Ventilator Technologies Sustain Critically Injured Patients

Johnson Space Center

Impact Instrumentation Inc.
West Caldwell, New Jersey

NASA Technology

- From its beginning, NASA has been concerned with providing effective remote medical care
- The Space Medicine Division Advanced Projects Group incorporates the expertise of clinicians and engineers to develop medical equipment capable of full automation or remote control

Partnership

- NASA and Impact Instrumentation Inc. entered into a Space Act Agreement, focusing on adapting ventilators for use in space
- The primary achievement of the partnership, the Model 745-AP ventilator, led Impact to develop closed-loop capabilities and run clinical trials of a ventilator that could operate itself

Benefits

- Impact used experience developing the Model 754-AP to produce the Uni-Vent 731 Series of ventilators, made for prehospital use and use in emergency rooms and intensive care units
- While fully automated equipment remains a future goal, the partnership resulted in smaller, smarter, more compact devices capable of remote control

Spinoff 2011

Health and Medicine