMBER MEMBER'S NIGHT GENERAL MEETING

The December 19th SFAA meeting is Member's Night, when members can speak about their special interests. A short talk about an observing experience, a favorite astronomy site, astronomy equipment or a particular target of study are a few suggestions. Now is the time to begin thinking about how you can participate in the year's final meeting. Contact Linda Mahan doublestar@comcast.net with questions or to schedule your talk.

Or participate in December Member's Night by entering the Astronomy Art Contest with your original drawings, paintings, sculpture, found art or collage. Be creative. A decorated cake was entered one year. Enjoy this opportunity to express yourself.

The Astronomical Photography contest is also a feature of Member's Night. Plan now to enter your original astro images.

Everyone present for the December meeting judges the Art and Astrophotography before the talks begin. Winners are announced at the Member's Dinner in January, where beautiful hand-made awards are presented for First, Second and Third prizes in the Art and Astrophotography category. Enter, and plan to join your fellow SFAA members for the Awards Dinner. Your participation enriches the experience of SFAA.

CITY STAR PARTIES - Telescope Clinic one hour before sunset

VOLUNTEERS ARE ALWAYS NEEDED

Saturday, October 20, 6:19 p.m. at Land's End (Point Lobos)

Saturday, November 17, 4:51 p.m. at Land's End (Point Lobos)

Saturday, December 15, 4:46 p.m. at Randall Museum

Weather may cancel the City Star Party. Call the SFAA Hotline at (415) 289-6636 AFTER 4 PM to learn the status of the event and the location. If the hotline announces the Star Party is cancelled, the Telescope Clinic and Lecture are cancelled as well. However, if the Hotline does not cancel the Star Party, be assured that the Lecture will proceed as scheduled even given less-than-perfect telescope conditions.

Please note that while City Star Parties WILL ALWAYS be held on Saturdays, some will be closer to the last quarter phase of the moon, while others will be close to first quarter. This is so we can work around dates for Mt. Tam public star parties as well as our members-only events on Mt. Tam.

Map and directions – Land's End (Pt. Lobos) <http://www.sfaa-astronomy.org/clubarchive/directions-pointlobos.php>



NEW SFAA MEMBERS

Scope City is offering to new members a \$25 credit toward the purchase of telescopes and binoculars.

Obtain a receipt for dues payment from Vivian White, Treasurer,

treasurer@sfaa-astronomy.org.

Contact Sam Sweiss at Scope City to arrange for your discount.



San Francisco Amateur Astronomers

SFAA
P.O. Box 15097
San Francisco, CA 94115

BALLOT

2008 OFFICERS AND BOARD OF DIRECTORS

OFFICERS

- _____ President
- _____ Vice-President
- _____ Secretary
- _____ Treasurer

Vivian White

_____ Write-in

Name and office

_____ Write-in

Name and office

BOARD OF DIRECTORS

- _____ Joe Amato
- _____ Lon Carter
- _____ Jim Cottle
- _____ John Dillon
- _____ Robert English
- _____ Kenneth Frank

- _____ Dirk Lammerts
- _____ Jorge Morales
- _____ Elan Morpurgo
- _____ Stephanie Ulrey
- _____ Jarrad Wilson

_____ Write-in

Name

_____ Write-in

Name

VOTING INSTRUCTIONS

The club members listed above are candidates for Officers and Board of Directors of SFAA for the year 2008. Please vote for a total of four officers and a total of seven board of directors including write-ins. ***Voting for more than four officers or for more than seven board members per ballot will invalidate the entire ballot.*** Family memberships may submit a separate ballot for each voting family member. Write-ins for officers must include the candidate's name and office for which he or she is nominated.

All candidates, including write-ins, must have committed to attending at least seven board meetings and may not miss more than two consecutive meetings during the calendar year for which they are nominated.

The seven board of directors' candidates who receive the highest number of votes will become regular board members. The two candidates receiving the next highest number of votes will become alternate board members. The new Officers and Board of Directors will be installed at the Annual Awards Dinner on January 19, 2008.

Please return your ballots to: SFAA Secretary, at the address above.

Ballots must be received no later than the general meeting on Wednesday, December 19, 2008.

SAVE THE DATE
Saturday - January 19, 2008
SFAA ANNUAL AWARDS DINNER
DELANCEY STREET RESTAURANT
600 Embarcadero, San Francisco CA 94107

ASTRONOMY LITERARY CONTEST
SUBMIT ENTRIES ON OR BEFORE
NOVEMBER 25



If you have an interesting astronomy-related original short story to share, now is the time to do so. Submissions may be fact or fiction, humor or opinion. You may have a favorite story about an observing experience, a trip, or about people who have crossed your astronomical path in one memorable way or another. Share the stories of your astronomy observing and/or travel experiences, enable us to appreciate them with you and enhance our own appreciation of astronomy. Prizes for first, second and third place winners will be awarded at the December Member's Night meeting.



E-mail your submission to: Editor@sfaa-astronomy.org

ASTROPHOTOGRAPHY CONTEST
SUBMIT PHOTOS ENTRIES ON OR BEFORE DECEMBER 20

If you haven't already sent your jpgs for the contest, please do to Joe Amato <web-master@sfaa-astronomy.org>



M16 Eagle Nebula by SFAA Member Jared Wilson

The Apparition of Comet 17P/Holmes

Kenneth Frank

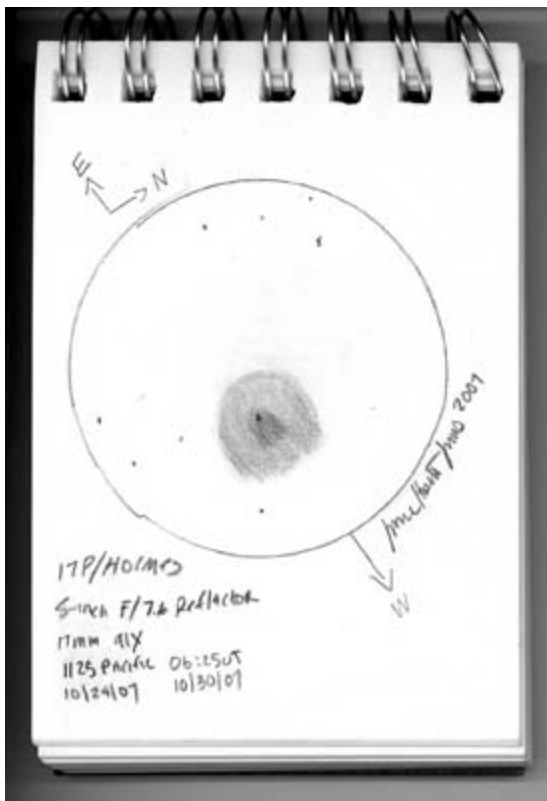
"I've found it! I've found it!" Holmes to Dr. Watson in the introduction to *A Study in Scarlet*. Between October 23–24, 2007, Comet Holmes grew much brighter, going from magnitude 17 to magnitude 2.5 in just a few short hours. The first person reportedly to notice a change was J. A. Henríquez Santana on Tenerife in the Canary Islands; minutes later Ramón Naves in Barcelona noticed the comet at magnitude 7.3. It became easily visible to the naked eye as a bright yellow "star" in Perseus, and by October 25 17P/Holmes appeared as the third brightest "star" in that constellation.

While large telescopes showed fine-scale cometary details, naked-eye observations gave a view similar to that of a star until October 26. After that date, 17P/Holmes began to appear more comet-like to naked-eye observers. During the comet's outburst, its orbit took it to near opposition with respect to Earth, and since comet tails point away from the Sun, Earth observers were looking nearly straight down along the tail of 17/P Holmes, making the comet appear as a bright sphere.

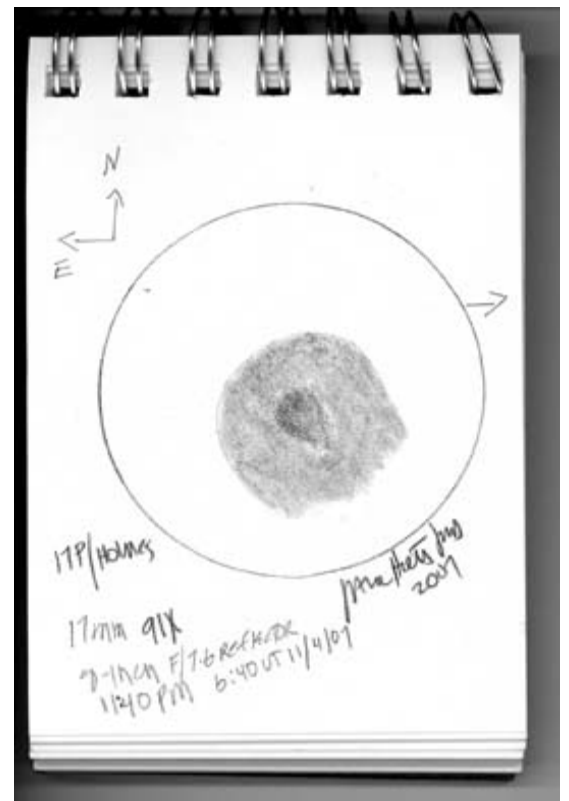
Based on orbital computations and luminosity before the 2007 outburst, the comet's nuclear diameter was estimated at 3.4 km. In late October 2007 the coma's diameter increased from 3.3 arc minutes to over 13 arc minutes, about half the diameter that the Moon subtends in the sky. At a distance of around 2 AU, this means that the true diameter of the coma swelled to over 1 million km, or about 70% of the diameter of the Sun.

By comparison, the Moon is 380,000 km from Earth. Therefore, during the 2007 outburst of Comet Holmes the coma was a sphere wider than the diameter of the Moon's orbit around Earth. Spaceweather and APOD websites have great photos and comparisons to other heavenly bodies.

I've been following Comet Holmes since October 24th. It is truly amazing. Observing it from my driveway, just a few nights ago, it appeared almost as big as M31. I'm sure many SFAAer's have either photographed it or sketched it. Here are two sketches by Jane H. Jones from Monrovia. More sketches start [here](#).



Left: Comet 17P Holmes as viewed through an 8-inch homemade dobsonian reflector on 10/30/07 at 06:20 UT. Eyepiece: 17mm Orion Explorer II for 61x magnification. Monrovia, CA. Sky conditions: quite dark for Los Angeles Co. (marine layer over the LA basin, and shielded from street and house lights). Transp. (darkness) 3/6, Seeing (steadiness) 7/10 on Pickering scale, Antoniadi (I-V): II



Right: See how much the comet's size changed by comparing these two sketches, using the same equipment from the same location 6 days apart. Sky conditions: Transp. 2-3/6 pretty good for LA standards, Seeing 6/10 on Pickering scale - some moisture in air, Antoniadi (I-V): II.

What's Up for November? Mars and Mira!

Jane Houston Jones

When you look at Mars, have you ever wondered where the rovers are at that moment? I do, and it adds to the fun of looking at Mars when I know the rovers are facing Earth as I am looking up at that bright ruddy planet. Wow is it ever getting bright!

Where and when to see the Rovers is part of the topic of my November's What's Up. That and how to find a wonderful star, Mira, which was captured in a fascinating image by the Galaxy Evolution Explorer in August. Connecting stargazing to NASA missions adds some complexity and extra enjoyment, at least it does to me. I hope you enjoy this one!

Here is the What's Up:

<http://education.jpl.nasa.gov/amateurastronomy/index.html>

Here is the GALEX image (and related links) of Mira:

<http://www.jpl.nasa.gov/news/news.cfm?release=2007-090>

Here is my favorite Mars Map showing the locations of the rovers:

http://www.damianpeach.com/images/mars/mars_2005dp_labeled.jpg

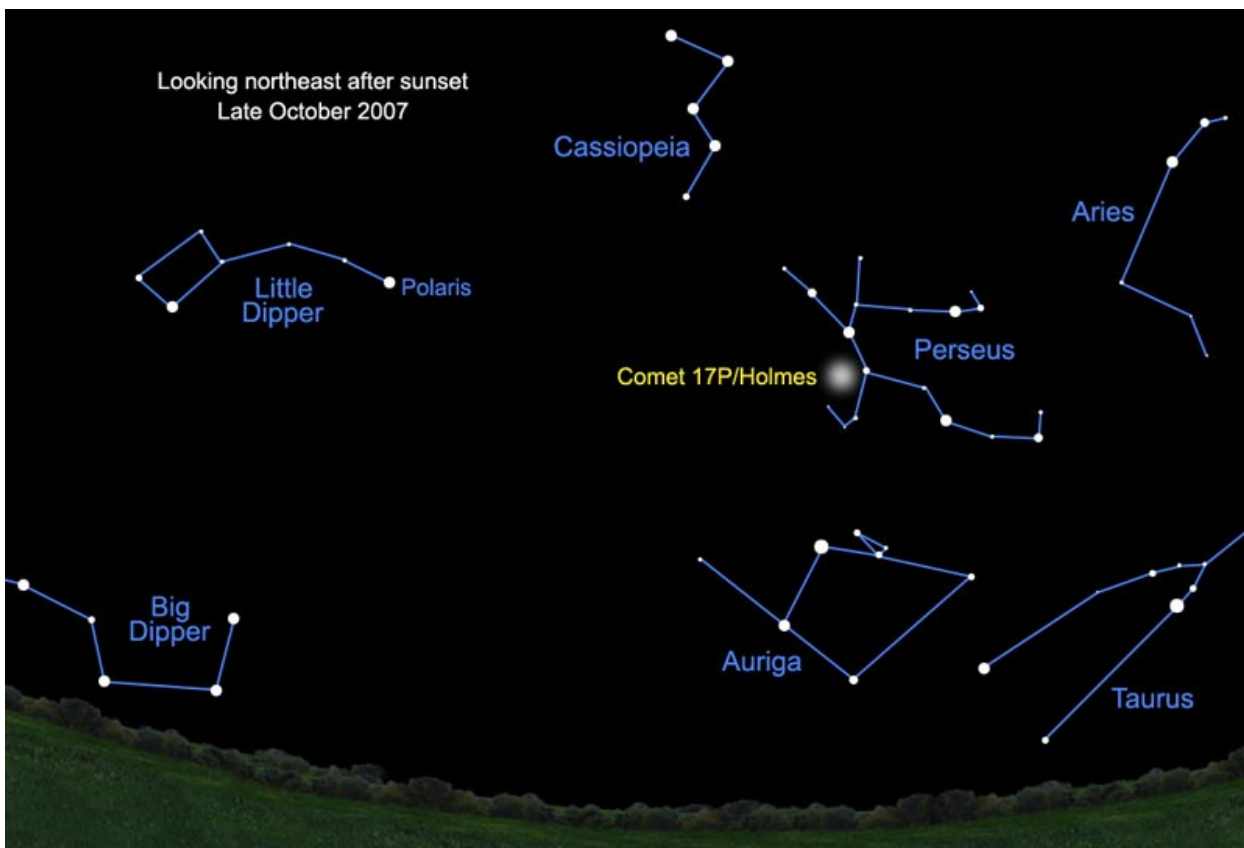
Have a look at Comet 17P/Holmes if you haven't. If history repeats, it will only stay bright for 20-30 days. That is what happened in 1892 when it was discovered during a similar outburst. And we're on day 16 now!

<http://www.jpl.nasa.gov/news/features.cfm?feature=1514> The star chart on this feature is still accurate.

Jane Houston Jones, Senior Outreach Specialist, Cassini Program

JPL - 4800 Oak Grove Drive, MS 230-205, Pasadena, CA 91109 818-393-6435

jane.h.jones@jpl.nasa.gov Cassini SOC <http://soc.jpl.nasa.gov/index.cfm>



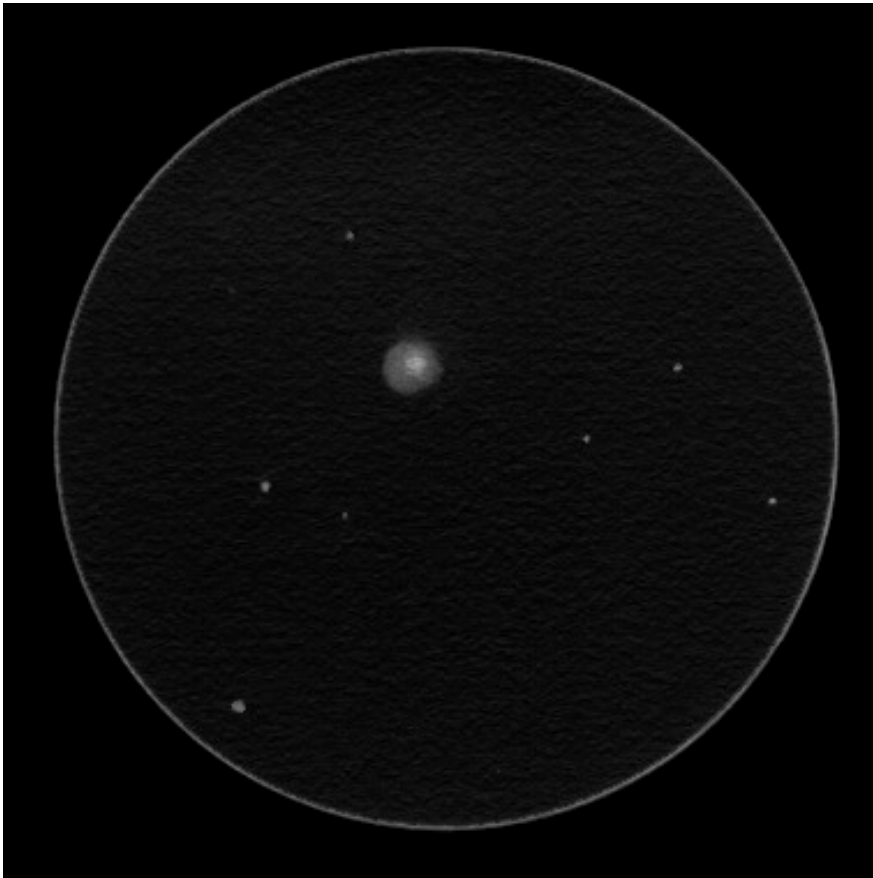
Courtesy of NASA



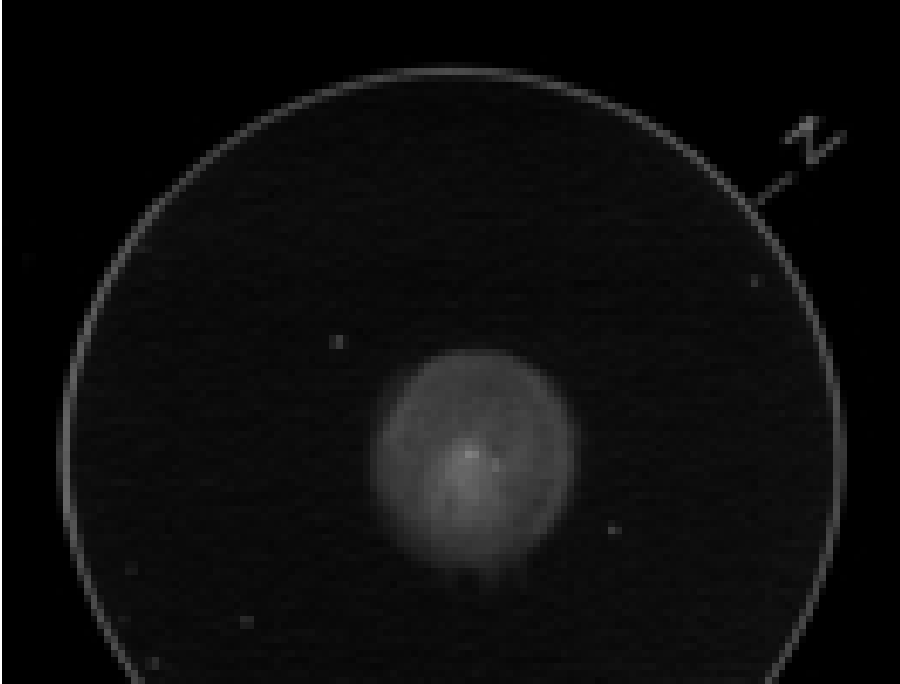
COMET 17p\HOLMES

SKETCHES BY

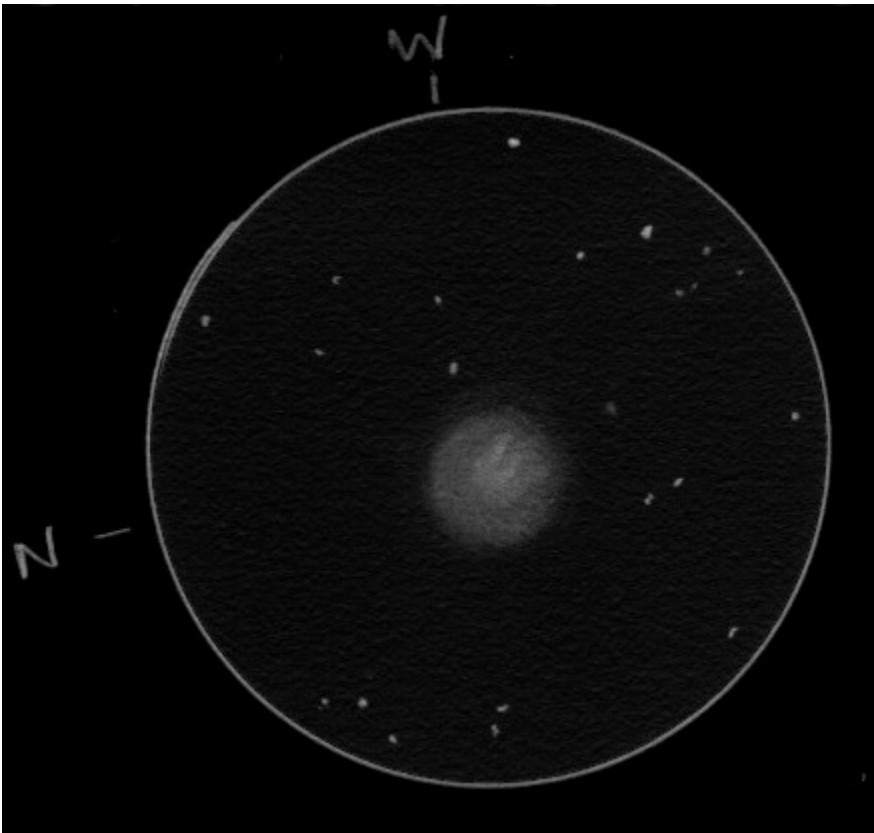
MICHAEL PORTUESI



October 25, 10:23-10:28 pm, PDT. This sketch was through 12x60 binos, from my driveway in the middle of light-polluted San Francisco, surrounded by six streetlights. Seeing 5/10, Transparency 2/10. Though you can't compare directly, I also observed through the binos on November 3 and the diameter of the comet's coma viewed through the binos has pretty much doubled. The sketch was made with Staedtler sketch pencils and blending stump on Strathmore 400 series drawing paper. It was scanned and processed on a Macintosh using Pixelmator graphics software. This is the oddest comet I've yet observed; as others have mentioned, it looks like a pregnant planetary nebula.



The second sketch was through a homemade 10-inch F/7 Dobsonian, with a 40mm Koenig eyepiece (45x). November 3, 10:29pm - 10:40 pm PDT. This sketch was also from my driveway in the middle of light-polluted San Francisco, surrounded by six streetlights. Seeing 7/10, Transparency 2/10. The sketch was made with Staedtler sketch pencils and blending stump on Strathmore 400 series drawing paper. It was scanned and processed on a Macintosh using Pixelmator graphics software.



Here's another sketch from the night of November 9, 10:01-10:12pm PST through the same 12x60 binoculars as the original sketch October 25. Note how much larger and diffuse the coma has become. This sketch was from my home driveway in the middle of San Francisco. Seeing 6/10, Transparency 4/10. Graphite sketch pencils and blending stump on Strathmore 400 series drawing paper. Scanned and processed on a Macintosh using Pixelmator graphics software.

JOHN DOBSON'S WEEKLY TELESCOPE MAKING CLASS
RANDALL MUSEUM, Buckley Room - December 8, 2007
Kenneth Frank
Photos courtesy of Jim Cottle



Pitch pouring is a pivotal part of telescope making. After rough and fine grinding, you use the pitch lap to polish the mirror to the tolerance of the thickness of one one-thousandth of saran wrap!

You can actually look at the Moon once the mirror is polished without having it aluminized.

Cerium Oxide is embedded in the pitch and John Dobson is seen pouring pitch onto the tool. I am readying the



mirror blank by smearing the glass with a mixture of water and cerium oxide, which polishes the mirror. The next step is to build the telescope.

If the mirrors are all polished and the figure is correct, they can be sent off for mirror coating at Bob Fies and soon after, the students will be on the sidewalk with a completed telescope.

2007-2008 MEMBERSHIP DUES

SFAA membership now comes due in June. Before now, dues were payable in the month a member first joined. Last year, the SFAA board voted to make everyone's dues payable at the same time - in June of each year. This was done for two reasons: 1) to save a great deal of work for our volunteer Treasurer, present and future, and, 2) for the convenience of members - it's easier to remember! In the past, many members forgot their due date and their membership unintentionally lapsed.

During this first year of transition: If your present membership runs past June 2007, just pay a prorated fee to extend your membership to June of 2008. Simply deduct 1/12 from this year's dues for each month already paid. For example, if you last paid your membership in September of 2006, you have a credit of three more months. Subtract 3/12 (1/4) from your annual fee and just pay that amount. We trust your math. Next year, and every year thereafter, everyone will pay only in June. Easy!

We realize this conversion process may be a bit confusing and more work for some. But this is a one-time transition and it will lessen the work and confusion for all the years to come!

N.B. for those of you who have a club discounted *Sky and Telescope* magazine subscription, you will need to renew your subscription separately. The magazine will send you a renewal notice. In the past, you had to send that renewal notice with payment to the SFAA; now you can mail your *Sky and Telescope* subscription renewal payment directly to *Sky and Telescope*. **Note: Not renewing your club membership on time may mean your magazine subscription(s) will also terminate.**

Thanks for bearing with us during this transition process -- it'll all seem worth it next year! Just complete the membership form on the last page of the newsletter and submit with your renewal check to:

San Francisco Amateur Astronomers
P.O. Box 15097
San Francisco, CA 94108

YEARLY RATES FOR MEMBERSHIP

\$10 – Youth (under 18) Student Membership	\$25 – Individual Membership
\$30 – Family or Foreign Membership	\$40 – Institutional Membership
\$75 – Supporting Membership	

MEMBER BENEFITS INCLUDE

- Subscribing to our Announcements mailing list to receive newsletter, activity and event announcements.
- Interaction with world class speakers as they present cutting edge astronomical research
- Discounts on Sky & Telescope and Astronomy magazines*
- Discounts on equipment and accessories at local telescope retailers
- Annual club Astrophotography, Literary & Art Awards
- Social events, such as our annual picnic and our awards dinner
- Club telescopes – use one of the club's loaner scopes on a month-to-month basis
- Yosemite Star Party – held at Glacier Point exclusively for SFAA members
- Access to events and resources in Northern California and beyond
- Field trips – to observatories and other locations of scientific interest, such as Mt. Wilson Observatory in Pasadena, Chabot Space and Science Center, Fremont Peak, and the Stanford Linear Accelerator Center
- Extended observing hours at the Mount Tamalpais Astronomy Program
- Access to dark sites in Northern California

San Francisco Amateur Astronomers
POB 15097
San Francisco CA 94115

Please make checks payable to San Francisco Amateur Astronomers and mail to:

_____ E-Mail
_____ Hard Copy

You can choose E-Mail (Recommended) or hard copy delivery for Above the Fog(Check one)

Information: Name(s) _____
Address _____
City _____
State _____
Home Phone _____
E-Mail _____
Zip _____

Membership Categories (Check one): _____
\$10 Youth/Student _____
\$25 Individual _____
\$30 Family _____
\$40 Institutional _____
\$75 Supporting _____

Members pay one half the amount listed below
Membership is billed for each upcoming year on June 30. Between January 1 and June 30, new

MEMBERSHIP APPLICATION

San Francisco Amateur Astronomers
P.O. Box 15097
San Francisco, CA 94115



Information Hotline: (415) 289-6636

Web Page: www.sfaa-astronomy.org

Sharing the Wonders of the Universe

Has your membership expired? Your mailing label includes the month and year through which your membership is paid. If it is past, your membership has expired and this may be your last issue.