SPACE OPERATIONS SYMPOSIUM (B6)
Ground Operations - Systems and Solutions (1)

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BLACKBOX TO OPEN INNOVATION: EXPERIENCE IN SELF LEARNING IN DEVELOPING ITS OWN SATELLITE CONTROL SYSTEM - THE VOSSCA

Abstract

Satellite control system is the key to every satellite control mission. Generally, the design of the control system is designed based on the mission and satellite itself. The complex procedures, processing in routine maintenance, and recovery activities, require a reliable satellite control system to achieve the mission. However, THAICHOTE satellite control system is bound to individual satellite and difficult to integrate with others. It also increases preparation time for both pre-and post-pass activities. A well-designed, integrated satellite control system may help the operator to simplify pass operations. This paper proposes the design and implementation of an integrated satellite control system called Versatile Operation System for Satellite Control and Administration (VOSSCA). The aim is to develop an original satellite control system that can reduce operator workload, we developed various modules which can be divided into system replacement and additional systems. The ability to automatically operate routine and maintenance activities are the main module of the Satellite Operation Control System, while we developed web-based and mobile applications for the Satellite Operation Management System, which covers the Operator and Pass Operation Management, Operation Reporting, and Parameter Production. Each subsystem is tested and validated by operators in a real-time operation.