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STUDY OF THE ASTRONAUT'S PROFILE EVOLUTION SINCE 1961: WHAT MAKES A GOOD ASTRONAUT SINCE THEN AND HOW DID SOCIETY IMPACT IT?

Abstract

Since 1961 with Yuri Gagarin's first flight, humanity has seen around 600 astronauts leaving the Earth for orbital adventures of short or long duration. Nowadays, despite being still a dangerous and harsh environment, the space field attracts more and more people. It is well illustrated by the recent growing space tourism activity, and their new astronauts, that don't need to go through the classical recruitment and training as it was done for the past missions. When recruiting public astronauts today, they must have a completely new set of skills like interaction with new tools and technologies and being good public speakers. The selection's criteria changed with time, the "relevant" professional background switched from only military to a more balanced military/civil profession, the flight experience isn't a necessary skill anymore. The gender diversity is also a noticeable change, as only 2 women (over 182 men) flew in space in the first 20 years.

In the frame of the DIVersity IN Astronaut Selection (DIVINAS) project which is part of the Diversity and Gender Equality Project Group from the Space Generation Advisory Council (SGAC), the team decided to take on the challenge of collecting data on astronauts' profile through the years and compare these data with recent crews. This paper aims to observe the evolution of the key parameters and capacities required through the years since the first human in space. During the past 60 years, humanity went through different societal changes, increase of technology and medical improvements. Some criteria of selection like the number of years of experience, the background of the applicants, the sport they do and the physical skills they have will be studied. This paper will also compare the recent recruitments, both in private and public agencies, the impact of family life on the astronaut career as well as the inclusion of people with disabilities in the program. Thanks to the outcomes of the data collection, as well as the correlation with society facts of the past and today, this study will try to establish the perfect profile of

the astronauts depending on the time and region, as well as trying to answer the question: What will make a great astronaut in the next few years?