SJAA ephemeris aug '81

Aug 1 SJAA Star Party at Fremont Peak. Take Hwy 101 south, then Hwy 156 east (San Juan Bautista). Continue on Hwy 156 for two miles and then turn right at the yellow flashing light. The road 'S's within the first mile. Take the middle fork and continue up the mountain for 11 miles to Coulter Group Camp. Everyone welcome to attend!

Aug 8 Indoor star party at the Los Gatos Red Cross building, 18011 Los Gatos-Saratoga Rd. Take Hwy 9 off Hwy 17 south and continue for about two miles. The Red Cross is on the right with parking in the back. There is an on-going telescope making workshop there open to anyone. 7:30 pm on.

Aug 14 Board meeting at Gerry Rattley's, 185 Homestead Rd. #2, Sunnyvale. 732-0202. 8:00 pm. Any interested member or associate is invited to attend.

Aug 15 SJAA General Meeting at De Anza Community College, Cupertino, room S-34, across the courtyard from the planetarium. Our speaker this evening will be Bob Schalck of Humphrey Instruments with a talk "The Huntsville Rocket Center." With his many slides Bob will trace the history of the U.S.'s space program hardware as exhibited at the Huntsville installation. 8:00 pm.

Aug 22 Indoor star party at the Los Gatos Red Cross. 7:30 pm on.

Aug 29 SJAA Star Party at Fremont Peak State Park. New Moon

Sept 5 Indoor star party at the Los Gatos Red Cross. 7:30 pm on.

Sept 12 SJAA General Meeting, topic to be announced.

Sept 12-13 Annual AANC Conference, to be held at the Rancho Tropicana, Santa Rosa. Information and registration forms are inclosed in this bulletin.

Sept 18 Board meeting at Norm Neinchel's, 190 Rose Ct., Campbell. We're going to eat the hamburgers that weren't eaten at the picnic in July. (No, they won't be moldy and green by then.) Call for directions and info at 378-4488. 8:00 pm

Sept 19 SJAA Star Party at Mt. Umunhum. Directions in September's bulletin.

Sept 26 SJAA Star Party at Fremont Peak State Park,

Sept 27 New Moon

"I don't know, Denni. Do we know <u>for</u> <u>sure</u> that the Salinas junk yard is a bad observing site?"
Jay Freeman, after a complaint about bad Fremont Peak directions

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Kevin Medlock, president Jim van Nuland, sec. 371-1307

the san jose astronomical association

Observations

If you're thinking that this is the first time in probably six months that the Ephemeris has made it to your mailbox early -- you're right. Many thanks to the contributors who managed to make the early deadline. You'll find the bulletin short this month but full of information. Many, many thanks to Dave Ambrose for coming through with months worth of address labels. Last month over 175 bulletins were mailed out -- that's a lot to hand address.

Chris Pratt reports: "June 27 heralded the first SJAA Mt. Umunhum star party of the year. It was well attended by about 50 people and nearly as many telescopes. Scopes of all sizes graced the helipad and surrounding areas. I was very pleased to see many new faces at that night as well as familiar ones that I hadn't seen in some time.

"The night was also the public debut of the club 12.5" recently completed by Jay Freeman. I was very impressed by its excellent optics and found the dobsonian-type mounting easy to use.

"Unfortunately the seeing was not up to the par of the telescopes and observers in attendance. The seeing was fairly stable, but San Jose stubbornly refused to set. Understandably, it was never dark enough to seek anything faint. Even M-31 was washed out. The southern sky was somewhat better in that we were able to see the 'Blinking Planetary' in Bill Ramsted's C-8 and the 'Saturn Nebula' through John Gleason's C-14.

"Midnight saw a gradual trend to thoughts of sleep and when I left at 2:30 the crowd had thinned out considerably.

"All in all we had a very successful star party in spite of the bright skies. As a side note to members interested in borrowing the club 12, call me at home. My phone # is (408) 629-2994."

About forty people attended the annual SJAA picnic, held this year at Linda Vista Park in Cupertino on July 11th. It was great to see many of the new members such as Ron and Judy Probst, Al Horton, and Roland Mangan. Family members were very much in evidence this year. It was finally decided that with all the new faces showing up at the club activities it would be wise to get some SJAA name tags. (more about this decision later.)

Free food was the highlight of the event as always. Many thanks to Wolf Hanisch for arranging the hamburgers and hot dogs, and to Kevin Medlock for playing chef. Potluck dishes provided by attendies offered a diffferse gastronomical fare.

After lunch the traditional frisbie game formed on the playing field below the picnic grounds. Again this year the frisbies won by sheer luck and determination (and full stomachs and hot sun.)

The SJAA picnic is also traditionally the time for installing the officers and presenting the Dr. A.B. Gregory Award. By mid-afternoon none of the officers were present (isn't it nice to know that the club functions can get along quite well without the officers there?), so that tradition was dropped unanimously. Bob Fingerhut presided at the awards ceremony in which a beautiful plaque was presented to this editor. (It really is beautiful!)

Many thanks to all those who attended. Let's do it again next year!

At the July board meeting the idea of name tags for members was thoroughly discussed. A number of years ago Jack Zeiders initiated getting brass tags for those interested and they were well accepted. Since the club has grown (doubled, at least) in the last seven years the board decided that a new drive for name tags was appropriate at this time. Jack Zeiders has been given the go-ahead to research into materials and cost and report at the next board meeting. If you have any comments or suggestions let any of the board members know or show up at the August board meeting.

General business notes:

1) If you know of a local speaker you would like to hear or one you've heard and would like to hear again notify the board and perhaps we can get them for one of the club general meetings.

2) The SJAA Ephemeris is calling for photographs of any astronomical subject or club activity to be printed in future bulletins. They should be black and white and of fairly good quality. If interested, contact this editor.

3) The Ephemeris is always open to any astronomical want ads, 4-sales, and general information wanted ads. Letters to the editor will also be printed if they aren't too obscene in content, and can be fitted in in a timely manner.

4) There usually is a donations/suggestions box at the general meetings for comments, and/or contributions towards our refreshment committee (Rita Miram). The board would like some input from the general club!

From Don Machholz these two pieces of information:

"Stardate", a two-minute talk about astronomical events, can be heard on radio station KCBS (740 on the AM dial) at theses times on weekdays: 1:06 AM, 9:52 AM, 7:52 PM, and 10:52 PM.

Also, the Perseid meteor shower will reach maximum on the morning of August 12. (Wednesday.) Unfortunately, the moon will be in the sky until early morning. The moonset times I have for Loma Prieta are as follows:

Mon Aug 10: 0152
Tues Aug 11: 0234
Wed Aug 12: 0322
Thur Aug 13: 0416

Twilight interferes about 4:45 AM.

WANT AD

For sale: 14 ¼" Newtonian & 4½" RFT on a research grade Meade 12½" mount. 14¼" is a new Telescope World mirror. Tube has rotating rings. Meade finder and invertor. Cost $2800, asking $2400, or best offer. Call Bob Hollenbeck at 742-4637(work) or 725-0292(home)

SJAA Officers & Board Members, 1981

President	Kevin Medlock
V-Pres.	Chris Pratt 474 Safari Dr. San Jose. 95123 629-2994
Treasurer	Shea Pratt same as above
Secretary	Jim van Nuland 3509 Calico Ave. San Jose, 95124 371-1307

Board members:

Rolf Strohm 675 Vinemaple Ave. Sunnyvale, 94086
Steven Greenberg P.O. Bos 262, Menlo Park, 94025 326-8614
Frank Dibbell 710 Georgia Ave., Sunnyvale, 94086 733-7208
Gerry Rattley 185 Homestead Rd. #2, Sunnyvale 94087 732-0202
Denni Medlock 15022 Broadway Terrace, Oakland, 94611 654-6796

Have a good Fremont Peak star party Aug. 1st! I'm off to Stellafane. Thanks for the articles. September's are due August 23rd. Clear skies!

Denni

the CELESTIAL TOURIST SPEAKS

I managed to be visiting a friend in San Luis Obispo at the time of the SJAA Club Star Party on June 27. Not only was it nice to be visiting, but also it was desirable to be a long distance away in case of any violent objections to the color scheme I had chosen for the Club 12-1/2 inch Dobson. Gerry Rattley had picked up the completed telescope on June 26 and -- I gather -- took it to Mount Umunhum.

The weekend was not an astronomical loss, however, for my hostess in San Luis Obispo is interested in astronomy, and I took my 8-inch f/5 Dobson down with me. After I arrived, I remembered that there was a local astronomy club in the area, and wondered if they might not be having a star party too. After a few frantic 'phone calls -- one all the way to Denni Medlock in Oakland -- I found that there was indeed a star party and got directions to it.

The star party was at the home of Harold Benson, in Atascadero. Only about ten people were there, and the sky was noticably bright due to city lights, but Mr. Benson had some remarkable and unusual telescopes. Foremost among these was a six-inch Kutter tri-schiefspiegler: This very instrument was described in the September, 1979 issue of Sky and Telescope. It has since been permanently mounted in a dome. The virtue of the tri-schiefspiegler is an unobstructed light path -- there are no secondary mirrors or spider vanes to diffract extra light outside of the Airy disc. Since the telescope uses only mirrors, there is also secondary color, as in large refractors. The optics (made by Cal-Astro) seemed to be quite good, and were well collimated. Although the seeing was not good enough to show the diffraction rings as anything other than a shimmery blur of light surrounding the central disc, there was markedly less light in the blur, in comparison to the disc, than in several other instruments with secondary obstructions that were set up at the star party. I was a bit surprised to find that the optical advantages of the unobstructed light path showed up in less than perfect seeing, but there was no doubt that they did.

Benson also had a 110-millimeter binocular, made with Jaegers objectives, that was as slickly mounted as any professionally-built binocular that I have ever seen. Each eyepiece focussed individually. Porro prisms erected the images, and each prism assembly rotated about the axis of the barrel to which it was attached, to provide for adjustable interpupillary distance, The altazimuth head of the mounting could be cranked up and down as in a fancy photo tripod, to provide for adjustable eyepiece height. This lovely binocular was enough to inspire lustful and larcenous thoughts in the heart of even the most moral proper deep-sky observer.

Benson's third interesting instrument was a cute small equatorial table which -- unlike the Poncet mounting -- would work smoothly even at low latitudes. Come and see me if you want to know how it worked: My drafting abilities are insufficient to prepare an illustration describing it.

I got in several good nights at Fremont Peak near the end of June, as well. Charlie Stifflemire, of the 16-1/2 inch Dobson and elephant-training fame, was there one night, and I will give him credit for thoroughly one-upsing me: He spent fully five minutes talking about observing the Hercules Cluster with his big Dobson, before I realized he was talking about the Hercules Cluster of galaxies, not M13. Some of Charlie's friends are developing an observing site up in the Sierra foothills. Charlies claims his 16-1/2 will work half a magnitude fainter there than at Fremont Peak.

I also spent a fair amount of time in June looking at the Moon. I have never paid much attention to Luna before, but after the early-June new Moon I spent a few minutes on nearly every evening for two weeks looking a craters and stuff with my four or eight-inch. Half the fun of this was watching how the changing illumination made the appearance of the terrain from night to night. It might be a rewarding project for nayone who regularly has time to spare during these long summer evenings. It doesn't take either a particularly large telescope or particularly superb seeing to do all the well-known tourist attractions on the near side of Luna. Sky and Telescope publishes a good inexpensive Moon map, which I believe is bound into recent editions of Norton's Star Atlas.

I also have been looking at a lot of double stars lately. We all know that on a night of superb seeing a demanding double star can provide a critical test of telescope performance. But it does not follow that all double stars are demanding objects that can be examined only on nights of perfect seeing. There are lots of wide pairs that can easily be resolved with a small telescope on nights when seeing is thoroughly rotten. Futhermore, many double stars are bright enough to permit observation during trilight. Most people know about epsilon Lyrae, Mizar and Albireo. Some other interesting double and multiple stars -- all listed in Norton's -- are epsilon Bootis, zeta Corona Borealis, kappa and alpha Herculis, Xi Scorpii (a triple which has the wide double Struve 1999 in the same field), 61 Cygni, gamma Delphini, Vega, and Polaris.

Does anyone know about the Pipe Nebula? This naked-eye deep-sky object is a dark nebula in southern Ophiuchus. The bowl of the pipe is a blob a couple of degrees south and a little east of theta Ophiuchi. The stem of the pipe trails off six or seven degrees due west from the bottom of the bowl.

A faint nebula surrounds nu Scorpii and trails off a degree or so to the south and east. The rail-off part seems to be brightest -- I have seen it in my 11X80 binocular. The nebula is IC 4592.

In western Sagittarius, at about 17^h46^m, -20°10', is a place where a small globular cluster and a medium-sized planetary nebula can be seen in the same low power eyepiece field. The globular is NGC 6440. It is 10th magnitude and one arc-minute across. The planetary, NGC 6445, is about half an arc-minute across. Burnham's Celestial Handbook lists it as 13th magnitude, but it seemed brighter when I looked at it through the C-14. A smaller instrument should show both of these. Neither appears on Norton's; both are on the Skalnate Pleso.

Many amateurs probably think of M8 and M20 as low-power objects, but I have noticed that both the Lagoon and the Trifid Nebula stand power pretty well. The brighter parts of these nebula were bright enough to show easily in the C-14 at 196X, and with that much magnification there is quite a lot of subtle and contrasty detail to be seen. Try some power on these some night.

Many deep-sky observers will be familiar with NGC 7331 in north-central Pegasus (plotted as 53^1 in Norton's). This galaxy has three companion galaxies, visual magnitude around 15, spaced in a north-south line about five arc-minutes east of the galaxy. The photograph on page 1386 of Burnham shows them well. I have seen two so far in the C-14.

-- Jay Freeman

Denni Medlock :"I've always wanted to be an observer."
Jay Freeman: "Well, do you suppose you could find the Orion Nebula for a start?"
Steve Greenberg:"The what?"

from conversations in an A&W Root Beer, July 11, 1981

comet comments

No new comets have been discovered in the past month, nor have any been recovered recently. Through the first six months of this year six comets have been picked up, all by the professional astronomers. Three were recoveries of returning comets, and three were "accidental" discoveries, comets picked up on photographic plates intended for other purposes. There have been no discoveries by amateurs yet this year, but the most "fruitful" part of the year is just ahead.

Meanwhile, we still have Comet Bowell in the evening sky, not far from Jupiter. This will be your last chance to see it for a few months, as it will soon move behind the sun, as seen from the Earth.

Comet Bowell (1980b)

Date	R.A.	Dec.	Mag.
07-25	$12^h34.5^m$	$-02^\circ01'$	11.7
08-04	12 42.9	-02 59	11.7
08-14	12 52.3	-04 01	11.6
08-24	13 02.6	-05 07	11.6
09-03	13 13.5	-06 17	11.7

Passing just south of the star δ Virgo, this comet will be over 400 million miles from us at the beginning of August. Take time to observe this one.

GREAT COMETS

Donati's Comet was discovered on the evening of June 2, 1858, in the constellation Leo by Giambattista Donati of Florence, Italy. This comet is remarkable for its beautiful appearance. On October 5, 1858, it passed in front of the star Arcturus; the main tail was over 50 million miles long at that time. It also displayed two straight thin tails along with the longer curved tail. Additionally, bits of matter would sometimes leave the comet nucleus and travel the length of the tail. This comet -- 1858VI -- will be back in about 2,000 years.

Don Machholz
(408)448-7077

SPACE PROGRAM UPDATE

by Bob Fingerhut

Space Sickness Remedy

A new antimotion-sickness remedy is being studied by the National Aeronautics and Space Administration for use in the space shuttle program as a substitute for oral medicines that tend to cause drowsiness.

The medication consists of a patch, approximately 3/4-inch in diameter, that contains the drug and can be worn behind the ear. The drug enters the bloodstream directly through the skin at a preprogramed rate for up to 72 hours.

Col. John H. Engle and Capt. Richard H. Truly, prime crew for the second shuttle launch, scheduled for September 30th, have been screened with the drug though NASA has no definite plans to use it on that launch.

The drug is marketed under the name Transderm-V Scopalamine.

Second Space Shuttle Orbiter Progressing

Tile installers have applied about four times as many thermal protecting system tiles to the second space shuttle-Orbiter 099- as the number installed on the Columbia at a comparable stage in that vehicle's construction. Orbiter 099 is scheduled for delivery to NASA in about one year.

Halley's Comet Flyby

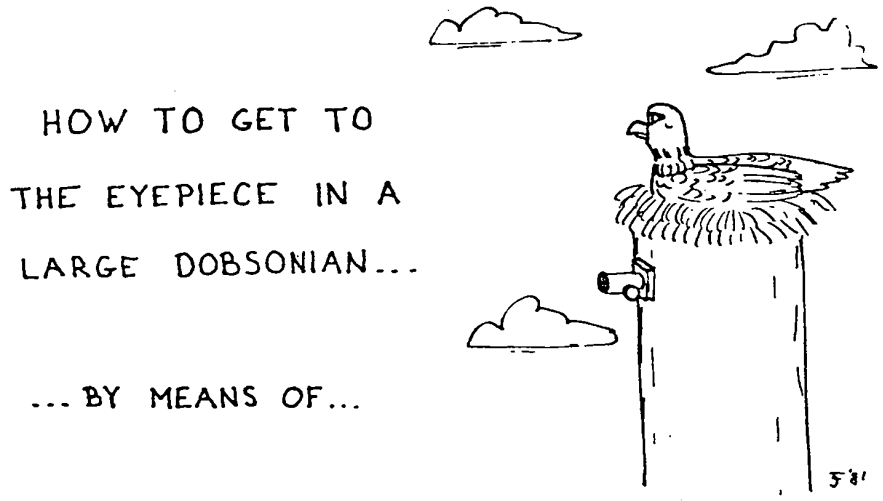
The Soviet Union's 1984 mission to Venus and Halley's Comet is expected to provide 500-1000 feet resolution of Halley's nucleus compared with the 300 feet resolution expected from the European Giotto mission and the 100 feet resolution possible if the U.S. were to fly the Halley Intercept Mission. Flyby distance for the Soviet spacecraft will be 6000 miles from the nucleus.

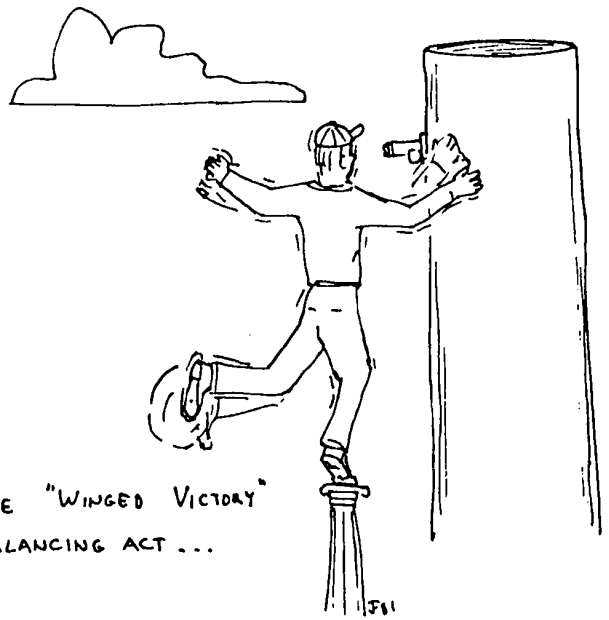
Kuiper Airborne Observatory to Study Solar Eclipse

The Kuiper will be deployed to Japan for a week so that it can make observations during the July 31 solar eclipse. Path of totality crosses the Soviet Union and the Kuiper will intercept it when it reaches the North Pacific. The aircraft will study solar limb brightening in the far infrared and submillimeter spectral region at wavelengths of 30,50,100, and 200 microns.

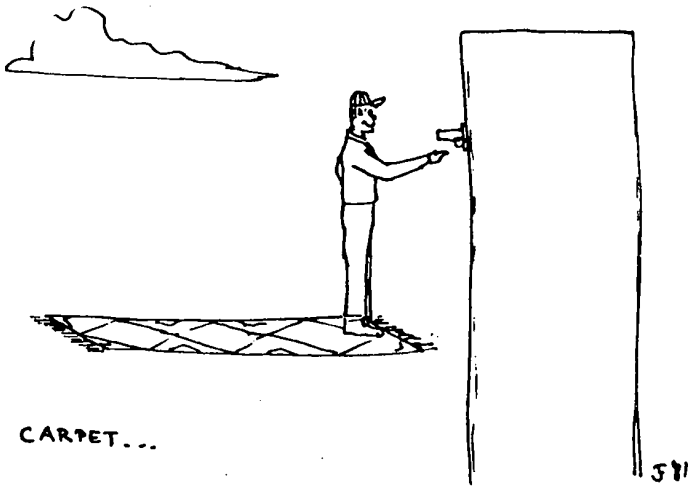
HEAO 3 Mission Ends

The NASA/TRW third high-energy astronomy observatory has expended the last of its attitude control propellant, and Goddard Space Flight Center ground controllers have shut down the spacecraft. HEAO 3's mission was to perform al all-sky survey to detect new gamma ray sources. Launched September 20, 1979, the spacecraft exceeded its design life by more than three times. Atmosphere reentry and breakup is expected later this year.

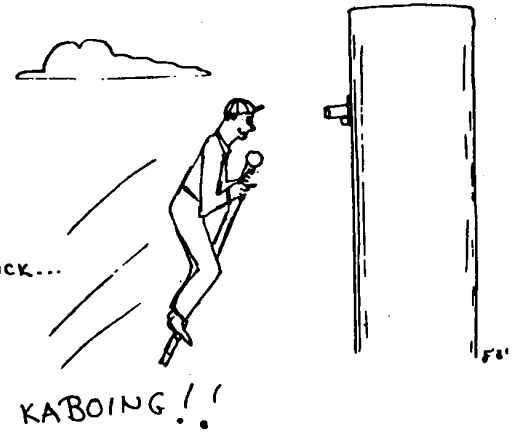




... THE "WINGED VICTORY" BALANCING ACT ...

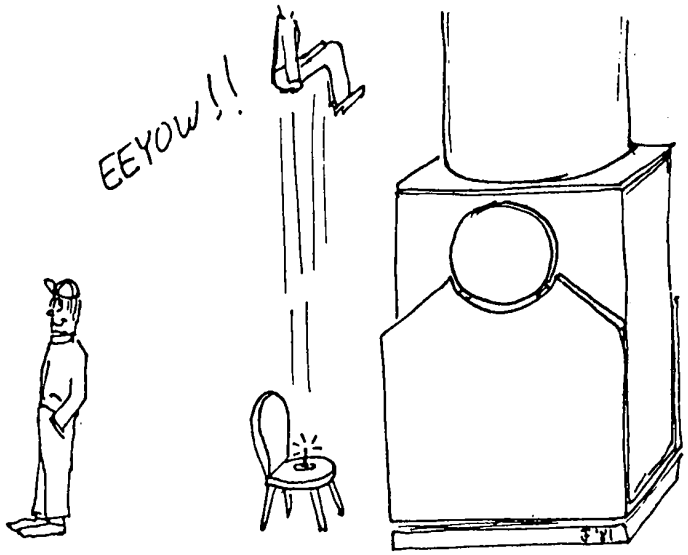


... A MAGIC CARPET...



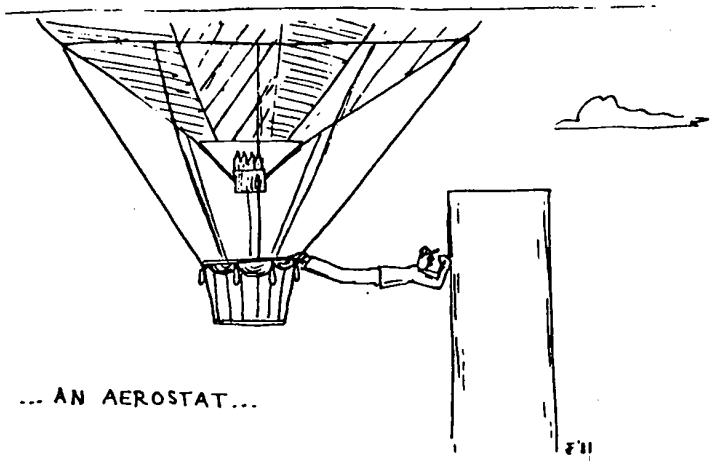
... A POGO STICK...

KABOING!!



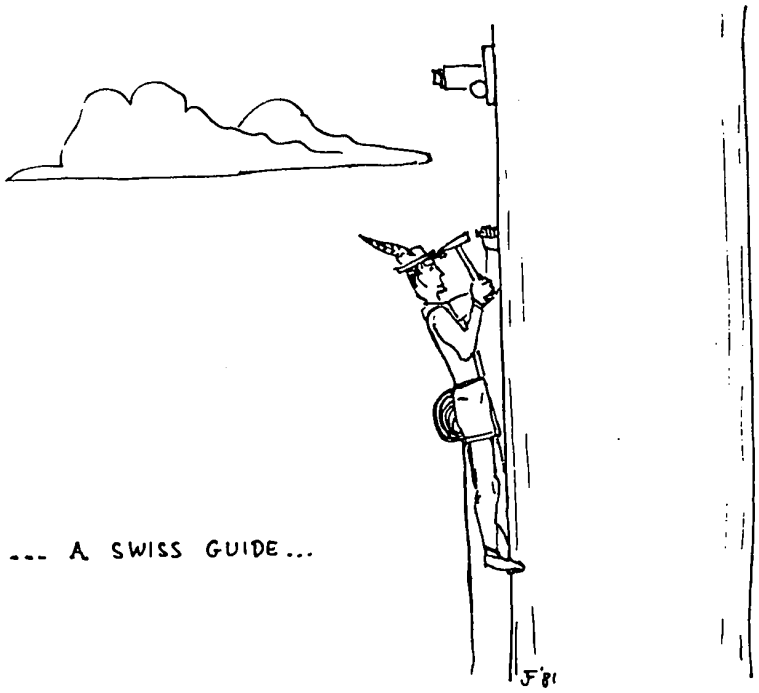
EEYOW!!

... A THUMBTACK...

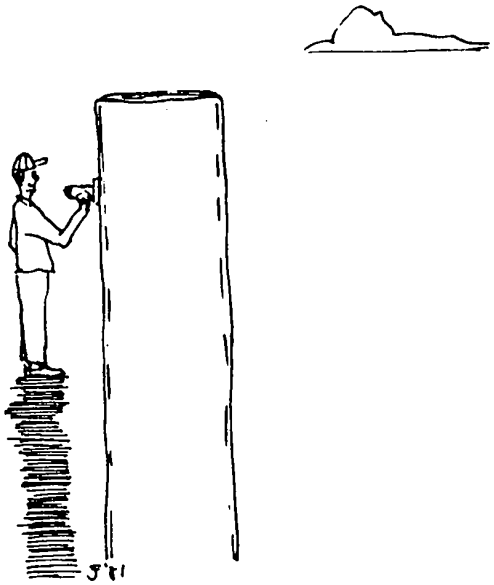


... AN AEROSTAT...

--- A SWISS GUIDE...



... A 30-YEAR
COLLECTION OF
SKY AND TELESCOPE...



...A TRAINED ELEPHANT...