

U.S. privatization of space exploration could be one giant step for Canada

Canadian agency, industries poised to cash in: experts

By Amy Husser, Postmedia News

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A controversial decision by Barack Obama to privatize the exploration of space could be a blessing for Canada's aerospace industry, say experts in the field, who argue this country's space agency and its associated industries are in a prime position to hitch their wagon to the U.S. president's initiative on a ride toward the stars, Mars and potential riches.

With the successful launch of the Falcon 9 in early June -- the first in a new generation of privately built rockets intended to shuttle supplies to the International Space Station -- space exploration is poised to enter a new phase.

That one small step for Obama's space plan, announced last April, could mean a giant leap for commercial interests, including those north of the border.

"Obama's vision for the future of NASA . . . is putting a lot of stock in the private sector," says Paul Delaney, a professor of physics and astrology at Toronto's York University.

"There's been a lot of groups that have been trying to position themselves to take advantage of what they see as a commercial opportunity in the coming decade. And I think they are right."

Delaney says Obama's vision is clear on what the next generation of space exploration vehicle should do: study near-Earth asteroids -- and their potential wealth of resources - and get ready to go to Mars.

If industry can deliver on the "low-Earth orbit" side of space exploration, he says, such as the "taxi" activity of restocking the ISS, NASA will be free to pursue larger goals "of getting away from Earth entirely."

The move comes as NASA's space shuttle fleet is slowly being retired, and the agency is seeking out newer, more efficient options from the private sector, such as Space X, the California-based company behind the Falcon 9.

Obama is banking on the fact that, having pumped nearly a third (\$6 billion US) of his five-year, \$19-billion NASA budget into the development of commercial rockets, NASA will be freed up to focus on farther-reaching goals.

But the president's plan also cancels the moon-focused Constellation program, and has been criticized for moving away from manned space flights, effectively putting some astronauts and NASA staff into early retirement.

Just last week, United Space Alliance, NASA's prime space shuttle contractor, laid off nearly 1,400 staff. The company also rolled out layoffs in October 2009 and June 2010, and more are planned for next year.

For its part, Canada has long relied on NASA to get its astronauts into space.

And the Canadian Space Agency's latest hires, David Saint-Jacques and Jeremy Hansen -- the first new astronauts in more than 15 years -- will hit the halfway mark in a two-year, Texas-based training program next month.

Experts suggest they won't get the sorts of experiences the space explorers of the Apollo generation did, but there is still much to be done on the ISS.

And they are standing at the threshold of the next great missions: Obama wants to reach near-Earth asteroids by 2025 and Mars by the mid-2030s.

Canada ultimately stands to profit, Delaney says, pointing to our track record in robotics and space technology, which will be needed as the groundwork is laid for future travel.

"I think you're going to see stepped-up activity from Canadian industry to contribute in a more significant way," he says.

Steve Oldham, general manager of satellite missions and robotics for B.C.-based MacDonald, Dettwiler and Associates, agrees, pointing to his company's internationally recognized Canadarm as the best example of successful Canadian space hardware.

"Obama has opened the door for collaboration; he's mentioned robotic exploration as being extremely important for him," he says. "The fact that Canada has undeniably the best heritage in that area, really, is a huge opportunity."

Oldham says the Canadian Space Agency needs to decide -- and clearly spell out in its own policy -- if it wants to be on-board for the next generation of space exploration.

"I think that's the gate at which we stand," he said.

Steve MacLean, CSA president and a former astronaut, says the CSA is developing its own long-term space policy, adding Canada's policy is likely to line up with that of the Obama administration, which outlines goals "very similar to the types of things that we would like to do."

MDA's Oldham says a piecemeal focus by global partners -- where each country offers up expertise in the areas they excel in -- is the way to reach the next generation of space exploration -- and ultimately, Mars.