

SJAA EPHEMERIS

VOLUME 3 NUMBER 11 OFFICIAL PUBLICATION OF THE SAN JOSE ASTRONOMICAL ASSOCIATION NOVEMBER, 1992



The Eye Piece
by Bob Madden

This month's issue has an article by a young man from Poland, Lech Jaszowski. Lech is 20 years old and is attending a University in Cracow. Lech is married and states his wife speaks english "just a little better" than he does. He writes very well in english. His wife is student of the "Economic academy". Lech has a 2.6 inch Newtonian of 15.7 inch focal length with magnifications of 30 and 80.

Lech wrote to our Association last summer. I received his letter from Jim Van Nuland at our board meeting. So far we have written two letters apiece to each other and I can easily state his are very interesting and full of information. I have received several publications, printed in Polish, which I can't read. I am convinced I will need a Polish dictionary, or learn to read Polish.

My intentions are to help him as best as I am able with Periodicals and hardware. Do we have any, other than **S&T** or **Astronomy**, we could send to him? I am sending this years **S&T** and **Astronomy**. How about any eyepieces or mirrors? We must be careful of the size of package and value because shipping and Customs may be costly. It will be difficult (and unfair) for Lech to pay Customs. Anyone who could help should contact me.

Nov 6: Star Party at Houge Park
Sunset 5:04 pm, 90% moon sets 4:20 am.

Nov 7: No activity. Fix equipment

Nov 14: General Meeting, 8:00 pm. Board of Directors meeting 6:30 pm. Kevin Medlock is the featured speaker.

Nov 21: Star Party at Henry Coe State Park. Sunset 4:52 pm, 6% moon rises 5:09 am.

Nov 28: Star party at Fremont Peak or Grant Ranch. Your choice.

Dec 4: Star Party at Houge Park. Moon is 62% - will set 0:46 am.

Dec 5: Too much moon

Dec 12: General Meeting, 8:00 pm. Board of Directors meeting 6:30 pm. This month speaker is to be announced.

Dec 19: No Beginning Astronomy Class at the Milpitas Library. Star Party at Fremont Peak.

Dec 26: Play with your new astronomy toys. No activity.

Jan 2: No activity.

Jan 9: General Meeting, 8:00 pm. Board of Directors meeting 6:30 pm.

Also you may notice there is a calendar of our major events for the whole year on page 6. Please save this issue for this information as there will not be another complete calendar printed, only the current and the next month as we do now.

It is suggested to check each issue's calendar for any changes that may take place. Particularly watch the Auction, Picnic and slide and equipment night for changes.

We had Rick Morales, the Ranger at Fremont Peak talk to us in October. A very nice talk, Rick! Thank you for your time.

Three nights at Fremont Peak by Paul Barton

Friday, Sept 25

The smog level in the valley was dense and extended a little higher than Fremont Peak, but it didn't seem to bother the seeing. The evening was excellent, warm, dry, and stable. There were a lot of light buckets out. Tom Palmer had a professional looking, hand crafted, 20" Dobson he had built using marine plywood.

Attendees:

Paul Barton/Lady	JMI-18
Jim Bartolini	Odyssey 10
Tom Palmer	20" Dobson
Cory Palmer (12 to 14 yrs)	10" Dobson
Ron Comer	17.5" Dobson
Kandice Ngruyen (Assist)	4" Cassigrain
Scott Miller	1000 mm Photo
Doug & Susan Penner	C8 Celestron
	Televue Oracle

Saturday, Sept 25

There were about 20 telescopes and many more people, including children, than telescopes. The weather was hot during the day, but pleasant all night - shorts and shirt sleeves, if you were moving around. It was great conditions with the smog height somewhat lower than Friday. There was a green flash at sundown and dark and dry all night.

The Orion nebula was beautiful in the early morning. Conditions were excellent so several scopes tried desperately to see the Horse Head. We saw some interesting shadows, could not for sure discern the Horse Head. The Mosquitoes at night and flies in the daytime had a feast.

[Continued on Page Three]

Amateur Astronomy in Poland by Lech Jaszowski

The Polish Amateur Astronomers Society (PTMA)

In Poland there is one main astronomical society which organize into union all amateurs. It is the Polish Amateur Astronomers Society. The headquarters of the PTMA has its seat in Cracow. The society came into being in 1927 in Warsaw. Till 1928 its activity was limited to Warsaw, then regional departments started to originate. In the year 1939 the Society consisted of 300 members. After the Second World War the Society reactivated in Cracow, in 1947. On that time 6 regional departments were existing, and there were 350 members. Nowadays the PTMA consists of 3,000 members in 25 regional departments. Departments are very different equipped in telescopes. Almost all of them have their libraries and the central library (2000 books and 500 volumes of magazines) is at the Headquarters. From 1969 the society has been a member of International Union of Amateur Astronomers.

The Society organizes lectures and popularized scientific seminars, public shows (with telescopes), workshops. It also issues the monthly magazine *Urania*, guides for observers and other books, maps, etc. There are 6 specialistic sections:

- 1) Section of the Sun Observers in Frombork
- 2) Section of Meteorites Observers in Frombork
- 3) Section of Observations of Variable Stars in Cracow
- 4) Section of Observations of positions and Occultations in Lodz
- 5) Section of Comets Observers in Torun
- 6) Instrumental Section in Warsaw.

The section of Observations of Positions and Occultations is the best acting section. It consists of about 70 members. The section has existed from 1979. The section takes in its activity:

- 1) Observations of positions of planetoids and comets
- 2a) Observations of occultations of stars by the moon, planetoids and plan-

ets

2b) Observations of mutual occultations of the solar system's bodies (including transits of Mercury and Venus in front of the Sun's disk, the Sun and Moon eclipses.

The section concentrate people interested in doing mentioned observations and caring on computation connected with these phenomenons. The section give help to observers in the realm:

- distribution of ephemerids of phenomenons
- methodics of observations
- Construction of optical instruments and timekeeping
- publishing results of observations in domestic and foreign periodicals.

The seat of the section is Lodz, Lodz Planetarium and Astronomical Observatory. The Section of Observations of Positions and Occultations issues its own materials containing member's works and actual information a few times a year. Once a year there are seminars which last 2 to 3 days, with participation of majority of members, dedicated to interchange of experiences and to fix a programme for the next period. In 1991, 51 observers made 691 observations (505 disappearances and 186 reappearances of stars by the Moon).

Astronomical Clubs

In Poland, there are no such clubs like in United States. I know two clubs, only. One of them rallies young people, 10 to 19, with seat in Tranow. It has been active from 1987 and is named Helvius. Theoretical classes and manual trainings take place once a week. There are also classes for schools. The second is correspondence club on Silesia.

Magazines

The PTMA issues 32-pages monthly magazine, *Urania*. The first number appeared 70 years ago, in March 1922. Till now 608 numbers have been issued. *Urania* waits on astronomy amateur's honest information about the most important and actual problems of Universe cognition and comprehensive help with realization their fondness. [I think Lech is trying to say *Urania* is dedicated to the amateur astronomer's needs with accurate information in their

areas of interest] *Urania* wants to bring the sky near, uncover its mysteries, show its beauty, arouse people's interests in its uncommonness, teach sensible looking at everything what surround our small planet and what happens around it, inspire active participation in amateur scientific movement. How are these tasks realized?

A few survey articles compose the basic part of each number [publication]. They are dedicated to the most astronomical problems. Their authors are usually professional astronomers and experienced popularizers of astronomy. Recently, articles written by young astronomy amateurs competitions, students, etc. appear more and more often. The articles' level is diversified: from completely rudimentary to more difficult, requiring some knowledge from readers. Sometimes series of articles are dedicated to one subject. In the *Chronicle* column there are, first of all, news about most important and actual events in the world of astronomy. *Vade-mecum* for observers is an important column of *Urania*. There are different training materials which teach, help, fabricate and also encourage astronomy amateurs to build telescopes, make observations, work out their results, write astronomical computer programmes, etc. There also appear in *Urania* different intelligences from history of astronomy and amateur astronomy movement, description of Polish amateur astronomers' activity, reports from some interesting astronomy conferences and scientific symposium, more interesting excerpts of letters to editor, which can be interesting to broad readers' circle and also various scientific organizations, from famous astronomers' lives, etc. Only from a short time ago there have appeared color pictures. Astronomical Calendar finishes each each copy of *Urania*. Prof. Sitarski, a specialist in domain of celestial mechanics, outstanding investigation of comets' movements has been the calendar author since 1960. Unfortunately the PTMA's financial situation is so bad, that publication of *Urania* is in danger.

[More next month about clubs and publications]

Double, Triple and Multiple Stars by Patrick M. Donnelly

Recently I was exiled to Eastern Iowa to do field work for the remainder of the year. As such, it was necessary to leave the telescope, books, and atlases at home in California. However, I did have room in my suitcase for my 7X50 binoculars and a copy of "Field Book of Stars" by Olcott and Mayall. With only these two tools I went out into the country to see what I could find. My results were that there are several nice doubles to observe with only binoculars.

I started with Nu-Draconis. Nu is a pair of fifth magnitude stars separated by 62 arc-seconds. I found Nu to be a bit of a challenge, but it was well worth the effort to look. It was quite easy to find Nu, since Nu is a member of the dragon's head and is just north of the constellation Lyra. After Nu-Draconis I wandered down to Lyra. Lyra has two wonderful binocular doubles. The double-double (Epsilon-1 and Epsilon-2) has a separation of 208 arc-seconds and is no problem for binoculars. Delta Lyra is the other double. It consists of a blue and yellow pair separated by 750 arc-seconds. With the binoculars I could also see the other stars near Delta that form the small open cluster that the two bright stars are also members.

After Lyra I went next door to Cygnus. Cygnus is fun to sweep with binoculars, even if you are not trying to locate objects. Alberio was almost resolved with the binoculars constrained against a tree. Also, Mu-Cygni was resolved. It consists of a magnitude 4.7 and 6.2 pair separated by 200 arc-seconds. Finally, I went to Omicron-1 and Omicron-2 Cygni. Omicron-1 is a nice triple consisting of a magnitude 3.8 primary and a magnitude 4.9 secondary 360 arc-seconds away. There is also a magnitude 7.7 star 107 arc-seconds from the primary. Cygnus was an interesting constellation to explore with binoculars.

Following Cygnus I went down to Capricorn. This constellation is interesting, since there are three binocular doubles in the same field of view. The first pair is Alpha-1 and -2. The Alpha pair consists of magnitudes 3.8 and 4.5, and they are separated by about 400

arc-seconds. Below Alpha is Beta Capricornus. Beta is a pair of stars of magnitudes 3.2 and 6.2, and they are separated by 205 arc-seconds. To the upper right of Alpha is Zeta-1 and -2 Capricornus. Zeta is a pair of magnitude 5.8 stars separated by about 300 arc-seconds.

Finally, I went to Andromeda and Triangulum. First, I checked to make sure M-31 and M-33 were still there. Then I went over to 56-Andromedae. This pair is located to the right of Gamma-Andromedae. The pair consists of two magnitude 6.0 stars separated by 189 arc-seconds. 56-Andromedae is near NGC-752, which (I think) I saw. Following this, I swept the area around Alpha-Persei for a wonderful view of the area, and I concluded the viewing that evening by observing the Double Cluster in Perseus.

Paul Barton's Star Party Report

[Continued from Page 1]

This may have been the best outing or at least one of the best of 1992. Rick Morales was out with a 20" Dobson having fun.

Others in attendance were:

Richard Navarrete	Garry Pappani
Jim Eislet	Ed Erbeck
John Hales	Jim Bartolini
Paul Barton/Lady	John Bettencourt
Rich Newschaefer	Mike James
Joe Rich	Jo Shua (9 yrs)
Tony Ortega	Terry Kahl
Clint Pier	Ron Scheldrup
Mike Thompson	Judy Galbraith
Stan/Eva Moore	John Helgeson
Doug/Susan Penner	
Sharon/Don Cooper	
Martin Hutchinson	

Sunday, Sept. 27

[Whew!] This was a repeat of Saturday night as far as seeing conditions, but much quieter as only Paul Barton and Lady and Jim Bartolini stayed to enjoy it.

Houge Park Star Party

Friday, October 2, was a fine evening, about a quarter moon, a bit hazy, with threatening clouds early on and leaving about 8 o'clock (20:00 hours for you marine types). It was dry, pleasant and

nearly shirt sleeve weather if you were moving around briskly. The problems with the parking lights and impromptu sprinkler seems to have been solved. However if you were there you might have noticed Paul Barton did not set up on the grass. When his instrument said, "dead internal battery" and had to connect to a car battery, he then abandoned his telescope to visit around and Jerry McKee very ably operated the JMI-18 most of the evening.

There were six to eight telescopes and perhaps 50 guests, including Ronnie Gruhn, 5th grade teacher. She will bring about 20 5th grade students to Houge Park next outing, Nov. 6th. I hope they dress warm.

We viewed the Moon, Ring nebula, Dumbell nebula, Saturn, Hercules cluster (and M92), Andromeda Galaxy (and it's M32 companion), the Perseus double cluster and others. Mark Wagner showed us the Blinking nebula in Cygnus with his 8" Dobson — no setting circles, just Mark and the sky. Mark is a writer and has agreed to contribute to the Ephemeris. [we're always glad to get articles for the Ephemeris]

Note: The key to the parking lights, normally picked up by Paul Barton also unlocks the boy's rest room.

A good outing and home in bed by 11:30, including children.

Those who signed in were:

Lyn and Jim Bartolini	SPC 80
Al Ostroff	
Gabe Camarilo	C8
Jerry McKee	
Ronnie Gruhn	
Terry Kahl	4" Newt.
	20X80 Bin.
Mark Wagner	8" Dobson
Leon Jones	10" Coulter
Lisa Doyle	
Gary Mitchell	C6
Enrique Gomez	20X80 Bin.
Dean Linebarger	
Michael T. Grenot	
Tom Harrold	
Edward Ortiz	
Paul and Lady	JMI-18

[continued again on page 6]

September Slide and Equipment Night



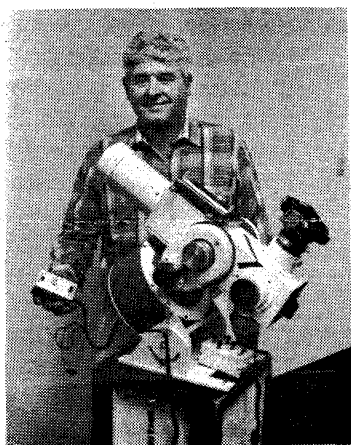
Bob Elsberry with his home made 5.5" Lensless Wright for visual



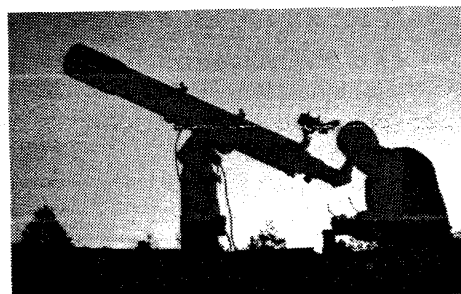
Jeff Home with his homemade 8" Lensless Wright Camera



Jack Zeiders proudly displaying our new Hydrogen Alpha filter and solar telescope



Ernie Piini Showing his superb self-designed solar eclipse telescope



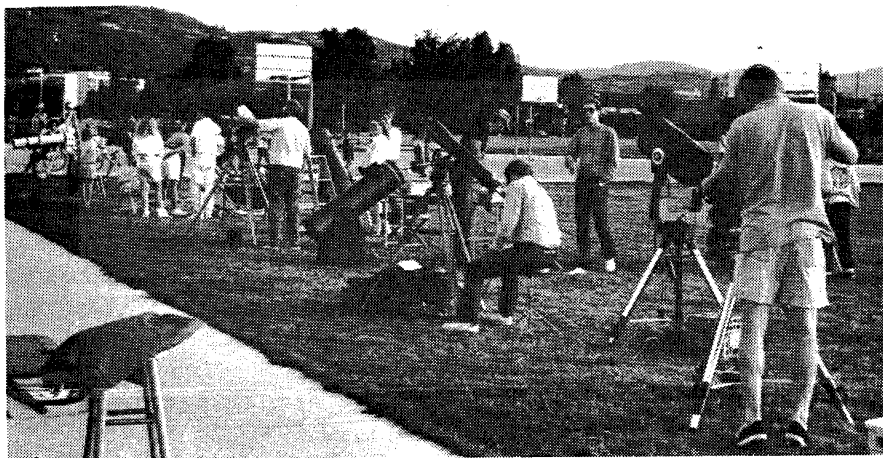
All photographs taken by Bob Keller. This is at Houge Park

Houge Park Star Party

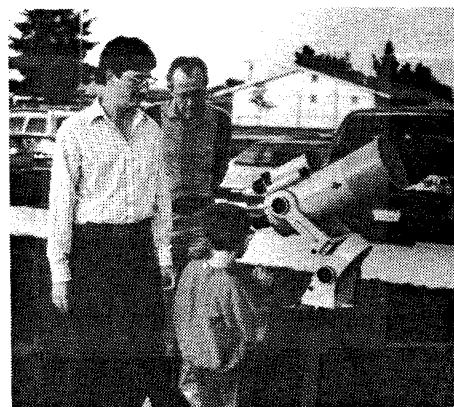


Paul Barton at his JMI-18

Houge Park Star Parties



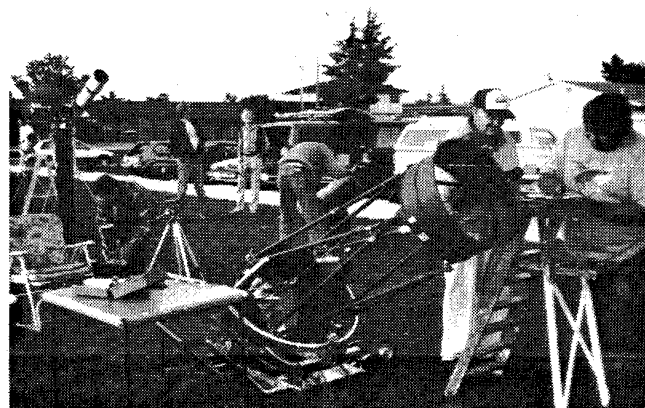
Telescope row facing south



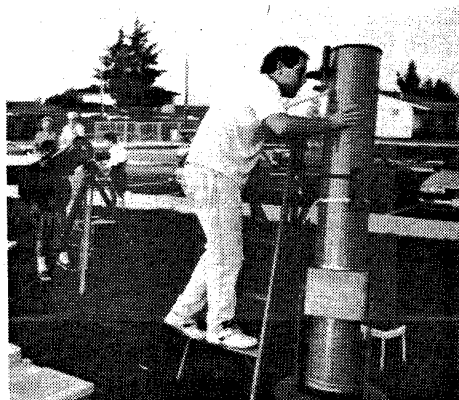
Dave Enos with his new Russian Maksutov



Here is Bill Dellenges showing off his stuff



Paul Barton signing in Gabe Camarillo



Is this an association loaner? Looks like he's hot onto something



Jim Van Nuland discussing astronomy with future astronauts

1993 SJAA Calendar

General Meeting	Houge Park Star Party	Beginning Astronomy Class
Jan. 9	29	30 First one
Feb 6	26	27
March 6	26	27
April 3	30	24
May 1 Auction	28	29
June 5	25	26
July 10	23	31
Aug 7 Picnic	20	28
Sept 4 Slide/Equip night	24	25
Oct 2	22	30 Last one
Nov 20	19	none
Dec 18	17	none

Please read your *Ephemeris* each month for changes

EQUIPMENT LOAN STATUS

by Paul Barton

This is an invitation to members to bid for loan of a particular telescope when the current loan period is finished. I plan to renew loans, if requested and there is no bidder. Here is the current status of the equipment:

#1	4-1/2" f8	Reflector	available
		12-1/2 mm 0.96 EP.	
		no finder	
#2	6" f8	Dobson	Terry Kahl
		no EP.	10/10/92
#3	Quantum 4 Macksutov		Dean Linebarber
		12 mm EP.	9/9/92
#4	Cometron 60		Albert Chen
		12.5/22 mm EP.	9/13/92
#6	C8 SCT		Mark Wagner
			10/2/92
#7	12.5" f6.25	Dobson	Dan Finley
		no EP.	8/2/92
#14	6"	Newtonian	Bud Martin
		8/24/92	
#15	8"	Dobson	Richard Raw
			10/3/92

Paul Barton's Star Party Report [Continued from Page 3]

St. Clare's School Star Party

There were lots of Bar-B-Q hamburgers, giant hot dogs, spaghetti, salads, cakes, and soft drinks. The audience was about 50 parents, students and teachers. We viewed ol' Sol's spots and flares. In the evening (dark) the moon was very bright, but we viewed Saturn, Andromeda, Hircules, Alberio, etc. Only the brightest objects could be seen due to the moon. Locating objects with set-

ting circles or computer was easiest under these conditions.

Jack Peterson talked (Jack never lectures) astronomy to an enthusiastic group of would be astronomers. Eliza Riley likes astronomy and has been to star parties, but not likely to be a real astronomer (she says). Eliza is a pretty, 4', blonde who walks with stixs and gets around very well. She is perhaps 10 years or so. This was well behaved group. we seem to get better behaved groups at school star parties.

Those in attendance from SJAA were:
Paul Barton/Lady JMI-18

Del Johnson	Meade 80 mm ref.
Jack Peterson	C-11 w/Solar filter
	60 mm solar ref.
Jim Van Nuland	8" w/solar filter

[These special star parties are a lot of fun and many times the food is delicious. If you are interested in supporting this effort call Jack Peterson or Jim Van Nuland and get your name on their list. These star parties some times are short notice, but a larger list of willing names will relieve the pressure from your board of directors who provides most of the support. Ed]

ASTRO ADS

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Newtonian Telescope, F5-12.5 Parks mirror. 10X70 Celestron finder, 2" Meade rack and pinion focuser. 10" Byers drive gear on 2" shafts. Electronic drive with hand controller. This is an original Telescope World mounting. Priced to sell at \$1600. Contact Kim McKelvey. Days (408) 974-4099 or evenings 510 487-7268. 11/92

CELESTIAL CALENDAR

November 1992

LunarPhases	Date	Rise	Tran	Set
FQ 01:11hr	02-11	1249	1814	2333
FM 01:20hr	10-11	1701	0011	0722
LQ 03:39hr	18-11	2354	0616	1237
NM 01:11hr	24-11	0737	1224	1707

Nearer Planets

Mercury	07-11	0856	1322	1623
0.70 AU	17-11	0746	1232	1714
Mag +4.9	27-11	0555	1112	1625

Venus	07-11	0948	1421	1850
1.13 AU	17-11	0959	1430	1857
Mag -4.1	27-11	1004	1439	1908

Mars	07-11	2106	0423	1138
0.82 AU	17-11	2036	0352	1106
Mag +0.6	27-11	2001	0316	1031

Jupiter	07-11	0313	0913	1509
6.05 AU	17-11	0243	0840	1435
Mag -1.8	27-11	0213	0808	1400

Saturn	07-11	1237	1740	2238
10.1 AU	17-11	1159	1703	2201
Mag +0.7	27-11	1121	1626	2125

SOL Star Type	G2V	Mag -	26.72
1458-1630	07-11	0642	1152 1658
1539-1906	17-11	0653	1153 1649
1619-2112	27-11	0701	1154 1643

Astronomical Twilight

JD 2,448,934.5	07-11	0507 -	1832
,944.5	17-11	0517 -	1824
,954.5	27-11	0523 -	1820

Siderial Time

Transit Right	07-11	0000	PST=0259
Ascension at	17-11	0000	PST=0339
Local Midnight	27-11	0000	PST=0418

Darkest	Saturday Night	Nov 21
Sunset		1646
Twilight End		1822
Moon Rise		0438

**TIMES AND DATES ARE
PACIFIC STANDARD**

Can Anyone Help

We have a senior member who doesn't drive any more and wishes to attend our meetings at Milpitas Library. Please call J.D. Wells, who lives near Saratoga Ave. and Williams. His telephone is 253-5309

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Comet Comments

by Don Machholtz

A very significant comet recovery took place recently with the sighting of Periodic Comet Swift-Tuttle.

Periodic Comet Brewington (1992p): We know that this comet is periodic, taking 8.65 years for each orbit. It had apparently outburst before discovery, it has now dimmed again to magnitude 16.

Comet Helin-Lawrence (1992q): Eleanor Helin and Kenneth Lawrence discovered this comet on films taken with the 0.46m Schmidt at Mt. Palomar on August 29. The orbit indicates it will be closest the sun next March at 2.1 AU. It may brighten by then to magnitude 13.

Periodic Comet Tuttle (1992r): G. Tancredi and M. Lindgren recovered this comet on CCD images taken from La Palama. With an orbital period of 13 years, it is still 20 months from perihelion, when it may be visible in amateurs telescopes.

Periodic Comet Cifreio (1992s): J Scotti recovered this comet from Kitt Peak on September 24. With an orbital period of 7 years it will stay fainter than magnitude 13.

Periodic Comet Swift-Tuttle (1992t): Japanese amateur T. Kiuchi recovered this comet with 25X150 binoculars on September 26. It brightened rapidly from magnitude 11.5 at recovery to 9.5 one day later.

This same comet seen in 1737 by Kegler, and by many others in 1862. It reaches perihelion on December 12 as it moves southward in our evening sky. It may get brighter than indicated below, but a large coma size and a diffuse appearance may make the comet a difficult object in binoculars. Northern Hemisphere observers will lose sight of it by Christmas.

Periodic Swift-Tuttle is responsible for the Persid meteor shower each year. The intensity next year is expected to peak on August 12.0 UT, when it is daylight in the U.S., but early morning in Europe.

EPHEMERIS

PERIODIC COMET SWIFT-TUTTLE (1992t)

DATE (UT)	RA (2000)	DEC	ELONG	SKY	MAG
10-15	14h10.5m	+57°17'	67°	E	8.1
10-20	14h56.2m	+54°44'	67°	E	7.8
10-25	15h40.7m	+50°56'	67°	E	7.5
10-30	16h21.6m	+45°52'	65°	E	7.2
11-04	16h57.8m	+39°44'	64°	E	7.0
11-09	17h29.1m	+32°55'	62°	E	6.8
11-14	17h55.8m	+25°49'	58°	E	6.7
11-19	18h18.5m	+18°50'	54°	E	6.6
11-24	18h38.0m	+12°16'	51°	E	6.6
11-29	18h54.9m	+06°16'	47°	E	6.6
12-04	19h09.7m	+00°51'	43°	E	6.6
12-09	19h22.8m	-03°59'	38°	E	6.7

Don Machholz (916) 346-8963

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