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Cyber Security challenges on Critical Satellite communications on GovSATCOM and the upcoming IRIS²

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Abstract

Satcoms play an essential role on the terrestrial communications and will have greater penetration in the coming years. Critical communications on SATCOMs lies as a unique sector with the aim of protecting not only the critical infrastructures but also for the use by first responders in the field such as Police, Fire Service, Coast guard, health emergency and civil protection. This type of SATCOMs relies to GOVSATCOM which are served from GEO Satellites until the new space age that we are in now. In this new era, the space has changed thanks to the innovation and initiatives of big companies like (Space-X and One-WEb) where they have dropped the cost of launching and made mobile communications from LEO satellites realistic and feasible. Due to these new technological developments, ESA is also planning to complement COVSATCOMs with a new satellite constellation system that will enter in orbit on the coming years with satellites in lower orbits that is IRIS2. This new system will serve Government users on emergency situations offered robust mobile communications with low latency lower than 250ms and global coverage. However cyber security will play an important role against the penetration on this system. On this presentation we will focus on the challenges on cyber security for Satellite communications and more specifically on GOVSATCOM and the upcoming IRIS2 and how they can manage tchem.