

IAF EARTH OBSERVATION SYMPOSIUM (B1)
Earth Observation Data Management Systems (4)

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KHALIFASAT IMAGE ORDER HANDLING

Abstract

KhalifaSat is the United Arab Emirates (UAE) third earth observation satellite. It was launched into orbit on the 29th of October 2018. The satellite is owned and operated by the Mohammed Bin Rashid Space Centre (MBRSC) to provide electro-optical images that can be commercialized for users within the United Arab Emirates and beyond and to develop and implement new technologies not used in DubaiSat-1 and DubaiSat-2. KhalifaSat is designed for a sun-synchronous orbit of 613 km, with a spatial resolution of 0.73 m PAN and 2.98 m Multispectral (MS), and a Swath of 12 km at nadir. This paper highlights the uses of KhalifaSat imagery order handling. The satellite images are processed at Mohammed bin Rashid Space Centre headquarters in Dubai according to the functional specifications requested by the commercial clients and governmental entities to meet a range of urban planning, environmental monitoring, and geographical measuring criteria. The key feature in advanced imaging in KhalifaSat is the KhalifaSat Camera System (KHCS) which implements advanced image acquisition, increased image storage capacity, improved X-band data transmission speed, and image data encryption and compression.