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Information Superiority generated through proper application of Geoinformatics

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Information management and especially geoscience information delivery is a very delicate task. If it is carried out successfully, geoscientific data will provide the main foundation of Information Superiority. However, improper implementation of geodata generation, assimilation, distribution or storage will not only waste valuable resources like manpower or money, but could also give rise to crucial deficiency in knowledge and might lead to potentially extremely harmful disasters or wrong decisions.

Comprehensive Approach, Effect Based Operations and Network Enabled Capabilities are the current buzz terms in the security regime. However, they also apply to various interdisciplinary tasks like catastrophe relief missions, civil task operations or even in day to day business operations where geo-science data is used.

Based on experience in the application of geoscience data for defence applications the following procedure or tool box for generating geodata should lead to the desired information superiority:
1. Understand and analyse the mission, the task and the environment for which the geodata is needed
2. Carry out a Information Exchange Requirement between the user or customer and the geodata provider
3. Implementation of current interoperability standards and a coherent metadata structure
4. Execute innovative data generation, data provision, data assimilation and data storage
5. Apply a cost-effective and reasonable data life cycle
6. Implement IT security by focusing of the three pillar concepts Integrity, Availability and Confidentiality of the critical data
7. Draft and execute a service level agreement or a memorandum of understanding between the involved parties
8. Execute a Continuous Improvement Cycle

These ideas from the IT world should be transferred into the geoscience community and applied in a wide set of scenarios. A standardized approach of how to generate, provide, handle, distribute and store geodata will can reduce costs, strengthen the ties between service costumer and geodata provider and improve the contribution geoscience can make for achieving information superiority for decision makers.