

What to Expect When Your Workplace is in Deep Space

Working life on a vehicle going to Mars would have some things in common with going to work on Earth, but most would have that twist to remind you that you're not on Earth anymore. Regardless of where we are or what we're working on humans need to eat, sleep, stay healthy and stay active and alert to perform well on the job. Studies on Earth have shown how important each element is to an individual's wellbeing and job performance.

To travel in space we create a vehicle that provides the basic needs required by humans, these include carrying supplies of air, water and food. However we also need the protective shell to carry the humans, all their supplies and the systems to ensure that people can breathe, stay warm, address all bodily functions and stay healthy in space. In addition to just surviving the new environments, work tasks such as equipment maintenance and repair, normal crew operations and special science experiments will be performed. Some of the factors that will affect the crew performance include: environmental adaptation to weightlessness, dealing with cramped living quarters, physical changes caused by space travel, and how the tools, equipment, training and support information are used throughout the voyage.

Different conditions can affect how the crew performs their work; we need to know more about living and working under these conditions to have successful human exploration in space.