

Responses follow the questions:

1.) RF Exposure Exhibit 11 "Corrected RF Exposure statement" refers to 47 CFR 25.200(d) for satellite systems. Please justify how this applies, or revise.

Response: Revised exhibit has been uploaded to the file deleting the incorrect reference to 25.200(d).

2.) RF Exposure Exhibit 11 "RF Exposure Learning statement" states: "This Radio has been tested..." We suggest to change "tested" to "evaluated."

Response: Revised exhibit has been uploaded with the suggested change from "tested" to "evaluated".

3.) Your Operational Description specifies a emission designator of 12K0F1D. However, you have requested 12K0G1D on the 731 form. Please clarify. In addition, please justify the necessary bandwidth.

Response: Frequency and phase modulation designators are typically used interchangeably. Thus 12K0F1D and 12K0G1D are equivalent. Please refer to the NOTE: at the end of Section 2.201(c)(3). This system is a GMSK system and on a purely technical basis G is the more appropriate designation. Regarding the necessary bandwidth, this was previously determined and accepted by the Commission for two models of base units and one portable unit. GSMK with an 8 KB data rate has a 6.9 kHz occupied bandwidth based on the classic 23 dB down criteria. However, this does not incorporate a factor for the increased spectral efficiency and the bandwidths used in that discussion, accepted by Mr. Coperich, that determined the EADS system met the spectral efficiency requirements. as required by the Part 90 rules. Based on the provisions of 2.202(a) and (b) adjustments in bandwidth specification based on including emissions that are needed to insure the transmission of information at the rate and quality required for the system are permitted.

4.) Your June 23, 2002 request for Confidentiality letter specifies "Exhibit 8" as Confidentiality but this Exhibit contains Users Manual. Please resolve this issue.

Response: The users manual is provided with the equipment to assist the personnel (typically law enforcement) in setting up and operating the equipment. However, it is not released to the general public as would be the case with making it available in the public FCC file. EADS does not believe it is in the best interest of the purchasers of this equipment and in particular law enforcement personnel to have this information made available to the general public. If this position is not acceptable to the Commission, please so indicate and a revised request will be submitted.

5.) For Mobile Radio Terminal MC9610 IK G1 UM and Fixed Radio Terminal MC 9635 CS G1 UM, please submit the Substitution Method for radiated spurious emission. Also,

please describe your test method for performing this test. Please note that the attenuation requirement for radiated spurious emissions is referenced to the desired signal yielding dBc. The attenuation specification is not XX uV/M, or derived from absolute value of the field strength. The dBc is determined from the substitution method such as described in the ANSI/TIA/EIA-603-A-2001 document.

What is needed is a determination of the actual power levels necessary to reproduce these field strength levels. Those power levels (from a signal generator source and a dipole antenna replacing the EUT) are then compared to the power output of the transmitter to determine dBc. That is the basis of the "substitution method".

Response: EADS respectfully asks that the stated request should be reconsidered based on the following information and clarifications. From a discussion with FCC staff on August 12, 2002 clarification of the presented data is needed regarding the presentation of the data showing compliance with Section 1.1053 "Measurements required: Field strength of spurious emissions."

The test report for both configurations (fixed desktop and mobile) contain a data sheet with a table on page 34 for radiated spurious emissions and extensive plots of measured emissions in the following pages. The table contains columns for "emission amplitude" in dBm and "attenuation below frequency of operation" or dBc. The tables show Cetecom reported all emissions as shown in the submitted plots for both configurations and provided a table showing the data in terms of measured "emission amplitude" in dBm and "attenuation below frequency of operation" or dBc which is equivalent to referencing the spurious emission to the desired signal level. Thus, the measured data is presented in Table format in the requested manner. The plots presented in the test report are based on measured levels. The spurious power attenuation requirement for this equipment is determined by the formula $50 + 10 \log(P)$ in dB which in this case gives a calculated emission power of -20 dBm as shown on the plots. The Y-axis shows the calculated spurious emission power level based on the measured field strength and the frequency of the emission is shown on the X-axis. Only one spurious emission was found on either the fixed desktop or mobile versions at a frequency of 2200 MHz. The calculated emission power level read from the Y-axis is -45.6 dBm for the desktop unit and -36.2 dBm for the mobile unit. Relative to the 10 watt power level of the fundamental (+40dBm), the spurious emission at 2200 MHz is -85.6 dBc for the desktop and -76.2 dBc for the mobile.

The FCC has asked that a substitution method be used to make this measurement and referenced ANSI/TIA/EIA-603-A-2001 as a standard. However, the FCC rules in Section 2.1053 do not reference a requirement for using a substitution technique and neither is the above standard referenced in the FCC rules as a standard that must be followed. (NOTE: in the heading for Section 2.1053 it is stated "Field strength of spurious emissions".) Moreover, there is ample justification for not imposing the requirement to use a substitution technique that is based on use of a dipole antenna. Dipole antennas are not generally available at above 1 GHz forcing use of another antenna and then "calculating" the correction needed to adjust for the differences in the

gains. Errors of the order of 4 to 6 dB that could easily result from the differences in pattern between the substituted antenna and a dipole are ignored leading one to wonder what justification there is for requiring use of a substitution technique.

The point of the above discussion is that circumstances can vary and the issue is compliance with the Rules. The EADS unit shows compliance with the Rules and although based on calculated levels from field strength measurements there is no expressed opinion that the unit does not comply with the Rules that necessitates new measurements of the one spurious emission. Under these circumstances, EADS respectfully requests that the Commission accept the data as presented.