

ESA/ESOC real time data processing

Perez, J.¹; Agrotis, L.²; Fernandez, J.¹; Garcia, C.¹; Dow, J.³

¹GMV at ESOC, GERMANY;

²Symban Ltd, UNITED KINGDOM;

³ESA, GERMANY

ESOC has been operating most of the stations of the ESA/ESOC GPS tracking network in real time mode since 2003. So far, GPS measurements have been streamed from the remote sites to ESOC using internally developed tools and protocols. Data from some of the stations have been shared with the IGS Real Time Network since 2004. ESOC has been also involved in the development of a system for Real Time Navigation (RETINA). This is based on a sequential filter for the real time processing of the GPS and GLONASS observations and includes specially designed and built infrastructure elements for streaming the data and archiving and retrieving data and results.

In 2006 the IGS UDPrelay software has been installed at ESOC to get data from the IGS network and also to deliver the complete ESA/ESOC network to the IGS Real Time Working Group. An assessment of the strategy and results of the developed applications is made using the data from different sources including the current IGS Real Time Network.