

First RF – Radiometrics  
Aircraft Icing Detection and Avoidance Product  
Business Agreement

DRAFT

FirstRF (FRF) is working under U.S. Navy contract to develop ISAIAH (Integrated System for Avoidance of Ice-Producing Airborne Hazards). ISAIAH includes a passive microwave sensor, narrow beam steerable antenna and software. Under FRF subcontract, Radiometrics (RDX) collected atmospheric icing hazard weather observations using its existing microwave sensor technology. RDX analyzed these observations to determine passive microwave icing hazard detection and ranging capability. Additional U.S. Navy funding is anticipated to develop and productize ISAIAH.

ANTICIPATED ROLES

First RF

- Narrow beam steerable antenna design and manufacturing
- Small Weight and Power (SWAP) radiometer electronics and housing design
- SWAP prototype design and fabrication

Radiometrics

- Brightness temperature (Tb) calculation from raw radiometer voltages
- Tb calibration (factory, user and in flight)
- Radiometer frequency channel effective range estimation
- SWAP radiometer manufacturing, calibration and productization

FRF and RDX ROLES TBD

- Icing Detection and Avoidance Algorithms and Software
- Component Assembly, Testing, Packaging, Documentation
- Customer Training and Support
- Product Warranties, Maintenance and Repairs
- Sales and Marketing