

Saguaro Astronomy Club

Metro Phoenix, Arizona

SACNEWS



December, 1990 — Issue #167

Stalking the Wild Portable

by J. K. Foster

I was once told that the ideal telescope was the largest one you could afford, and still move without developing a hernia. In March of '89 I placed an order for that instrument which seemed then to me to best fill the above recipe, a generic dobsonian called the Odyssey 1. The following article is the adventure I had coming to terms with the differences of telescopes that are truly portable, and those that are merely ... movable!

The realities of my life centered around living alone in an efficiency apartment, and driving a compact Escort station wagon. When I decided to get into astronomy, I naturally started looking in Astronomy magazine for ideas. Judging size from the Coulter ad, where the darkened silhouette of an average man stood beside that of an average Odyssey 1, the telescope would just fit neatly into my life. It ought to slip into my car, and stand out of the way in my upstairs apartment. I mentally assigned one corner of the place to me, another to my mountain bike, the third to my domestics, and the last to that beautiful reflector. Such was the life plan of this renaissance man — who just wanted to have fun.

One year later I received notification that the instrument was nearing completion, and that it would be shipped to me within one month of me making the final balance of the payment. When this huge box of fright arrived one month later at my uncle's house, I paid the transportation fee and it was mine! What was mine was a rather large box weighing some 160 pounds. Great care had been taken to properly package the thing. The primary mirror was in place, so that the 'scope was very nearly ready to be used. I unpacked it, and took a quick look at an early moon to confirm that everything was okay. It was. The crater Plinius looked so grand.

My uncle helped me lift the tube and place it on to the tailgate. Try as I may, I just could not get the telescope entirely into the car. I crammed it into the rear as best I could for the short ride to my place around the corner, leaving the rear open. This would never do for

Christmas Party December 29 at 7:30PM

The SAC Christmas party will be held at Steve Coe's house Saturday evening December 29. There will be a cake and some chips and dips. If you wish any other refreshment, please bring it with you. A dollar will be collected at the door to help pay for the door prizes.

Steve's address is 4919 W. Saguaro Drive. The major intersection is 51st Ave and Peoria. Turn north on 50th Ave off of Peoria and go two blocks north to Saguaro, it's in the middle of the block, the only house with a rail fence. Call if you have a problem, Steve can be reached at 939-3738.

drives to future star parties. Think of the dust, or rain, and the mirror bouncing around on its edge in the tube. I was getting upset. Then I viewed the stairway up to my apartment. Wow! Hernia city! I hugged the 16-inch tube, a thing that was as long as I was, and started slowly up the stairs. Step by step, I struggled up; and this awful vision crossed my mind, of the big red thing slipping away from me and rolling end-over-end down the stairs. Dreadful! It was just too large and heavy for me. Before I could really get into astronomy, I had a few problems to solve.

I sat it up in its corner and wondered what I was going to do. The first notion that came to mind was to transport the thing on the roof of the car like a canoe. Of course a container would have to be made to slip the Odyssey into for protection. But this still did not solve the weight problem nor the mirror bouncing on edge. The mirror cell would have to be removed for every trip. This was something I wanted to avoid. I covered the 'scope with a plastic bag and left it sitting in the corner.

A month passed as I thought about various schemes of actions. My uncle suggested cutting the tube in half, and making a collar out of a tube slightly larger in diameter. Both halves would slip and lock into the collar. But I never could find the proper diameter tube for the collar. Reluctantly, I gave this plan up. The problem still remained; how could I cut the tube in half, and mechani-

cally put it back together again in the field?

Another month passed before I finally decided how to do it. A number of latching bridges would be cut from a metal channel, and these would be screwed across the tube cut. This plan was within my mechanical ability, was economical, and very strong. I took the necessary measurements, bought the aluminum channel and .25" hardware, and marked the tube. The mirror cell was removed (just a matter a three wood screws), and all was ready ... except me. I could not bring myself to cut that beautiful telescope. It sat in my apartment another month looking back at me.

It happened on a Saturday morning, about 3 AM, something woke me up. Perhaps I had been dreaming about using the telescope — I don't know. But there I was wide awake; and there sat the dobsonian waiting for me. I placed the tube between two chairs, and slowly began to saw the tub with a hacksaw blade set into a simple handle. In about two hours it was done. Then I went back to bed to have nightmares about spending an eternity trying to put the thing back together again. Actually, I knew my plan would work. Five latching bridges would be spaced around the perimeter of the tube, in the layout of the points of a five-pointed star. Three would be positioned

on the top hemisphere with the remaining two below.

When I originally thought of cutting the tube, I wondered how I might make an exact cut by hand. Then the thought struck me, that exact cut was not the problem. The trick was in putting both halves back together exactly as they were. An exact cut would only make things more confusing. But if the cut was **not** exact, then there would only be one obvious orientation of the two halves in going back together.

The project was to produce two portable telescope sections that could be attached in the field without too much trouble. The halves could sit upright in the back-seat of the car. Each would be fitted with handles. The latching bridges are marked with filed indentions, so their positions can be identified in the dark. It takes about twenty minutes to setup the telescope.

The only design problem I encountered was one of re-balance. Since the tube cut and all of the hardware necessary to rejoin the two halves are located above the center of gravity (point of pivot), some arrangement to provide counterweight is necessary. This was done by mounting two lengths of 0.25" all thread on steel brackets on the rear end of the telescope tube, upon which weights can be mounted and moved forward and backward.

Comet Comments

by Don Machholz

No new comets have been discovered recently, but the two found in September by Jean Mueller are periodic. Comet 1990j is now known as Periodic Comet Mueller 2, and 1990L is Periodic Comet Mueller 3. Presently visible in our sky are three comets: Periodic Comet Wild 2, Comet Tsuchiya-Kiuchi, and Comet Levy.

Please note this change: my new address is P.O. Box 1716, Colfax, Ca. 95713. My new phone number is (916) 346-8963.

Periodic	Comet	Wild	2	(1989t)
Date	RA-1950-Dec	RA-2000-Dec	Elong	Sky Mag
11-25	02h45.9m -03°38'	12h48.5m -03°54'	50°	M 11.1
11-30	12h59.9m -04°57'	13h02.5m -05°13'	51°	M 11.0
12-05	13h13.9m -06°15'	13h16.5m -06°18'	53°	M 11.0
12-10	13h28.0m -07°30'	13h30.6m -07°46'	54°	M 10.9
12-15	13h42.1m -08°43'	13h44.7m -08°58'	55°	M 10.9
12-20	13h56.1m -09°53'	13h58.7m -10°08'	57°	M 10.8
12-25	14h10.1m -11°00'	14h12.8m -11°14'	58°	M 10.8
12-30	14h24.0m -12°02'	14h26.7m -12°16'	60°	M 10.8
01-04	14h37.8m -13°01'	14h40.6m -13°14'	61°	M 10.8
01-09	14h51.6m -13°55'	14h54.3m -14°08'	63°	M 10.8

Comet	Tsuchiya-Kiuchi	(1990i)		
Date	RA-1950-Dec	RA-2000-Dec	Elong	Sky Mag
11-25	09h02.9m -30°47'	09h04.1m -30°59'	91°	M 7.6
11-30	08h25.4m -35°56'	08h27.3m -36°05'	99°	M 7.6
12-05	07h39.6m -40°22'	07h41.3m -40°29'	105°	M 7.7
12-10	06h46.5m -43°19'	06h48.0m -43°22'	110°	M 7.9
12-15	05h51.7m -44°17'	05h53.2m -44°16'	112°	M 8.1
12-20	05h02.1m -43°25'	05h03.7m -43°21'	112°	E 8.4
12-25	04h21.6m -41°22'	04h23.2m -41°15'	111°	E 8.7
12-30	03h50.4m -38°46'	03h52.2m -38°37'	107°	E 9.1
01-04	03h27.0m -36°02'	03h29.0m -35°51'	103°	E 9.4
01-09	03h09.8m -33°24'	03h11.8m -33°13'	99°	E 9.7

Comet	Levy	(1990c)		
Date	RA-1950-Dec	RA-2000-Dec	Elong	Sky Mag
12-05	14h05.1m -40°36'	14h08.1m -40°50'	38°	M 6.8
12-10	13h58.4m -40°36'	14h01.4m -40°51'	43°	M 6.9
12-15	13h51.0m -40°36'	13h54.0m -40°50'	48°	M 7.0
12-20	13h42.7m -40°33'	13h45.7m -40°48'	54°	M 7.1
12-25	13h33.1m -40°28'	13h36.0m -40°44'	60°	M 7.1
12-30	13h22.0m -40°18'	13h24.9m -40°34'	66°	M 7.2
01-04	13h09.1m -40°00'	13h12.0m -40°16'	73°	M 7.2
01-09	12h54.1m -39°31'	12h57.0m -39°47'	80°	M 7.3

Bits and Pieces

Minutes of the November Meeting

President Pete Burggraaf brought the meeting to order at 7:30pm. Pete announced that the recent star party was a success. Next on the agenda was upcoming events

Observer's Handbook Subscribers

When the price for the handbook was published, it was assumed to be the same as last year's price (\$8). The actual price for the Handbook is \$9.50. Please be prepared to pay \$1.50 extra when you pick it up in December (we hope).

(see attached calendar). The date for the Christmas party was changed to Dec. 29. The party will held at Steve Coe's once again. A \$1 cover charge will be collected. The election of 1991 officers was next on the agenda. The President is Paul Lind, the Vice-President is Virginia Campbell, the treasurer is Bob Dahl, the Secretary is Phil Dahl, and the Properties Director is Rick Rotramel. The slate was voted in by unanimous acclamation. Paul Dickson will be continuing in his appointment as chairman of the newsletter standing committee. Cathe Becker then gave the Treasurer's report.

After the break the main speaker was Steve Coe. His talk was titled "Serendipity in Astronomy," a collection of discoveries made in astronomy while the discoverer was searching for something else. —*Phil Dahl, SAC Secretary*

1990 SAC Meetings

December 29 Party

— 1991 —

January 4

February 1

March 1

1990 SAC Star Parties

December 15

— 1991 —

January 12

February 9

March 9

Directions to SAC Events

SAC General Meetings 7:30 PM at Grand Canyon University, Fleming Building, Room 103 — 1 mile west of Interstate 17 on Camelback Rd., north on 33rd Ave., second building on the right.

SAC Star Parties at Buckeye Hills Recreation Area — Interstate 10 west to Exit 112 (30 miles west of Interstate 17), then south for 10.5 miles, right at entrance to recreation area, one-half mile, on the right. No water and only pit toilets. Please arrive before sunset; allow one hour from central Phoenix.

STARBYTES: A Review of NIGHTSKY by Dan Ward

A few years ago, I meet Tom Holtman, the author of NIGHTSKY, via the electronic medium of the AstroForum, on CompuServe. He had just uploaded a demo

version of his NIGHTSKY program. Tom works out of Albuquerque and calls his company Southwest Astronomy. A few months ago I got a commercial copy of NIGHTSKY and I am impressed!

His program is a collection of astronomy software which can create star maps, produce ephemeris for the sun and moon and planets; provide information about deep sky objects; simulate the motion of planets against the background sky; simulate the motion of Jupiter's moons and the position of the red spot; convert time-date information between Julian, Gregorian, standard, universal, sidereal, etc. The software was compiled using QuickBASIC and is set up for CGA, EGA, VGA or Hercules displays on any MS-DOS machine with DOS 2.0 or higher.

NIGHTSKY comes with the Yale Bright Star catalog of stars down through 8th magnitude, so the star maps are pretty detailed. The deep sky object database has 200 of the best deep sky objects, which makes it well suited for beginners. The manual provides excellent details on how to add additional deep sky objects, so it would be possible to add your own custom list of objects if you are a hard core deep sky observer.

The program is easy to use, the menus make sense, and you can readily get the hang of using it. It is easy to run it for an upcoming evening, print out lists of objects that will be visible that night, print out finder charts for those objects, or for the constellations which will be visible, etc. It has the best constellation displays that I have seen and allows you to readily run them with or without lines, names, grid marks, etc.

The Jovian simulation is also a great asset. Not only can you use it to predict the various moon events, but you can get predictions for the position of Jupiter's Red Spot. Plus the program allows you to use published meridian passages of the spot to fine tune the program for the best accuracy available.

I really could only find one fault with the software. Being a compiled BASIC program, it is not as fast as I would have liked. Although I have seen programs that do one or two things faster, I have not seen any other MS-DOS programs that do as many different things as NIGHTSKY does. I'm glad I have it and at \$59.95 it is a real bargain.

A new release, version 4.20, has just come out. It has expanded pop-up search routines, prints star charts and offers an expanded star database with 50,000+ stars. The regular version is still \$59.95 but the larger star database version is \$79.95. Ads for the new program ran in the Dec 90 issue of *Sky & Telescope*.

I have uploaded a demo version, called NSLIT0.ZIP, onto the IBM PC Users Group (PCUG) bulletin board. You can download the demo by calling the BBS at 602-252-7720. (Incidentally, this board is trying hard to get an astronomy section going and has over one megabyte of public domain astronomy software available for downloading. Join the Astronomy Conference, section 9 to see up-to-date messages and to reach the astronomy library.

Non-PCUG members are limited to 30 minutes per call.)

If you do not have a modem and would like a copy of the demo, let me know and we can use sneaker-net to exchange diskettes. Full ordering details are provided in the demo version or in the new *Sky & Telescope* advertisements.

Preliminary Survey

During the past year we have not yet done any kind of survey to test how everyone has felt about the direction of the club. And while the officers have responded to comments and suggestions, changes are usually made based on negative comments. So in order to get a more rounded base of opinions surveys are done.

Frequently these surveys are often slanted towards preconceived notions of the board members leaving out questions that some members might only touch upon if asked to express their opinions. So to resolve part of this problem I am starting a preliminary survey to find the questions rather than the answers. Think of it as your chance to play "Jeopardy." What questions do you have about what the club is doing as a whole do you have? Please remember to not answer your questions; you will have that opportunity later.

Send your questions to the SAC Newsletter Editor — the address is on the last page of this newsletter. You do not have to include your name with your submission, but if you do and there is some question about what you meant or wrote we will at least be able to get back to you. Please try get your entry in by the February meeting. — Paul Dickson, SAC Newsletter Editor

Such-A-Deal

SUCH-A-DEAL is a place to advertise equipment, supplies, and services related to amateur astronomy. This is a free service for SAC members and friends. SAC is not responsible for the quality of advertised items or services.

Telescope—Meade 8" S.C. with H.D. tripod, wedge, 8x50 illuminated polar finder, hand control, 6 eyepieces plus zoom eyepiece, 2x-3x barlow, erecting prism, Sky Glow filter, 7 e.p. filters, camera adapters & weights. 2 years-old used little. Mint condition. half new price. Wyman Osborn 832-9069.

Telescope—Meade 10", *f*/6 Newtonian, heavy duty equatorial mount, w/ Byers drive, 1frac1/2" stainless steel shafts, 2" focuser. \$900.00 Lynn Blackburn 266-2024.

Moving Sale—Televue Plössls: 26mm - \$70, 32mm - \$90. Lumicon Off-Axis Guider \$180. Astronomy modified camper/trailer 13ft, 1300lbs, sleeps 4 \$2,200. Tuthill Polar Axis finder \$25. Dan Ward 998-4033.