Dear Reader:

This, January 1978, edition of the TCP specification is certain not to be the last, for even if there were no technical changes to the protocol expected (and there are several), there are calls for significant changes in the document as a presentation of the protocol.

The following lists the outstanding technical issues, and some minor points, that should be addressed in the next version of the specification. These are old features to be clarified, in addition the TCP research community is expected to add new features to the protocol.

Technical Issues:

- The TCP interrupt mechanism (Urgent!) does not support the use made of the out-of-band signal in the Virtual Terminal protocols being developed in Europe and in INWG.

- The RST (reset) rules needs to be thoroughly checked.

- The fragmentation scheme should be clarified or removed, as it currently stands it may be unworkable.

- The possibility for changing the byte size during the life of a connection should be investigated.

- One cannot listen for a fully specified connection.

Technical Minor Points:

p8 - User timeouts may be a bad idea, especially if defaulted when unspecified. Aborting a connection because of a TCP's impatience and not the user's is a bad idea.

p33 - In Section 4.2.5 for Case 1 or Case 2 what if the user is locked up? Should there be some words about ABORTING here?

p40 - In CLOSED STATE under Incoming Packets there is some uncertainty in what should be put in the PKT-SEQUENCE field of a RST being formed in response to an packet that did not have an acknowledgment field.

p56 - Why is Format field in Internet Header instead of being the first field of the TCP header?

p59 - Why is option field in TCP header not treated as the Urgent Pointer and Byte Size fields? That is why is not there a control bit to signal the presence of the option field?

p60 - Is the checksum field included in the checksum computation by the receiver?