



STM WG

26 May 2020

F. Lefèvre CNES





WG Purpose

- **Coordinate & Harmonize** European industries and agencies positions on STM standards
- **Contribute** to the development of worldwide STM implementation standards in the framework of the ISO/TC20/SC14-WG 3



WG Members

ESA

Rosario Nasca
rosario.nasca@esa.int

Stijn Lemmens
stijn.lemmens@esa.int

Adina Cotuna
adina.cotuna@esa.int

Andrew Wolahan
andrew.wolahan@esa.int

Hervé Côme
herve.come@esa.int

DLR

Daniel Nölke
Daniel.noelke@dlr.de

Hauke Fiedler
Hauke.fiedler@dlr.de

UKSA

Alex Cacioni
Alex.Cacioni@inmarsat.com

Brian Swinburne
brian.swinburne@airbus.com

CNES

Christophe Bonnal
christophe.bonnal@cnes.fr

Hubert Fraysse
hubert.fraysse@cnes.fr

Fleur Lefèvre (Convenor)
fleur.lefevre@cnes.fr

EUROSPACE

Xavier Regnier
xavier.regnier@thalesalieniaspace.com

Daniel Briot
daniel.briot@airbus.com

Jean-Marc Bouilly
jean-marc.bouilly@ariane.group

André Lacroix
Andre.a.lacroix@ariane.group

WG Scope



Structure of ISO Space Systems – Operations and Support Systems Standards

Data Exchange & Scheduling	Launch & Flight Operations incl. Space Traffic Management	Launch & Flight Safety incl. Space Traffic Management	Ground, Launch and Space Support
26900 (CCSDS 502) Orbit Data Message (ODM)	11233 Orbit Determination & Est.	14620 series (WG5) Safety – Launch site & Flight	14625 Ground Support Equipment
19389 (CCSDS 508) Conjunction Data Message (CDM)	14619 Space Experiments	24113 framework (WG7) Space debris mitigation	15389 Flight-to-Ground Umbilical
CCSDS / SC13 Space Data Messages Attitude Data Message Events Message Fragmentation Data Message Launch Data Message Navigation Data Message Re-entry Data Message Tracking Data Message	14711 Unmanned Mission Operations	16158 Avoiding collisions	15860 Gas Contamination Field Test Measurements
	14950 Unmanned S/C Operability	16164 * S/C Disposal Operating at LEO	16159 Launch Site Failures Analysis
	16679 Relative Motion LV/SC Separation	16699 * Disposal of orbital Launch Stages	16458 Unmanned S/C Transportation
	19473 Orbit Elements LV/SC Separation	23339 * Residual propellant mass estim.	17400 Launch & Integration Site Test Rqmts
	22639 Multiple-S/C at GEO Collocation	26872 * S/C Disposal Operating at GEO	22108 Non-Flight Items Identification and Control
23041 Unmanned Operating Procs.	27875 Re-entry risk management	26870 Launch Site Ops Documentation	
24330 RPO & On-Orbit Servicing	NWIP IGSO operation		(*) will be consolidated within the ISO 24113 framework (ISO 23312, ISO 20893)
27852 Orbit lifetime estimation	NWIP Launch collision avoidance		

- Published
- Under Revision
- Under New Development
- Co-developed / Other WG
- New Work Item (planned)

Published ISO standards can be obtained from www.iso.org

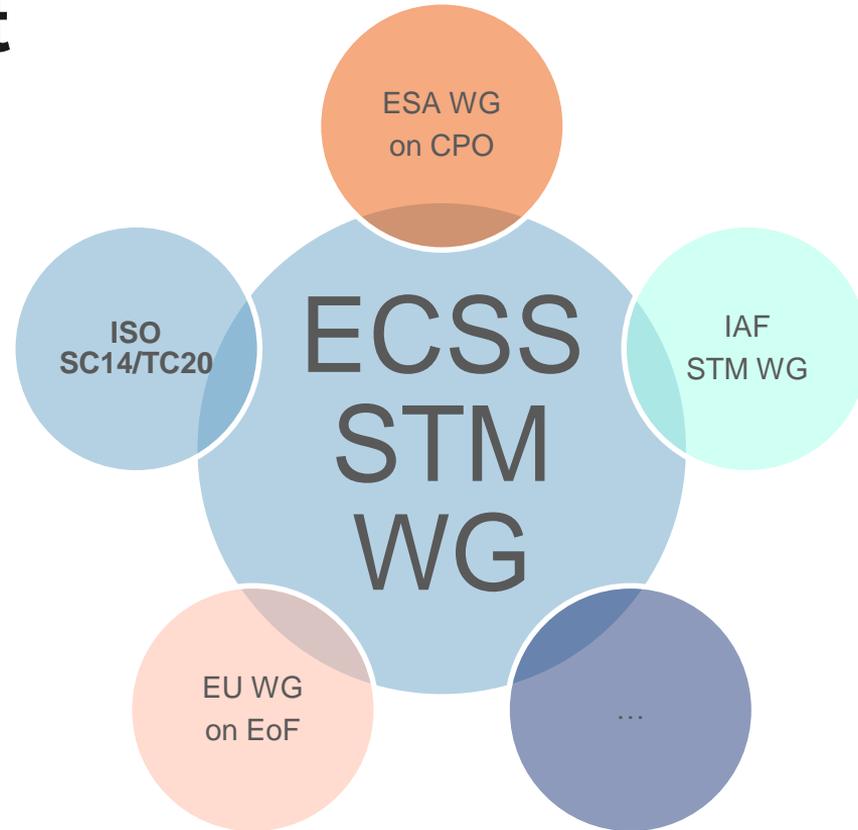
ISO projects in the scope of the WG



Status as of Dec-2019

WG environment

Non exhaustive list



WG Activities

The WG Convenor will participate in the discussions on Space Traffic Management subjects at ISO/TC20/SC14-WG 3 level

Evaluate merits and consequences of each ISO NWIP New Work Item Proposal coming through ISO/TC20/SC14-WG 3 including draft pre-NWIP

Analyse current ISO draft documents, and define the ECSS involvement to support standards drafting

Harmonize the ECSS participation in the drafting of ISO documents, providing inputs for New Work Items and contributions

Provide inputs for the potential adoption of the ISO document as ECSS standard

Survey other SDO initiatives to develop standards in STM

Harmonize position with the EU WG & ESA CPO WG initiative

Organization

	ECSS Space Traffic Management Working Group Terms of Reference	Issue 3 Revision 0 26 March 2020 Page 1 of 5
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EUROPEAN CO-OPERATION FOR SPACE STANDARDIZATION

Terms of Reference

ECSS Mirror WG for ISO Space Traffic Management (STMWG)

ECSS SB approval for creation of the MWG on March 26, 2020

KO held on May 14, 2020

ToR final revision in progress

Next WG meeting end of June

Change log

Issue	Date	Remarks
Issue 1	15 Nov 2019	Draft TOR for ECSS Technical Authority review
Issue 2 Revision 1	20 February 2020	Draft TOR approved by ECSS Technical Authority at TA69 on presented to ECSS Steering Board for review and approval.
Issue 3	26 March 2020	TOR updated and approved by ECSS Steering Board at SB meeting #59 on 26 March 2020 The WG composition was added by ES after the SB meeting.

1. Purpose

Purpose of the Space Traffic Management Working Group is to provide ECSS contribution to the development of worldwide STM implementation standards in the framework of the ISO TC20/SC14 WG 3 (Operations & Support Systems). ECSS is the natural forum to harmonise the European position for that space system standards. It shall function as an ECSS ISO Mirror