

SYMPOSIUM ON SAFETY, QUALITY AND KNOWLEDGE MANAGEMENT IN SPACE
ACTIVITIES (D5)

Safety of Vehicules and Ground Segment for Aerospace Missions (1)

Author: Mr. Xu chunming
XichangSpaceLaunch Center(XSLC), China, xuchunmingmail@sohu.com

Mrs. Chen hong
China, xuchunmingmail@sohu.com

Prof. Jin xing
China, xuchunmingmail@sohu.com

Prof. Xia yong
China, xuchunmingmail@sohu.com

RELIABILITY ANALYSIS METHODS STUDY OF SPACE LAUNCH MISSION

Abstract

With the fast development of space launch career in the world, more and more countries' space departments attach much attention to reliability of space launch mission. The paper bases on practical job of space launch center, studying on reliability analysis methods of space launch mission. According to rocket tests and launches characteristic in space launch center, the paper separates space launch mission reliability into rocket testing reliability and launching support reliability. According to flow of rocket testing and launching, the paper divides the whole launch mission flow into rocket testing phase and launching phase. For rocket testing phase, the paper mainly studies on rocket testing reliability. For rocket launching phase, the paper mainly studies on launching support reliability. When analyzing rocket testing reliability, the paper brings forward system testing probability notion, it much concentrates on how the system testing probability affecting on rocket testing reliability. When analyzing rocket launching support reliability, the paper much concentrates on species support systems of rocket launching mission. According to different important job in each phase, it utilizes on integrated appraisal analysis method to analyze different species support systems, then getting the rocket launching support reliability.