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Knowledge Management and Collaboration in Space Activities (2)

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DOCUMENT SHARING BY USING CROSS-SEARCH SYSTEM IN JAXA

**Abstract**

Knowledge Management(KM) plays a significant role in space related organizations, where knowledge transfer often faces challenges due to long-term mission duration and large project scale of the space exploration. Japan Aerospace Exploration Agency (JAXA) has implemented KM systems in its various departments. One of such systems is JAPCAS, a database for gathering and sharing non-conformance reports on satellites under development, satellites on orbit, rockets, and ground facilities. JAPCAS has been developed and maintained by Safety and Mission Assurance Office. Another is KnowWho database, a directory of our experts in each field. This database is maintained by Systems Engineering Office (SEO). SEO also operates LINKS, a website for sharing the knowledge and experiences of project managers. Users, however, are unable to search across these systems at once, because the systems are not compatible with each other. Therefore, we developed Cross-Search System that enables the users to search across databases altogether. Since its launch in September 2010, a number of JAXA staff have used this new system. We conducted a system evaluation survey one year after from the launch. Below are the results. (1) 40% of respondents found the system was helpful in their daily work, while 30% found it unhelpful. The rest had never used the system. (2) Most of those who found the system helpful use it for searching documents whose location are unknown. (3) 70% of respondents hoped for more system added for search target. (4) 70% of respondents felt a need for functional improvement, especially in terms of search refinement and retrieval precision. Based on the above results, we updated the system to enhance user-friendliness and examined a strategy for the effective document sharing in JAXA.