**Proposal for new SIS-MIA Project**

Courtesy DLR/Jeremy Mayer

RTP for Space Applications:

When the MIA blue book was originally defined, the broadcast industry had centered on the MPEG-2 transport stream (M2TS) standard, originally released in 1995, as a method to send pseudo-packetized video over satellite networks. As the industry settled upon IP-based systems, M2TS was adopted as the *de facto* standard for transmission of compressed video via IP systems.

The nature of Delay Tolerant Networking (DTN) showcases the limitations of the M2TS standard. As M2TS performs interleaving and packetization with a very strict limit on packet-by-packet jitter, it becomes imperative that bundles are received in-order at a consistent rate, something which DTN does not excel at.  RTP is designed for the internet environment, and allows for variable sized packets, amongst other advantages with regards to synchronization of multiple sources, etc. DLR experimentation has shown that a system designed along the lines of RTP is well-suited to DTN networks.

Therefore, MIA proposes a blue book outlining the best practices for RTP as a transport for voice, video, and optional metadata in space-based DTN networks.