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KAZSTSAT: A TECHNOLOGY DEMONSTATION MISSION EXPORTING COMMERCIAL EARTH  
OBSERVATION SERVICES

**Abstract**

KazSTSAT has been a highly experimental and innovative technical demonstration Kazakh-British programme, unique in terms of technical novelty, cooperation arrangements, and programmatic approaches, culminating in a successful launch, commissioning and export commercial operations in orbit. The paper will focus on the lessons learned during the programme and the first 20 months of in-orbit operations providing the insights on how the mission was made a success despite of numerous typical and not so typical challenges encountered over more than 5 years of the programme, as well as the use of novel engineering collaboration approaches, and software defined everything solutions along with a wide range of virtualisation, and automated test technologies.