Evaluation of Measuring Accuracy of the Airborne Object Azimuth when Fusion the Primary Data Radar Observation Systems

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***Abstract*—In the paper, a model for data fusion from primary radars and the Identification Friend or Foe (IFF) system, from the airspace control system, is proposed and investigated. It calculates the azimuth of an air object for which there are IFF systems response signals, this allows for a fusion based on Bayesian azimuth data algorithms taking into account the weight merge of the azimuth of an air object estimated from both primary radar and IFF systems. This makes it possible to improve the quality of measuring the coordinates of airborne objects and, as a result, the quality of information support for decision makers.**

Keywords—primary radar; IFF; air object (AO); aircraft responder; response signal; probability of information support

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