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Advancement of Security Alarm Aeronautical Chart Visualization in Low Altitude Airspace

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Abstract: Security alarm aeronautical chart in low altitude airspace is an important research problem in low altitude airspace management field. The corresponding aeronautical chart visualization technology can be widely used in air obstacle avoidance, flight warning, etc. In the paper, the research development of security alarm aeronautical chart visualization in recent years is reviewed and summarized. This paper presents the flight safety status of aircraft in low altitude airspace. The key technologies of security alarm aeronautical chart visualization are then discussed, which include the multisource data acquisition with high resolution, the ground information survey, construction of terrain visualization model, and security alarm of aircraft in low latitude airspace. The related applications of the state-of-the-art technologies in the security alarm aeronautical chart visualization fields and the trend of development is discussed, which could serve the specialist and practitioners in the related fields.

Keywords: low altitude airspace; aeronautical chart; security alarm; terrain visualization