

# **An overview of protected satellite communications in the intelligent age**

June 22 2021

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Protected Satellite Communications (SatComs) exhibit specific characteristics such as security, intelligence, anti-jamming, and nuclear disaster survivability. They constitute one of the key research topics in

modern communications. Currently, the United States is using the latest Advanced Extremely High-Frequency (AEHF) system to provide protected communications. Other countries are also employing their own protected SatCom systems to meet future operational requirements. Furthermore, in the modern intelligent age, many intelligent-related technologies are introduced into the protected SatCom systems to provide more secure and efficient communication services.

Recently, a survey under the title "An overview of protected [satellite communications](#) in the intelligent age" was published in *Science China Information Sciences* by Changhong Wang, Zhongshan Zhang, Jiayi Wu, Chaofan Chen, and Fei Gao from Beijing Institute of Technology.

In this paper, a comprehensive overview of the protected SatCom systems is presented. The critical technologies used in the protected SatCom systems were investigated and compared. Based on the previous discussion, several practical application scenarios were fully elaborated. Finally, the authors discuss the remaining challenges and look forward to future research directions.

It is obvious that a protected SatCom system is one of the most significant elements in military communications, and it will be a hot topic both now and in the future.

**More information:** Changhong Wang et al, An overview of protected satellite communications in intelligent age, *Science China Information Sciences* (2021). [DOI: 10.1007/s11432-019-2928-9](https://doi.org/10.1007/s11432-019-2928-9)

Provided by Science China Press

Citation: An overview of protected satellite communications in the intelligent age (2021, June

22) retrieved 16 April 2024 from <https://techxplore.com/news/2021-06-overview-satellite-intelligent-age.html>

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