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Author: Ms. Rong Sun

Beijing Institute of Aerospace Systems Engineering, China Aerospace Science and Technology Corporation
(CASC), China, sunrongcindy@gmail.com

Mr. Yichao Zhang

Beijing Institute of Aerospace Systems Engineering, China Aerospace Science and Technology Corporation
(CASC), China, frogchao@126.com

Mr. Yi Chen

Beijing Institute of Aerospace Systems Engineering, China Aerospace Science and Technology Corporation
(CASC), China, chenycalt@gmail.com

THE INTEGRATED APPLICATION OF SATELLITE COMMUNICATION IN CIVIL AVIATION
AREA VIA SPACE NETWORK

Abstract

Satellite communication could meet the application demand of Civil Aviation ATC information because of its large coverage and various application environment of point to point communication. Civil aviation mobile satellite communication service can use satellite communication in long distance communication, which can provide voice and data communication services for pilots and air traffic controllers between aircraft and ground. Satellite communication has broad application prospects in the emergency communication of civil aviation. On the disaster rescue, the civil aviation satellite communication network can play an important role as an emergency communication means. Advanced technologies could provide more precise and safe flight method and more efficient air traffic management mode, which could cover all flight stages from route, terminal area to approach and landing. PBN combines the advanced airborne equipment with satellite navigation and other advanced technologies. Automatic dependent surveillance broadcast (ADS-B) technology, satellite navigation and communication technology will provide more safe and effective air traffic surveillance means, which can effectively improve the operation situation of controllers and pilots, increase monitoring coverage, improve air traffic safety level, airspace capacity and efficiency. The multi constellation compatible satellite navigation technology will be used to provide continuous, reliable and accurate positioning information for the application of ADS-B. In the future, the integrated application of satellite communication will be used in civil aviation ATM system and the emergency security system, etc. We will continue to make use of the advantage of Space Network technology to achieve low cost, flexible and seamless coverage of communication.