DESIS-PAV

Glossary and Abbreviations

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DISTRIBUTION LIST

The DESIS-PAV documents are stored in the corresponding folder of the DESIS-PAV Teamsite

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CHANGE RECORD

Issue	Date	Chapter	Change
1.0		all	first issue
1.1		all	Based on several RIDs of CDR

CONTENTS

1. Introduction 8
1.1 Purpose 8
1.2 Scope 8
2. References 9
2.1 Applicable Documents 9
2.2 Reference Documents 9
3. Terms and Abbreviations 10
4. List of Aberrations 0

LIST OF FIGURES

None

LIST OF TABLES

Table 2-1 Applicable Documents 9
Table 2-2 Reference Documents 9

1. Introduction

1.1 Purpose

This document provides references to terms and abbreviations used throughout the DESIS-PAV Ground Segment. It serves to establish a common understanding between all project participants.

1.2 Scope

This document applies to the whole DESIS-PAV Ground Segment.

2. References

2.1 Applicable Documents

The following documents contain provisions which, through reference in the document on hand, become applicable to the extent specified herein.

Applicability ID and Document Title	Document ID and Issue
[AD01]	

Table 2-1 Applicable Documents

2.2 Reference Documents

Standards listed below have been used (in the sense of tailoring) to prepare the document on hand. Documents which are recognized best practices are listed for the purpose of information.

Reference ID and Document Title	Document ID and Issue
[RD01] ECSS-P-001B Glossary of terms	ECSS-E-10 Part 1B

Table 2-2 Reference Documents

3. Terms and Abbreviations

This document itself contains the abbreviations.

Abbreviation	Meaning	Explantation
1D	One-Dimensional	
2D	Two-Dimensional	
3D	Three-Dimensional	
ADC	Analogue to digital converter	
ADD	Archiving and Distribution of DESIS Data	
AOCS	Attitude and Orbit Control System	
AR	Acceptance Review	
ASTER	The Advanced Spaceborne Thermal Emission and Reflection Radiometer	
ATBD	Algorithm Theoretical Basis Document	
ATCOR	Atmospheric Correction	DLR SW for atmospheric correction
BAD	Broadcast Ancillary Data	
BAE	British Aerospace	
BIL	Band Interleaved by Line	
BOA	Bottom-of-Atmosphere	
BRISK	Binary Robust Invariant Scalable Keypoints	Image Matching Method
BSQ	Band Sequential	

CAL	Calibration	
CAV	DESIS Calibration and Validation	
CC	Cross-Correlation	
CCD	Charged-Coupled Device	
CDR	Critical Design Review	ECSS
CEOS	Committee on Earth Observation Satellites	
CMOS	Complementary Metal Oxide Semiconductor	
DM	Detector Map	
DN	Digital number	
DU	Dobson unit	
DC	Dark Current	
DEM	Digital Elevation Model	
DESIS	DLR Earth Sensing Imaging Spectrometer	
DEV	DESIS Development Processor	
DFD	Deutsches Fernerkundungsdatenzentrum	
DG	Direct Georeferencing	
DIMS	Data and Information Management System	
DLR	Deutsches Zentrum für Luft- und Raumfahrt	
DN	Digital Number	
DOP	DLR Operational Processor	
DPR	DESIS L1A, L1B, L1C, L2A Development Processor	
DT	Data Take	
ECEF	Earth Centered, Earth-Fixed (or ECI)	Coordinate system (L1C Processor)

ECI	Earth Centred Inertial	Coordinate system (L1C Processor)
ECR	Earth Centered Rotational (or ECEF)	Coordinate system (L1C Processor)
ECSS	European Cooperation on Space Standardization	
ECSW	EOWEB Catalogue Service for the Web	
EGP	EOWEB GeoPortal	
ELE	Elevation	
ELC	EXPRESS Logistics Carriers	
EOPS	EOWEB Order and Programming Service	
EOWEB	Earth Observation on the Web	
ESA	European Space Agency	
ESE	External Segment and Entity	
EUFAR	EUropean Facility for Airborne Research	
EXPRESS	EXpedite the PRocessing of Experiments to the Space Station	
FMC	Forward Motion Compensation	special DESIS acquisition mode
FOV	Field of View	
FP	Fundamental Point	
FPA	Focal Plane Array	
FQR	Flight Readiness Review	
FTP	File Transfer Protocol	
FWC	Full well capacity	
FWHM	Full width at half maximum	
GCA	Geometric Calibration	
GCP	Ground Control Point	

GDAL	Geospatial Data Abstraction Library	
GDEM	Global Digital Elevation Model	
GLCM	Gray-Level Co-occurence Matrix	
GNSS	Global Navigation Satellite System	
GPS	Global Positioning System	
GS	Ground Segment	
GSD	Ground sample distance	
HK	Housekeepings	
HSI	Hyperspectral Imagery or Hyperspectral Image	
ICD	Interface Control Document	
IFOV	Instantaneous field of view	
IIF	Item Information File	
IMF	Institut für Methodik der Fernerkundung	DLR specific branch
IMU	Inertial Measurement Unit	
INF	Abteilung Informationstechnik	DLR specific branch
INS	Inertial Navigation System	
ISS	International Space Station	
ITRF89	International Terrestrial Reference Frame for 89	
ITVV	Integration, Testing, Verification and Validation	
IVOS	Infrared and Visible Optical Sensors Subgroup	Subgroup of CEOS
K€	Thousand(s) Euro	
KO	Kick off	
KS	Kolmogorov-Smirnov statistical test	

L0	Level 0 data (also called raw data)	
L1A	Level 1A	Processor Component to generate L1A products
L1B	Level 1B	Processor Component to generate L1B products
L1C	Level 1C	Processor Component to generate L1C products
L2A	Level 2A	Processor Component to generate L2A products
LAX	Abteilung Landoberfläche	DLR specific branch
LDAP	Lightweight Directory Access Protocol	
LED	Light-Emitting Diode	
LeO	Leiter einer Organisationseinheit	DLR specific management structure
LLSQ	Local Least Squares	Image Matching Method
LoS	Line-of-Sight (vector)	
LTS	Local Tangential System	Coordinate system (L2C Processor)
LUT	Look-Up-Table	
MA	Monitoring & Alarm	
MIMU	Miniature Inertial Measurement Unit	
MODIS	MOderate-resolution Imaging Spectroradiometer	Mounted on both the Terra and Aqua Spacecrafts
MTF	Modular transfer function	
MUSES	Multi-User-System for Earth Sensing	
NIR	Near infrared	

NASA	National Aeronautics and Space Administration	
NBS	Abteilung Nationales Bodensegment	DLR specific branch
NZ	Neustrelitz	German location
OC	Ordering Control	
OGC	Open Geospatial Consortium	
OP	Oberpfaffenhofen	German location
OPG	Online/Offline Product Generation	
OPS	Operational processing system	
ORR	Operational Readiness Review	
ORTHO	Orthorectification	DLR SW for geometric correction
OS	Optische Sensorsysteme (Intrument Team DLR)	
OV	Operational Validation	
OT	Operating Tool	
PAD	Processing, Archiving and Distribution of DESIS Data	
PAV	Prozessieren, Archivieren, Verteilen von DESIS Hyperspektraldaten	
PBA	Abteilung Photgrammetrie und Bildanalyse	DLR specific branch
PDR	Preliminary Design Review	
PD-R	Programmdirektion Raumfahrtforschung und –technologie, kurz Programm-	direktion Raumfahrt
PGS	Payload Ground Segment	
PICS	Pseudo Invariant Calibration Site	
PL	Product Library	
POI	Pointing Unit (of the DESIS)	
PRNU	Photo-Response Non-Uniformity (see RNU)	

PSM	Processing System Management	
QA4EO	Quality Assessment for Earth Observation	Workgroup of CEOS
QL	Quicklook	
RAA	Relative azimuth angle	
QR	Qualification Review	
RNU	Response Non-Uniformity (correction)	
RNU	Response Non-Uniformity (see PRNU)	
ROI	Region Of Interest	
SAA	Solar azimuth angle	
SI	Spectral Image	
SNR	Signal-to-noise ratio (defined as the ratio of the mean by the standard deviation of an imagery area)	
SOFA	Standards Of Fundamental Astronomy	
SRC	Spectral and Radiometric Calibration	
SRC	On-board Spectral and Radiometric Calibration and Validation	
SS	Space Segment	
STS	Star Tracker Sensor	
SZA	Solar zenith angle	
SW	Software	
TBC	To Be Confirmed	
TBD	To Be Defined	
TOA	Top of atmosphere	
TBE	Teledyne Brown Engineering	

TSC	Teledyne Science Center	
UIF	User Information Services Interface Framework	
UIS	User Information Service	
UMS	User Management Service	
VAA	View Azimuth angle	
UTC	Coordinated Universal Time	
VIS	Visibility	
VC	Virtual Channel	
VNIR	Visible Near Infrared	
VSWIR	Visible Shortwave Infrared	
VZA	View zenith angle	
VVD	Vicarious Validation of DESIS Data	
WP	Workpackage	
UTM	Universal Transverse Mercator	
BRDF	Bidirectional Reflectance Distribution Function	
TOA	Time of Arrival or Top of Atmosphere	
RGB	Red-Green-Blue (Composite)	
AOT	Aerosol Optical Thickness	
WV	Water vapor	
WVC	Water vapor column	
XDibias	DLR Image Processing System	Part of the DESIS processing system

4. List of Aberrations

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