If not otherwise stated please refer to to operators manual of WA8DED's
firmware, vers. 2.1 (Copyright WA8DED).

General Changes

PTT release is delayed by "one byte" (with 1200 Baud this is 6.7ms). So
all rigs will now work without any problems.

In hostmode the "L" command will work even with uninitialized RAM.

The WA8DED version has an error with the "G" command in hostmode. There
is no difference between G1 and G0 on channel 0. Some interfaceprograms
could run wild with this. Hostmode will now work as documented in the
operators manual and is fully compatible to TNC1.

Response to hostmode commands is now much faster an equivalent to TNC1.

New commands

H   -   Heardlist. The heardlist is somewhat different from other TNC
            firmware or interface programs. It is not "last 20 stations heard".
            With heavy traffic on the frequency this type of list was not
            suitable. The list is build dynamically and it's length is only
            limited by the amount of free RAM. With 32K it can hold as much as
            600 calls. The length can be limited. For every heard call (source
            of frame) you will see:

                  - Call and SSID
                  - Date and time when heard first
                  - Date and time when heard last
                  - Number of heard I-Frames
                  - Number of heard RR-Frames
                  - Number of heard REJ-Frames
                  - Number of heard RNR-Frames

      In the age Level3-4 nets it isn't useful to store any digipeaters.
      By watching the number of differrent frames you can easily judge
      about activity and effectivity of a station (ratio I/RR/REJ).

      Because for every heard packet the whole list has to be scanned,
      speed will be reduced with an large list. Updating is disabled with
      "H 0". The list is kept in memory, but no received packet will be
      counted.

      Automatic updating is enabled with "H 1":

      "H 2" kills the list and releases any allocated buffers.

      With "H n", n beeing any number greater then 2, the maximum length
      of the list is set. New calls will be added to the list only if the
      length of the list doesn't exceed this parameter. Bufferspace is

not allocated with this command. Allocation takes place only if needed by seeing a new call. With a simple trick you can set the list for just some known stations:

1. switch of transceiver
2. kill heardlist with ESC H 2
3. set number of stations to monitor with ESC H n
4. for every call to be monitored do:
   ESC I <monitor-call> CR, CR
5. reset to your own call with ESC I <mycall>
6. switch on transceiver

Now the heardlist is fixed. This works because also your own sent frames go to the list.

A "H" without any parameter will output the list. The headerline is: status of list (on-off), number of call is list, maximum length of list. Then all calls are output, sorted by alfabeth. The header can be seen on any channel, the list only on channel 0. Output is killed by any character typed, except X-ON or X-OFF, in hostmode by sending any packet to channel 0. A carriage return suffices. This frame is not send.

    Examples :

    H   -   show heardlist
    H 0   -   disable list update
    H 1   -   enable list update
    H 2   -   clear list
    H 10   -   set maximum length of list

In Hostmode the headerline is output with code 1 (success, message follows, null terminated). The following list is output as code 5 (monitorheader, null terminated, info follows), all following lines with code 4 (monitorheader, null terminated).

K   -   Time-Date-Stamp. TheFirmware 2.1c has a build-in 24-hours clock and a calendar by software. You may stamp all statusmessages (CONNECT REQUEST fm, CONNECTED to, etc.) and monitored frames. With "K 0" stamping is disabled, "K 1" enables stamping statusmessages, "K 2" enables stamping both status and monitored frames. Just a "K" will show time and date.

With "K hh:mm:ss" the clock is set: hh = hour, mm = minute, ss = second. "K dd.mm.yy" will set the date (european style, dd = day, mm = month, yy = year), "K mm/dd/yy" will use US Style. Setiing a particular style also affects the output. Time and date are cleared after QRES or coldstart. With battery backup the clock will continue after the moment the TNC was switched off. So it's easy to see if there was a power failure while you were out. Tests have shown, the clock is very accurate.

    Examples :

    K   -   show time and date
    K 0   -   disable stamping
    K 1   -   stamp status messages
    K 2   -   stamp status and monitored frames

```
           K 20.02.88   -  set date, european style
           K 02/20/88   -  set date, US style
           K 17:36:00   -  set time



@K    -    Switch TNC to KISS mode. KISS was taken from a standard TCP-IP
           package. Please see there for a description. You can reach KISS
           only from terminal mode. No parameters of the firmware are changed
           by this. KISS uses it's own set of parameters and will never affect
           the firmware settings. To switch back from KISS to terminal mode
           use the KISS command 255. This will do a reset. The clock is
           stopped while KISS is running.
```

Preset parameters in EPROM

You may change some defaults in the EPROM. The list starts at 0040 HEX
like described in the WA8DED manual. Up to and including the byte to
mask bit 7 in terminal mode nothing has changed. From there the list
looks like follows:

```
    BYTE        00h               Default stamp mode (K command)
                                    0 - disabled
                                    1 - status messages only
                                    2 - status and monitored frames
    BYTE        00h               Heard list mode (H command)
                                    0 - disabled
                                    1 - enabled
    WORD        64h               maximum length of heardlist (H command)
    WORD        64h               Timer T2 Intervall (10ms)
    WORD        4650h             Timer T3 Intervall (10ms)
```


Notes on the release as of 14.MAR.88.

After a reset a checksumm is output. This checksumm must be same as the
number in braces after the signon, even with changed default in EPROM.
If the numbers don't match there must have been an error while
programming the EPROM.

The heardlist is resident, it will stay in RAM after a reset (if you
have battery backup).

Attention: with a long heardlist a restart may take a long time because
every buffer has to be checked if it is in use by the heradlist.

In case of trouble contact:

Michael Roehner
DC4OX
Riepackerstrasse 98
3068 Helpsen

Don't blame Michael for the translation (DF2AU did it...)

73 and have fun, George, DF2AU
→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→