



⇒ INTERACTING WITH YOUR WORLD

**Volume I - ESOG Module 100 - Issue 4.0**  
**EARTH STATION STANDARDS**  
23 June 2009

# EUTELSAT<sub>S.A.</sub>

## SYSTEMS OPERATIONS GUIDE

ESOG	Module 100
EARTH STATION STANDARDS	
Issue 4.0	23-06-2009

Volume I

# EUTELSAT<sub>S.A.</sub>

## SYSTEMS OPERATIONS GUIDE

ESOG      Module 100

EARTH STATION STANDARDS

Issue 4.0

23-06-2009



1. GENERAL.....	1
2. EESS DOCUMENTS .....	2
2.1. Introduction .....	2
2.2. Standards, Specifications and Guidelines.....	2
2.3. Revision of EESS Documents.....	2
2.4. Date of Applicability of Revised Specification .....	2
2.5. Access to the EESS Documents.....	3
Annex A - List of EESS Documents.....	4

# FOREWORD

The Eutelsat S.A. Systems Operations Guide (ESOG) is published to provide all Eutelsat S.A. space segment users with information that is necessary for successful operation of earth stations within the Eutelsat S.A. satellite system.

The ESOG consists of 2 Volumes. They contain, in modularised form, all the necessary details, which are considered important for the operations of earth stations.

Volume I concentrates on Earth Station and Antenna Approvals, System Management and Policy aspects.

Volume II describes the initial line-up of satellite links between earth stations and the commissioning of earth stations for Eutelsat S.A. services. The modules which are contained in this Volume relate to the services provided via Eutelsat S.A. satellites.

The ESOG can be obtained either by requesting a printed version to Eutelsat S.A. or in Acrobat format from the Eutelsat S.A. Web:

<http://www.eutelsat.com>

Paris, 23-06-2009

# OVERVIEW ESOG MODULES

## VOLUME I

### EUTELSAT S.A. SYSTEM MANAGEMENT AND POLICIES

Earth Station Standards .....	Module 100
Earth Station Access and Approval Procedures .....	Module 110
Earth Station Type Approval.....	Module 120
Earth Station Verification Assistance (ESVA).....	Module 130
Operational Management, Control, Monitoring & Coordination .....	Module 140
VSATs' ODU Type Approval.....	Module 160

## VOLUME II

### EUTELSAT S.A. SYSTEMS OPERATIONS AND PROCEDURES

Digital Services Handbook.....	Module 210
VSAT Handbook.....	Module 230
SKYPLEX Handbook.....	Module 240
DVB Television Handbook (being prepared) .....	Module 250

# 1. GENERAL

---

As of October 2007, all Eutelsat previously published Standards (Standard L, M, S and I, see Annex A) have been merged into a single one, keeping the denomination of standard M.

The purpose of this Standard is to define the minimum technical and operational requirements under which "Approval to Access the Eutelsat S.A. Space Segment" may be granted to an applicant by Eutelsat S.A.

Earth Stations with performance characteristics other than those covered by the above-mentioned specifications will be classified as "Non-Standard" Earth Stations and are subject of individual approval to access Eutelsat S.A. space segment.

The existing Eutelsat S.A. Earth Station standards and guidelines are grouped together and maintained as EESS documents, as described in the following paragraph.

## **2. EESS DOCUMENTS**

---

### **2.1. Introduction**

The Eutelsat S.A. Earth Station Standards (EESS) are published by Eutelsat S.A. to provide a common source of reference for performance characteristics required from earth stations and associated equipment for access to Eutelsat S.A. space segment and the establishment of communication links.

### **2.2. Standard, Specifications and Guidelines**

The purpose of the format and numbering system of the EESS's is to allow documents to be readily identified as belonging to Eutelsat S.A. earth station standards, specifications or guidelines. It is necessary to distinguish between Eutelsat S.A. standards or specifications on the one hand and guidelines on the other hand.

An earth station standard gives the technical performance requirements and recommendations for an entire earth station from the RF equipment to baseband equipment.

Earth station standards as well as system specifications have characteristics, which are mandatory and are marked by a vertical line in the left-hand margin as shown for this paragraph, as an example.

The use of earth stations having performance characteristics and/or operational modes lower than those specified as mandatory, but meeting all other requirements, will be considered individually as they arise and on their merits. However, an earth station, which does not meet all the mandatory requirements, may demand additional satellite resources and, therefore, can attract higher space segment charges.

The EESS documents also contain "Guidelines" which are neither Standards nor Specifications and consequently do not contain mandatory requirements. Guidelines provide the technical and operational information necessary to establish transmissions for a particular service. The fact that it is a guideline and not a specification is indicated clearly on the cover page as well as by the number, which contains a 'G' (e.g. EESS 501 G, which gives the guidelines for SMS QPSK / FDMA System specification).

### **2.3. Revision of EESS Documents**

The purpose of the EESS format is to enable users to readily identify documents relevant to the procurement of earth station equipment.

Documents given in Annex A, which are due for revision, will be re-issued with the EESS format throughout. Those documents, which are not due for revision in substance, will be re-issued with a new cover page giving the EESS number and title.

## **2.4. Date of Applicability of Revised Specification**

In general, revisions to standards, specifications or guidelines shall take effect from the date of issue of the revised standard, specification or guideline and revisions are not intended to be applied retrospectively. If, as a result of new safety regulations or radio regulations, a revision has to be applied retrospectively, this will be clearly stated in the revision.

## **2.5. Access to the EESS Documents**

The EESS documents can be obtained in Acrobat format from the Eutelsat S.A. Extranet: <http://services.eutelsat.fr>.

Access codes to this application can be obtained from Eutelsat S.A. on request by writing at the following e-mail address: [esapproval@eutelsat.fr](mailto:esapproval@eutelsat.fr)



---

## **Annex A - List of EESS Documents**

---

The table on the next page gives an overview of all presently existing EESS documents, showing issue dates, previous references and revision status.

EESS No.	Issue / Rev.	Date of Issue	Earth Station Standard	Title	Pages revised since last version	Status
100 (G)	12/0	June 2009	-	Overview of Eutelsat Earth Station Standards	all	
203	7/0	February 2005	I-1, I-2, I-3	Intermediate Rate Digital Carrier (IDC) Earth Station Standard I	all	Obsolete since 24/10/2007
400	12/0	August 2006	L	Minimum Technical and Operational Requirements for Earth Stations transmitting to Leased Capacity in the Eutelsat Space Segment - Standard L.	all	Obsolete since 24/10/2007
500	9/1	April 2005	S-1, S-2, S-3	Satellite Multiservice System (SMS) Earth Station Standard S	all	Obsolete since 24/10/2007
501 (G)	3/0	March 2004	-	SMS QPSK/FDMA System Specification	all	
502	12/0	June 2009	M	Minimum Technical and Operational Requirements	all	
502 - Addendum	1/1	October 2008	Mx	Nomenclature of Standard M-x	Page 1	
700 (G)	2/0	October 2007	-	Overview of the Eutelsat Satellite Fleet	all	

## EUTELSAT S.A. OPERATIONS CONTACT POINTS

<p><b>Eutelsat S.A. CSC</b> e-mail: <a href="mailto:csc@eutelsat.fr">csc@eutelsat.fr</a></p>	<p>Voice: +33-1-45.57.06.66 Fax: +33-1-45.75.07.07</p>
<p><b>Ground Segment Operations</b></p> <p>Earth Station Approval and Line-up Office e-mail: <a href="mailto:esapproval@eutelsat.fr">esapproval@eutelsat.fr</a></p> <p>Type Approval e-mail: <a href="mailto:typeapproval@eutelsat.fr">typeapproval@eutelsat.fr</a></p>	<p>Voice: +33-1-53.98.48.11 Fax: +33-1-53.98.37.41</p> <p>Voice: +33-1-53.98.39.25 +33-1-53.98.46.13</p> <p>Voice: +33-1-53.98.48.16</p>
<p><b>Resource Engineering Group</b></p> <p>e-mails : <a href="mailto:dsvplan@eutelsat.fr">dsvplan@eutelsat.fr</a></p> <p><a href="mailto:ltplan@eutelsat.fr">ltplan@eutelsat.fr</a></p>	<p>Voice: +33-1-53.98.42.50 Fax: +33-1-53.98.30.00</p>
<p><b>Eutelsat S.A. Booking Office</b> e-mail: <a href="mailto:booking@eutelsat.fr">booking@eutelsat.fr</a></p>	<p>Voice: +33-1-53.98.47.07 Fax: +33-1-53.98.37.37</p>
<p><b>Mailing Address</b></p>	<p>Eutelsat S.A. 70, rue Balard F-75502 PARIS Cedex 15 FRANCE</p>
<p><b>Eutelsat S.A. Corporate Web</b></p>	<p><a href="http://www.eutelsat.com">http://www.eutelsat.com</a></p>
<p><b>Eutelsat Extranet (password protected)</b></p>	<p><a href="http://services.eutelsat.fr">http://services.eutelsat.fr</a></p>