NordSpace Announces SHARP Program, Canadian Hypersonic and Space Research Systems for Defence Applications

NordSpace's SHARP Arrow Render

MARKHAM, ONTARIO, CANADA, March 18, 2025 /EINPresswire.com/ -- NordSpace, a Canadian space technology company working to develop the nation's first orbital space launch vehicle and operational commercial spaceport, unveiled its SHARP (Supersonic and Hypersonic Applications Research Platform) program on March 13th, 2025. SHARP is NordSpace's program to offer dual-use solutions that assist Canada and allied nations with low cost, high speed, and high altitude missions operating at the edge of space in microgravity, built for cold-weather operations, flown from secure sites across the country. The SHARP program consists of three key responsive products designed, manufactured and flown in Canada, derived from the company's dual-use space systems powering its orbital class launch vehicles. The three products are SHARP Arrow, SHARP Sabre, and M2S-HyRock. The SHARP program is exploring partnerships with several secure sites across Canada for strategic and reliable operations, starting in the provinces of Ontario and Manitoba.

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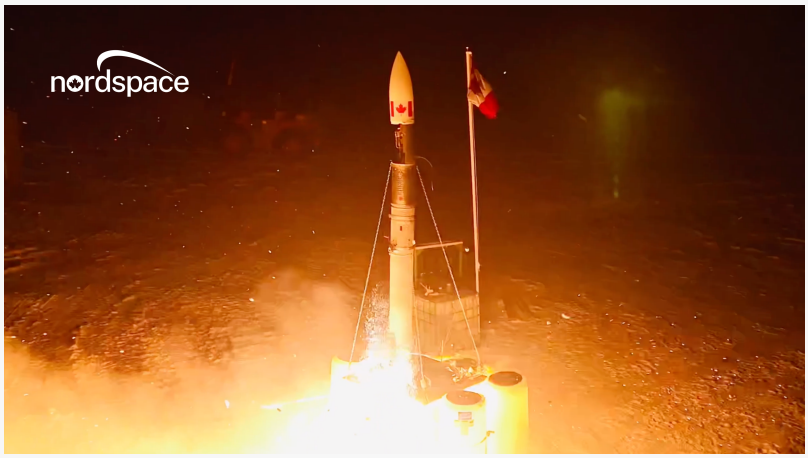
>
> *Rahul Goel, CEO*

SHARP Arrow is a fixed-wing rocket powered unmanned aerial vehicle (UAV), capable of conducting research, reconnaissance, or intercept missions to and from any standard airport runway. It is being designed to be both the fastest and highest flying winged aircraft ever created in Canada, a title still held by the legendary Avro Arrow. The vehicle may be autonomously flown or remotely piloted, and is capable of carrying a variety of medium-sized payloads depending on the mission profile. SHARP Sabre is a modified version of NordSpace's Taiga rocket, designed to reach hypersonic speeds with large-sized payloads.

Recent shifts in the geopolitical climate necessitate Canada's prioritization of investing in and building in Canada to bolster its national defence, as Arctic and national sovereignty are challenged. NordSpace's SHARP program is specifically designed to leverage the company's growing expertise in high performance space propulsion systems to support the nation in its efforts to modernize and invest in domestic defence capabilities. The SHARP vehicles are expected to enable a substantial number of use-cases beyond defence, including biological research in microgravity, manufacturing, disaster response, telecommunications, and more. Individuals or organizations interested in leveraging NordSpace's SHARP capabilities are encouraged to contact the company directly for more information including timelines and product specification sheets.

NordSpace's SHARP Sabre Render



NordSpace's Rocket Static Fire

Both SHARP Arrow and SHARP Sabre are designed for rapid launch, ease of use, and reusability, leveraging optionally storable liquid rocket propellants and sustainable fuels. The M2S-HyRock engine powers the two vehicles, and is a modified version of NordSpace's Hadfield engines for its orbital class launch vehicles. M2S-HyRock is a 3D printed multi-fuel multi-purpose liquid regeneratively cooled rocket engine optimized for storability and responsive operations, with qualification tests being conducted in 2025 at NordSpace's Canadian Space Research Range using the Darkhorse engine test cell. The SHARP program highlights the benefits of NordSpace's commitments to vertical integration and scalable liquid rocket propulsion systems which offer unique flexibility, controllability, and high-performance characteristics enabling these dual-use functions.

Rahul Goel, CEO and Founder of NordSpace said "The time to build and invest in Canada is now, and there is not a second to lose. We have a unique window of opportunity to build a stronger nation and become a more capable ally. We fundamentally believe the pursuit of excellence in space is what sets the greatest nations apart, because this pursuit is a test of that nation's peoples to push every frontier to its absolute limit. And in the wake of this pursuit, technologies and capabilities on the ground remain that enrich, sustain, and secure those same people and

their way of life. That security and sovereignty has never been more important to Canada, and we believe NordSpace's SHARP program is the first step towards building a more resilient nation. NordSpace is proud to extend its growing track record of speed and excellence in space propulsion systems in this critical and largely untapped domain for Canadian sovereign defence capabilities."

Minister of National Defence, Bill Blair, described in Canada's updated defence policy publication that "states are rapidly building up their military capabilities in ways that impact our security in the Arctic—including submarines, long-range aircraft and hypersonic missiles that move faster and are harder to detect. As the Arctic becomes more accessible to foreign actors, we need to ensure our military has the tools to assert our sovereignty and protect Canada's interests." Through this policy, Canada will invest $8.1 billion over the next five years and $73 billion over the next 20 years in national defence. Canada has not met NATO's 2% of GDP defence spending target - in fiscal year 2023-2024 it was 1.31% of GDP.

NordSpace successfully performed a fully integrated test of its Taiga suborbital rocket system on January 14, 2025, from which SHARP Sabre is derived. The company is planning for its first launch of this vehicle from its private spaceport, Spaceport Canada, later this year and is working closely with the Government of Canada and the Province of Newfoundland and Labrador on licensing, approvals, and reviews.

About NordSpace

NordSpace, established in 2022, develops vertically integrated solutions for responsive orbital launch vehicles, spaceports, turn-key satellites, and mission-critical software systems. 100% designed, built, and flown in Canada to go from anywhere on Earth, to anywhere in space. NordSpace is hosting the Canadian Space Launch Conference on April 29, 2025 at the Canadian Aviation and Space Museum in Ottawa.

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