EGNOS PROJECT

ABBREVIATIONS AND ACRONYMS

<u>A</u>

A Analysis

AAIM Aircraft Autonomous Integrity Monitoring

ABS Anti Blocking System
AC Address Circular
AD Applicable Document
ACI Action Item Clarification
AD/R Architectural Design Review
ADD Architectural Design Document
ADP Acceptance Data Package

AENA Aeropuertos Espa □oles y Navegación Aérea (Spain)

AES Analysis & Evaluation Segment

AFCL Air Force Cambridge research Laboratory
AHRS Altitude Heading Reference System

AIR Inspection Aircraft & Independent Positioning

AIV Assembly, Integration and Verification AIVP Assembly, Integration and Verification Plan

AOC Advance Operational Capability

AOR Atlantic Ocean Region

AOR-E AOR Est

AOR-W Atlantic Ocean Region-West (INMARSAT III satellite)

AP Auto Pilot

APV Approach Operations with Vertical Guidance

ARINC Aeronautical Radio, INC

ARTEMIS Advanced Relay and Technology Mission Satellite
ARTES Advanced Research in Telecommunication Systems

ASE Agence Spatiale Europeenne

ASQF Application Specific Qualification Facility

ASQFRD ASQF Requirements Document

AT Acceptance Testing
ATC Air Traffic Control

ATM Air Traffic Management or

Asynchronous Transfer Mode

ATS Air Traffic Services
ATSP ATS Providers

AWOP All Weather Operations Panel

В

Baro Barometric altitude
BER Bit Error Rate

BIH Bureau International de l'Heure

BIPM Bureau International des Poids et Mesures

BITE Built In Test Equipment

BPF Band Pass Filter
Bps Bit per second

BPSK Bipolar Phase Shift Key

BSDR Baseline System Design Review

BSDR-C Consolidated BSDR

BSSC Board for Software Standardization & Control

BW Band Width

C

C Compliant

C&M Control & Monitoring C/A Coarse Acquisition

C1 C-band uplink frequency (C1 = 6,4 GHz)
C2 C-band downlink frequency (C2 = 3,6 GHz)

CAA Civil Aviation Authority

CAASD Centre for Advanced Aviation System Development

CADM Configuration And Data Management

CAT-1 Category 1 Precision Approach Phase of Flight CAT-2 Category 2 Precision Approach Phase of Flight

CC Configuration Control or

Core Computer

CCB Change Configuration Board or

Configuration Control Board

CCF Central Control Facility

CCI Communications Control Interface

CCITT Comite Consultatif International Telegraphique et

Telephonique ou

International Telephone and Telegraph Consultative

Committee

CCN Contract Change Notice
CDI Course Deviation Indicator
CDMA Code Division Multiple Access

CDR Critical Design Review
CE Communication Equipment

CEU Commission of the European Union

CFI Customer Furnished Item
CHA Channel of High Accuracy

CI Configuration Item

CIDL Configuration Items Data List

CIL Critical Items List or Configuration Items List

CIO Conventional International Origin

CL Client representative CM Compliant Multiple or

Configuration Manager or Configuration Management

CMO Configuration Management Office CMP Configuration Management Plan

CMT Centre de Mission et Traitement (Euridis)

or Commissioning and Maintenance Terminal

CN Change Notice

CNES Centre National d'Etudes Spatiales

CNMS Communication Network Management System CNS Communications Navigation & Surveillance

CO Change Order

COC Certification Of Conformance COQ Certification of Qualification

COS Continuity Of Service
COTS Commercial Off The Shelf
CPF Central Processing Facility
CPU Central Processing Unit

CR Change Request

CRB Change Review Board CRC Cyclic Redundancy Check

CRD Certification Requirements Document

CSA Channel of Standard Accuracy

CSAR Configuration Status Accounting Report

CSI Containment Surface Incident

CSU Channel Service Unit
CW Continuous Wave

<u>D</u>

D Demonstration

DAL Development Assurance level

DAT Digital Audio Tape

DB Data Base

DCN Document Change Notice
DCU Display & Control Unit

DD Detailed Design
DD/R DD Review
DDD DD Document
DDKP DD Key Point

DFS Deutsche Flugsicherung GmbH (D)
DGAC Direction Generale Aviation Civile (F)

3

DGPS Differential GPS
DH Decision Height
DIL Deliverable Items List
DJF Design Justification File

DLL Delay Lock Loop

DLR Deutsche forschungsanstalt für Luft – und Raumfahrt e.v.

DMA Direct Memory Access

DME Distance Measuring Equipment

DoC Depth of Coverage

DOD Department Of Defence (US)

DOP Dilution Of Precision
DOT Department Of Transport
DPU Data Processing Unit

DR Design Review

DRACAS Data Recording Analysis and Corrective Action System

DRAIM Differential RAIM

DRD Document Requirements Description
DRL Documentation Requirements List

DRMS Distance Root Mean Square
DRU Data Replaceable Unit

DSPU Digital Signal Processing Unit DSS Design Simulation Segment

DSU Data Service Unit

DVP Development Verification Platform Platform

DVPRD DVP Requirements Document

E

ECAC European Civil Aviation Conference

ECDIS Electronic Chart Display and Information System

ECEF Earth Centered Earth Fixed
ECO Engineering Change Order
ECP Engineering Change Proposal
ECR Engineering Change Request
ECRB External Change Review Board

ECS Electronic Chart System

ECSS European Co-operation for Space Standardisation

EDP EGNOS ILD Documentation Plan
EEE Electrical Electronic Electromechanical

EETES EGNOS End To End Simulation

EGN EGNOS

EGNOS European Geostationary Navigation Overlay Service

EIDP End Item Data Package

EIRP Equivalent Isotropic Radiated Power

EL Elevation

EMC Electromagnetic Compatibility EMP EGNOS Maintenance Plan

ENAV Ente Nationale di Assistenze al Volo (Italy)
ENMA EGNOS Network Management Application
ENMC EGNOS Network Monitoring & Control

ENT EGNOS Network Time

EOIG EGNOS Operators and Infrastructure Group

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EPO EGNOS Project Office

EPROM Erasable and Programmable Read Memory Only

EPUE EGNOS Prototype User Equipment EPUERD EPUE Requirements Document

ERAM EGNOS Requirements Allocation Matrix

ERNP European RadioNavigation Plan

ESA European Space Agency

ESA-CST ESA Centre Spatial de Toulouse

ESA HQ ESA Headquarters Paris

ESDV Early System Demonstration & Verification (activities)

ESM Electronics Support Measures

ESNP European Satellite Navigation Programme
ESRRD EGNOS Standard Receiver Document
ESSF EGNOS System Simulation Facility

ESTB EGNOS System Test Bed

ESTEC European Space Research and Technology Centre

(Noordwijk)

ESVS EGNOS Service Volume Simulator

ETFM Early Trials Final Meeting ETG European Tripartite Group

ETMS EGNOS Transport Management System

ETS Early Test System

EVP EGNOS Verification Plan

EUROCAE European Organisation for Civil Aviation Equipment

EWAN EGNOS Wide Area Network

<u>F</u>

FAA Federal Aviation Administration

FAF Final Approach Fix

FANS Future Air Navigation Systems
FDDI Fibber Distributed Data Interface
FDE Failure Detection and Exclusion
FDI Failure Detection and Isolation

FDIR Failure Detection, Isolation and Recovery

FDMA Frequency Division Multiple Access

FDS Flight Director System
FEC Forward Error Correction

FECP Front End Communication Processor

FEE (EWAN) Front End Equipment

FFT Fast Fourier Transform
FIR Flight Information Region

FIVP Factory Integration Validation Plan

FL Flight Level

FMAP Failure during Miss Approach Procedure FMECA Failure Mode Effects & Criticality Analysis

FMS Flight Management System FOC Full Operational Capability

FOCTF FOC Transition File

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FQP Factory Qualification Plan FQR Factory Qualification Review

FR Frame Relay

FTA Fault Tree Analysis FTE Flight Technical Error

FTRR Factory Test Readiness Review

<u>G</u>

G/S Ground Segment

GBA Geostationary Broadcast Area
GEO Geostationary Earth Orbit or

INMARSAT Geostationary satellite

GIC Ground Integrity Channel

GIVD Grid Ionospheric Vertical Delay
GIVE Grid Ionospheric Vertical Error
GLONASS GLObal Navigation Satellite System

GMDSS Global Maritime Distress and Safety System GNOS Geostationary Navigation Overlay Service

GNSS Global Navigation Satellite System

GNSS-1 GNSS First Generation

GNSS-P GNNS Panel

GPRS General Packet Radio Services
GPS Global Positioning System

GRAIM Ground RAIM

GRS Geostationary Ranging Stations or

Geostationary Ranging System

GRS-H GRS – Hartebeeshoek, South Africa

GRS-K GRS – Kourou, Guyana

GRS-S GRS – Singapore

GRS-T GRS - Toulouse, France

GS Ground Speed or

Ground Segment

GSBAS Geostationary Satellite Based Augmentation System
G-SBAS Geostationary-Satellite Based Augmentation Systems

GSCN Ground Segment Communication Network
GSM Global System for Mobile communications
GSRD Ground Segment Requirements Document

GSVP Ground Segment Verification Plan

GUI Graphical User Interface

GW GateWay Gyro Gyroscope

<u>H</u>

H/W Hardware

HAL Horizontal Alarm Limit

HDI HeaDIng

HDLC High Level Data Link Control HDOP Horizontal Dilution Of Precision

HDU Hard Disk Unit HE Hosting Entity

HID Hazardous Invalid Data

HMI Hazardous Misleading Information

HOW Hand Over Word
HPA High Power Amplifier
HPL High Precision Landing or

Horizontal Protection Level

HUNE Horizontal User Navigation Error

HW HardWare

HWE Hardware Engineer

Ī

I Inspection I/F InterFace

I/S Interference / Signal

IALA International Association of Lighthouse Authorities

IAP Interoperability Action Plan

ICAO International Civil Aviation Organisation

ICB Interface Control Board
ICD Interface Control Document
ICO Intermediate Circular Orbit
ICRB Interna Change Review Board
IDEF0 Integrated Design Functional model
IERS International Earth Rotation Service

IF Intermediate Frequency
IFF Identifier Friend (or Foe)
IGP Ionospheric Grid Points

IGS International GPS Service for Geodynalics

IKD In Kind Delivery

ILS Instrument Landing System or

Integrated Logistics Support

IMO International Maritime Organisation

INC Inmarsat Navigation Center
INMARSAT International MARitime SATellite

INS Inertial Navigation System
IOC Initial Operational Capability

IOD Issue Of Data or Issuance Of Data

IODC Issuance Of Data Clock
IODE Issuance Of Data Ephemeris
IODI Issuance Of Data Ionosphere

IODP Issuance Of Data PRN IOP Initial Operations Phase

IOR INMARSAT III – Indian Ocean Region

IP Internet Protocol

IPP Ionospheric Pierce Point

IRD Interface Requirements Document

IRS Inertial Reference System

ISDN Integrated Services Digital Network
ISNS International Satellite Navigation System
ISO International Organisation for Standard

ISOP In Service Operations Phase

ISVV Independent Software Verification and Validation

IT Integration Testing

ITRF International Terrestrial Reference Frame

ITT Invitation To Tender ITU International Time Unit

<u>J</u>

JAA Joint Aviation Authorities

JAR Joint Airworthiness Requirement JCB Joint Communications Board (ESA)

JTC Joint Tripartite Committee

JTSO Joint Technical Standing Orders

<u>K</u>

Kbps Kilobits per second

KO Kick-Off KOM KO Meeting

L

L1 L1-GPS frequency (L1 = 1575,42 MHz)
L2 L2-GPS frequency (L1 = 1227,2 MHz)
LAAS Local Area Augmentation System

LAD Local Area Differential
LADGPS Local Area Differential GPS

LAN Local Area Network

LAPB Link Access Procedure for Balanced circuits

LHC Left Hand Circular

LHCP Left Hand Circular Position
LMP Logistic Management Plan

LNA Low Noise Amplifier
LO Local Oscillator
LOC Line Of Code

LRU Line Replaceable Unit
LSA Logistic Support Analysis
LSB Least Significant Bit

M

M&C Monitoring and Control

MASPS Minimum Aviation System Performance Standard

MCC Master Control Centre

M-CCB Mission Configuration Control Board
MCC1 Principal Master Control Centre
MCC2 Backup Master Control Centre
MCC-P Master Control Centre (Primary)
MCCRD MCC Requirements Document
MCC-S Master Control Centre (Secondary)

MCU Management & Control Unit

MD Miss Detection ME Multipath Error

MEDLL Multipath Estimating Delay Lock Loop

MEL Minimum Equipment List
MLS Microwave Landing System

MMEL Master MEL

MMI Man Machine Interface

MOPS Minimum Operational Performance Standard

MPR Mission Performance Requirements

MRB Material Review Board

MRD Mission Requirements Document MRR Mission Requirements Review

MSAS Multi-transport Satellite-based Augmentation System

MSB Most Significant Bit

MSER Manager for in-SERvice phase MSG3 Maintenance Steering Group 3

MTB Mediterranean Test Bed
MTBF Mean Time Between Failures
MTBO Mean Time Between Outages
MTSAT Multi Transport SATellite

MTTR Mean Time To Restore an outage

N

NA or N/A Note Applicable

NAS National Airspace System or National Air Space

NATS National Air Traffic Services (UK)

NAV NAVigation sub-system

NC Non Compliant

NCC Network Control Centre

NCM Network Control Management NCR Non-Conformance Report

NCRB Non-conformance Review Board

NI Non Integrity

NIHID Non-Integrity Hazardous Invalid Data

NLES Navigation Land Earth Station

NLES-1B Backup to NLES-R

NLES-2B Backup to NLES-A

NLES-A NLES – Aussagel France
NLES-R NLES – Riesting Germany
NLESRD NLES Requirements Document

NM Nautical Mile

NMC Network Management Center NMF Network Management Facility NOC Network Operations Centre

NOCC Network Operation Control Centre

NOTAM Notice To Airmen

NPA Non Precision Approach
NPL National Physical Laboratory
NSA Navigation Service Availability
NSE Navigation System Error

NTW Network

NTWRD Network Requirements Document

<u>O</u>

O&M Operation & Maintenance
OCD Operation Concept Document

OCR Operational & Certification Requirement

OD Orbit Designation

OHA Operating Hazard Analysis

ORD Operations Requirements Document

ORR Operational Readiness Review

O/S Operating System

OSI Open Systems Interconnection

<u>P</u>

P&C Processing and Control PA Product Assurance

PACF Performance Assessment and Check-out Platform

PACFRD PACF Requirements Document PAD Packet Assembler-Disassembler

PAE PA Engineer PAM PA Manager

PAP Product Assurance Plan

PB-NAV Programme Board-Navigation (ESA)
PBMF Performance Budget Management File

PC Personal Computer

P-CCB Programme Configuration Control Board

PDOP Position Dilution Of Precision
PDP Project Development Plan
PDR Preliminary Design Review
PFA Probability of False Alarm

PFD Power Flux Density

PHD Project History Document

PHST Packing, Handling, Storage & Transport Plan

PIDS Prime Item Development Specification

PM Progress Meeting or Preventive Maintenance or Project

Management

PMD Probability of Missed Detection PMP Project Management Plan

PN Pseudo Noise

POP Points Of Presence or Preliminary Operations Phase

POR Pacific Ocean Region
PP Present Position

PPS Precise Positioning Service or

Pulse Per Second

PRE Pseudo-Range Error PRN Pseudo Random Noise

PS Power Supply

PS-CCB Project/System Configuration Control Board

PSC Project Safety Concern

PSPDN Packet-Switched Public Data Network
PSS Procedures, Standards and Specifications
PSTN Public Switched Telephone Network

PT Product Tree

PTT Public Telephone and Telegraph authority (National

organisation)

PTT Project Tracking Team

PU Portable Unit

PVC Permanent Virtual Circuit
PVM Procedure Verification Matrix
PVT Position, Velocity, Time

Q

QA Quality Assurance

QFE barometric pressure at runway threshold

QMS Quality Management System

QoS Quality of Service
QR Qualification Review

<u>R</u>

RAAS Regional Area Augmentation System
RAIM Receiver Autonomous Integrity Monitoring

RAM Reliability Availability and Maintainability or Random Access

Memory

RAMS Reliability Availability, Maintainability and Safety

RB Review Board

RCF Ranging Control Facility RCS Revision Control System

RCVR Receiver

RD Requirements Document or Reference Document

REC Range Error Correction

RF Radio Frequency

RFC RF Conversion or Request For Change

RFD Request For Deviation
RFDC RF Down Converter
RFE RF front End

RFI Radio Frequency Interference RFLAB RF measurement LABoratory

RFQ Request For Quotation RFW Request For Waiver

R-GEO Ranging via GEO satellites

RGIC Ranging and Ground Integrity Channel

RGS Ranging Ground Segment
RHC Right Hand Circularly polarised
RHCP Right Hand Circular Polarisation

RID Review Item Discrepancy

RIMS Ranging and Integrity Monitoring Station or

Remote Integrity Monitoring Station

RIMSRD RIMS Requirements Document

RMS Root Mean Square RNAV Radio NAVigation

RNP Required Navigation Performance or

Required Navigation Parameters

ROD Review Of Design ROR Range Only Radar

RPU Receiver Processing Unit RRC Range-Rate Corrections

RS Remote Station or Reference Station

Reference System Time

RTCA Radio Technical Commission for Aeronautics or

Radio Technical Committee of America

RTK Real Time Kinematics
RTOS Real Time Operating System

RTSS Real-Time Simulation Segment

RX Receiver

<u>S</u>

RST

S/C SpaceCraft S/W SoftWare

SA Selective Availability

SADT Structure Analysis and Design Technical

SAN Satellite Access Node

SARP(s) Standards And Recommended Practices

SAW Surface Acoustic Wave

SBAS Satellite Based Augmentation System

SC Software Component

SCAR Software Component Acceptance Review

SCAT-I Special CATegory I SCC Satellite Control Centre

SCL Station de Connexion et Localisation SCM Software Configuration Management SCMP Software Configuration Management Plan

SCO Software Change Order

SCQR/R Software Component Qualification Readiness Review

SCR Software Change Request

SCSI Small Computer System Interface

SDM System Definition Manual
SE EGNOS Subsystem Element
SECT System Engineering Core Team

SeKO Set Kick Off

SEP Support Equipment Plan

SFVP Support Facility Verification Plan

SGS Soviet Geocentric System SGS-90 Soviet Geodetic System

SIS Signal In Space

SIVP Site Integration Validation Plan

SL Service Level or Station de Localisation

SLA Service Level Agreement (with network service provider)

SLRD System Level Requirements Document or

SL Requirements Document Software Modification Report

SMR Software Modification Report SNA Satellite Navigation Application

SNAPAS Satellite Navigation Performance Analysis Software

SNMP Simple Network Management Protocol

SNR Signal to Noise Ratio

SNT Satellite Navigation Transponder SOC Spacecraft Operation Centre

SOLAS Safety of Life At Sea SOP System Operation Plan SOW Statement Of Work

SPACS Simplified Position Accuracy Calculation Software

SPM System Project Management

SPMP System Project Management Plan or Software Project

Management Plan

SPR Software Problem Report
SPS Standard Positioning Service
SQAP Software Quality Assurance Plan

SQL Software Query Language SQP System Qualification Plan SQR System Qualification Review

SR Standard Receiver or Software Requirements

SR/R Software Requirements Review SRAM Static Random Access Memory

SRB Software Review Board

SRD System Requirements Document or Software Requirement

Document

SRN Software Release Note

SSAR Sub System Acceptance Review
SSATR Sub System Acceptance Test Review

SSCDR Sub System CDR

SSDD System Segment Design Document SSFQR Sub System Factory Qualification Review

SSKO Sub System Kick Off SSN Sun Spot Number

SSPA Solid State Power Amplifier

SSPDR Sub System PDR SSR Site Selection Review

SSRD Sub-System Requirements Document SSTRR Sub System Test Readiness Review

ST System Testing

STD Software Transfer Document

STEP1 R-GEO augmentation STEP2 GIC augmentation STEP3 WAD augmentation

STNA Service Technique Navigation Aerienne (F)

STR System Test Readiness

STRR System Test Readiness Review

SU SUpplier

SUM Software User Manual

SV Space Vehicle

SVC Switch Virtual Circuit

SVP System Verification Plan or Software Verification Plan or

Subsystem Verification Plan

SVVP Software Verification and Validation Plan

SW SoftWare

SWPM SoftWare Project Manager SWRU Software Replaceable Units

<u>T</u>

T Test or Time

T4S Thomson-CSF / Services et Systemes Sol Spatiaux

TA Terminal Adapter (ISDN modem)

TAS True Air Speed TBC To Be Clarified or

To Be Confirmed To Be Defined or

TBD To Be Defined or To Be Determined

TBO Time Between Outages

TBS To Be Studied

To Be Specified by the contractor

TCP Transmission Control Protocol

TCP/IP Transmission Control Protocol/Internet Protocol

TE Test Engineer

TEB Tender Evaluation Board TEC Total Electron Content

TF Task Force

TGNSS NLES reference Time

TH True Heading
TL Team Leader
TLM TeLeMetry

TLS Target Level of Safety

TM TeleMetry

TMA Technique Management Area

TN Technical Note

TN-033 Technical Note on EGNOS overlay services

TN-069 Operation Concept Document

TOW Time Of Week
TPG Time of Propagation
TRAC Traceability Report
TRB Test Review Board

TRO Time to Restore an Outage TRR Test Readiness Review

TRSF Transfer

TS Training Segment

TSE Total System Error = $(NSE^2 + FTE^2)^{1/2}$

TSF Test and Simulation Facilities
TSO Technical Standard Order

TTC Telemetry, Tracking and Command

TUE Test User Equipment

TWAN Transport Wide Area Network

Tx Transmitter

<u>U</u>

UDP User Datagram Protocol
UDRE User Differential Range Error

UEE User Equipment Error

UERE User Equivalent Range Error

UHF Ultra High Frequency

UIVD User Ionospheric Vertical Delay UIVE User Ionospheric Vertical Error

UNE User Navigation Error

UPS Uninterruptible Power Supply

UR User Requirements

UR/R User Requirements Review URA User Range Accuracy

URD User Requirements Document

URE User Range Error
US United States or
User Segment

USAT Ultra-Small Aperture Terminal (satellites terminal)

USRD User Segment Requirements Document

UTC Universal Co-ordinated Time

V

VAL Vertical Alarm Limit
VCB Verification Control Board
VDOP Vertical Dilution Of Precision

VHF Very High Frequency

VNSE Vertical Navigation System Error VOR VHF Omnidirectional Ranging

VPL Vertical Protection Level

VRD Verification Requirements Document

VSAT Very Small Aperture Terminal

VTE Vertical Tropospheric compensation Error

VTS Vessel Traffic Surveillance
VUNE Vertical User Navigation Error

<u>W</u>

WAAS Wide Area Augmentation System

WAC Wide Area Correction WAD Wide Area Differential

WADC Wide Area Differential Correction WADGPS Wide Area Differential GPS

WBS Work Breakdown Structure

WD Wind Direction

WGS World Geodesic System WGS-84 World Geodetic System

WIMP Windows Icons Mouse Pointer

WN Week Number WP WorkPackage

WPD WorkPackage Description

WS Wind Speed

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