

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

Author: Mr. Gunter Schreier

Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany, gunter.schreier@dlr.de

Prof. Stefan Dech

Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany, Stefan.Dech@dlr.de

Dr. Erhard Diedrich

Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany, Erhard.Diedrich@dlr.de

Mr. Holger Maass

Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany, Holger.Maass@dlr.de

Mr. Eberhard Mikusch

Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany, Eberhard.Mikusch@dlr.de

Mr. Egbert Schwarz

Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany, egbert.schwarz@dlr.de

Mr. Hans Weber

DLR, German Aerospace Center, Germany, Hans.Weber@dlr.de

Mr. Thomas Hahmann

Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany, Thomas.Hahmann@dlr.de

GROUND SEGMENT FACILITIES OF THE EUROPEAN EARTH OBSERVATION PROGRAM
COPERNICUS AT THE GERMAN AEROSPACE CENTER**Abstract**

Copernicus (former GMES, Global Monitoring of Environment and Security) is the European Earth Observation Program, conducted jointly by the European Commission, ESA, EUMETSAT and the member states. The space segment of Copernicus, the Sentinels series of satellites, will start to be launched end of 2013, with the SAR imaging Sentinel-1 satellite, followed by Sentinel-2 and -3 a year later.

The core payload data ground segment is managed by ESA and established and operated by national partners. In this core ground segment, the DLR German Remote Sensing Data Center (DFD) was selected to install and operate Processing and Archiving Centers (PACs) for Sentinel-1, Sentinel-3 and for developing and operation of the Sentinel-5 precursor mission respectively. Major data management functions and systems of this PAC are based on DLR developments and facilities.

Besides the sentinel core ground segment, Copernicus also relies on the integration of national earth observation missions and collaborative ground segment. Within the national collaborative ground segment services, DLR ground stations in Germany and in polar areas will establish the acquire and process Sentinel-data, primarily to satisfy the need for near real time performance, as those in maritime domain awareness

The paper describes the DLR systems to be operated for the Sentinel ground segment and gives an overview of the collaborative ground segment and services to be established by DLR with national and international partners.