



Starscan

Johnson Space Center Astronomical Society

*JSCAS is an association of amateur astronomers
dedicated to the study and enjoyment of astronomy. Membership is
open to anyone wishing to learn about astronomy.*

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JSCAS Web Page: www.ghg.net/cbr/jscas/

Apr 2003

Earth Day at USA

Eleta Malewitz

On April 22 this year, United Space Alliance will be observing Earth Day at three of our facilities here in Houston. I have requested at least one vendor space for JSCAS to present information about light pollution. I should hear back shortly whether or not they will be able to let us have two or even three spots, in different buildings. Here's your chance to help educate people about what light pollution is and how it affects the environment, and spread the word about JSCAS and our activities as well. Last year, I found out about the event at the last minute, and persuaded the organizers to let me set out a few handouts. None of the organizers had ever heard of light pollution before. I wasn't able to put together all that many handouts, but nearly all I did have disappeared quickly. All I did was set them in a holder on the end of another vendor's table, with no posters or signs or anything to call attention to them. I'm hoping this year we can do better. With posters and maybe even videos to attract attention, and a volunteer or two to answer questions and explain the problem, maybe we can spread the word and get people to think about the affect their own lighting habits has on the sky and on their neighbors. Even if we can only get one vendor space, it would be nice to have more than one person there, either to act as a tag-team, or to allow shorter shifts for each volunteer. The entire event is four hours, but if you want to help and can't take off work for that long, maybe someone else can switch off with you. If USA employees volunteer, then we don't need visitor badges, but there will be vendors at the event from a number of outside organizations, so NASA and other contractor people are welcome, too. Please let me know if you can help out with this! Our friends in the Austin Astronomical Society are donating a couple hundred copies of handouts, and I'll try to get more. If you have a source of free or cheap printing, PLEASE let me know! What we don't use here, we can use at Astronomy Day.

Wanted - Velcro Shingles

Becky Ramotowski

Most of you know I like to take astro photos with my digital camera. What most of you do not know is that a lot of them are taken from the roof of my home. A section of the roof is fairly flat, and easy enough to just set astro stuff on and observe and take photos. The flat part is great to just lie back on and watch satellites and the sky pass overhead. The other part is not so flat. It's more roof-like, and steep enough to make you think carefully about how you are stepping. The view from the roof is pretty good. Up above most of the tree line, and some power lines (did I mention it's two stories up?) the rooftop offers nice unobstructed views in all directions for a location just a few miles north of downtown. It also offers some privacy because hardly anyone ever notices rooftop astronomers. (How many rooftop astronomers have you seen?) In all the times I have observed from the roof, maybe three people have looked up. The downside of roof observing is, well of course the roof itself. Several times I have almost slid down it, and

my poor digital camera has roof-rash from being dropped a few times and sliding. The camera has not made it all the way to the ground, YET, but I know that day is coming. So far it has only slid to a lower roof level, or it has slid right to the edge of almost no return. I have a fear of my telescope biting it one night, but so far that has not happened. Now I don't recommend roof observing, and I sure don't want anyone risking life, limb or eyepiece on my account. But I think someone could make a lot of money if they started making shingles out of Velcro.

Ex-Presidents

Here's a shot of just a few of our former club leaders that I snagged from Glen Schaffer's website....we'll assume I had permission, if not, I'll work on forgiveness. I've known these folks for years and they have honored us by providing the most valuable asset there is, their time. The next time you have the privilege of being around them, remember their contribution to our association and thank them!!!



LAST CALL FOR T-SHIRTS!!!

Eleta Malewitz

Finally, at long last, we have accumulated enough orders for another group T-shirt purchase. And, as in the past, the last-minute orders are pouring in. So here's your chance -- don't miss out. Who knows when we'll have the next one? If your old one is getting a bit worn and frayed, now's a good time to replace it.

Here's the deal: I will take orders up until the end of the April meeting, and then I'll send them in to the vendor. I wanted to be sure to give those folks who haven't been to a meeting lately and aren't on the e-mail list, but do get the newsletter, a chance to get in on this.

Name:		
Mailing Address:		
City:	State:	ZIP Code:

Phone:	Home:	Work:	Other:				
E-mail:							
T-Shirts							
	Qty.	Si ze	Unit Price	Cost	Sales Tax (8.25%)	Total Amt. Due	Total Amt. Paid
Short Sleeves		S	~\$10.81				
		M	~\$10.81				
		L	~\$10.81				
		XL	~\$10.81				
		XXL	~\$11.81				
		XXXL	~\$12.31				
Long Sleeves		S	~\$13.81				
		M	~\$13.81				
		L	~\$13.81				
		XL	~\$13.81				
		XXL	~\$13.81				
Polo/Golf Shirts							
	Qty.	Size	Unit Price	Cost	Sales Tax (8.25%)	Total Amt. Due	Total Amt. Paid
Short Sleeves		S	~\$25.86				
		M	~\$25.86				
		L	~\$25.86				
		XL	~\$25.86				
		XXL	~\$27.86				
Sweatshirts							
	Qty.	Size	Unit Price	Cost	Sales Tax (8.25%)	Total Amt. Due	Total Amt. Paid
Long Sleeves		S	~\$15.31				
		M	~\$15.31				
		L	~\$15.31				
		XL	~\$15.31				
		XXL	~\$17.31				
Grand Totals							
	Total Qty.			Cost	Sales Tax (8.25%)	Total Amt. Due	Total Amt. Paid
Return to:	Eleta Malewitz	16335 Brookford Dr.			Houston, TX 77059		
Mail Code:	USH-128E	Phone:	281-488-1959				
E-mail:	emalewitz@sprynet.com						

Note: It can take several months to accumulate enough shirts for a minimum order, so please be patient! (Some orders take a year or more to reach the minimum.) Prices may vary, depending on total quantity of shirts ordered, availability, shipping costs, and vendor cost. Those shown reflect prices from our last order. Smaller orders mean slightly higher prices per

shirt; larger orders get slightly better unit prices. Payment is due on **delivery**. Make checks payable to: Eleta Malewitz.

Note: Prices are approximate. They are determined by the total number of shirts we order, and by the shipping & handling charges the suppliers charge the vendor. We won't know those until we actually place the order, though we have a pretty good idea, based on past orders. (Shipping costs are a big question mark because of uncertain gas prices right now.) The shirts have gone up a little bit in price over the years, but surprisingly little, especially when you compare them to everything else. (T-shirts and sweatshirts went up 50 cents, polo shirts went up \$1.50, and that's over at least 5 years' time.) Because of the uncertain nature of the prices, I ask that you pay when you pick up the shirts, not before, so I don't have to come back and ask you for more later, or with refunds if we get a better price than expected. I can't guarantee we'll have them in time for TSP, or that I can distribute them in time if they do come in, but we will have them for the summer star parties. Don't forget sweatshirts for the fall Ft. McKavett star party, too!

I'll bring the shirts to the next meeting after I get them. Since Ed and I are putting up the money for them up front, I ask that you please pick them up as soon as possible, or let me know if you can't do so for a time. If you can't come to the meeting, we can work something else out. If we can afford it, I'll try to order a few extras this time, but they'll be the cheaper T-shirts, not the polo shirts or sweatshirts. Those have to be pre-ordered. Also, since we're paying for the shirts and you guys are paying us back, we can't take credit cards. Sorry, it's cash or checks only. Well, OK, money orders or travelers' checks will work, too. Sorry, no arms, legs, or first-born children. We will trade even for Naglers, though.

The long-sleeve polo shirts are no longer available, but long-sleeve T-shirts are. If you're not sure which is which, the T-shirts have a crew neck and no chest pocket. The polo shirts have a collar and chest pocket. The sweatshirts are nice, heavy, and warm, with crew neck and no pocket. These are all top-quality shirts, with the JSCAS logo printed small on the front and large on the back, like a target. They are all in Navy, with our red, white, and blue logo.

You can call me at home (281-488-1959) or at work (281-282-3557), or fill out the order form and drop it in JSC mail (USH-128E). You can also fax it to me at work, but please call first so I can be there when it comes in. Several departments share one fax machine, so it could get lost or picked up by mistake by someone else. You can also e-mail me (emalewitz@sprynet.com) and tell me what shirts you want. E-mails and hardcopy forms are nice because I am NOT the most organized person in the world, and it's nice to have something to refer back to. Please, please, PLEASE, if you are not on the e-mail list or a regular at the meetings, give me two or more ways to get in touch with you -- phone and e-mail, home and work phones, etc. I can't afford to hold the shirts forever, so if I put the word out and get no response for several months, I will sell off any unclaimed shirts to whoever wants them. I need a way to contact you to see if you still want the shirts. I know there's a long, long time between when you order and when you get the shirt, and sometimes people move away or change their minds during that delay. I don't want to sell off your shirt as unclaimed, only to have you come looking for it at the December meeting.

Skytools, the Program, a Review

Harvey Miller

Why would you want a program that instantly prepares an observation list (and much more)? Most of us take our scope to our favorite, or closest, viewing area without a plan. Maybe we bring some sort of chart, ask those there to assist in finding some Messier object, or look at one

or more of our favorites, again. It takes time to study a chart and, even if we spend the time to do so, we don't usually come up with one that's especially robust, those kinds of lists that will give you lots of things to see, in the correct order sufficiently above the horizon haze and with useful information. A good example of this is the fact that, if not for Messier marathon lists, how long do you think it would take to make one of your own? With "Skytools" you can make a Messier list in less than 5 seconds, all arranged in the correct order and customized for the date, best order to view and more. Why do that, though, when Messier charts are already available? Good question. How about a Caldwell list, or one exhibiting all the galaxies in Leo, or a compilation of the best and brightest objects in your sky, tonight, how about eliminating all those objects below 30 degrees from the horizon, but including them in the list if they'll rise above that point, and, listing the times when they will, or...I think you're getting the point.

"Skytools" does what many other programs promise to do but, in my opinion, does it better. It helps you organize your observations, taking such a short time to do so that you can literally start your planning at the sky party, AFTER your scope is all set to go. This wonderful program gives you information on the object(s) in question while enabling you to arrange, instantly, the listed sequence of objects based on many sets of criteria (best time to view, magnitude, position, type of object, particular location in the sky, etc.), allows you to print and/or save your own custom lists and/or download preconfigured lists from the Net, take notes on each target, automatically checking all those objects you've taken notes on for future reference, customize the view list by the type of scope you have (!), binoculars included, gives you a choice of viewable charts, configures to nighttime viewing with a red screen and more, lots more. The beauty of it is its totally intuitive interface, completeness, speed, and ease of use. The idea behind the program is to enrich your viewing experience while saving tons of time and it does this flawlessly.

The program comes with several ready made observing lists and you can create as many as you dream up. You can also download, for free, preconfigured lists from Skytool's list download website at www.skyhound.com. Those included with the program: Best and Brightest 200, Messier (of course), Herschel, and Planets. One of my favorite tasks is compiling lists of all the viewables in a particular constellation. This way, if it gets cloudy (if? yea...sure!), I can call up things to see in any particular part of the sky. Before you find how fast and easy this planner is you should tell the program what scope you have, including its viewfinder, your binoculars and the eyepieces you use so that the charts, if you want to use them, can depict exactly what you'll see in each of these. The nice thing about the charts is the choices available, especially the "Finder Chart". This one displays how your object will view, with respect to your viewfinder, Telrad and naked eye. This helps in locating the object. Other charts, only a mouse click away, show how what you're searching for appears in an atlas, from overhead (taking the whole sky into consideration, and more. To call up any of these charts takes less than 6 seconds! Admittedly, though, this program does not have the best sky charts available, I use Starry Night in conjunction with Skytools...to get the best of both worlds.

You also need to tell the program the date. To do this you can simply chose "tonight" or "tomorrow night" with a simple click. This saves you the "trouble" of clicking on the calendar, since it's a one-click process, nice when you're doing things with a laptop in the field. Add your location and you're done with the preliminaries. Once done you'll only have to change the date info, unless you use a different scope or significantly change your viewing location. Also, when finished, the program instantly makes up a list. Usually it's the "Best and Brightest 200". If you chose Messier instead, that list displays in a few seconds. Once the list is displayed, you'll want to filter it. Easy. Go to Skyhound for examples of the interface. There's the graphic at the top and the list below. The graphic displays a lot of useful information in a common sense fashion. The yellow ball with a line drawn up and down across the view is the sun and it clearly shows

when it sets and rises for the 24 hours that make up our day. The moon, a gray ball with its current phase plainly visible, and its path above the horizon, by time, is also represented. What's also great is the shadowed portion of the graphic. If it's moonless on the night you've chosen, the shadow is very dark during the times of total moonlessness, if not, the shadowed area is more on the lighter side, gradually lightening as the moon rises. To tell the program when your observing session will start and end, simply move your cursor to the red vertical lines on this graphic, click, and slide them to the appropriate times. Immediately the list will reconstitute itself taking into account the times of your observations, eliminating all those objects affected by moonlight, if you want the list to do so! When highlighting an object in the list, the graph displays its path above the horizon for that night. If you only want the list to include objects above 30 degrees or all objects, click that box and place your cursor over the choice. The list reconstitutes instantly. You only want it to show objects visible in complete darkness without any moonlight, chose that and, poof, reconfigured automatically and in seconds. How about only showing the pertinent objects in a particular constellation? Click there, Poof! Only certain kinds of objects, say Globular Clusters, same thing...Poof! You want it to list according to best time to view, or would you rather list according to magnitude. Maybe you prefer the list sequence in RA order? Anyway you like it, it's yours with a simple click on one screen. It's so easy it's almost hard to believe. When you're done, print the list if you're not taking your laptop to the viewing site.

I told you that it comes with a few lists and you can download others. But if I want to compile a list for each constellation (or any way you want the list to be constructed, I just chose by constellation for the sake of the illustration) and I want this list to be complete, not merely of Messier or Best and Brightest 200. This is also very easy and, depending how many objects the program must filter through (it searches through its numerous catalogs) each custom list can take from one minute to five to complete, depending on the speed of your computer. To design your own list you click on one of the two powerful search buttons, they look like magnifying glasses, at the top of the main page. Once done, you name the list, click on the abbreviation for which constellation you want, and then go through a quick series of clicks for the kinds of objects you want the program to search for. After naming each type of object (Clusters, Planets, Galaxies, etc.) these objects are listed in the found box and you can transfer them to your list by selecting all or any combination of individual items. This is useful if you don't want to include objects of, say, magnitude 17 for instance. Once you've finished with all the choices of objects, you're done. The program saves this list automatically. This new list can now be found in the box of named lists. The next time you want this list displayed, filtered this time by the filter criteria you set, you simply click on the name in the list name box and there you have it!

As if all of these features aren't enough, there's a nifty "Events and Ephemerides" button (at the top of the main screen). An event is a time when something of interest occurs for a particular object. Examples of events are a solar eclipse, the occultation of a star by the moon, or the closest approach of two planets in the sky as seen from your location. An ephemeris is a list of positions for a moving object such as a planet, asteroid, or comet. An optimum viewing ephemeris lists the best time to observe an object on a daily basis. The program calculates and displays this information and you can download updates to its database. How's that for frosting on a delicious cake?

Even though I've skimmed through Skytools salient features, this short synopsis should convince you to get it. I haven't mentioned a host of other things this program has. I didn't do this because I don't want you to think that Skytools is complicated. It really, REALLY, isn't. But, if you're not convinced, go to the Skytools booth at the next NEAF and ask for a demonstration. You can also purchase it and see more at <http://www.skyhound.com/>. I've tried several programs that claim to do what this one does and NONE OF THEM do it as quickly, easily, or

intuitively as this one. None of them have a main screen as filled with information as this program does. None of them allows easy navigation through all the features like this one does. You're wondering if there's more out there than a few NGC objects, Caldwell, and Messier? You usually decide at the last minute to take the scope out to your favorite dark site after all? You find searching through a chart too tedious, detracting from how you'd rather spend your valuable nighttime? You don't know what to see, so you check the web for the "Best of the Month"? At \$99 it's a bargain and, if you purchase on the Net, you get another Skyhound program for free, PC-Sky. GET SKYTOOLS NOW!

Redneck Astronomy

Don Baker

YOU MAY BE A REDNECK ASTRONOMER IF...

You permanently mounted your 20" Dob to the bed of your gooseneck trailer.

You've ever halted a star party caravan in order to fetch road-kill for the club picnic.

You've rigged your telescope's power switch to operate using "The Clapper."

You own an observatory that's mobile and four automobiles that aren't.

Your best-looking piece of furniture is an equatorial mount and tripod.

You installed a skylight on your outhouse.

You have to kick your scope every 10 minutes to keep it tracking.

Your friends are impressed when you show them the Tasco 60mm you tote in your gun rack.

A fun evening involves a 6-pack, a green laser pointer, and the family cat.

You think "retrograde" refers to the year you were held back in school.

You refer to a "Full Moon" as what you saw the last time your mother-in-law pulled weeds.

You won't go to the club Christmas Party unarmed.

Your tripod is streaked with tobacco stains.

A coat hanger and duct tape holds on your Telrad or finder scope.

The major materials you used in your homemade Dob project are PVC and Bondo.

Most of your telescope accessories were bought at a Home Depot clearance sale.

You've ever built a scope that required a "cherry-picker" to reach the eyepiece.

Your 12" Dob has ever been mistaken for a rest area trashcan.

The new bino-mount you just made used to be a LA-Z-BOY.

You clean your optics with a roll of Brawny and a can of Gumout.

You've rolled out a floor jack to adjust the declination angle of your tripod.

You believe you can "step-up" the mirror grinding process with a Black & Decker power tool.

Getting to your favorite observing site requires an airboat and a "Monster Truck."

You've ever wondered if a 90mm Short Tube would make a good riflescope.

You've ever bungee'd your entire scope setup to the luggage rack.

You refer to your .22 rifle as your "Dark Sky Enforcer"

You've ever simonized your corrector plate.

You've ever brought a can of bacon grease to a star party..."Just in case!"

You hear about "An asteroid grazing Uranus" and think it's an affliction of the lower human torso.

A tornado totals your "observatory" and you are able to replace your entire inventory with one trip to K-Mart.

Here's a note sent from Ron Rosenwald after our recent Fort McKavett Star Party:

Howdy to all,

It seems like a good time to relate my experience this past weekend. If you will remember my talk at the last meeting on "What to bring to the telescope", well as luck or misfortune would have it I again forgot some basic items. Most importantly I forgot coffee. I did bring my pot and associated items but not coffee. I found a collection of little packets of ketchup and things which included some instant coffee from Vietnam era C-rations, ummmmm goood!! I am sure it tasted a lot better back then, but when you are desperate well you know!!

I did not know what to expect temperature wise so I brought (2) sets of blizzard-proof overalls. Two pairs mind you; I can only wear one at a time. Of course I did not bring ANY gloves. Now Saturday night got frigid and my fingers quit working later that night. I have arthritis in my hands so there it is. The highlight of the evening though was getting my scope working and I managed to log and sketch all of the Herschel objects in Orion. This project has been going on since 1994. I suppose I'll make a career out of it.

I've heard it said not to expect good things to dropping your lap, well it did Friday night. Thanks to Bob, a nice juicy steak dropped in my plate. Talk about being in the right place. Many thanks Bob for the steak and electronics ideas. I am a solitary observer most of the time but after joining this club, it seems a lot better observing with you all. This is the nicest group of people I have had the pleasure and honor to know. It is hard for me to open up to new people so please don't think I am weird. Well, I am but that is beside the point. I am getting to know the club members slowly but surely. The most fun I've had has been in your company at Ft. McKavett. Thanks to all for your friendship and kindness.

Kindest Regard
Ron



For Sale!!!

All include shipping to HSTX; glass is Pyrex, fine annealed.

8" f/10 mirror, nearly polished out, or use it for a blank \$55

4.25" blank \$23

5" blank \$27

5" optical window \$27

1 5/8" diagonal, coated \$27

Optical set for 4.25" aperture Stevick Paul Telescope, consisting of:

4.25" f/12 primary, finished

2.75" spherical secondary and ternary mirrors, at 1/4 wave...need slight touchup on the pitch lap

3/4" diagonal

Design drawings, all for \$100.00

Have you a refractor but without the color aberration :-) can be made sealed w/above optical window.

See <http://home.attbi.com/~telescopes/index.htm>">Dave Stevick:
Tilted-Mirror Telescopes

URL: <http://home.attbi.com/~telescopes/index.htm> and

<http://p18.s502.c10.k12.wv.us/homepage/alumni/dstevick/weird.htm>"

Telescopes <http://p18.s502.c10.k12.wv.us/homepage/alumni/dstevick/weird.htm>

For pictures, details, design information.

Cheers/Don

QUESTAR 3.5" STANDARD TELESCOPE

Questar Standard 3.5" Telescope And Heavy Duty Gitzo Tele Studex Pan Head Tripod:

A beautiful 3.5" standard Questar in a leather covered velvet lined case with a Tele Vue 19mm Wide Angle eyepiece, 40-80X and 80-160X Barlow eyepieces, Pyrex mirror, Solar Filter and table top tripod. Included is a 35mm camera adapter and counter-weight for astrophotography. The case has a vinyl outer case that protects the leather case in transit. The scope is in excellent condition and was checked and "tuned up" at the Questar factory in New Hope, Pa. The 19mm Wide Angle Tele Vue lens is new. The built-in motor drive provides precision tracking and runs on 120v AC or on battery power for field operation. Included with the scope is a new 400-watt inverter and battery power pack for operation of the motor drive in the field. The Gitzo Tele Studex tripod is a very heavy duty all metal tripod that offers "rock-solid" support for the telescope. This is an exceptional telescope.

My name is Claude Baker the address is 6011 Darkwood
Dr. (411T Key Map), phone is 281-999-0599 & cell is 281-415-5999.

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