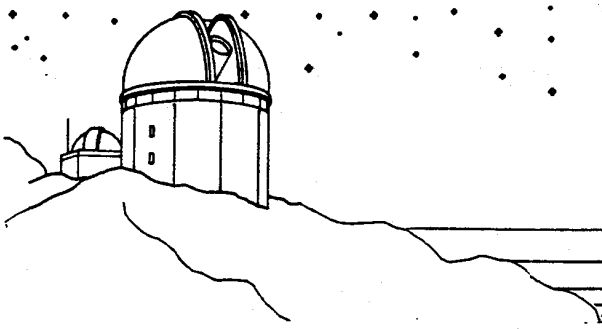
EPHEMERIS

OF THE SAN JOSE ASTRONOMICAL ASSOCIATION.



JANUARY 1987

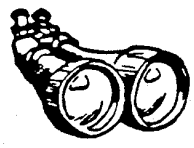
JANUARY 3RD 8 PM
KEVIN MEDLOCK
COMPUTER CONTROLLED TELESCOPE DEMO

FEBRUARY 7TH 8 PM
ROBERT SCHAFER
THE UFO VERDICT

JANUARY	3	GENERAL MEETING 8 PM. THE COMPUTER CONTROLLED TELESCOPE WILL BE THE SUBJECT OF THIS EVENINGS GENERAL MEETING. KEVIN MEDLOCK, MECHANICAL DESIGNER FOR CELESTRON'S NEW CCT WILL BE THE SPEAKER.
JANUARY	10	INDOOR STAR PARTY, LOS GATOS RED CROSS BUILDING. 8 PM.
JANUARY	17	BOARD MEETING AT 7 PM WITH INDOOR STAR PARTY TO FOLLOW AT 8 PM.
JANUARY	24	FIELD EXPEDITION FOR ASTRONOMICAL OBSERVATION TO FREMONT PEAK STATE PARK. DUSK TILL DAWN
JANUARY	31	ANNUAL FREEZE PARTY FOR ASTRONOMICAL OBSERVATION AT HENRY COE STATE PARK. DUSK TILL FROZEN.
FEBRUARY	7	GENERAL MEETING 8 PM, THE LOS GATOS RED CROSS BUILDING. THE UFO VERDICT. ROBERT SCHAFER.
FEBRUARY	14	BOARD MEETING AT 7 PM WITH THE INDOOR ASTRONOMY CLASS STARTING AT 8 PM, LOS GATOS RED CROSS BUILDING.
FEBRUARY	21	SECOND IN A SERIES OF FREEZE PARTIES FOR ASTRONOMICAL OBSERVATION TO HENRY COE STATE PARK. DUSK TILL FROZEN.

FIELD OF VIEW
BY: JOHN GLEASON

JANUARY 3RD GENERAL MEETING



You read about the CCT in the November Ephemeris, now come and see the actual telescope in operation. We are pleased to have Kevin Medlock as our speaker for the January General Meeting. Kevin will demonstrate all of the wonderful aspects of this remarkable new telescope accessory. Mark your calendars, you will not want to miss this "hands on" opportunity.

SHORTER BULLETIN THIS MONTH/CALL FOR SPEAKERS

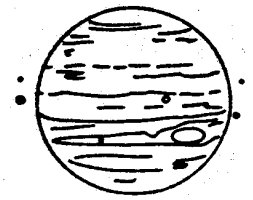
Several December events have shortened this months Ephemeris. First the Holiday season has cut into your editors time and second the movement of the General Meeting to the first Saturday of the month means that the bulletin must be printed and mailed earlier than it ever has before. This also means that the SJAA needs to find speakers for our General Meetings several months in advance for the timely publication of dates in the Ephemeris. If there is a subject that you would like to talk about or know of individuals that would like to give a presentation about any aspect of astronomy, be sure to contact your association officers or board members. The SJAA has provided to you the membership, some of the finest General Meetings in the past and we look forward to continuing this tradition of excellence in 1987. Please Help!

THE UFO VERDICT

As an amateur astronomer, how many times have you been asked if you have seen any UFO's? Do you believe in Flying Saucers? Yes, I do believe that popele have seen things that they could not identify. On February 7th, Robert Schafer will present the UFO Verdict. Mr. Schafer, member of Bay Area Skeptics, will explain the unexplainable for us beginning at 8 PM. Don't miss it.

CALICO OBSERVATORY
BY: JIM VAN NULAND

JUPITER'S GREAT RED SPOT



As Jupiter moves inexorably to the west, we Spot watchers must reluctantly give up our arcane sport, and move on to other activities. I've included the few February opportunities here. Though Jupiter will be visible well into March, 1987, it will be too low for profitable observations at high power. Therefore, this will be my last article until the Spot has been recovered, perhaps in July if my vacation schedule permits. Many thanks to those who have reported observations: your encouragement is what keeps me going.

You might have noted how suddenly the observing window (sunset to planet-set) has closed. Jupiter set earlier and earlier, of course, but contributing too in the earlier sunset, from mid-December.

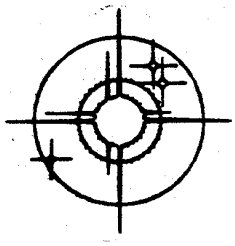
Throughout this apparition of Jupiter and the Great Red Spot, conditions have slowly improved. Though the Spot was somewhat difficult to observe last June, it has darkened considerably and now shows some color when seeing is at all good; not yet really red, but definite orange! Let's hope that the trend will continue. Historically, the Spot has not been very distinct, so we must observe it when we can.

The times in the table are the moment when the Spot will be facing directly toward the Earth, best placed for observations. Expect to see the Spot an hour before and after the tabular times, darkness and elevation permitting.

Great Red Spot on Meridian PST

da	mo	d	h	m		da	mo	d	h	m		da	mo	d	h	m	
Th	1	1	5	30	pm	Tu	1	13	5	31	pm	Tu	1	27	7	12	pm
Sa	1	3	7	8	pm	Th	1	15	7	5	pm	Su	2	1	6	20	pm
Th	1	8	6	20	pm	Tu	1	20	6	22	pm	Su	2	8	7	9	pm
Sa	1	10	8	0	pm	Su	1	25	5	27	pm	F	2	13	6	16	pm

COMET COMMENTS
BY: DON MACHHOLZ



Two faint comets have recently been discovered. Meanwhile, Comet Wilson has sunk into our evening twilight, we'll see it again in March. Comet Sorrells is in our evening sky while the slightly-fainter Halley's Comet rises before midnight.

Periodic Comet Urata-Nijima (1986o): Less than two days before William Sorrells found his comet, T. Urata and T. Nijima of Japan captured on film an object believed to be an asteroid. Further observations, however, showed it to be surrounded by a coma, hence it was designated a comet. This is the first amateur photographic comet discovery to be made since 1972. The discovery of the 16th magnitude object in Aries was made with a 12" f/5.8 reflector.

The computed orbit shows that this is a periodic comet. It returns every 6.4 years, never getting closer than 1.4 AU from the sun. This is a favorable visit of the comet, which is not expected to get brighter than mag. 16.

Comet Lovas (1986p): Miklos Lovas discovered this comet at mag. 14 in Aries on Nov. 28. I know nothing else about it at this time.

DATE	R.A. (1950)	DEC	ELONG	MAG.	NOTES
		Comet Sorrells (1986n)			
12-21	01h 01.6m	+19° 49'	113°	10.7	This comet now appears about two
12-26	00h 44.4m	+18° 02'	104°	10.8	arcminutes in size. You'll find
12-31	00h 30.5m	+16° 29'	95°	10.9	it in the evening sky, south of the
01-05	00h 19.2m	+15° 10'	87°	10.9	Square of Pegasus. We'll be able
01-10	00h 10.1m	+14° 04'	80°	11.0	follow it in the evening sky until
01-15	00h 02.9m	+13° 08'	73°	11.1	March, then we'll lose it in solar
01-20	23h 57.0m	+12° 23'	66°	11.1	glare until late April. In mid-Jan.
01-25	23h 52.4m	+11° 47'	60°	11.2	the comet is 175 million miles from
01-30	23h 48.6m	+11° 18'	54°	11.2	both the earth and the sun.
02-04	23h 45.6m	+10° 55'	48°	11.3	
		Periodic Comet Halley (1982i)			
12-21	11h 34.9m	-15° 58'	88°	12.1	Halley's Comet is slowly becoming
12-26	11h 32.7m	-16° 09'	93°	12.1	fainter as it recedes from the sun
12-31	11h 30.0m	-16° 17'	98°	12.2	while the distance to the earth
01-05	11h 26.8m	-16° 23'	104°	12.2	decreases. The comet is quite small,
01-10	11h 23.3m	-16° 25'	109°	12.2	only about one arcminute in size.
01-15	11h 19.4m	-16° 24'	114°	12.2	Be sure to use a large scope with
01-20	11h 15.0m	-16° 20'	120°	12.2	medium power to catch this famous
01-25	11h 10.4m	-16° 13'	126°	12.2	visitor.
01-30	11h 05.4m	-16° 01'	132°	12.3	
02-04	11h 00.1m	-15° 46'	137°	12.3	

SEEKING COMETS

This month we begin a new feature in Comet Comments. How can you be sure you've discovered a comet? How do you report a new comet discovery? We'll explore the first question this month, the second question next month.

When I'm comet hunting and I run across a nebulous object, my immediate task is to prove that it is not a comet. If I can not do that, then perhaps it is a new comet. There are the things I check:

1) Is it a known object such as a nebula, galaxy or small cluster? If I don't know for sure from memory that this is a known object, I'll check the "Atlas of the Heavens" and the Tirion Atlas in the book " A Field Guide To The Stars And Planets". Finally I'll refer to the RNGC to see if it is a very faint object.

2) My next step (although for small objects this is my first step) I'll throw on higher power to see if it will resolve as a small group of stars. This is important, as often comet hunters use low magnification which make two or three stars look like a fuzzy object.

If the suspect fails these first two tests, I'll usually make two drawings of the field. One drawing shows the whole field with brighter stars, the second drawing shows the suspect in relation to faint stars nearby.

3) It it a ghost image? Wiggle and rotate the telescope tube to see if it also moves in relation to the stars. Change eyepieces too, and see if the image remains. It is rare that the suspect would be a ghost image, but it can happen, so be sure to include this step.

4) Check to see if it is a known comet. Usually I'll list the brighter ones in this column.

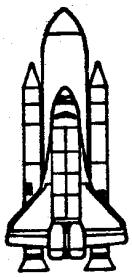
5) Check to see if it is a known comet. Usually I'll list the brighter ones in this column.

6) Check again for motion. The average amateur-found comet moves about 3.3 arc-minutes/hour when in the morning sky and 1.8 arc-minutes /hour in the evening sky. However, the speed of a newly-discovered comet can range from 0.5 to 16 arc-minutes/hour. If you drew an accurate drawing, you should recognize motion within an hour.

For photographic discoveries, it is possible that the fuzzy object is a film defect. The best thing to do is to rephotograph the region, which should also

show motion. It is equally good to visually observe the object.

If you cannot prove the object to be something other than a comet, then perhaps you have found a new comet. Next month I'll discuss the reporting of a comet.



SPACE PROGRAM UPDATE
BY: BOB FINGERHUT

REPLACEMENT SHUTTLE FUNDED

$2.4 billion was transferred from the Defense Department to pay for a new space shuttle orbiter. NASA will therefore have a record fiscal 1987 budget appropriation of $10.4 billion.

WEST COAST LAUNCH SITE SUPPORTED

A Dec 5 General Accounting Office report to congress has said that Space Launch Complex 6 at Vandenberg AFB, CA. will be needed to launch 9 government payloads in 1992-94.

SHUTTLE BOOSTER FAILURE DUPLICATED

A ground test has exactly duplicated the booster failure that destroyed the orbiter Challenger. The causes were cold temperature of the O-rings and prelaunch pressure tests. The cold temperature slowed O-ring sealing response and the prelaunch pressure test caused blow holes in the putty which provided a path for hot gasses to reach the O-rings. A recent study of launch films has indicated that a strut used to attach the booster to the external tank may have failed prematurely. NASA is going to reinvestigate this possibility.

THREE SUCCESSFUL BOOSTER LAUNCHES

On 17 Sept. an Atlas E booster put an NOAA-6 weather satellite in orbit from Vandenberg AFB. On 4 Dec. an Atlas Centaur put a Fleet Satellite Communications Spacecraft in geosynchronous orbit from Cape Canaveral. On 13 Nov. A Scout booster put a polar beacon experiment and auroral research spacecraft into polar orbit from Vandenberg AFB. The spacecraft had been on display for eight years in the Smithsonian's National Air and Space Museum.

ARIANE CREATES SPACE POLLUTION

An old Ariane booster third stage, launched nine months ago, exploded in space Nov. 13. The explosion threw debris into orbits as low as 270 mi. and as high as 840 mi. There are about 200 pieces that are one-half inch in diameter or larger. Even smaller particles could cripple or destroy a spacecraft in a collision were to occur.

COMMERCIAL SATELLITES BOOKED ON EXPENDABLE BOOSTERS

Three more U. S. satellites have been booked on China's Long March booster. They will be launched in 1987 and 1988. Three commercial satellites have also been booked for launch on Deltas. These launches will be in 1990.

ESA APPROVES HERMES SPACE PLANE PREPARATORY PHASE

The European Space Agency (ESA) has approved plans to define the spaceplane's use and mission roles. Ten countries have made commitments to participate in the program and several more are considering joining. A decision on full scale development will be made in 1987. The Hermes is expected to begin flying in the second half of the 1990's.

SOVIET SHUTTLE COMPLETES LAUNCH PAD TESTS

The soviet space shuttle completed fit checks while mounted piggyback to its heavy expendable launch vehicle on the launch pat at Tyuratam and then was removed. The first launch of the heavy expendable booster is expected in 1987. The first manned launch of the orbiter is expected in early 1988.

SJAA MEETING AND STAR PARTY LOCATIONS

GENERAL MEETINGS

Once a month the SJAA holds a General Meeting at the Los Gatos Red Cross building in Los Gatos California. The large meeting room has kitchen facilities and large slide projection screen. This is also the location for the SJAA's "Indoor Star Parties", informal sessions where members gather to share their astronomical interests. Whatever your interest, astrophotography, deep sky observation, telescope making, or just arm chair observing, you'll find a friendly atmosphere at all of our meetings.

The Red Cross building is located at 18011 Los Gatos-Saratoga Rd. From Hwy 17 take the Hwy 9 (Saratoga) exit and continue west up the Los Gatos-Saratoga road for about 1.5 miles. Turn right at Rose Ave. Then turn right immediately into the parking lot of the Red Cross building. Doors open at 7:45 PM, with General meetings beginning at 8 PM. General Meetings are held on the 4th saturday of each month.

INDOOR STAR PARTIES

Each month there are several saturday evenings set aside for informal gatherings of amateur astronomers to share their common interest in astronomy, to "talk shop", or to simply enjoy the company of friends. Members are encouraged to bring in telescopes and accessories to share with the group. Typically there will be several telescopes operating in the parking lot or there will be a slide show of recent astrophotography and star party events in progress in the meeting hall. The SJAA also holds it board meetings during this time as well as an introductory astronomy workshop that is conducted once a month. Indoor Star Parties are held at the Los Gatos Red Cross Building.

HENRY COE STATE PARK

Take Hwy 101 south towards Morgan Hill and take the East Dunne exit. Continue east towards the hills (around and past Anderson Reservior) for about 12 miles to the park. Past the park entrance you will see old ranch type buildings on the right and a horse trough. The gate (on the left) is locked but the club combination is 4565. Always lock the gate after yourself. If arriving after dark, please park outside the gate and hike in first to find an observing site before dark, please. Just a short distance up a hill beyond the gate is where the SJAA sets up equipment.

FREMONT PEAK STATE PARK

Take Hwy 101 south towards Salinas. Then take Hwy 156 east (San Juan Bautista exit) for two miles to a yellow flashing light. Turn right and go about 1/4 mile to where the road reaches a "Y". Stay left for about 25 yards and then go right. (Watch closely for the Fremont Peak sign) Follow the canyon road for about 11 miles up into the park. The SJAA sets up in Coulter Camp. It's visible on your right as you drive up onto the main area of the park. There is usually a lot of astronomical activity here every clear new moon weekend. This is also the location of the FPOA's public observatory. Fremont Peak stands 3000 ft above sea level. Arrive early if you are setting up equipment. 30 to 40 telescopes are not uncommon at Fremont Peak.

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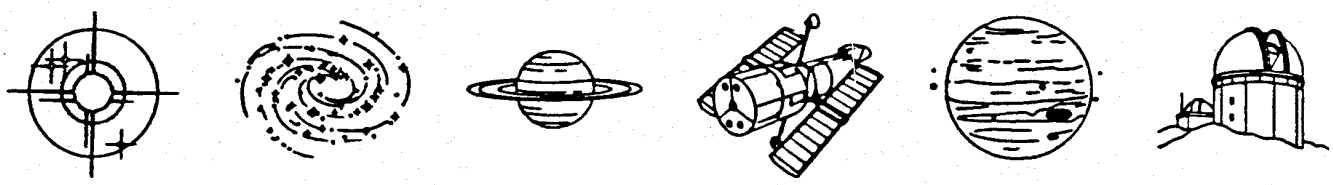

SAN JOSE ASTRONOMICAL ASSOCIATION MEMBERSHIP APPLICATION

MEMBERSHIP ONLY: $ 10 MEMBERSHIP/S&T: $ 24.00 JUNIOR (UNDER 18): $ 17.00

Name _____

Address _____

_____

Telephone (____) _____

Please bring this form to any SJAA meeting, or send to:

Jack Peterson, Treas.
San Jose Astronomical Association
1840 Yosemite Dr.
Milpitas, CA. 95035

[Phone: (408) 262-1457]

Please check type of membership and if new or renewal.

Membership Only____ Membership/S&T____

Junior (Under 18)____

New____ Renewal____

Questionnaire (optional)

What are your astronomical interests (e.g. astrophotography, deep-sky observation, telescope making, etc.)? _____

_____

_____

_____

Do you own a telescope? _____ If so, what kind?

_____

Is there any specific area of astronomy that you feel qualified to help others with? _____

_____

_____

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