



Application Spotlight – DIDS

Monitoring the International Space Station for Leaks

Invocon, Inc.



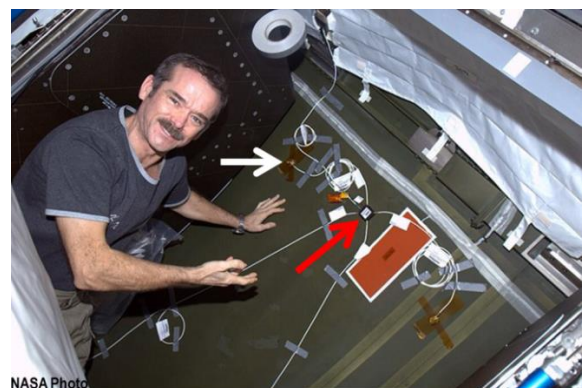
Air leaks aboard the International Space Station (ISS) caused by orbital debris or deteriorating seals could have tragic consequences. Therefore, NASA is developing a leak location system based on Invocon's **Distributed Impact Detection System (DIDS)**.

NASA has already used DIDS to obtain ultrasonic background noise data on the ISS as well as mock-ups on the ground. They are using this data to develop alarm thresholds for the final system.

NASA has purchased a second system that is modified to operate in the Bigelow Expandable Activity Module (BEAM). It will be used to help characterize the BEAM during its two-year demonstration period.

The image at the top of the page shows the operating concept for DIDS. The

image below shows a DIDS sensor unit installed on the ISS. The red arrow indicates the miniature sensor unit and the white arrow indicates one of four transducers connected to the sensor unit.



The wireless nature of DIDS greatly simplified the process of integrating it into the ISS.