



X-RAY ASTRONOMY 2019

Current Challenges and New Frontiers in the Next Decade

8-13 September 2019
CNR/INAF Research Area, Bologna, Italy

Contribution ID: 4

Type: **Poster**

XMM-Newton mission operations - preparing for the third decade

Friday, 13 September 2019 20:10 (2 minutes)

ESA's X-ray flagship the XMM-Newton space observatory is soon entering its third decade of operations. Both the spacecraft and the payload are operating without major degradation and scientific demand is continuously very high. Changing the on board Attitude and Orbit Control System Software in 2013 we managed to reduce the fuel consumption by a factor of two, additionally reducing stress on the reaction wheels. Currently the Flight Control team is preparing a new thermal operations strategy of the tank system to ensure that the saved fuel is available for continuous usage. We will describe the status of implementation of the so called "fuel migration and replenishment" activities and make predictions how to operate the spacecraft with this concept potentially up to 2030+. Furthermore we describe the overall health status of the mission, the need for evolution of the ground segment and concepts on streamlining mission operations with continued high safety requirements using automation tools to keep the science return at the highest possible levels.

Topic

Affiliation

ESA/ESOC

Primary author: KIRSCH, Marcus (ESA/ESOC)

Co-authors: Dr FINN, Timothy (Telespazio Vega); Mr V. KRUSENSTIERN, Nikolai (Telespazio Vega); Mr MAGUNIA, Arnfried (Terma); Mr MARTIN, Jim (ESA/ESOC); Mr PFEIL, Norbert (Terma); Mr SALT, David (Telespazio Vega); Mr WEBERT, Detlef (Telespazio Vega); Mr WEISSMANN, Uwe (Telespazio Vega); Mr TOMA, Liviu (Telespazio Vega); Mr BENSON, Ian (Serco)

Presenter: KIRSCH, Marcus (ESA/ESOC)

Session Classification: POSTER SESSION