Fusion of Airspace Surveillance Systems Data

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***Abstract*—This document proposed and explored a fusion data model of primary radar systems and Identification Friend or Foe (IFF) systems of an airspace control system, in which coordinates calculated by data of primary radar systems for air objects for which there are no response signals of IFF systems are entered into the air object form, and if there are response signals from the IFF systems, the coordinates of the air object that are included in the air object form are estimated based on the weight fusion of the air objects coordinates calculated according to the data of both primary radar systems and IFF systems, which allows improving the quality of information support for decisions makers in the airspace use monitoring system.**

Keywords—primary radar, IFF, air object, aircraft responder, response signal, probability of information support.

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