

ASTRONAUT MEDICAL SELECTION AND FLIGHT MEDICINE CARE DURING THE SHUTTLE ERA 1981 TO 2011

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The NASA Shuttle Program began with congressional budget approval in January 5, 1972 and the launch of STS-1 on April 12, 1981 and recently concluded with the landing of STS-135 on July 21, 2011. The evolution of the medical standards and care of the Shuttle Era Astronauts began in 1959 with the first Astronaut selection. The first set of NASA minimal medical standards were documented in 1977 and based on Air Force, Navy, Department of Defense, and the Federal Aviation Administration standards. Many milestones were achieved over the 30 years from 1977 to 2007 and the subsequent 13 Astronaut selections and 4 major expert panel reviews performed by the NASA Flight Medicine Clinic, Aerospace Medicine Board, and Medical Policy Board. These milestones of aerospace medicine standards, evaluations, and clinical care encompassed the disciplines of preventive, occupational, and primary care medicine and will be presented. The screening and retention standards, testing, and specialist evaluations evolved through periodic expert reviews, evidence based medicine, and Astronaut medical care experience. The last decade of the Shuttle Program saw the development of the International Space Station (ISS) with further Space medicine collaboration and knowledge gained from our International Partners (IP) from Russia, Canada, Japan, and the European Space Agencies. The Shuttle Program contribution to the development and implementation of NASA and IP standards and waiver guide documents, longitudinal data collection, and occupational surveillance models will be presented along with lessons learned and recommendations for future vehicles and missions.

LEARNING OBJECTIVE: 1. Understand the presented milestones of medical screening standards and care during the Shuttle Program with lessons learned for future Space missions and terrestrial applications.

QUESTION: 1. what are the top 6 disqualifying medical categories in descending order for the NASA Shuttle Program Astronaut selection processes?

a. Ophthalmologic, Cardiovascular, Otolaryngologic, Genitourinary, Endocrine, Psychological

b. Ophthalmologic, Otolaryngologic, Cardiovascular, Genitourinary, Endocrine, Psychological

c. Ophthalmologic, Otolaryngologic, Cardiovascular, Psychological, Genitourinary, Endocrine

d. Cardiovascular, Ophthalmologic, Otolaryngologic, Psychological, Genitourinary, Endocrine

ANSWER: A