THE JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM — DESCRIPTION OF SYSTEMS OPERATION AND TIMING REQUIREMENTS

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QUESTIONS AND ANSWERS

QUESTION:

How do you protect from inputs from two different master terminals?

MR. SONSINI:

There is only one master terminal per network. We use one master terminal and if that one goes out then the next higher order of hierarchy would take over the master function. If more than one took over then the first time that the second terminal that took over heard the first one transmitting, he would immediately go back to a non-master mode. So within line of sight there would only be one master terminal.

DR. STOVER:

What if you would move from one network to another? For example, what if one aircraft would move from one network to the next network and if the two networks weren't alike that could create a problem. You didn't mention anything about trying to tie your network to Observatory time.

MR. SONSINI:

Currently, that would be a problem. Two non-interlinked networks would not be synchronized and a plane flying from one network to the other would have to resynchronize in the second network. That is why I mentioned both tying JTIDS in with the GPS or the continuous clock for all terminals which would maintain prime synchronization as an absolute time quality.

DR. WINKLER:

You mentioned frequency hopping in that frequency range, in UHF. Is that done phase coherenly or is coherence lost?

MR. SONSINI:

I think you lost me.

DR. WINKLER:

Well, when you hop frequency, you can do it in two ways. You can modulate your carrier frequency generator, and if you do that, then phase coherence will be maintained. Or, you can switch between different oscillators and then they may not necessarily be phase coherent.

MR. SONSINI:

It is a single oscillator, a large termination of local oscillators and mixers and the same local oscillators are used for all frequencies.