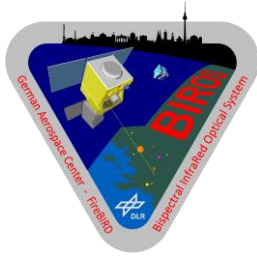


Logo



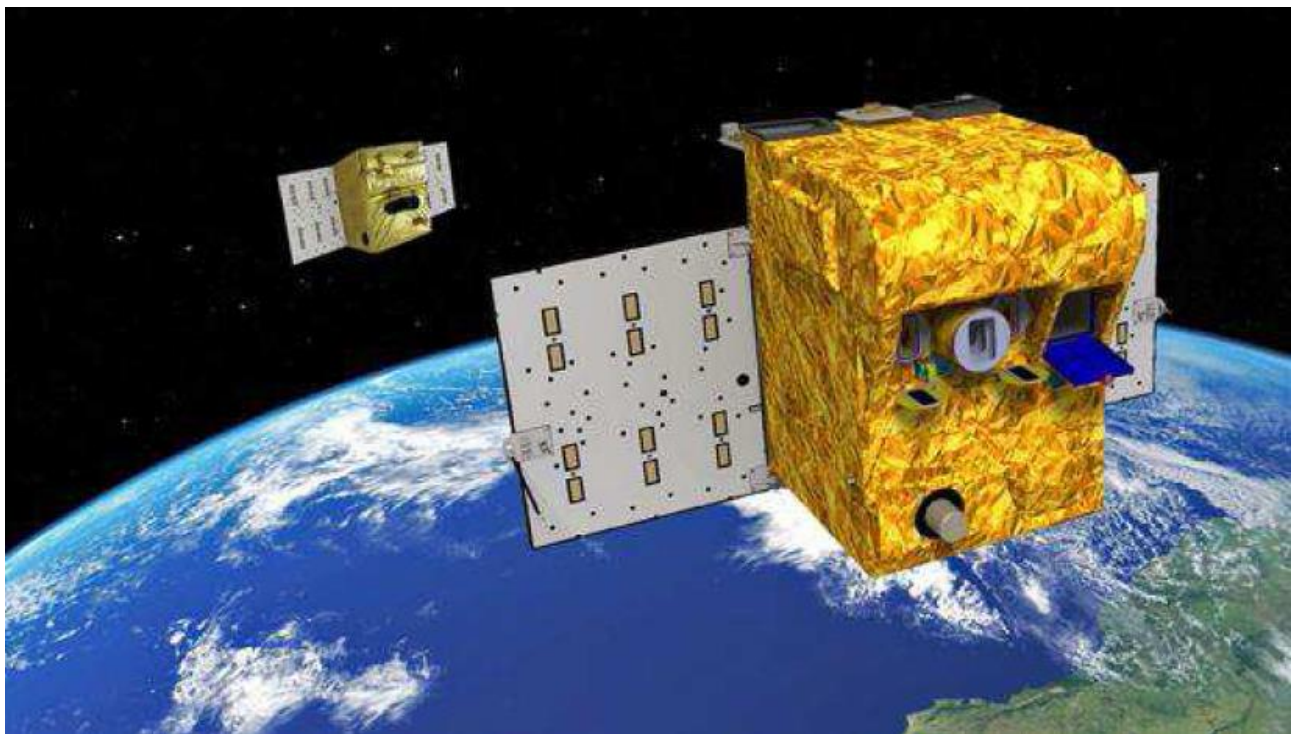
ecm *engineered*

 ceramic materials GmbH

NEWS – 22.06.2016

The BIROS-S HRSR CAMERA STRUCTURE – another Flight Heritage of Cescic®

Following the TET-1 program the German Aerospace Center (DLR) launched the next fire detecting satellite on 22th of June 2016. One of the core payload elements of the Berlin InfraRed Optical System (BIROS) satellite is the Hot Spot Recognition System (HSRS).

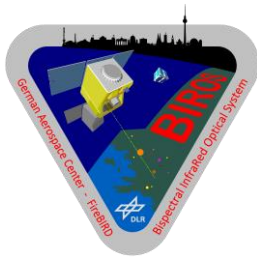


In close collaboration with the DLR, again ECM manufactured the camera structure of the HRSR using its ceramic composite material Cescic® in order to achieve the required low coefficient of thermal expansion, high stiffness and low mass.

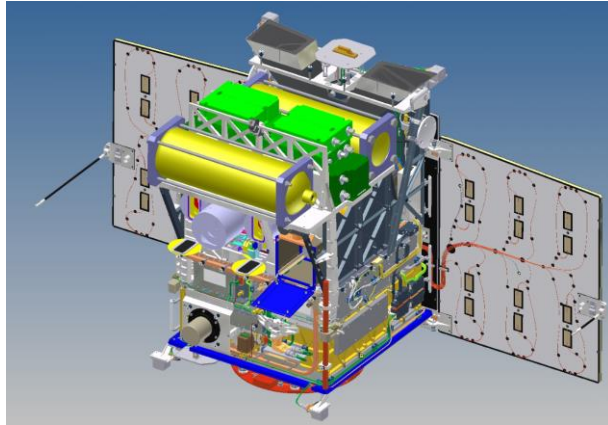
ECM – Engineered Ceramic Materials GmbH, Am Bleichbach 12, 85452 Moosinning, Germany

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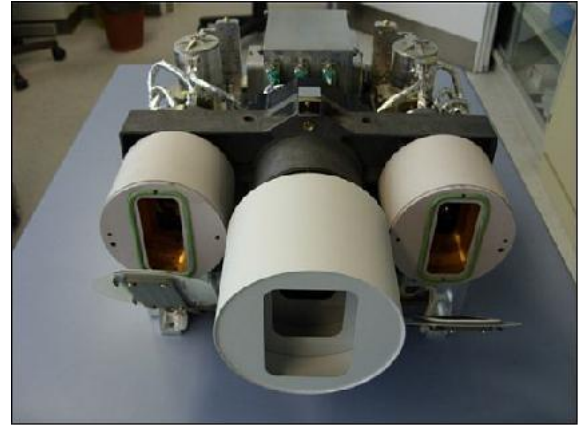
Management Board
Dipl.-Ing. Peter Mayrhofer, MBA
Dipl.-Ing. Matthias Krödel



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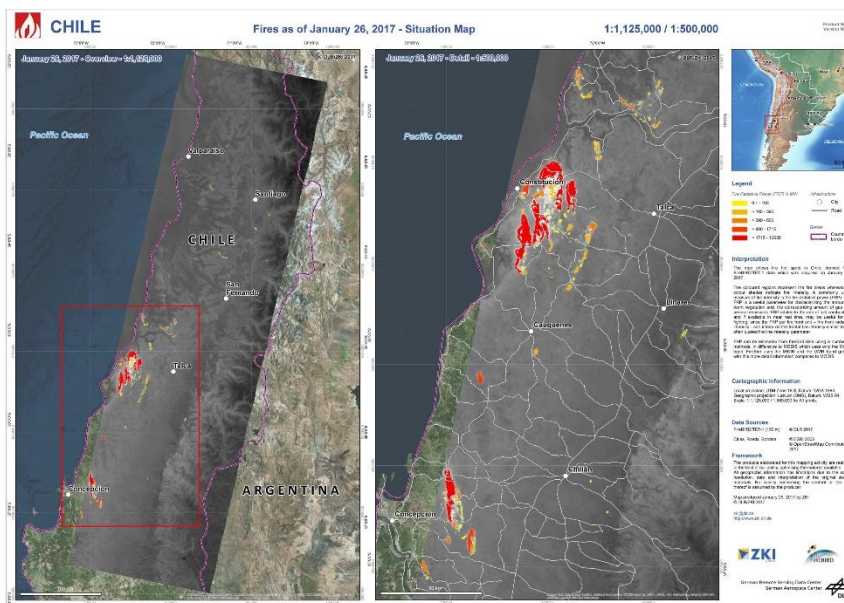
Schematic view of BIROS satellite (© DLR)



Cesium Structure (gray) integrated payload (© DLR)

The optical payload, designed and developed at DLR, consists of an assembly of three pushbroom cameras, one in the VNIR (Visible Near Infrared) range and two imagers in the infrared region. The overall objective is the detection and quantitative analysis of HTE (High Temperature Events) like wildfires and volcanoes.

Time is essential to support most effectively the decisions of fire managers in fire suppression planning, crew mobilization & movement. Therefore, on-board processing of fire front attributes, including geo-referencing and their direct transmission to the user on ground is a challenging task for small satellites, but it shall be technically feasible.



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