

Energy-Efficient Systems Eliminate Icing Danger for UAVs



Ames Research Center

**IMS-ESS
Temecula, California**

Originating Technology/NASA Contribution

- ◆ Ames engineer Leonard Haslim invented the electroexpulsive separation system deicing technology
- ◆ The system employed a pair of conductors that shatter ice buildup when driven apart by an electric pulse



Partnership

- ◆ Ice Management Systems (now IMS-ESS) licensed the technology and built upon the NASA concept
- ◆ The company conducted testing in Glenn Research Center's Icing Research Tunnel

Product Outcome

- ◆ The company initially sold several systems for UAV deicing applications, discovering a niche market for the NASA-derived technology
- ◆ The systems are ideal for UAVs, offering lightweight, low power protection against icing
- ◆ The technology allows military UAVs to conduct crucial missions without the threat of icing