IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Show Us Space: Demonstration of Hands On Education and Outreach (8)

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THE STORM CHASERS

Abstract

The Rakia mission, initiated during the AX-1 crew launch to the International Space Station in April 2022, led by Israel's second astronaut Eytan Stibbe, encompasses over 30 scientific experiments that were showcased to students through STEAM educational activities and lessons. Among these, the ILAN-ES earth observation experiment examines thunderstorms and Transient Luminous Events (TLEs) on the ISS. To enhance educational outreach, Rakia Mission (PBC) collaborated with a leading researcher, Professor Yoav Yair of Reichman University, and developed an educational kit offering students a unique opportunity to take ground observations of the phenomena with their cameras and learn about the experiment, space missions in general, atmospheric science, and climate change. The kit features three hands-on lesson plans, unique videos from space developed specifically for this kit, interactive board games, and an online game, all designed to be adaptable. The kit is suitable for students between eighth to twelfth grades but can be enjoyed by all. Educators can seamlessly integrate this kit into their teaching methods, tailoring its use to suit their preferences or anyone curious can take part. Recently, the AX3 astronauts successfully conducted this experiment again aboard the ISS, and the upcoming Axiom mission's astronauts are also slated to carry out the same experiment. This provides an extraordinary opportunity for students to actively participate in ongoing scientific endeavours aboard the ISS and learn about climate phenomena and international cooperation. For the session in the IAC, I will briefly present the Rakia mission, the ILAN-ES experiment, the scientific background of the TLE's phenomena, and the space missions that researched them. My main focus during the session will be training and demonstration on the educational kit made by Rakia. Technical requirements for the session: screen for the presentation and four long tables for audience members to gather around interactive board games. My main goal is that participants will experience the kit and learn how they can use it in their organizations. The educational kit was recently published during Israel's Space Week at the end of January 2024. So far, there has been much enthusiasm and now we are seeking to expand it. We are aiming to engage students worldwide in collaborative learning through this kit, fostering connections between educators and students on an international scale. We believe the IAC is an ideal platform to Exhibit this convergence of scientific exploration and education.

Scientific article- https://www.sciencedirect.com/science/article/abs/pii/S009457652300348X

The storm chasers – educational kit https://www.eng.rakiamission.com/education-high-school