

IAA Study Group Status Report

Responsible Commission: Commission 3. Space Technology & System Development

Study Number and Title: SG 3.22. Next-Generation Space System Development Basing on On-Orbit-Servicing Concept

Short Study Description

Over the last years many organizations in different countries have been involved in development of various technical aspects of on-orbit satellite servicing, which to a great extent predetermines the characteristics of next-generation space systems. The problem of developing next-generation space systems basing on on-orbit servicing concept is considered as technical challenge in two main directions: making serviced satellites and space systems suitable for servicing; developing servicing satellites and space systems for the performance of the on-orbit-servicing operations. Implementation of the first direction includes a wide range of developments: unified detachable and installable satellite blocks and modules, maximal complexation of missions on-board a single satellite, internationally standardized hardware and connectors, providing the docking with the serviced satellite, selection of the satellite's period of use with regard to servicing, etc. Implementation of the second direction varies from the development of servicing methods and servicing systems to the gradual development of the space complexes for providing on-board-servicing operations. The overall goal of the study is to unite the efforts of the specialists, which have been undertaken in different countries and organizations, for discovering the most effective approaches to solving the problem.

Progress in past six months:

The table of contents of the Study was coordinated with the SG members. The draft materials of several sections were prepared.

Website Study Information up to date?

The following SG documents are included in the IAA website information:

List of SG members

Study Report Notions and Definitions

The SG Dropbox includes all the current information regarding development of the Study.

Issues requiring resolution?

1. Overall discussion of the Study Group Content and content of the several sections of the study prepared.
2. Preparation of the Sections of the Study.

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

Yury Razoumny, SG Chair

Status Report Date: March 10, 2016