



OSFS

Statement

Newsletter of the

Ottawa Science Fiction Society, February 2014,
Issue 418, Volume 38, Number 2. Founded Feb 1977

Dinner-Gatherings start at 6:00 pm.

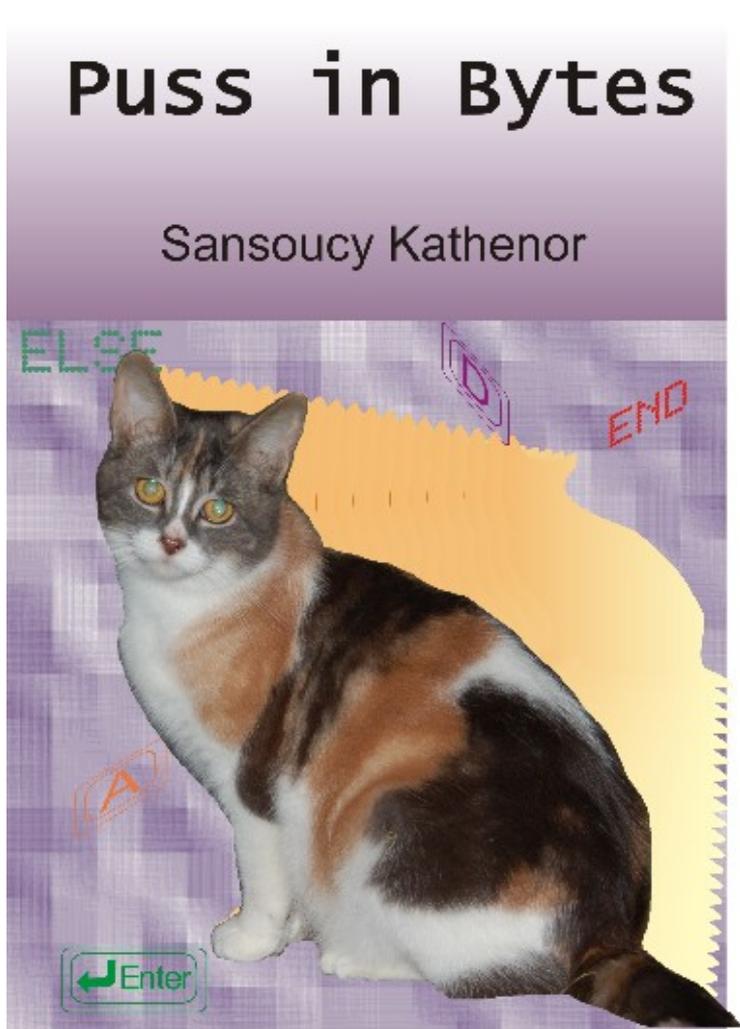
Tue Feb 25 at Denny's at South Keys.

Cover this month is the cover of Sansoucy Kathenor's posthumously published novel. "A Fantasy adventure that's purrfect for cat fanciers! Available in Kindle, Epub, and other popular e-book formats on Smashwords.com

<http://www.smashwords.com/books/view/134671>

\$3.99 + shipping Or in hard copy from Lulu.com

\$15.05 + shipping, taxes"



Another hydrogen fusion experiment “emits more energy than absorbed from lasers” heating it.
<http://www.unisci.com/stories/20012/0409011.htm>

Segway use on Nova Scotia streets approved for pilot project to “test and evaluate Segway use on the province's streets and sidewalks”. For reasons only known to themselves the Transportation Department says only “people who own or lease at least three of the two-wheeled electric devices will be able to apply to participate”. *I suppose really they aren't that much different, or riskier, than electric wheelchairs in mixed traffic. Ed.*

For Your Viewing Pleasure

Venus rises about 5am. Jupiter, second only to Venus in brightness, still dominates the sky for much of the night. Mars rises around 11pm and Saturn at 1am. The Moon will be Full on the 14th.

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We are suspending requirements of membership dues for now, as we are not paying for meetings. The Executive will review our financial situation regularly.

website www.ottawasfs.ca
executive exec@ottawasfs.ca

Rates	
Regular	\$0.00
Family	\$0.00
Extraordinary & Senior	\$0.00

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OSFS Logo	Bruce Wright
Cover art	© NASA
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MOVIES

List submitted by Sandi Marie

Coming to Your Theatre

APRIL

Captain America: The Winter Soldier - Apr 4
Robocalypse - Apr 25

MAY

The Amazing Spider-Man 2 - May 2

JUNE

Edge of Tomorrow - Jun 6
How to Train Your Dragon 2 - Jun 13
Transformers: Age of Extinction - Jun 27

JULY

Maleficent - Jul 2
X-Men: Days of Future Past - Jul 18
Dawn of the Planet of the Apes - Jul 18
Hercules: The Thracian Wars - Jul 25

Coming Events

List submitted by Lloyd Penney

- February 21-23 - Con-G, Delta Hotel & Conference Centre, Guelph. Anime/fantasy/gaming steampunk convention. Guests: Dante Basco, Adam Smith, more. For more information, www.con-g.com.
- February 22 - Artisans of the Metropolis, Metropolis Factory, 50 Edwin Ave., Toronto. Monthly artisanal bazaar. For more information, www.metropolisfactory.com, and click on Artisans.
- February 28 - March 2 - Gryphoncon 2014, University of Guelph. Gaming convention. For more information, www.gryphoncon.org.
- March 1 - Toronto SpecFic Colloquium, location, TBA, Toronto. Guest: Christopher Golden. For more information, www.specficcolloquium.com.
- March 1&2 - Ottawa Geek Market, Nepean Sportsplex, Ottawa. Bazaar for fannish interests. For more information, www.geekmarket.ca.
- March 2 - Toronto SpecFic Colloquium, location, TBA, Toronto. Guest: Christopher Golden. For more information, www.specficcolloquium.com.
- March 7-9 - Toronto ComiCon, Metro Toronto Convention Centre, Toronto. For more information, www.comicontoronto.com.

- March 7-9 - Furnal Equinox 2014: Circus, Sheraton Toronto Airport Hotel & Conference Centre, Toronto. Furry convention. Guests: Sabretoothed Ermine, Sandy Schreiber. For more information, www.furnalequinox.com.
- March 15 - Oshawa Comic Con, 15 Harmony Rd. N., Oshawa. \$5 admission, hours 10am-3pm. For more information, www.popculturecanada.ca.
- March 16 - Steam on Queen Spring Bazaar, Gladstone Hotel, Toronto. Steampunk Bazaar. For more information, www.steamonqueen.ca.
- April 4-6 - Ad Astra 2014, Holiday Inn Markham. Guests: David Weber, Anne Groell, Patricia Briggs, Steven Erikson. For more information, www.ad-astra.org, Twitter @adastrasociety, page on Facebook.
- April 6 - GTA Comic-Con, Oakville Conference Centre, Oakville. For more information, www.gtacomicon.com.
- April 5 - Shwapocalypse 2, 15 Harmony Rd. N., Oshawa. Horror film fest. \$5-10 admission. For more information, www.popculturecanada.ca.
- April 6 - GTA Comic-Con, Oakville Conference Centre, Oakville. For more information, www.gtacomicon.com.
- April 11-13 - UBcon XXV, University of Buffalo, Buffalo, NY. Gaming and anime convention. For more information, www.ubcon.org.
- April 19 - FanFare Geek Market, Sheraton Hotel Hamilton. Bazaar and gaming event. Hours: 10am-8pm. For more information, www.fanfaremarket.com. Presented by ConBravo!.
- April 19 - Bizzarr Bazzarr, 15 Harmony Road N., Oshawa. Victorian fair and steampunk bazaar. Free admission. For more information, www.popculturecanada.ca.
- April 19 - GTA Comic Con 2014, Sheraton Airport Hotel & Conference Centre, Toronto. Hours: 10am-5pm. For more information, www.gtacomicon.com.
- April 25-27 - FilKONtario 24, Delta Airport West, Mississauga. Guests: S. J. Tucker, with the Heather Dale Band; Gary Ehrlich, Piers Cawley. For more information, www.filkontario.ca.
- April 25-27 - Midwest Media Expo, Detroit Marriott at the Renaissance Center. All-media convention. Guests: Aurelio Voltaire, Vic Mignogna, Steam Powered Giraffe, G.D. Falksen, Time Crash, Group 935, Lewis "Linkara" Lovhaug, Ken Pontag, Adam Smith, Silly Filly Studios. For more information, www.midwestmediaexpo.com.
- April 25-28 - Costume Con 32, Sheraton Airport Hotel, Toronto. For more information, www.costumecon32.com.

- May 2-4 - Eeriecon 16, Byblos Niagara Resort & Spa, Grand Island, NY. Literary SF/F/H convention. Guests: David B. Coe, Mark Leslie, more. For more information, www.eeriecon.org.
- May 4 - Canadian 80s Toy Expo, Delta Meadowvale Hotel and Conference Centre, Mississauga. Guest: Alan Oppenheimer. For more information, www.80stoyexpo.com.
- May 9-11 - Ottawa ComicCon, EY Centre, Ottawa. Comics convention, more. Guests: Kane Hodder, Amanda Tapping, more. For more information, www.ottawacomicon.com.
- May 10-11 - Toronto Comic Arts Festival, Toronto Reference Library, Toronto. For more information, www.torontocomics.com.
- May 11 - 18th Annual Fantastic Pulp Show and Sale, Lillian H. Smith branch, Toronto Public Library. Admission: \$3. Hours: 10am-5pm. For more information, see Facebook page.
- May 16-18 - CanGames, Rideau Curling Club, Ottawa. Gaming convention. For more information, www.cangames.ca.
- May 17-19 - SuperFan ComicCon, Better Living Centre, Exhibition Place, Toronto. Guests: TBA. For more information, www.superfancomiccon.com.
- May 23-25 - Anime North, Toronto Congress Centre + 3 hotels, Toronto. For more information, www.animenorth.com.
- May 23-25 - What The Fur!?, Sheraton Montreal Airport Hotel, Montreal. Furry Cconvention with steampunk theme. Guest: Alex Cockburn. For more information, www.whatthefur.com.
- June 1 - Burlington Toy Show, Holiday Inn Burlington Hotel and Conference Centre, Burlington. Early Bird price \$10, general admission \$5. Hours: 9am-3pm. For more information, www.burlingtontoyshow.com.
- June 6-8 - Bloody Words XIII, Hotel TBA, Toronto, ON. Mystery convention. Guests: Vicky Delany, more. For more information, www.bloodywords.com.
- March 1&2 - Ottawa Geek Market, Nepean Sportsplex, Ottawa. Bazaar for fannish interests. For more information, www.geekmarket.ca.
- June 6-8 - Niagara Falls ComicCon, Hotel and Facility TBA, Niagara Falls, ON. Guests: William Shatner, more. For more information, www.NFComicCon.com.
- June 12-15 - SteamTopia, DoubleTree by Hilton Hotel Detroit-Dearborn, Dearborn, MI. Steampunk convention. For more information, see page on Facebook.

- June 28 - Steam on Queen, Campbell House, Toronto. Steampunk bazaar. For more information, www.steamonqueen.ca.
- June 28 - Oshawa Anime Festival/Comic Con/Toy Show, 15 Harmony Rd. N., Oshawa. \$5 admission, hours 10am-6pm. For more information, www.popculturecanada.ca.
- July 4-6 - Polar Chill 2, Holiday Inn Toronto International Airport, Toronto. Includes the 2014 Constellation Awards. For more information, www.tcon.ca.
- July 11-13 - TFcon 2014, Delta Meadowvale Hotel and Conference Centre, Mississauga. Transformers toy convention. For more information, www.tfcon.ca.
- July 13 - Oshawa Comic Con, 15 Harmony Rd. N., Oshawa. \$5 admission, hours 10am-3pm. For more information, www.popculturecanada.ca.
- July 17-20 - Detcon 1, Detroit Marriott at the Renaissance Center, Detroit, MI. North American Science Fiction Interim Convention (NASFiC). Guests: Steven Barnes, John Picacio, Bernadette Bosky, Arthur Hlavaty, Kevin J. Maroney, Helen Greiner, Bill and Brenda Sutton, Roger Sims, Fred Prophet. For more information, www.detcon1.org.
- July 18-20 - Ryu-Kon 2014, Buffalo Niagara Convention Centre, Buffalo. Anime/gaming/horror/steampunk convention. Guests: Riley Schillaci, more. For more information, www.ryu-kon.com.
- July 18-20 - ConBravo!, Hamilton Convention Centre & Sheraton Hotel, Hamilton. Gaming/cosplay convention, more. Guests: Angry Joe, DJ Cutman, more. For more information, www.conbravo.com.
- August 1-3 - Condition vs. The Monsters, Four Point by Sheraton Hotel, London, ON. Furry convention. Guests: Sigil, Wolfbird, Dixie von Fur. For more information, www.conditionfurry.ca.
- August 14-18 - Loncon 3/72nd World Science Fiction Convention, ExCeL, London, UK. Guests: Iain M. Banks, John Clute, Malcolm Edwards, Chris Foss, Jeanne Gomoll, Robin Hobb, Bryan Talbot. For more information, www.loncon3.org.
- August 28-31 - Fan Expo Canada, Metro Toronto Convention Centre, Toronto. 20th anniversary event. For more information, www.fanexpocanada.com.
- Sept. 5-7 - Fan Events Forum, International Plaza Hotel, Toronto. Con runners' convention. More information TBA, sponsored by Anime North.
- Sept. 7 - Oshawa Comic Con, 15 Harmony Rd. N., Oshawa. \$5 admission, hours 10am-3pm. For more information, www.popculturecanada.ca.

Sept. 12-14 - Steampunk event, name unknown, somewhere in the GTA. More information to follow.

Sept. 19-21 - RocCon 2014, Kodak's Theatre on the Ridge, Rochester, NY. Comics, gaming, SF and anime convention. Guests: Brent Spiner, Alaina Huffman, Vic Mignogna, Bonnie Piesse. For more information, www.rochesterscifianimecon.com.

Sept. 26-28 - JemCon, Airport Hilton, Mississauga. Convention about Jem cartoons and toys. For more information, www.jemcon.org.

October 3-5 - CanCon 2014, Hotel TBA, Ottawa. Literary SF convention. Guest: Jo Walton. For more information, www.can-con.org.

October 10-12 - Creation Salute to Supermatural, Toronto Weston Harbourcastle, Toronto. Guests: Jensen Ackles, Jared Padalecki, Misha Collins. For more information, www.creationent.com.

November 14-16 - SFContario 5, Ramada Plaza Hotel, Toronto. Guests: Robin Hobb, James Murray. For more information, www.sfcontario.ca.

November 22-23 - Toronto Mini Maker Faire 2014, Toronto Reference Library. For more information, www.makerfairetoronto.com.

January, 2015 - ConFusion 41, Hotel TBA, Detroit area. Guests: Karen Lord, Dr. Cynthia Chestek, Heather Dale, Monte Cook, Shanna Germain, Aaron Thul. For more information, www.confusionsf.org.

April 16-19, 2015 - FilKONtario 25. Filk convention. For more information, www.filkontario.ca.

August 19-23, 2015 - Sasquan/73rd World Science Fiction Convention, Spokane Convention Center, Spokane, WA. Guests: David Gerrold, Leslie Turek, Tom Smith, Vonda McIntyre, Brad Foster. For more information, www.sasquan.org.

October 12-15, 2017 - Bouchercon XLVIII, Hotel TBA, Toronto. World Mystery Convention. Guests: Louise Penny, Chris Grabenstein, Twist Phelan, Gary Phillips. More information TBA.

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LOC

Dear OSFen:

Statement 417 is here, I am valiantly trying to catch up with all the fanzines I've received recently. For something many say is a dying part of fanac, it's certainly keeping me busy.

I think BCSFA also has suspended club membership for it is a small group at the heart of the club that is financing it all. Does this mean that anyone can approach any OSFS executive and ask for free membership?

I must get a more up-to-date convention list to you. I've got it here, but I seem to lose control of my own time fairly frequently these days.

I remember reading about the rejected 13th sign of the zodiac, Ophiuchus, and I should check to see where it is in the sky. You could always give that as your birth sign if anyone asks...

Yvonne and I will have a table at a relatively new bazaar-style show called The Artisan of the Metropolis at a special steampunk-styled event venue called The Metropolis Factory. It's coming up on February 22, and we've been publicizing this on many local steampunk Facebook groups. After that, we hope to have a table at the March edition of Steam on Queen at the Gladstone Hotel.

Take care, everyone, and see you next issue.

Yours, Lloyd Penney.

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Astronomy

Moons and tides by Ken Tapping, February 13th, 2014

For centuries the only moon we could see details on was ours. The moons of other planets were dots or at most tiny discs, even through our largest telescopes. We tried to guess what they were like using our Moon as an example. However, we did not consider something that is equally familiar to us, especially if we live by the ocean – the tides.

Our ideas were based on the idea that the only thing warming up the moons of the planets in our Solar System is sunlight. Therefore, as we get further from the Sun, we would expect moons to get colder and colder. Moons orbiting beyond the orbit of Mars would be cold enough for water to be perpetually frozen – just another rock mineral. Further out, gases would also become liquids. Finally, far out from the Sun, all gases other than perhaps helium would be solids. The moons orbiting far from the Sun would be dark, very cold, and devoid of any life forms we could visualize.

Then, in the 1970's we started sending space probes out through the Solar System to see the outer planets and their moons close up, and got a lot of surprises. Some of the moons turned out to be as expected, while others were definitely not.

Our Earth and Moon pull at each other. Since the gravitational attraction increases rapidly with decreasing distance, the Moon pulls at the oceans on the side of Earth facing it more strongly than it pulls at the Earth, so the ocean is pulled up into a bump, and the land up into a much smaller bump. It also pulls the Earth

more strongly than the ocean on the other side, so the Earth is pulled away from that ocean leaving it to form a second bump. As the Earth rotates, we pass through one of those bumps every 12 hours. We see this as the ocean level rising and falling twice a day – the tides. This kneading of the Earth and oceans liberates heat, and is gradually slowing the Earth's rotation. The Earth has done the same thing to the Moon, with the result that the Moon no longer rotates with respect to the Earth, and we see the same face of the Moon all the time.

The tidal situation is far more spectacular for the moons of the giant planets. Io is the closest moon to Jupiter. Since it lies so far from the Sun, we would expect it to be frozen, but the tidal forces exerted on it by the giant planet kneads the moon so strongly that the heat released drives great volcanoes, spewing forth lakes of molten sulphur and other materials. Io is the most volcanic object in the Solar System. Europa, the next moon out, is less strongly heated. However, there is enough heat to maintain under a thick layer of ice a deep, dark ocean. Some of this heat is likely to drive hydrothermal vents on the ocean floor, just like the ones on the beds of our deep oceans. Here on Earth those vents support communities of strange animals; this could also be the case on Europa, hence our great interest in that world. Ganymede and Callisto, although further from Jupiter, are still suspected to have oceans under their icy surfaces.

Titan, Saturn's largest moon, has a smoggy atmosphere loaded with nitrogen and hydrocarbons, with hydrocarbon lakes and rivers on its surface. Enceladus, another of Saturn's moons is suspected of being similar to Europa.

Titania and Oberon, two of the larger moons of Uranus, the next planet out from the Sun, are suspected to have liquid water inside them. Triton, the largest moon of Neptune, the eighth planet out from the Sun, has active volcanoes on its surface, ejecting material kilometres into space.

Two of the lessons to be learned from this are firstly, in putting together theories we often do not pay enough attention to the obvious, and secondly, there is absolutely no substitute for going out there for a close look.

Ken Tapping

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Stephen Hawking's Black Holes 'Blunder' Stirs Debate

It's saying there's no 'black' in black holes'. by Amanda Peet, University of Toronto physicist

When Stephen Hawking contradicts his own theory, that's a paradox worth noting. Like the black holes he described 40 years ago, the British cosmologist's reassessment last week of the concept of "event horizons" is pulling in chatter from astrophysicists around the world. It turns out that the black holes Hawkin wrote about in 1974 — those places in the space-time continuum that can devour galaxies and even trap light forever — may not exist in the way that he proposed decades ago.

In a new online paper titled "Information Preservation and Weather Forecasting for Black Holes", the 72-year-old Hawking says, "There are no black holes — in the sense from which light can't escape to infinity."

The U-turn from Hawking, one of the pioneers of modern black hole theory, surprised his colleagues, said Amanda Peet, a theoretical physicist and associate professor at the University of Toronto who specializes in black hole paradoxes and string theory. 'Radical departure' "It's majorly provocative. It's saying there's no 'black' in black hole. He's sort of saying the hole is grey instead, not just absorbing everything," she said. "It's a very radical departure from past ideas." In other words, Hawking now admits that light can probably pass through what he once defined as a point-of-no-return void, and that black holes can leak "information" in the form of matter.

This reversal proposes that matter and energy can be temporarily held before being released back into space in a scrambled form.

Peet said that although Hawking's paper has been described as "cryptic," running just four pages long and lacking any calculations, physicists are rightly paying close attention to what he says.

"This is the mind that originated the whole black hole information paradox in the first place," she said. Black holes occur when a dead star "literally runs out of gas" for nuclear fusion and begins to collapse on itself under the force of gravity, Peet explained. If there's enough mass, this creates a "runaway collapse" so powerful that no other force can resist. All nearby matter would get drawn in and crushed.

Hawking's new revelation means he has ruled out what Peet called one of the classical "signatures" of black holes, the notion of boundaries in space-time known as event horizons. "An event horizon is this hidden thing, a place where if you fall beyond that surface, you can never get out," Peet explained. "If you fall into it, you end up getting squished like a bug. These event horizons, as imagined in the classical black hole literature, are what Hawking is now backtracking on."

Harald Pfeiffer, an expert on gravitational waves who teaches at U of T's Canadian Institute for Theoretical Astrophysics, said it appears that Hawking changed his mind because event horizons are incompatible with quantum theory. "The picture before last week was whenever you throw things into a black hole, all the

information about the properties of what you have thrown in is completely lost," he said. But Pfeiffer said that led to problems, because it violates a law of quantum mechanics known as "unitarity," which says information can't simply be eaten up and destroyed like that.

"The conflict is that with quantum mechanics, you're never destroying information," he said. "If information gets completely lost and falls into a black hole, there's no way of reversing this. So either Einstein's theory of relativity is incomplete, or quantum mechanics is incomplete."

Hawking now believes physicists should be thinking in terms of "apparent horizons" — boundaries that can contain matter and light for a period of time — rather than the classical event horizon. In his paper, Hawking writes: "This suggests that black holes should be redefined as metastable bound states of the gravitational field.

Based on the respected physicist's latest assumptions, Peet said, the reason it's so hard to recover information out of black holes would be because this apparent horizon behaves pretty much like a true event horizon would, except that "chaos would be driving the scrambling of information rather than some mysterious property of quantum gravity."

So what might have changed Hawking's view? Peet noted there has been much modern development in the field, with physicists Andrew Strominger and Cumrun Vafa demonstrating in 1996 it's even possible to calculate the entropy of some types of black holes from first principles. Pfeiffer said Hawking has always

known that his views clashed with quantum physics, but he seems to have been relenting in recent years.

In 2004, for example, he conceded a bet against physics theorist John Preskill about black holes. Hawking admitted that information is probably not swallowed forever in a black hole, as he had previously thought. "He's only recently come around," Pfeiffer said.

"Stephen writes extremely few papers, so ... this might very well be the very few occasions that Stephen actually puts these ideas in writing. As such, it might very well be quite an important event," he added.

At his 70th birthday two years ago, Hawking claimed his theory about black holes was his "biggest blunder." Peet said scientists will be waiting patiently for a possible followup paper from him. "The usual style if you're famous enough to put out a paper like this, is you follow it up with more details," she said.

"That's what physicists like me will be waiting on, because it matters what he thinks."

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[What would Middle Earth look like from space?](http://io9.com/what-would-middle-earth-look-like-from-space-1519194883)

<http://io9.com/what-would-middle-earth-look-like-from-space-1519194883>

J.R.R. Tolkien's hand-drawn maps of Middle Earth have long fueled readers' imaginations about the land of Hobbits, wizards, and Elves, and a group of fantasy cartographers are imagining what the world's terrain might look like in 3D.

[The Middle Earth Digital Elevation Model Project](http://www.me-dem.me.uk/)

<http://www.me-dem.me.uk/> is a collaborative effort to create a complete digital model of Middle Earth that can be virtually explored on foot or admired from great heights. The worldbuilders are using the Outerra graphics engine to place every forest, field, and stream on their digital Middle Earth and you can [download the demo version of Middle Earth—DEM](#) that they released last year. You can also read more about the project in the [Outerra](#) and [Cartographers' Guild](#) forums.

As [FastCo Design](#) notes, the DEM is still a work in progress, so it's still a ways away from being a complete digital copy of Middle Earth. But the [project gallery](#) includes some images that let us imagine what Middle Earth might look like from space.

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