

EXHIBIT NUMBER 1
DETAILS OF OPERATION
"Inmarsat B"

- A) **FREQUENCY**
The Transmit Frequency of this transmitter shall be tuned to any frequency from 1626.5 MHz to 1660.5 MHz in 5 kHz increments.

- B) **POWER- RF OUTPUT**
The RF output power for each of the discrete frequencies is 11 dbW.

- C) **POWER- EIRP**
The Maximum Effective Radiated Power for each of the Discrete frequencies from the antenna is 32.0dbW.

- D) All power transmitted from each discrete frequency is classified "MEAN" power.

- E) **EMISSION**
The emission code for each discrete frequency shall be "G1D"

- F) **MODULATION**
Each discrete frequency shall be modulated with O-QPSK modulation, rate at 16.0 Kbit/s or BPSK modulation, rate at 3.0 Kbit/s.

- G) **NECESSARY BANDWIDTH**
The necessary bandwidth of the modulating signal is defined in Inmarsat-M System Definition Module 2, Part 1. Issue 3.0, Figure 5. The necessary bandwidth for each of the discrete frequencies is 10 kHz. This bandwidth shall be expressed as 10K0.

EXHIBIT NUMBER 2
DETAILS OF OPERATION
“Inmarsat A”

- A) **FREQUENCY**
The Transmit Frequency of this transmitter shall be tuned to any frequency from 1636.5 MHz to 1645.0 MHz in 25 kHz increments.

- B) **POWER- RF OUTPUT**
The RF output power for each of the discrete frequencies is 16 dbW.

- C) **POWER- EIRP**
The Maximum Effective Radiated Power for each of the Discrete frequencies from the antenna is 36.0 dbW.

- D) **POWER – MEAN/PEAK**
All power transmitted from each discrete frequency is classified “MEAN” power.

- E) **EMISSION**
The emission code for each discrete frequency shall be “G1D”

- F) **MODULATION**
Each discrete frequency shall be modulated with FM modulation, with a peak deviation of 12 kHz or BPSK modulation, rate at 4.8 Kbit/s.

- G) **NECESSARY BANDWIDTH**
The necessary bandwidth of the modulating signal is defined in Inmarsat-A Technical Requirements for Inmarsat Standard- A Ship Earth Stations Issue 3.0, Signal Characteristics. The necessary bandwidth for each of the discrete frequencies is 25 kHz. This bandwidth shall be expressed as 25K0.

EXHIBIT NUMBER 3

TDS Technologies Inc. is under contract with AT&T for the installation and support of Inmarsat terminals for the US Navy. These Inmarsat systems support an AT&T network called "Sailor Phone"(not a trademark) that the US Navy uses on its deployed warships. They permit our Sailors and Marines to call home while being deployed overseas. The quick turn around time required for Installations and System test has dictated testing before vessel installation.

This Application for these Maritime Earth Stations will insure proper operation of Inmarsat system before being installed on deploying US Navy vessels. Live transmitting would be required to make several test calls to a Land Earth Station via the Inmarsat satellite and AT&T's phone network. These test would be performed at our rear parking lot of our San Diego facilities.