

SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM (B2)
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Author: Mr. Robert D. Briskman
Sirius XM Radio, United States

Mr. Joseph Foust
Maxar, United States

NEW ADVANCED SATELLITE RADIO SATELLITES

Abstract

Satellite radio is a broadcast service primarily to vehicles consisting of over a hundred audio/data channels (i.e., music, news, sports, weather, traffic, commentary, etc.) fully described in previous IAC papers. The Sirius XM system currently operates throughout most of North America and Canada. The sixteen year history of the Sirius XM satellite constellations was provided at IAC-16, the constellations currently are configured with geostationary orbit satellites located at approximately 85 and 115 degrees West Longitude. These satellites are expected to operate at full performance for several years. However, given the time required to design, build, test and launch such large, complex satellites, new satellites have recently been ordered. The paper describes these new satellites, particularly with regards to their use of advanced technologies and their improved operational capabilities, such as being able to operate at full EIRP (Effective Isotropic Radiated Power) in either of the legacy Sirius or XM radio frequency bands.