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## THE ESSENTIAL ROLE OF MUSIC IN SPACE

**Abstract**

Music has been in space since the earliest days of human spaceflight. The first song known to have been performed in space occurred on the Vostok 3 and 4 mission in August 1962. Soviet/Ukrainian cosmonaut Pavlo Popovich sang a nineteenth century Ukrainian song called ‘Watching the sky and thinking a thought.’ Since then, musical instruments such as harmonicas, guitars, keyboard, flutes, saxophones, a didgeridoo, the human voice, as well as musical recordings have accompanied humanity into space.

Music has played a role in engaging and exciting the public, such as when Canadian Astronaut Chris Hadfield’s performed David Bowie’s ‘Space Oddity’ in 2015 (generating hundreds of millions of views). Musical performances have also been seen in more solemn moments, such as when American Astronaut, Frank Culbertson, Jr. played ‘Taps’ on his trumpet aboard the ISS in the wake to the September 11, 2001 attacks on the United States.

However, perhaps the most important role for music in space are the moments that the public back on Earth is not privy to. Music helps create a sense of comradery between international crew members and can serve as a means for crew members to relax. In fact, music may well be an essential ingredient in maintaining the mental health of crew members during the first missions to and from Mars.

This paper/presentation will discuss the past, present, and future role of music in space. It will also highlight how music may evolve in new directions as musical instruments (and the human voice) are played in varying levels of gravity, atmospheric pressure, and entirely new social dynamics. While this will be an oral presentation, it will be designed to be interactive – engaging with the audience to brainstorm not only how music can play a role in space activities, but also how it can play a role in exciting students and the general public about the prospects of a permanent human presence away from our home planet.

Many of these concepts are discussed in the upcoming book, *Scoring Space* by the author of this abstract.