

SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM (B2)
Advanced Satellite Services (4)

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RESEARCH OF GNSS SATELLITE INTEGRITY MONITORING BASED ON OBSERVATIONS
FROM LEOS**Abstract**

Integrity is the ability that the navigation system can give an alarm to users in time when the GNSS system has problems. As the development of GNSS system, it has been used widely, and the integrity of GNSS satellites is becoming more and more important, especially in the fields which refer to life safety. More and more LEOs with GNSS receivers are being launched which supports to monitoring the integrity of GNSS satellites using LEOs. Therefore, a method of monitoring the integrity of GNSS satellites based on observations from LEOs is proposed. The simulation of integrity monitoring based on GPS and GNSS-Aug constellation (A GNSS Augmentation constellation of 60 LEOs) shows that the constellation can monitor the integrity of GPS satellites using the method, and it has the potential to provide services and meet the demand of security for users.