

If world astronomy was a Star Trek movie, Canada would be co-pilot of the Enterprise

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OTTAWA -- Before you roll this newspaper up and use it to start a Canada Day campfire, look up into the night sky and consider this: When it comes to astronomy, Canada is the world's brightest star.

We have been and will continue to be the first country to view the outermost fringes of the universe and have captured a lot of blue ribbons with initial discoveries of the first black holes beyond our galaxy to the largest twin stars.

Canada gets more citations in scientific papers than any other country, is a partner in some of the world's largest and most ambitious telescopes for the next generation of star tracking and we churn out huge numbers of sought-after astronomy graduates to feed a growing demand to penetrate the final frontier.

OK, so you don't hear much about outer space from political columnists because it will never rank as a Top 5 priority for a federal government trying to buy votes.

The dollar amounts involved are hardly a sensational headline grabber. The astronomy committee is still buzzing with excitement at a recent \$65-million funding boost for the sleepily named Long Range Plan for interstellar conquests, an amount that wouldn't buy the wings for one of Canada's planned purchase of four Boeing C-17 heavy lift aircraft.

And it's not like there are alarms being sounded about a funding crisis. No one is attempting to lobby cabinet ministers or organize protests on Parliament Hill.

"I have not received any signals that the Conservatives are saying we're done here or that this isn't a priority," says University of Toronto arts and science dean Pekke Sinervo.

Good thing, too. If world astronomy was a Star Trek movie, Canada would be co-pilot of the Enterprise. E

We have quietly partnered with the Americans on the next generation of space-based telescopes with the expected launch in six years of the Hubble's replacement. The world's largest optical and infrared telescope, the Thirty Metre Telescope, is part Canadian and a big chunk of the Square Kilometre Array (so creative naming is not their strong suit) flies under the Maple Leaf, that being a radio detection network which could pick up television signals from the nearest stars, which would be a nice change from the summer re-runs.

"It's not well known, but it is a remarkable Canadian success story in the growth of students enrolled in astronomy, to the research our scientists are doing, to where Canada is about to become a major partner in the world's largest telescope. We're a leader in a very unique science," says Michael Jolliffe, co-chair for Industry in the Coalition for Canadian Astronomy.

It's an ongoing part of a long and proud history. Canadian astronomers, amateur and professional, have been at the forefront of discovering black holes, meteors, comets crashing

into Jupiter, twin stars, supernovas and determining the temperature of interstellar space two degrees above absolute zero, which is darn cold.

As an academic pursuit, it boasts one of the largest science disciplines for women and its graduates are landing in prestigious posts domestically and internationally. "Astronomy has had its act together in Canada for a long time and there is real evidence of the impact it has had," says Sinervo.

There is, of course, the ultimate question waiting to be answered. Is there life out there? There sure isn't on Parliament Hill these days. Sorry, I digress.

But as one of the first countries to spot planets orbiting stars many light years away, Canada is leading the pack in hunting for something biological beyond Earth. And it's considered only a matter of time before we find it.

"Ten years ago, we didn't know how many stars had planets around them because it's extraordinarily difficult to detect the wobble of a star caused by the tug of a planet," says Sinervo. "But there are literally billions by any reasonable estimate. It makes you realize that all of a sudden that our hopes for other life out there has skyrocketed. I look at the numbers as a scientist and my belief has increased there might be life out there. But is there life? We can't say that. Yet."

Even so, when it comes to Canada's exploration of space, astronomy's ongoing mission continues to give taxpayers a big bang for its buck.