

GIS BASED AIR DEFENCE RADAR INTEGRATION SYSTEM

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Every minute of every day, hundreds of aircrafts are in the skies above the Sri Lanka. In order to project a clear air picture and deal effectively with unknown airborne objects and unauthorised intrusions, the identification of air surveillance data is a mandatory requirement in Air Defence to recognise, combat and destroy raiding forces. During this process, time is the most vital factor. Prompt and correct identification is therefore important for the success of subsequent operations.

Having detected a target, it is imperative that its identification is ascertained within the shortest possible time, in order to initiate any tactical action. Therefore it is necessary to establish an Air Defence Identification Zone in a centralized command center which receives an integrated radar picture, flight plan data and required sensitive data to identify tracks with least possible delay. However, these tracks from different radars/ agencies should not duplicate or miss during the identification process. Achieving precise identification with minimum time delay in an integrated display will be a challenge since the errors in system may lead to a National disaster which could not be reversible.

GIS based Radar Integration System is received data from multiple sources as available including multiple radars, surface observation and Automated Dependent Surveillance Broadcast (ADS-B) data in order to integrate them by using intelligent automated algorithm and provide a clear picture on single display. Further it incorporates elements of Aeronautical Fixed Telecommunication Network (AFTN) data, intelligent data and other relevant data in to the system for quick and easy identification of tracks with minimum time delay.

