MOTHER OF ALL RADAR EXPERIMENTS

How to run

Experiment files are located in /kst/exp/fi/moare

The experiment is started as usual:

run moare <time> [scan] [owner]

For example:

run moare fm cp1 fi

starts the experiment at the next full minute with cp1 scan and marks Finland as owner of the experiment in the files recorded in EISCAT data disk.
By default the experiment starts with the program -prog3 (see list below). The program is changed by the command:

armradar trans <program>

This changes the radar controller start address and the program is changed at the beginning of next integration period (in case of moare this may take about half a minute). For example the program "-prog1" is started by the command:

armradar trans -prog1

Exactly similar copies of all programs are build for both UHF and VHF radars and they are run in exactly the same way in both of the radars.

Programs

Name	Bit [μs]	Pulse [μs]	IPP [μs]	code	Sub-pulse Barker code	Target
-prog1	1	364	3250	28-bit	13-bit	D
-prog2	4	360	3250	18-bit	5-bit	D
-prog3	4	360	3160, 3560, 4160, 2120	18-bit	5-bit	DEF
-prog4	4	360	3250	90-bit	-	D
-prog5	4	360	3160, 3560, 4160, 2120	90-bit	-	DEF
-prog6	20	360	2495, 3385, 3835, 4285	18-bit	-	FED
-prog7	20	500	3885, 3355, 5805, 4455	25-bit	-	FE
-prog8	5	150	1500,1500,1500,3000	30-bit	-	D
-prog9	10	150	1500,1500,1500,3000	15-bit	-	D

IF = 11.600 MHz (UHF, F8), 11.400 MHz (VHF, F15)
IF is easy to change is necessary!

Radars

Band with 6.4 MHz (constant), centered at 11.5 MHz (UHF constant, VHF default)

VHF band center can be selected from 8 possibilities.

Channel attenuation can be manually set in both radars.

https://e7.eiscat.se/groups/Documentation/UserGuides/usersguide/receiver.html