

# Technical Requirements

August 11, 2011

## SOFIA Segment 3 28VDC UPS Purchase

Selection and award will be made to the lowest priced, technically acceptable offeror. Technical acceptability will be determined by review of information submitted by the offeror which must provide a description in sufficient detail to show that the product/service offered meets the Government's requirement. To be technically acceptable, the Contractor must meet the following criteria:

### 1.0 SCOPE

NASA has a requirement for providing an Uninterruptible Power Supply capability that takes a 28VDC input and provides a 28VDC output.

### 2.0 Deliverables

Item, Quantity, and Technical specifications Description:

#### 28VDC UPS (Qty 4)

- 28VDC Input
- 28VDC Output
- Battery backup of up to 8 minutes fully loaded
- <1% Total Harmonic Distortion fully loaded
- Input Power Factor: 0.99 typical
- >1kW load capability
- Operating temperature is required to be 0F to +160F. If the operating temperature range could not be met, NASA can evaluate the proposed temperature range for a possible waiver.
- Operating altitude is required to be 0 to 20,000 feet, if this could not be met, NASA will evaluate the proposed operating altitude for a possible waiver.
- Storage altitude is required to be at least 50,000 feet, if this could not be met, NASA will evaluate the proposed storage altitude for a possible waiver.
- Relative humidity is required to be 5 – 95% operating (might accept slightly less)
- Vibration is required to be at least DO160D, curve C1 (5.2grms random, upto 2000hz) (might accept differently after assessing the proposed vibration information)

#### Additional Requirements

Applicable Manuals & Support Software & Hardware

Certificate of Conformance

After awarded the contract, the company is required to ship one UPS set to NASA DFRC as soon as possible to start conducting airworthy process and functional testings.



**NASA Dryden Flight Research Center  
PROCUREMENT QUALITY REQUIREMENTS**



**Q-5 Revision A / Certification of Conformance**

As part of each shipment, the supplier / manufacturer shall certify contract / order conformance to the Government.

Supplier / manufacturer shall identify the shipped product in a manner that is traceable to the included Certification of Conformance.

The Certification of Conformance shall:

- Confirm that the supplier / manufacturer has verified the acceptability of all articles before shipment – by completion of the necessary inspections, tests, audits, process controls and records reviews.
- Identify the contract / order number, and relevant line item number.
- Identify the manufacturer's part number, and heat, batch or serial number (when applicable).
- Identify the shipped quantity and unit of measure.
- Be signed by a duly authorized officer or quality representative of the supplier / manufacturer – whose name and title shall be legible.

Unless otherwise specified for delivery to the Government, all applicable material test reports, processing, overhaul, repair and maintenance certifications, inspection, test and non-destructive examination results shall be retained for at least 10 years by the supplier / manufacturer, and made available upon request.