

SPACE SYSTEMS SYMPOSIUM (D1)
Lessons Learned in Space Systems (5)

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TELECOM 2 LESSONS LEARNED - HOW SATELLITE DESIGN AND OPERATION HANDLING
FITS WITH END OF LIFE REQUIREMENTS**Abstract**

Since 70's, CNES has operated four families of geostationary telecommunication satellites (Symphonie, Telecom 1, TDF and Telecom 2). Telecom 2D was the final satellite of the latest family and it has been reorbited in november 2012. The four TC2 satellites have finished their service on a 8 years period (2004, 2005, 2009 and 2012) during which regulation and stakes have changed. When the satellites and associated operations were designed, the end of life requirements were not as important as they are today. Specific strategy has been put in place in order to fullfill the needs of electric and fluidic passivation as far as possible. But in many cases, satellite design did not allow to completely do the job. The aim of this article is to describe which TC2 satellite characteristics fit or not with the end of life requirements. In some cases, it has been possible to compensate for design limitations thanks to operational strategy, and in some cases, not. After lessons learned from these four satellite end of life operations, we will try to derive guidelines for geostationary satellite than could ease the achievement of end of life operations in the future.