

May 21, 2002

**FCC ID:  
TCB approval E5M-TRANSNET900**

Applicant: Microwave Data Systems, Incorporated  
Correspondence Reference Number: 3842  
731 Confirmation Number: TC194785  
Date of Original Email: 04/17/2002

To whom it may concern:

In response to the clarifications requested on the E5M-TRANSNET900 in an email first received by MDS on 05/21/2002, and dated 04/17/2002, please accept the following explanations:

**FCC Issue:**

*Subject: Lock Step Hopping*

*1) The response to Question 1 of the previous request needs clarification. All transmitters in the network are not allowed to hop in sequence at the same time (lock step). The various links in the system must hop independent of each other. Is the hopping done in lock step at the same frequencies in TDMA or do they hop in lock step at different frequencies?*

**MDS Response:**

The TransNET operates in half-duplex mode, typically in a poll/response fashion. The master station transmits a synchronization message pseudo-randomly on all channels at precise regular intervals. The synchronization message allows the remotes to know where time Zero is, and when they should move to the next pseudo-random channel in the table. All remotes synchronized to a given master, hop to the same frequency on the same channel at the same time and they change this frequency all together. These radios will occupy just one channel at a time, but not the whole frequency band, or a significant portion of it.