

Hand-Held Devices Detect Explosives and Chemical Agents



Ames Research Center

**Ion Applications Inc.
West Palm Beach, Florida**

Originating Technology/NASA Contribution

- ◆ NASA continually seeks ways both to develop new sensor technology and to advance existing devices to meet the demands of space exploration
- ◆ These efforts often result in smaller, less expensive, more energy efficient, and highly durable products for use on Earth



Partnership

- ◆ NASA sought to miniaturize a powerful sensor technology called an ion mobility spectrometer (IMS) for astrobiology missions
- ◆ Through NASA's Astrobiology Science and Technology Instrument Development program and the Small Business Innovation Research (SBIR) program, Ion Applications developed a miniature IMS suitable for applications in space or on Earth

Product Outcome

- ◆ The company has commercialized a hand-held IMS device featuring enhanced sensitivity and easy portability and use
- ◆ The technology is used by the U.S. military for detection of explosives and chemical agents, and is also applicable for semiconductor manufacturing and other industrial processes