

Fusion of Discrete Evaluation of the State Vector of Air Objects Based on 4D Measurement

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Abstract—The paper shows that successive transition to 4D measurements of the air objects location by each surveillance system included in the information network allows to create a partially synchronous information network of observation systems. This allows to coordinate the processes of both receiving and processing data in scattered information systems, which predetermines the resolution of technical contradictions that cannot be resolved in existing asynchronous information networks of observation systems, in particular, to merge data from observation systems during the filtration phase of an air object consequence, exclude tertiary data processing in the information network of surveillance systems.

Keywords—air traffic control (ATM); surveillance systems; data fusion; trajectory filtering; multiradar processing.

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