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NEW UTILIZATION SCENARIO OF JAPANESE EXPERIMENT MODULE “KIBO“

Abstract

Since Japanese Experiment Module “Kibo” of the International Space Station (ISS) was launched and became operational in August 2008, Japan Aerospace Exploration Agency (JAXA) has been conducting utilization activities on board Kibo according to the first phase utilization plan authorized by the Kibo Utilization Committee. In this phase (year 2008 – 2010), twenty nine scientific themes (one hundred experiments) in the pressurized module and three scientific themes (eleven experiments) on the exposed facility were completed. Besides the scientific researches JAXA also started a new challenge in other areas such as Applied Research, Technology Development, Education Culture, and Commercial Utilization during this period. In the second phase (middle of year 2010 – 2012), JAXA shifted its focus on contributing to the society at large by creating more practical benefits through the space utilization. Actually, we began evaluating the outcomes of the space experiments to clarify the usefulness of the ISS to the public as well as promoting wide participation from industries and commercial entities. The results of those activities are presented at workshops and symposia by JAXA from the various aspects of human benefits. JAXA has recently developed a new Kibo utilization scenario through year 2020 by consulting the external advisory committee. The scenario covers three research areas such as Life Science, Space Medicine, and Physical/Chemical science where research objectives are highly-prioritized in each discipline. JAXA plans to select large-scale research projects to meet such prioritized research objectives through Announcement of Opportunity in this summer. This paper will show the current status of Kibo utilization activities and introduce the new utilization scenario of Kibo as well.