             Telnet Output Carriage-Return Disposition Option

1. Command name and code

    NAOCRD   10   (Negotiate About Output Carriage-Return Disposition)

2. Command meanings

        In the following, we are discussing a simplex connection, as
    described in the NAOL and NAOP Telnet options.

    IAC DO NAOCRD   The data sender requests or agrees to negotiate
                            about output carriage-return character
                            disposition with the data receiver.   In the
                            case where agreement has been reached and in
                            the absence of further subnegotiations, the
                            data receiver is assumed to be handling output
                            carriage-returns.

    IAC DON'T NAOCRD   The data sender refuses to negotiate about
                            output carriage-return disposition with the
                            data receiver, or demands a return to the
                            unnegotiated default mode.

    IAC WILL NAOCRD   The data receiver requests or agrees to
                            negotiate about output carriage-return
                            disposition with the sender.   In the case where
                            agreement has been reached and in the absence
                            of further subnegotiations, the data receiver
                            alone is assumed to be handling output
                            carriage-returns.

    IAC WON'T NAOCRD   The data receiver refuses to negotiate about
                            output carriage-return disposition, or demands
                            a return to the unnegotiated default mode.

    IAC SB NAOCRD DS <8-bit value> IAC SE
                            The data sender specifies, with the 8-bit
                            value,   which   party   should   handle
                            carriage-returns and what their disposition
                            should be. The code for DS is 1.

IAC SB NAOCRD DR <8-bit value> IAC SE   The   data   receiver
                              specifies, with the 8-bit value, which party
                              should handle carriage-returns and what their
                              disposition should be. The code for DR is 0.

3. Default

     DON'T NAOCRD/WON'T NAOCRD.   In   the   default   absence   of
negotiations concerning which party, data sender or data receiver,
is handling output carriage-returns, neither party is required to
handle carriage-returns and neither party is prohibited from
handling them; but it is appropriate if at least the data receiver
handles carriage-returns, albeit primitively.

4. Motivation for the Option

     Please refer to section 4 of the NAOL and of the NAOP Telnet
option descriptions.

5. Description of the Option

     The data sender and the data receiver use the 8-bit value along
with the NAOCRD SB commands as follows:

8-bit value	Meaning
0	Command sender suggests that he alone will handle carriage-returns, for the connection.
1 to 250	Command sender suggests that the other party alone should handle carriage-returns, but suggests that a delay of the indicated value be used. The value is the number of character-times to wait or number of NULs to insert in the data stream before sending the next data character. (See qualification, below.)
251	Not allowed, in order to be compatible with related Telnet options.
252	Command sender suggests that the other party alone handle carriage-returns, but suggests that they be discarded.
253	Not allowed, in order to be compatible with related Telnet options.

254   Command sender suggests that the other party
                         alone   should   handle   carriage-returns but
                         suggests waiting for a character   to   be
                         transmitted (on the other simplex connection)
                         before sending more data. (See qualification,
                         below.)   Note that, due to the assynchrony of
                         the two simplex connections, phase problems can
                         occur with this option.

255   Command sender suggests that the other party
                         alone   should   handle   carriage-returns and
                         suggests nothing about how it should be done.

The guiding rules are that:

    (1) if neither data receiver nor data sender wants to handle
    carriage-returns, the data receiver must do it, and

    (2) if both data receiver and data sender want to handle
    carriage-returns, the data sender gets to do it.

    The reasoning for the former rule is that if neither wants to do
it, then the default in the NAOCRD option dominates. If both want
to do it, the sender, who is presumed to have special knowledge
about the data, should be allowed to do it, taking into account any
suggestions the receiver may make.

    Note that carriage-return delays, controlled by the data sender,
must consist of NUL characters inserted immediately after the
character in question. This is necessary due to the assynchrony of
network transmissions.   Due to the Telnet end-of-line convention,
with carriage-returns followed by a linefeed, any NULs that would
otherwise be placed after the carriage-return must be placed after
the linefeed, regardless of any modifications that may additionally
be made to the line feed (see NAOLFD Telnet option).

    As with all option negotiations, neither party should suggest a
state already in effect except to refuse to negotiate; changes
should be acknowledged; and once refused, an option should not be
resuggested   until   "something changes" (e.g., another process
starts).

    At any time, either party can disable further negotiation by
giving the appropriate WON'T NAOCRD or DON'T NAOCRD command.

\000\000\000