

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
Calling Planet Earth - Space Outreach to the General Public (6)

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COMMSAT'S SEMINAL SATELLITE APPLICATIONS FOR SPACE OUTREACH TO THE  
GENERAL PUBLIC

**Abstract**

This paper presents the activities that Commsat—a space startup from China has conducted for space outreach to the general public and its lessons learned. By leveraging its space asset—a 100 kilogram-weight micro-satellite, Commsat developed three seminal applications to bring the general public closer to space than ever. The first application is dubbed as ‘space-selfie’. The general public can upload photos to the satellite, which are to be shown on a screen installed on its surface. At a designated time, the satellite extends its robotic arm holding a camera to take a selfie with the Earth, the Moon or any other visible planetary bodies. The second application provides a more directly interactive experience. On the bottom surface of the satellite, an array of high-power Light Emitting Diode can produce visible light while crossing the skyline. In light of that function, Commsat equipped the satellite with the ability to send Morse code from space to the earthlings through its ‘shining’ ability. The third application is virtual reality photography, where the satellite takes virtual reality shooting for space-themed museums download and offer the general public an immersive experience of wandering in space. The three initiatives have engaged with a broad spectrum of groups to promote space awareness with more than 2000 photos have been taken, 15 Morse code sent and 10 episodes of virtual reality shooting completed. The success attests the vision of Commsat—access to space for everyone. There is still much room to take advantage of existing space assets to engage with the general public and raise space awareness.