

IAF SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM (B2)
Mobile Satellite Communications and Navigation Technology (3)

Author: Mr. Toon Norp
TNO, The Netherlands, toon.norp@tno.nl

Mr. Cyril Michel
Thales Alenia Space, France, cyril.michel@thalesaleniaspace.com
Mr. Nicolas Chuberre
Thales Alenia Space, France, nicolas.chuberre@thalesaleniaspace.com

3GPP ACTIVITIES ON 5G SATELLITE INTEGRATION

Abstract

3GPP is the worldwide standardisation organisation that is responsible for the specification of mobile telecommunications (e.g. 4G and 5G).

The 3GPP requirements specifications for 5G include a requirement that "The 5G system shall be able to provide services using satellite access". Furthermore, service continuity between land based 5G access and satellite based access is required. This will imply that future 5G devices may be used with terrestrial 5G networks and satellite based 5G networks interchangeably.

Though these requirements set the scene for the integration of satellite communications and 5G terrestrial communications, still a lot of further work is needed. The 3GPP SA1 requirements group is working on a study to further detail the requirements on satellite access integration. For example, the study makes clear how a satellite component can be integrated in a 5G network, what use cases are for 5G satellite integration and what the regulatory impacts are foreseen.

The study is targeted for completion in Q2 2018. Therefore the paper will be able to present the latest results from the 3GPP work on satellite integration.