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Ian Levstein, Editor

We welcome your comments on the *Bulletin*. Email them to the Editor at bulletin@rasc.ca.

A PDF version of the *Bulletin* is available at: <http://www.rasc.ca/im/bulletin/201108.pdf>

A text-only version of the *Bulletin* is available at: <http://www.rasc.ca/im/bulletin/201108.txt>

► News @ RASC.ca

Comet Garradd's August 18 Anti-tail

by [Alister Ling](#), Edmonton Centre

Those of you running planetarium software are already aware of C/2009 P1 (Garradd)'s pairing with M15 on August 1 and 2 and that it practically occults M71 in Sagitta on the 26th. But, are you planning to observe or image its anti-tail on the nights of the 17-19?

Anti-tail is actually a misnomer. For centuries, comet-watchers have recognized that the tail always points away from the Sun, and more recently we understand this happens because the solar wind blows the gas and dust outward, in a flat fan in the comet's orbital plane. Yet some comets briefly display a prominent sunward-pointing "anti-tail." It turns out that this is a trick of perspective; no part of the tail physically extends towards the Sun. You can demonstrate this by taking an ordinary piece of paper with one of its corners pointing at you. Think of that as the coma. Now lift it until the page is edge-on to your line of sight – you now have a sharp spike sticking out on either side of the corner (coma), but the whole sheet is behind. By rotating the sheet whilst it is edge-on, you can find a perspective where the sheet (tail) sticks out only on one side, or on both.

Earth crosses comet Garradd's orbital plane on the morning of August 19, allowing us to see the comet's fan as a double-spike. For the previous and following nights the alignment isn't quite as good, so the double-spike should be more diffuse. If the comet's gas production is decent, then the short anti-tail will have some colour to it. But, with a perihelion of 1.5 AU, the gas tail will likely be weak, so colour might show up only on CCD images.

This is mid-week with a waning gibbous Moon, so make a note for moonrise times and get set up well before.

A look ahead:

We get a second double-spike tail from Garradd on the nights of Feb 13-15! This time the gas tail and the bulk of the dust tail will be on one side and the remainder of the dust tail on the other. At least the gas stream will be in front of the dust particles, so there will be a chance to pick up some colour. Best on the night of the 14th.

A 2006 T1 (Levy) double-spike!

In another nice coincidence, we pass through comet Levy's orbital plane on the night of 2012 January 1, only a few days from perihelion, a mere 0.2 AU from Earth. The geometry once again favours us with

an anti-tail. Some revision may be needed since the last observation used in the orbit calculation from JPL was November 2006.

Social Media Comes to RASC

by [Roland Dechesne](#), Membership and Promotion Committee

The RASC is plunging boldly into online social media, and we'd like your Centre to join us! Specifically, we have two immediate requests of you and your Centre, and two longer-term requests.

First, we want you to take advantage of the RASC's new Twitter account to broadcast timely announcements regarding your Centre's activities this summer. Are you hosting a star party or a public outreach event? We want to be part of promoting this news. You can help us help you by sending basic details of your event to map@lists.rasc.ca, please remember to include a link to an appropriate Web site (your Centre's or, even better, the exact Web page where further details of your event are available).

Second, we want to assist in bolstering your Centre's Facebook presence (see the [MAP Committee Report](#) - you'll need your personal access info as this report is in the members' area of the Web site). The MAP Committee wants to provide content for use by your Centre's Facebook administrators. We recognize that not all Centres have the resources or people to maintain activity on Facebook - if that describes your Centre, contact us at map@lists.rasc.ca and we should be able work out a customized plan to assist your Centre.

The first of the two longer-term initiatives involves nominations of material for the RASC's [YouTube channel](#). Our selection criteria are still evolving, but are likely to involve: 1) RASC infomercials as to who we are and our services and benefits; 2) Instructional or how-to videos (bonus points if there is an application or wrinkle that's uniquely or mostly Canadian - observing in low temperatures, noctilucent clouds, midnight twilight, aurora); 3) Well-made videos of astronomical observations or phenomena with some astronomical background or information included. Not necessarily with a unique Canadian slant (meteor showers, star trails/motions, occultations, transits, eclipses, satellite passes, sunsets and sunrises); 4) Advocational videos of causes that the RASC supports or wishes to promote (light-pollution abatement, dark-sky preserves, the arts in combination with astronomy - theatre, concerts, paintings); and 5) Videos of significant RASC or Canadian astronomy historical events (opening ceremonies of DSPs, construction of Centre observatories). There may be some non-Canadian historical events that we may wish to include, if they are unique or significant enough and are not otherwise widely available on the Web. In all cases, we need to be very careful of copyright issues.

The second longer-term initiative is to create an on-line photo archive of the RASC, perhaps using a service like Flickr. For now, we will likely focus on historical images and personalities, but can an astrophoto section be too far behind?

► Across the RASC

Edmonton Centre on APOD



On 2011 July 20, **Greg Scratchley** (Edmonton Centre) had his [photo of noctilucent clouds](#) featured on NASA's Astronomy Picture of the Day site. Congratulations!

© Greg Scratchley 2005-2011

► RASCals Highlights

Cherry Springs State Park

by [Terry Trees](#)

My wife JoAnne and I made a spur of the moment trip to Cherry Springs State Park in north central Pennsylvania. It's Pennsylvania's only legally designated Dark-Sky Preserve. We left Sunday around 1 PM, stopped at the grocery store and arrived around 5 PM.

We returned yesterday (July 7) afternoon instead of today as we had originally planned because the forecast was for storms and we hate packing-up the pop-up trailer when its wet and also because I cleverly put my back out by bending down and plugging-in a battery charger. It took 3 hours and 15 minutes to come home. The route from I-80 up to the park is very picturesque, I think. I'd guess there was a maximum crowd of 30 while we were there, although people kept departing and new ones kept arriving.

I'd say seeing all 3 nights was average and while transparency was average at times, too, it rose to good and even excellent at times, especially Tuesday night. Light from Coudersport and Galeton was apparent in the north as well as a low level glow all around the horizon but I saw no evidence of gas well flames. The crescent moon actually caused more light pollution issues than did the distant towns. One night JoAnne looked at M-51 while the crescent moon was still pretty high. There was also thin cirrus getting lit-up too. I was able to see the supernova through the 10" under those conditions, but it was borderline, blinking in and out. My 1 AM Unihedron Sky Quality Meter readings were 21.22 on Monday morning and 21.46 on Tuesday morning.

We observed with our 17.5" and our 10" scopes. Both are Dobs. The 17.5" has a Sky Commander, the 10" is completely "manual". I viewed ~60 NGC galaxies on the Herschel 400 list I'd never seen before and JoAnne knocked-off ~40 M-objects. She has decided to earn her Messier Certificate. Years ago when the boys were young we did the AAAP Messier Certificate as a family. Each of us recorded at least 25 of them. I remember Geoff fighting to be allowed to find M-57 because it was his favorite. Sean's favorite back then was the Coat Hanger, but of course, that is not an M-object (I think I'm down to 2 or 3 for my Messier Certificate). It's not that I haven't found them on my own, it's that I have been a terrible logger over the years. Now that I've connected a netbook to my scope and use Sky Tools 3 Pro, that seems to be changing... although my descriptions still leave a lot to be desired.)

The only negatives to the trip: 1) the road from Cherry Springs Park to Lyman Run Park (where the showers are) is in even worse condition than ever. Some folks were calling it Vomit Valley Road because of the twists, turns and especially the holes; 2) Internet access was still flakey even with the small crowd; 3) some kid dumped a piece of cake and icing on the way into the men's room. That was there our entire stay, even though the restrooms were cleaned daily; and 4) each night a few young parents would bring a ton of little kids to the observing field and let them run around till after dark. They weren't near equipment and weren't bothering any one, however, when it was time to go home, the drivers would turn on headlights and leave them on while rounding-up the kids. That caused shouts of "turn off the lights" which deteriorated into name calling. Fortunately nothing developed from there.

All in all, a great trip.

► Bulletin Video of the Month

Comet Hyakutake: The Movie

by [Debra Ceravolo](#)



Some of you may remember that in 1996 Peter Ceravolo and Doug George created a time lapse sequence of Comet Hyakutake and the 45 minute documentary titled "Comet Odyssey" describing how they did it.

We have just finished producing a 15 minute YouTube video edited from the original documentary.

[Hope you enjoy!](#)

► The Sky this Month

What's New in the Sky

Members are encouraged to check out the [Northern Skies](#) section of the RASC Web site. Thanks to **Gary Boyle** for keeping us all in the know.

► Dates to Remember

- **2011 July 30-August 7** - [Mt. Kobau Star Party](#), Mt. Kobau, BC
- **2011 August 25-28** - [Saskatchewan Summer Star Party](#), Cypress Hills Inter-Provincial Park, SK
- **2011 August 25-28** - [Starfest](#), Ayton, ON
- **2011 August 26-28** - [Nova East](#), Smileys Provincial Park, NS
- **2011 September 2-4** - [Butter Pot Star Party](#), Butter Pot Provincial Park, NL
- **2011 September 23-25** - [14th Annual Algonquin Adventure](#), Mew Lake Campground, APP, ON
- **2011 September 23-25** - [Fall'N'Stars](#), Thomasburg, ON
- **2011 September 24-25** - [Alberta Star Party](#), Starland Recreation Area Campground, AB
- **2011 September 27-October 2** - [Northern Prairie Star Party](#), Black Nugget Lake, AB



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