

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Space Culture – Public Engagement in Space through Culture (9)

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THE ROLE OF THE EDUCATION AND OUTREACH TEAM IN UAE MISSION-1

Abstract

The United Arab Emirates (UAE) Astronaut Programme aims to develop national scientific corps and prepare future generations to reach the highest international standards. In line with the national strategy, the programme also aims to fulfil the UAE's aspirations in taking part in scientific missions and manned space exploration missions.

In coordination with multiple space agencies, the MBRSC team was able to plan a short duration mission, including science experiments, educational activities and outreach activities. Moreover, educational scripts were initiated, reviewed and communicated with Hazzaa Al Mansoori, UAE's first astronaut in order for him to record them on board of the ISS. The team provided support to the operations team during real-time on console and during the educational events.

The science experiments were performed by Hazzaa Al Mansoori with support of the managing entity. The experiments were planned in collaboration with Roscosmos, NASA, and ESA. They included 16 experiments that were conducted pre, during, and post flight, with 6 experiments performed on board the ISS. The main objective of the science experiments was to support the international studies related to the different space environment effects on human bodies and how we could minimize the side effects. The uniqueness of Hazzaa's participation is that for the first time, scientists and researchers will have test results coming from someone in the Arab region.

Over 22 educational activities were planned for Hazzaa's flight. These included videos that for the first time, will be shot in Arabic. Additionally, Hazzaa had several public outreach sessions where he was able to answer questions that students all over the UAE had. As part of Hazzaa's mission, there were an additional 16 experiments that were conducted in cooperation with Nanoracks. The simple experiments were chosen by the team specifically to align them to the UAE schools' curriculum. This aimed to allow the teachers to use the microgravity results with their classrooms and promote critical thinking of the students.

This paper will discuss in detail the process in which the science experiments were chosen and coordinated, along with information about the public outreach events and the effect of Hazzaa's spaceflight on the region. Lastly, the paper will discuss how to proceed and evaluate experiments and educational activities for future missions, with details about setting success criteria for the activities and then evaluating

their impact.