

SPACE OPERATIONS SYMPOSIUM (B6)

New Operations Concepts, Advanced Systems and Commercial Space Operations (2)

Author: Dr. Weiguang Liang

Beijing Aerospace Command and Control Center (BACCC), China, lwgbacc@163.com

Mr. Jianliang Zhou

Beijing Aerospace Command and Control Center (BACCC), China, jlzhou@ustc.edu.cn

Mr. Junze Liu

Beijing Aerospace Command and Control Center (BACCC), China, liujunze0807@sina.com

FAULT DIAGNOSIS OF SPACECRAFT IN LONG TERM MANAGEMENT

Abstract

Long term management of on-orbit spacecraft has many characteristics which elicit requirements of fault diagnosis during spacecraft long-term operation stage. The fault diagnosis of spacecraft on the ground in long term management has relevant features consequently. Current problems, work contents and general methods in fault diagnosis on the ground are introduced and concluded with examples of on-orbit spacecraft long term managements. Task oriented framework of fault diagnosis system in spacecraft long term management are constructed. With the considering of the characteristics and requirements of spacecraft long term management and the following aerospace mission planning, improvements of the fault diagnosis ways and means are proposed.