IAA Study Group Status Report

Responsible Commission: 4

Study Number and Title: 4.18 Definition and Requirements of Small Satellites Seeking Low-Cost and Fast-Delivery

Short Study Description (repeat from Study Group Proposal):
In recent years, explosive growth of small satellites launch raises concern over space debris and safety. Small satellites range from a 1kg Cubesat to a satellite weighing well over 100kg, but have a common characteristic of low-cost and fast-delivery. In the past, small satellites, especially the smaller ones, have been used for educational or experimental purposes. Nowadays, however, even commercial Cubesats are envisioned. Commercial usage of small satellites raises concern over reliability as they cannot assure the same level of reliability as traditional large/medium satellites. In 2014, an activity started at ISO/SC14 to make an ISO standard that defines what is a small satellite and sets requirements for small satellites to answer those concerns and lay down the foundation of commercial activities utilizing small satellites. Although the ISO activity is intended for commercial satellites, satellites of educational or academic purpose may be affected by this standard. Inputs from the communities related to small satellites, especially university satellites and emerging countries to the ISO activity are highly sought-after. The study group will examine the definitions of small satellites that vary depending on countries or professions and try to reach consensus. The study group also differentiates the requirements every satellite should follow regardless its size from the requirements small satellites should have separately from the traditional satellites to keep their nature of low-cost and fast-delivery.
Practical benefit of this study group is to promote further growth of small satellite activity by clarifying the definition and requirements of small satellites that have been ambiguous and the source of confusion.

Progress in past six months:
Listed possible study group members. (35 people as of August 23, 2014)
Contacted the possible study group members.
Secured a room for the kick-off meeting at IAC 2014 Toronto on September 30.
The initial agenda was distributed to the members via e-mail.

Website Study Information up to date? (Study Group Membership, Study Plan and Schedule):

Issues requiring resolution? (recommend approach):

N/A

Product Deliveries on Schedule? (If modified explain rationale):
Yes

**Study Team Member Changes?** (List any Study Team Members that you wish to discontinue, and provide names plus contact coordinates of any Members you wish to add on the second page of this Study Update form.) Note: Complete contact information including email, tel. and fax must be provided for all additions. Only Members with complete contact information will be listed and receive formal appointment letters from the IAA Secretariat.)

**Name of person providing Study Group Status** (Study Group Chair or Co-Chair):

Mengu Cho  (Filippo Graziani)

**Status Report Date:**
September 8, 2014

**Study Team Membership Changes**

Effectivity Date:

**Discontinue:**

Name
Current email address

Name
Current email address

Name
Current email address

**Add:**

Name Cesar Bernal ISIS
Current email address c.bernal@isispace.nl
Tel. +31(0)15 256 9018
Fax +31(0)15 257 3969
Mailing address Molengraaffsingel12-14 2629 JD Delft The Netherlands

Name Paolo Teofilatto
Current email address paolo.teofilatto@uniroma1.it
Tel. 39 06 49919761
Fax
Mailing address UNIVERSITY OF ROME "LA SAPIENZA"SCHOOL OF AEROSPACE ENGINEERING, Via Salaria, 851-00138 Roma, Italy
Name Christophe Bonnal  
Current email address christophe.bonnal@cnes.fr  
Tel. +33.1.8097.7406  
Fax +33.1.8097.7489  
Mailing address CNES - Launcher Directorate  
52 rue Jacques Hilliare, 75612 Paris Cedex, France

Name Mauro Pontani  
Current email address mauro.pontani@tin.it  
Tel.  
Fax  
Mailing address UNIVERSITY OF ROME "LA SAPIENZA"SCHOOL OF AEROSPACE ENGINEERING, Via Salaria, 851-00138 Roma, Italy

Name Klaus Schilling  
Current email address k_schi@t-online.de  
Tel. 0049-931-318-6647  
Fax 0049-931-318-6679  
Mailing address Julius-Maximilians-University Wuerzburg, Am Hubland, D-97074 Wuerzburg, Germany

Name Mathias Rousselet  
Current email address rousselet@ies.univ-montp2.fr  
Tel. +33 (0)6 33 37 28 26  
Fax  
Mailing address Montpellier 2 University, Place Eugène Bataillon, Bâtiment 21 - CC 083, 34095 MONTPELLIER FRANCE

Name Jian Guo  
Current email address J.Guo@tudelft.nl  
Tel.  
Fax  
Mailing address Faculty of Aerospace Engineering, Delft University of Technology, Postbus 5 2600 AA Delft The Netherlands

Name Craig Underwood  
Current email address C.Underwood@surrey.ac.uk  
Tel. +44-0-1483-689278  
Fax  
Mailing address Surrey Space Centre, University of Surrey, Guildford, Surrey GU2 7XH United Kingdom