

## ABSTRACT

### The Design of a Regional Semi-Automated Cartographic System for the Caribbean

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Cartographic products are vital for the visualisation of all types of spatial phenomena. This visualisation is essential for the comprehension, analysis and communication of spatial data and thus supports and facilitates physical planning and resource management. Development within the Caribbean is hindered by out of date maps and maps that are not tailored to specific requirements of users.

This thesis reviews and evaluates the existing resources utilised for cartographic production within the Caribbean, identifies modern equipment and procedures appropriate to the needs of the region and designs a regional semi-automated cartographic system (ReSACS). The system designed utilises a distributed network model in order to attain economies of scale and to redound to the benefit of all the states of the region. The ReSACS will generate revenues, stimulate the economy, serve as a support for GIS/LIS establishment and maintenance, allow for synergism in cartography and develop cartographic skills within the region while providing up-to-date map products in a timely fashion.

Aspects of the semi-automated cartographic system; map revision and production using the processes of digital photogrammetry and GIS and desktop publishing software, were tested for applicability and feasibility. An implementation plan for the ReSACS is also proposed to be accomplished in phases.