

## **CAIRGIS Technology**

CAIR has developed a GIS technology, named CAIR-GIS with the objective of providing the three military services access to this critical technology in a sustainable manner. CAIR-GIS technology is completely under the control of CAIR and therefore enables user specific customization, sustainable licence free deployment and obsolescence resistance. CAIR-GIS technology is a suite of GIS libraries which can be customised to meet the specific GIS requirements of a collaborative defence environment that will enable netcentric operations. CAIR-GIS libraries can be leveraged to realize military GIS applications for visualization of situational awareness, decision support and planning, and analysis of military operations.

CAIR-GIS support the following key functions:

- (a) Creation and composition of thematic maps and operation overlays.
- (b) Spatial data Interoperability: Support for majority of commonly used map and image data formats and Geo-database with various RDBMS like PostgreSQL and Oracle
- (c) Scale space visualisation: Retrieval and rendering of spatial data based on Level of Details (LoD) and view extent.
- (d) On the fly projection of map data with map read outs (LLA, ENA, IMGR, GEOREF)
- (e) Seamless integrated visualization and analysis of topographic and hydro-graphic data for amphibious operation support
- (f) Decision support aids based on spatial data analysis and integrated tools for military specific requirements
- (g) Portable Military Symbol Library that caters the requirements of Tri- Services and overlay marking
- (h) Visualisation and handling of live data from sensors like GPS, Compass, Radars
- (i) Multiplatform support: Support for Linux and Windows Operating Systems

CAIR-GIS is currently being exploited in the development of military applications. It has been already integrated and embedded with different systems to provide the crucial spatial visualization of sensor tracks with digital map and images in the background.