



***FCC TECHNICAL REPORT  
FOR THE GROUND DATA LINK (GDL)  
AIRCRAFT SEGMENT  
& GROUND SEGMENT***

Attestation Statements



## **COMPLIANCE TO RADIO FREQUENCY EXPOSURE LIMITS**

### **Affidavit of Compliance**

This analysis was performed in order to demonstrate that the subject Part 15.247 spread spectrum transmitter complies with the FCC rules for Radio Frequency Exposure Limits.

The GE Harris Aviation Information Solutions GDL System has been analyzed and found to have a maximum conducted transmit power of 251 mW (+24 dBm). The two omni-directional antennas tested with the system each have a specified maximum antenna gain of 5.15 dBi. Therefore the maximum Effective Isotropic Radiated Power (EIRP) of the system in any direction or frequency is 29.15 dBm.

The formulas and Maximum Permissible Exposure (MPE) limits referenced in this report can be found in FCC Bulletin OET-65 and OET-65, Supplement C, which addresses requirements for low power spread spectrum devices.

All calculations are worst case, assuming the limits for General Population/Uncontrolled Exposure and a transmit duty cycle of 100%. Under normal operating conditions, the duty cycle of the subject transmitter is below 50%.

Based on the calculated Maximum Permissible Exposure (MPE) for the subject transmitter under the worst case operating conditions, the minimum safe distance between antenna and nearby persons is 8.09 cm, or 3.18 inches. Since neither equipment configuration of this professionally installed system exceeds MPE limits when nearby persons are more than 20 cm (8 in) from the antenna, special instructions and warnings are not necessary to ensure compliance.



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JA-1655

**FCC TEST REPORT**  
**(INTENTIONAL RADIATOR)**  
**FOR THE**  
**GE HARRIS AVIATION INFORMATION SOLUTIONS, LLC**  
**AIRCRAFT AND GROUND SEGMENTS**

Prepared by: Joseph G. Barbee 6/15/99  
Joseph G. Barbee

Tested by: Joseph G. Barbee 6/15/99  
Joseph G. Barbee

Performed by:  
RUBICOM SYSTEMS INC.  
284 West Drive, Suite B  
Melbourne, Florida 32904

Performed for:  
HARRIS CORPORATION, ASD  
1000 Perimeter Road  
Bldg. 21A  
Palm Bay, Florida 32905

Completed: June 10, 1999

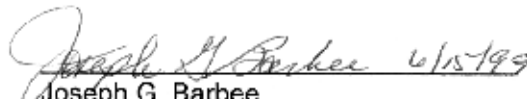


JA-1655

### **CERTIFICATION**

Rubicom Systems, Inc. certifies the information obtained in this report was performed consistent with the requirements of ANSI C63.4-1992. The GE Harris Aviation Aircraft and Ground Segments comply with the requirements of CFR 47 Part 15 for Intentional radiators as required in Paragraph 15.247(a)(2), (b), (c) and (d).

This data was obtained while testing the GE Harris Aviation aircraft and Ground Segments, serial number 30, furnished by GE Harris. Any modifications to the unit as tested may invalidate the data and void this certification

  
Joseph G. Barbee  
President



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**FEDERAL COMMUNICATIONS COMMISSION**

7435 Oakland Mills Road  
Columbia, MD 21046  
Telephone: 301-725-1585 (ext-218)  
Facsimile: 301-344-2050

December 5, 1996

IN REPLY REFER TO  
31040/SIT  
1300F2

Rubicom Systems, Inc.  
284 West Drive, Suite B  
Melbourne, FL 32904

Attention: Joseph G. Barbee

Re: Measurement facility located at above address  
(3 meter site)

Gentlemen:

Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The description has, therefore, been placed on file and the name of your organization added to the Commission's list of facilities whose measurement data will be accepted in conjunction with applications for certification or notification under Parts 15 or 18 of the Commission's Rules. Our list will also indicate that the facility complies with the radiated and AC line conducted test site criteria in ANSI C63.4-1992. Please note that this filing must be updated for any changes made to the facility, and at least every three years the data on file must be certified as current.

Per your request, the above mentioned facility has been also added to our list of those who perform these measurement services for the public on a fee basis. This list is published periodically and is also available on the Laboratory's Public Access Link as described in the enclosed Public Notice.

Sincerely,

Thomas W. Phillips  
Electronics Engineer  
Customer Service Branch

Enclosure:  
PAL PN