CCN NETRJS SERVER
MESSAGES TO REMOTE USER

A. <u>INITIAL</u> <u>CONNECTION</u>, <u>SIGNON</u>, <u>AND</u> <u>SIGNOFF</u>

   1.   If CCN refuses an ICP to a NETRJS socket, it means either that
        there is no free core within the NCP region, or that CCN's
        software is crashing.

   2.   Once ICP is completed, CCN might send the user one of the fol-
        lowing messages and close the Telnet connections:

        NRJ110I NETRJS PORTS BUSY. TRY LATER

             This may be expected occasionally; frequent occurrance
             should be reported to CCN User Relations (825-7548), or
             to BELL@CCN.

        NRJ111I RJS NOT UP, TRY LATER

   3.   Normally, however, the user will receive a READY message:

             NRJ876R CCN NETRJS READY. ENTER SIGNON

        If the user sends no operator input for 3 minutes, CCN will
        send:

             NRJ308R SIGNON TIMEOUT EXCEEDED

             NRJ205R NETRJS SESSION TERMINATED

        and close the Telnet connection. If he sends an invalid SIG-
        NON command, he will receive the message:

             NRJ307R INVALID SIGNON, RE-ENTER

\0337   Finally, a valid signon will be acknowledged by RJS with the message:

        RJS750I TERMINAL -termid- HAS SIGNED ONTO RJS

    4.   If the user terminates the session by entering a SIGNOFF command, NETRJS will wait until all data transfer has completed before sending the message:

        NRJ205R NETRJS SESSION TERMINATED

    and closing the Telnet connection.

B. REMOTE SITE OR NETWORK FAILURES

    1.   During data transfer, the user must be reasonably responsive. If not, CCN will close the data transfer connection and send the remote operator message:

        NRJ504I DATA TRANSFER TIMEOUT FOR THE -device-, -termid-

        a)   if -device- is PRINTER or PUNCH, user site stopped accepting bits (sending "allocates") for over 5 minutes.

        b)   if -device- is READER, user site left reader connection open without sending any bits for 5 minutes.

    2.   During data transfer on the CR connection, CCN may detect an incorrect header or record, presumably due to user site software or Network transmission error. The following messages beginning with the word "BAD" will follow an NRJ512I message containing the faulty header in hex:

        NRJ505I BAD HEADER SEQUENCE FOR NETRJS READER

           Sequence number in transaction header does not match internal counter of records passed.

        NRJ506I BAD HEADER LENGTH FOR NETRJS READER

           Length given in header exceeds 880 bytes.

\0337   NRJ507I BAD HEADER TYPE FOR NETRJS READER

       Type code in header is not X'FF' (data) or X'FE'
       (end-of-data)

     NRJ511I BAD FILL BIT COUNT FOR NETRJS READER

       The filler bit count in header is not a multiple of
       8.

3. If the header is correct but a data record is faulty, the fol-
lowing message will be sent to a remote user:

     NRJ602I line STREAM ERROR - READER, -code-

       A protocol error was detected in the READER stream.
       CCN will close the stream and ready it to be reo-
       pened so the remote user may retry the data transfer
       operation. The valid -code- values are:

CODE	ERROR
1	Device id byte has high bit off.
2	End of transaction in the middle of a data line.
3	Truncated input line longer than 255 bytes.
4	In compressed text, string control byte has high bit off.
5	In compressed text, duplicate blank string extends line longer than 255 bytes.
6	In compressed text, duplicate character string extends line longer than 255 bytes.
7	In compressed text, character string extends line longer than 255 bytes.

4. Finally, if the user aborts his data transfer, he receives the
message:

     NRJ502I NETRJS -device- DATA TRANSFER ABORTED BY USER
     -termid-.

\0337C. <u>CCN</u> <u>FAILURES</u>

1.   The CCN operator can cancel a NETRJS session, aborting any
      open data transfer streams and sending the message:

          NRJ204I NETRJS SESSION ABORTED BY CENTRAL OPERATOR, TERM=
          -termid-

2.   Any of the following messages indicate a serious CCN Network
      software problem, and will cause the session to be aborted:

          NRJ106A NETRJS DEAD - EXCHANGE INOPERATIVE

          NRJ201A NETRJS DT SOCKET ERROR - BAD LISTEN

          NRJ208A NETRJS PROGRAM CHECK IN -device-, code=ccc

          NRJ209A NETRJS LOAD FAILED FOR -device-, code=xx

          NRJ304I RJS LINE HANDLER DEAD

          NRJ401I RJS LINE HANDLER DEAD

          NRJ402I RJS LINE HANDLER DEAD

      Any of these should be reported to CCN.

3.   Besides global catastrophes like these above, the user might
      encounter a failure of a particular data transfer process.
      These do not terminate the session, only cause the data con-
      nection to be refused or terminated; the user can try again to
      open the data connection. Repeated failure should be reported
      to CCN.

          NRJ501I NO CORE FOR DATA TRANSFER BUFFER -device-

          NRJ503I NO CORE FOR DATA TRANSFER WORKAREA -device-

          NRJ207I NO CORE FOR-device-DATA TRANSFER MODULE

              Due to core memory limitations in CCN's NCP,
              -device- cannot be started now. The data transfer
              connection indicated by -device- will be refused.
              This may happen occasionally during active periods,
              but repeated occurrences should be reported to CCN.

\0337   NRJ509I -device- DATA TRANSFER DEAD

           NRJ510I -device- DATA TRANSFER DEAD

           NRJ602I line STREAM ERROR - PRINTER, -code-

           NRJ602I line STREAM ERROR - PUNCH, -code-

                CCN data transfer failed, but recovery may be possi-
                ble. User may try again.

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