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MEDICAL SELECTION OF THE FIRST GERMAN COMMERCIAL FEMALE ASTRONAUT

SÉLECTION MÉDICALE DE LA PREMIÈRE ASTRONAUTE ALLEMANDE POUR UNE MISSION COMMERCIALE

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Introduction: 60 women had been to space-none of them was German. That was the reason for a CEO of a German space personnel provider to advertise a vacancy for a first German female astronaut. 408 well-educated women applied.

Materials and Methods: The medical and psychological selection was performed by the German Aerospace Center and followed in the structure of the last European astronaut selection. 120 women were selected by the private company based on their application. They all had to fill out a pseudonymized questionnaire that was created by the Flight Medicine Clinic of the German Aerospace Center as an initial medical screening. 85 persons were recommended for further evaluation. They completed the first step of the psychological selection from which 30 women entered the second stage of the psychological selection. Eight applicants were finally psychologically selected and underwent medical examinations including haematology, internal medicine, stress ECG, ophthalmology, neurology, ENT, gynaecology, dentistry, psychiatry, bone density and anthropometry.

Results: During the initial medical screening phase applicants were denied because of metric, trauma or pregnancy reasons. In the end 6 applicants were considered medically fit by an experienced space medicine board for becoming a commercial astronaut. Reasons for rejection were the exclusion criteria mentioned in "Medical Standards and Certification Procedures For Space Flight Participants." No medical data were given to the private company. Finally 2 women were chosen by a panel to undergo commercial astronaut training. After six months one of the selected astronaut candidate quit and a new one was selected from the pool of the final six psychologically- and medically-fit candidates.

Conclusion: The international space agencies standards for commercial astronauts differ a lot from the requirements for professional astronauts. Therefore the rate of denials for medical reasons was much smaller compared to the last ESA astronaut selection. As many applicants came out of the space area it made sense to pseudonymize the medical information for decision making to exclude possible bias.