# **Innovation in Space and Defence**

MDA has been a trusted provider of industry-leading radar satellite systems and imagery, ground systems, space robotics and sensors, satellite antennas, electronics and payloads, surveillance and intelligence solutions, and defence systems for customers in international government and commercial sectors for five decades. The company's breadth of expertise, and long history of innovative industrial firsts has made it the go-to source for advanced technology and mission-critical solutions for exploring space, and monitoring and understanding land and maritime change and activity anywhere on Earth.

MDA has five principal value streams:

### Space Radar

MDA designs and builds end-to-end synthetic aperture radar (SAR) missions including spacecraft and sensors, and provides supporting infrastructure and operations, advanced radar analytics, services and data commercialization. SAR technology captures imagery through darkness, clouds and fog; capabilities that are ideal for use in regions prone to cloud cover, or have little or no daylight during winter months. MDA is currently building the spacecraft and ground system for the Canadian Space Agency's RADARSAT Constellation Mission (RCM), the follow-on mission to MDA's successful RADARSAT-1 and -2 missions that will provide global maritime surveillance, disaster management, and ecosystem monitoring.

#### Space Robotics, Sensors and Automation

Creator of the original Canadarm, MDA's pioneering space robot successfully operated on 90 space shuttle missions, and its next-generation Mobile Servicing System (Canadarm2 and Dextre) has enabled the construction and maintenance of the International Space Station since 2001. MDA is a key provider of space cameras, LiDAR sensors, robotic arms, and scientific instruments for applications including onorbit rendezvous missions, asteroid sampling, and planetary exploration. Today, MDA is revolutionizing on-orbit satellite servicing and space exploration missions, while driving change in medicine, nuclear and aerospace industry with robotics automation.

## Satellite Antennas, Electronics and Payloads

MDA's satellite payloads, antennas, and electronics enable fixed, high-throughput and mobile communications systems. MDA antennas and electronics also provide solutions for space radar, exploration, science navigation and remote sensing downlinks, telemetry and telecommand systems and inter-satellite communications that fulfill worldwide customers and governments' needs for highly reliable communications and state-of the art Earth observation solutions.

### **Defence Systems**

MDA's innovative defence solutions span the space, air, maritime and land domains and include end-to-end command, control, communications, intelligence, surveillance and reconnaissance systems and services. MDA's broad understanding of the operations and systems in all domains enables us to provide highly operational, highly reliable solutions that interoperate across domains and between allied forces.

# **Ground and Information Systems**

MDA is a leading provider of multi-sensor Earth observation ground systems, with capabilities that include satellite mission planning, imagery and data capture, processing and analytics. Ground systems support the imaging satellite constellations of governments and commercial enterprises that are used to monitor change on Earth, and protect the safety and security of people across the globe. MDA has leveraged its expertise in geospatial information to serve the global aviation market with advanced aeronautical information management solutions, and modernizes government agencies with powerful land title registry and cadastral systems.

