USGIF is a non-profit educational Foundation dedicated to promoting the geospatial intelligence tradecraft and developing a stronger GEOINT Community with government, industry, academia, professional organizations and individuals whose mission is the development and application of geospatial intelligence to address national security challenges.

For more information on the Foundation and its community programs, please visit www.usgif.org.

THE COMMERCIAL SYNTHETIC APERTURE RADAR SATELLITE WORKING GROUP

The United States Geospatial Intelligence Foundation (USGIF) and its members have established the Commercial Synthetic Aperture Radar Satellite Working Group (CSARS WG) with the aim to explain the capabilities and advantages of space-based Synthetic Aperture Radar (SAR) as well as to provide hands-on learning and training for the user community. The Working Group is comprised of USGIF members MacDonald, Dettwiler and Associates Ltd. (MDA), the commercial provider of RADARSAT-1 data and operator of RADARSAT-2; Infoterra GmbH, the German part of Astrium GEO-Information Services and commercial operator of TerraSAR-X and TanDEM-X; and e-GEOS S.p.A., the commercial operator of the COSMO-SkyMed constellation.

MDA, Infoterra, and e-GEOS originally approached USGIF with the idea for a working group to further promote the tradecraft and educate the GEOINT Community on the wide range of capabilities SAR provides. Commercial SAR plays a significant role in environmental monitoring, earth-resource mapping, and military applications requiring broad-area imaging at high resolutions, independent of weather and lighting conditions. It has been used for decades to support these applications.

As its first community activity, the USGIF CSARS Working Group, in cooperation with the National Geospatial-Intelligence Agency (NGA), is providing commercial SAR training to the Combatant Commands and other interested users. The training aligns with the group’s mission of promoting the value and use of commercial space-based SAR data products and services through education and other activities. This, and future similar events, will provide an introduction to SAR, provide discussion on its unique capabilities and utilities, and demonstrate applications with hands-on learning and interpretation of real-life scenarios.

Future initiatives from the group will include training programs and workshops as well as position papers, educational materials, and other tradecraft efforts as it promotes the interoperability and integration of commercial space-based SAR data products and services as a component of geospatial intelligence operational capabilities.

Aviation Week recognized the pioneering work of the three CSARS Working Group member companies to “make radar imagery an essential element of geospatial information packages for government, defense and enterprise applications,” by awarding them with the 2011 Laureate Award.

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MDA is a world leader in the delivery of end-to-end satellite missions, high-performance sensors and payloads, and geospatial intelligence solutions. MDA is the commercial provider of RADARSAT-1 data and the operator of the RADARSAT-2 satellite.

MDA solutions are vertically integrated, including the development of space missions, the supply of multi-mission direct downlink stations, and the delivery of advanced geospatial intelligence products. This capability provides customers with complete control of the entire data acquisition and management chain to support their operations.

The cloud penetrating RADARSAT satellites offer the most flexible imaging modes and widest swaths commercially available. This versatility supports a large variety of applications from near real-time wide area maritime surveillance to high resolution site monitoring. MDA’s military trained analysts exploit the unique properties of SAR data and provide advanced geospatial intelligence products that allow organizations to seamlessly integrate commercial SAR into their daily operations.

Infoterra GmbH is an operating unit of Astrium GEO-Information Services, and a leading provider of Earth observation and geographic information products and value-added solutions. It holds the exclusive commercial exploitation rights for the unique high-resolution radar satellites TerraSAR-X and TanDEM-X. Building on the satellites’ outstanding capabilities, Infoterra offers imagery and direct reception services, and a range of sophisticated products and services such as topographic and thematic mapping, digital elevation modeling, change detection as well as site monitoring and object identification. Dedicated training services complete the service portfolio.

Astrium GEO-Information Services operates a multi-resolution/multi-sensor constellation with optical and radar sensors as well as aerial surveying capabilities and delivers ready-to-use and customized information solutions. Specific applications such as risk management, change monitoring, crisis intervention planning, maritime surveillance, and the targeted preparation of defense and security related missions benefit from complex project-based solutions using the company’s geo-information technologies.

e-GEOS S.p.A.

e-GEOS is an Italian Space Agency (20%) and Telespazio (80%) company. It is a leading international player in the geospatial business. e-GEOS offers a broad range of products and services in the Earth observation and in the geospatial application domains, using optical and radar satellites and aerial surveys.