

Amateur Astronomy to
the max *from Chaos
Manor South!*

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New Series

<RMOLLISE@aol.com>

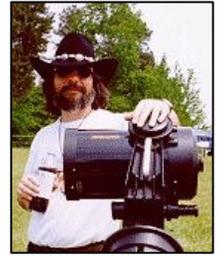
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Skywatch
1207 Selma Street
Mobile, AL 36604
U.S.A.

Rod Mollise's

Skywatch



Cartes du Ciel v2.7 Released!

We Americans are just naturally suspicious when we're offered anything for free. Whether this is something we inherited from grim Puritan ancestors, or is just a characteristic that was fostered by life on the edge, on the frontier, I don't know. But our American brand of English is peppered with warnings about getting something for nothing: "there's no such thing as a free lunch," "you get what you pay for," "something for free is worth what you paid for it," and on and on. But despite the skepticism passed down by the *Mayflower's* passengers, there is sometimes such a thing as a free lunch. For example, Patrick Chevalley's Cartes du Ciel (a.k.a. "Sky Charts" or "CdC") 2.71.

I reviewed the previous major release for this program in these pages about a year ago (v2.61), but for those who've not yet heard of CdC, the bottom line is that Cartes is a FREEWARE planetarium/deep sky program of *surprising* power. It'll do what most other astronomy programs will do—present an onscreen "planetarium" sky for the date and time of your choosing. But what's amazing is how it combines this basic planetarium functionality with the features of a real, computerized and star atlas.

Astronomy software generally comes in one of two flavors: planetarium or deep sky. The *planetariums*, represented by Starry Night and RedShift attempt to give as realistic a presentation of the sky as possible and tend to emphasize the Solar System moreso than obscure deep sky objects. *Deep sky* applications—Skymap and Megastar are two popular ones—concentrate on producing charts and displays for use with a telescope—some of these programs don't even display the horizon. They are *atlases* and minimize things like a realistic sky appearance and animation features. Very few programs have been able to successfully combine the important elements from both of these genres—but CdC definitely has. It is *just* as useful in helping you determine the circumstances of an eclipse, or the positions of Saturn's moons, or just what your Eastern sky looks like at the moment, as it is in producing a finder chart (tailored to your scope and eyepiece) to help you hunt down a PGC galaxy.

OK, so CdC is *competent* and free. But why would anyone want to use this program in preference to the big names on the astronomy software market? Because it does some things few (or none) of the others do. For example, CdC not only allows you to display Palomar Sky Survey plates for the area of the sky you're interested in, it overlays them over your charts. And...it not only allows you to use the POSS plates from the multi-CD RealSky collection, it allows you to download plates over the Internet for *free*. If you have a decent Internet connection you really don't need the still-expensive and somewhat awkward RealSky CDs.

Actually, the list of useful features peculiar to CdC goes on and on. If you need more information on the basic program, see my review of 2.61 in the November-December 2000 issue of Skywatch. But what's NEW? Is there enough different about the new version, 2.71, to get excited about? You betcha, Skippy! This is still the same program, but with a considerably changed look and a number of new capabilities. These new features include:

- Bitmapped Stars
- Realistic Sky Color
- Modifiable Constellation Lines
- Interface for Goto Scopes
- Data for Artificial Satellites

I urge you to download your own copy of 2.71 from <http://www.stargazing.net/astropc>, as this list represents only the most noticeable changes. Patrick has reworked the whole program, releasing numerous test/beta versions over the last year, and has made CdC both more stable and more user-friendly as he's gone along.

What's the most surprising thing you'll note when you boot 2.71 for the first time? You won't see any stars! Instead, you're presented with a bright blue sky. As the day wears on (you can use the animation tool to compress a "day" into a few minutes or seconds), the sky deepens in color and stars begin to appear in their multitudes. No, the effect isn't as realistic as that in Starry Night, but it's nice and not obtrusive. If you're not interested in realism, and just want to see stars and objects, a button on the tool bar allows you to turn-off the realistic sky instantly.

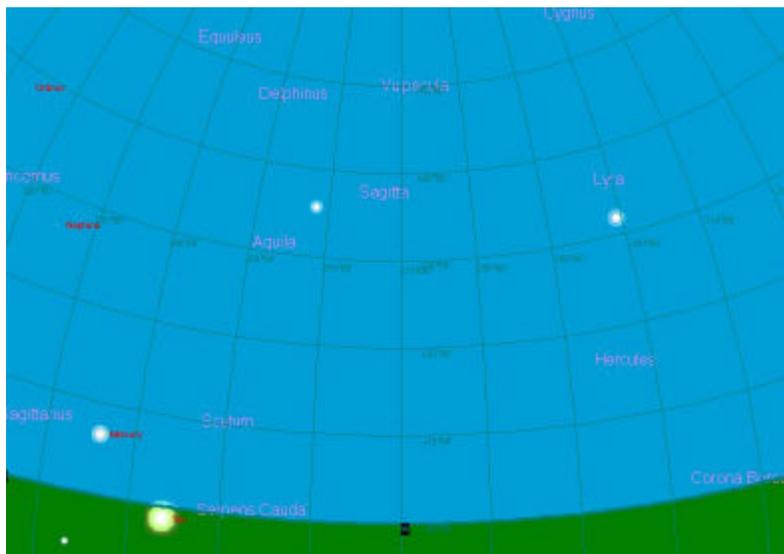
You'll also notice that stars look *different* and *prettier* in 2.71. The display in Cartes has always looked good, but, yes, intermediate magnitude stars were presented as little squares. I didn't find this overly disturbing, but, if you wish, you can now have Cartes display bitmapped, perfectly round stars. Brighter stars and Solar System objects also display with an attractive, realistic-looking glow/halo around them. Selecting bit-mapped stars also changes deep sky objects from their familiar symbols to colored/shaded areas. These can be a bit subtle to pick out, both due to their color and due to the fact that they scale realistically in size (if you don't have labels turned on, a small globular cluster may be hard to see), but you can, as with sky color, go back to the old character-style stars and objects with a single button push.

Have you ever been outraged at the choice a program's author has made

it. A few programs allow you to switch between the "realistic" figures and the more familiar ones, but Cartes is the only astronomy program that I know of with the ability to change the figures to suit via a utility program.

The whole astronomy world's going goto! Amateurs, like professionals, are becoming more and more dependent on computerized scopes that find objects by themselves. Some people may not like this, but let's face it: it's the wave of the future. And Cartes is keeping up with it. Currently, the program offers interfacing with Meade Autostar-based and LX200 telescopes and with digital setting circles based on the Tangent system (NGC Max, Astromaster, etc.). This is obviously an important area for any program these days, and I expect to see Patrick continue to add to the list of supported systems.

Cartes, in its previous incarnation, supplied a handy data window showing ephemeris-type data for Solar System objects. In 2.71, this has been expanded to include data on artificial satellites. The push of a button sends your browser to an Internet site for retrieval of satellite orbital elements (you do have to save and extract the resulting .zip files yourself). You can then set a range of dates and times and CdC will list the satellites visible for this period. Once you find a satellite of interest (including the Iridium birds), you can display its orbital path through the sky with a mouse click. This feature works well enough that I rarely use a standalone "satellite program" anymore—Cartes just works better. Also new is the ability to search for Lunar and Solar eclipses and display them onscreen.



The CdC Sky Just After Sunset...

for constellation stick-figure lines? I have. Take Skychart III. This nice program uses figures like those done by H.A. Rey—you know, constellation figures that try to make Leo look more like a lion, Gemini more like twins, etc. If you don't like this style, too bad, you're stuck with

But none of these nice capabilities are worth a *hoot* if a program's too hard to install or use. Luckily, CdC is just as easy to get going and operate as before. Download of the program is reasonably quick, even with a dial-up connection, and clicking on the resulting file (or just hitting "open" in the download window in your browser) brings up a Windows Installer that does the dirty work of getting the program set-up. The basic download includes a reasonable-sized star catalog (SAO) and quite a few deep sky objects. You do have to set a few parameters once the program is installed, but the documentation is clear and extensive and you shouldn't have any problem configuring the program with its aid.

phone line! There are plenty of deep sky catalogs available on the site, too—everything from the venerable SAC catalog to the complete PGC (Principal Galaxies Catalog). But you're not limited to these "prepared" catalogs—CdC can use a simple add-on utility to easily convert just about any ascii-based astronomical catalog to a format it can use. Installing new catalogs of any kind does require setting them up via the Catalog and Objects Parameters selection under the Preferences menu, but this mostly involves just checking a few boxes and is not at all difficult.

Is there anything I don't like about Cartes du Ciel? *No, not really.* Is that surprising. *No, not really.* You see, Patrick Chevalley did not develop the program in isolation. He

power of Cartes du Ciel, take a look at Steve Tuma's Deepsky 2000 (soon to be Deepsky 2002). This giant database/logging/planning/charting program now interfaces with Cartes. This means that you have access to all of DS2000's 400,000 PLUS deepsky objects in the friendly planetarium-style CdC format. CdC can use the Hubble Guidestar Catalog contained on the DS2000 CD, too. It's easy to download portions of the GSC from the Internet with CdC, but there are times when you want the GSC but there's no Internet connection available. DS2000 can be had for less than 50 dollars, and CdC is free, so you can now have a complete observing system for a very insignificant price compared to what you'll pay for some much less capable programs. Cartes and DS2000 interface together, but don't interfere with each-other in any way: you can still use both programs independently. For information on Deepsky 2000, see <http://www.deepsky2000.net>.



POSS Plate of M79 Superimposed on a Cartes Chart...

Once you're comfortable with Cartes, you'll want to add additional star and deep sky object catalogs (available from the download section of the CdC website). Of particular interest is the Tycho 2 star catalog. It's large enough, though, that you may want to have a buddy with a broadband connection download it for you and put it on a CD if you're still connecting to the Internet via

runs a CdC mailing list (on Yahoogroups), and throughout the past year he has been very open to suggestions and criticisms from his users. NO, I don't know how he can "afford" to continue to offer Cartes to us for free. But thank goodness he does!

*Note: If you want a **complete observing system** that uses the*

...And Roar they did!

Rod Mollise

Would they do it? Would they FINALLY do it? Would the Leonids finally live up to the cliché and ROAR? I had no idea when I set out for the Mobile Public Schools' Environmental Studies Center, the only easily accessible site I had for viewing the supposed show.

Skeptical though I was, the fact that Saturday, November 17, dawned clear and *stayed that way* seemed a favorable omen. Usually, down here on the Gulf Coast, the beginning of November brings storms and clouds that just get worse as the month goes on. But I gathered up my C8 and the coffee, cokes and candy I'd need for a long night (the "storm"

was predicted to begin at 3am) under *surprisingly* good skies. There was a bit of chill in the air, but not too bad. Of course, I brought very warm clothes, since even moderate temperatures mean you'll get C-O-L-D when you're standing under the open sky at a telescope and not moving around much.

I was joined at the ESC by George Byron and Dianne Martin, who were also hoping for the best. We turned out early, not long after Sunset, wanting to combine the meteors with an evening of general observing. Dianne had just arrived back in Mobile from a day-trip to see Alabama play, and couldn't stay long, but George and I bravely stuck it out, filling the long hours observing deep sky object after deep sky object with my C8. We didn't really know what to expect meteor-wise. Should we expect to see anything *before* 3am? Would *not* seeing much before 3am mean anything as far as hopes for a storm went? We didn't know, but we for sure weren't seeing any meteors. Maybe *one* between 8pm and midnight.

You generally expect to see at least a few decent sporadic meteors on any clear night. So we began to wonder. Was the sky worse than it appeared? Was there a slight haze in the air that we weren't seeing, but which was bad enough to hide meteors in skies that were already compromised by light pollution (the ESC is now a decidedly suburban site)? We hung loose 'til midnight and then made the decision to abandon the ESC. The site's lake, Pine Lake, was obviously becoming a problem. A haze/mist/fog was rolling off the water and making the stars obviously dim and George and Rod *shiver*. And conditions seemed to be getting worse. George headed for home as did I after my C8 was packed up.

At home, I had to decide what to do. Drive up I-65 to dark skies? But where? And I was pooped. I decided that the thing to do was set the

alarm for three a.m. and just see what I could see from my Garden District yard.

The alarm went off all too soon. Just moments after I closed my eyes, it seemed. Nevertheless, I struggled out of bed and, after fortifying myself with a shot of Rebel Yell, headed out into the chilly, quiet backyard. Three o'clock came. Would I see anything? Didn't look like it. Might as well head—**WHOA-HO!** Good one! *A brilliant meteor smashed across the sky, leaving a visible, lingering smoke trail!* A minute later, there went ANOTHER!

And they just kept coming. From my light-polluted site I was seeing a minimum of 60 per hour! And I mean show-stoppers. No doubt the skyglow screened out the less impressive Leonids, but in a way that made the show all the more impressive: I was seeing the *best of the best*. I literally stood out in the yard open-mouthed as the incredible show rose to a crescendo in the quiet hours. Dawn was the only thing that stopped these suckers, with several impressive fireballs making their presence known even as the stars were winking out!

It had been a long and sometimes frustrating evening, but boy-oh-boy was it worth it! I'm not a big meteor fan, but those brilliant bursts and wraith-like smoke trails are something I'll remember for a long, LONG time!

All I want for Christmas is:

An eyepiece with a 90 degree apparent field of view, weighs half a pound and costs 50 bucks. AND has pinpoint stars to the field edge in my f/5 telescope!

A goto scope that works on a 9 volt battery that lasts for 6 months...

A galaxy filter...

An astronomy program that doesn't need *more* hard drive space and/or *more* processor power than I have no matter how many times I upgrade my computer...

A star party with GUARANTEED clear skies!

An Income Tax Deduction for astronomy equipment...

A star chart that I can read in the dark, under a red light, with middle-aged eyes...

Star party food catered by a four star restaurant!

Neighbors who, seeing that the sky is clear, automatically turn off their yard lights!

Paid company holidays for the Texas Star Party...

One day on sci.astro.amateur without a post by an astrology nut...

Finding a C14 at a yard-sale and the seller insisting I take "that big ugly thing" away—even offering to pay me to do it!

Winning at least one star party raffle/door prize in the coming year...

Never dropping a focuser set-screw again...

The clear skies of Winter and the warm temperature of Summer...

But I'd return all these "gifts" for...

Peace On Earth And Goodwill To All Men!

Merry Christmas from Your Old Uncle Rod!

My Back Pages



Club Notes

MAS

The big news is that after a considerable period without a change in leadership, the MAS held an officer-election (at the December meeting). Longtime member George Byron was elected President, while Greg Thompson assumed the duties of Treasurer. Best wishes to Greg and George in their new positions!

SCT-USER

Well, Yahoo may have its ups and downs (there was quite a bit of comment on the “click-through” advertisements that folks who read the list on the web recently encountered—they now seem to be gone, thankfully), but SCT-User just rolls on! We’ve passed the 2000 subscriber mark now, but, as I said to the list in my annual Holiday Report, we still need to focus on attracting new members. One way to do this is to talk-up good old SCT User at your local astronomy club meeting!

And I was worried about getting a lump of coal (in lieu of a TeleVue Panoptic) from Santa! Imagine my dismay, then, when a rustling...and then a CRASH...was heard in the vicinity of the living room fireplace. Out of the embers rolled a grimy Beavis and a puzzled Butthead...eager for Christmas Cheer at my expense, but at least bearing...

RUMOURS

What? STILL no LX200 GPS?! We’re not surprised that Meade didn’t make its October, then November, then December delivery dates for the LX200 SNTs and refractors...but we really would’ve thought they’d have gotten the new LX200s out the door before Christmas! Last we heard? “Expect an announcement on Thursday.” But that was LAST Thursday. Problems or just over-optimism on the part of John D. and company?

Celestron SEEMS to be doing just fine, thank you, with its new NS11. Sure, there’ve been a couple of bugs—vibration prone motors and a less than usable mag compass (due to the NS program not taking magnetic deviation into account), but these problems are either exorcised or on their way to being exorcised. And the scope received an **outstanding** review in Sky and Telescope. Imagine our surprise, then, to hear a RUMOR that Celestron is having financial problems and that Tasco would like to find a buyer. True or NOT? I vote for NOT...but in this economy, who knows?

Speaking of the LX200 GPS....Did you see the advertisement in the February Sky and Telescope? The photos (if that’s what they are) of the GPS look substantially different from the (mocked up?) images of the LX200 GPS prototype that have been on the Meade web site for some time...

Meet Ray Mollise! Our favorite newsletter editor’s book, *Choosing and Using A Schmidt Cassegrain Telescope*, is doing well, and is, in fact, one of Springer’s astronomy best sellers. It also just received a stellar review in Astronomy and Space Magazine. But that didn’t stop Springer from changing Rod’s name to “Ray” in the body of their recent Sky and Telescope Ad (January). Rod only whined a little, however, saying, “They can call me Rod, or they can call me Ray...as long as they send MONEY!”

The Anonymous Astronomer