



REAL INSTITUTO Y OBSERVATORIO
DE LA ARMADA



ROA report to TWSTT-WG

Bern, Sep 17th 2007



What has changed?

- The TW station is now driven by the Active H-Maser (Sigma - Tau).





Two different approaches

- The frequency source should be:
 - The output of the H-Maser: (5, 10 , 100 MHz
No PPS)
 - The output of the AOG.(5 Mhz, 1 PPS).



More equipments in the chain

- A frequency doubler is introduced to obtain 10 MHz
 - Increase the noise of the chain
- An external time interval counter is needed to measure the offset of the 1PPS input and UTC(ROA).
 - SR 620 is used for this work
 - A computer collects automatically this data



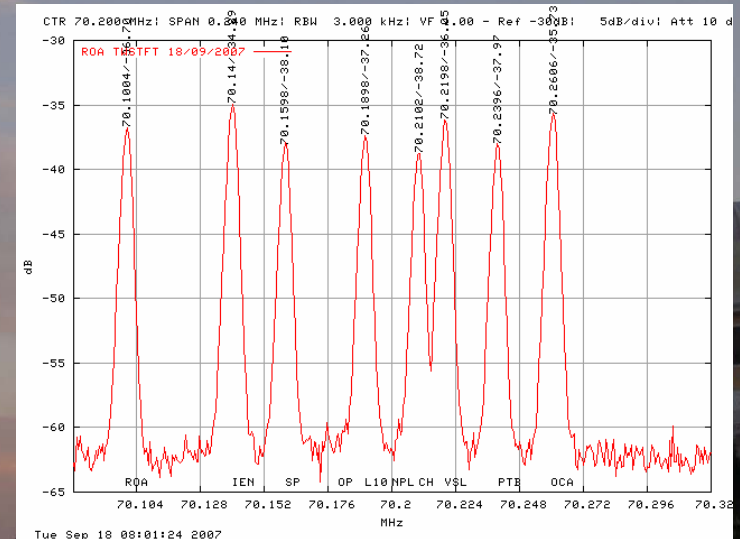
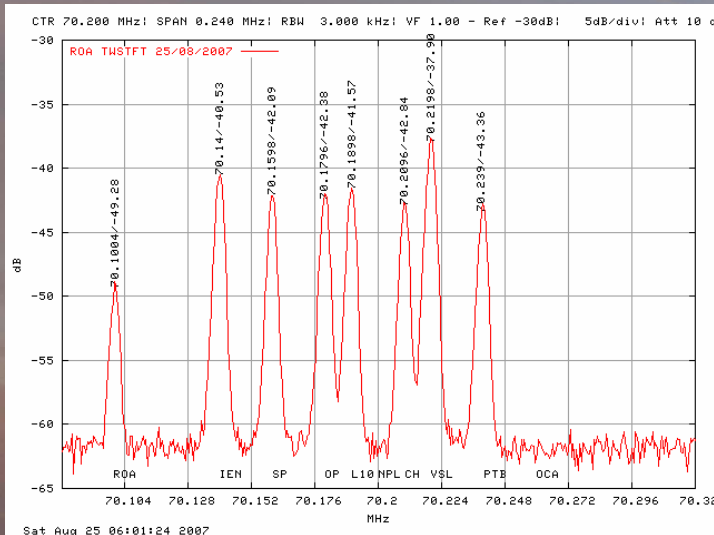
Calibration

- ROA proposes to use a GPS multi channel receiver to fill the gap. (PTB – ROA link cal.)
- Will the loan or hire of the traveling TW station be a possible solution?.



Cleancarrier

- When special observation of CC is needed pls contact us to check and assure the right functioning of the system.





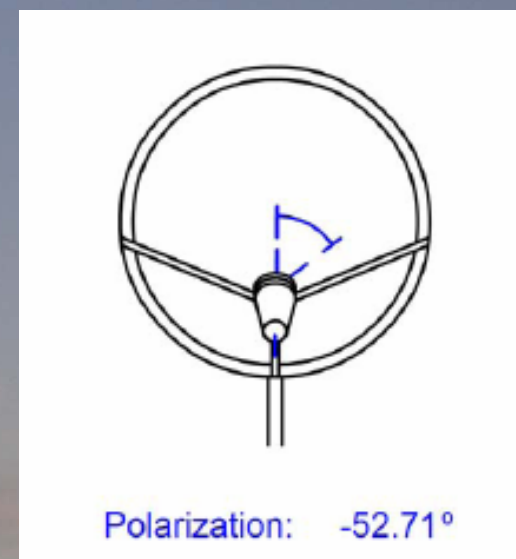
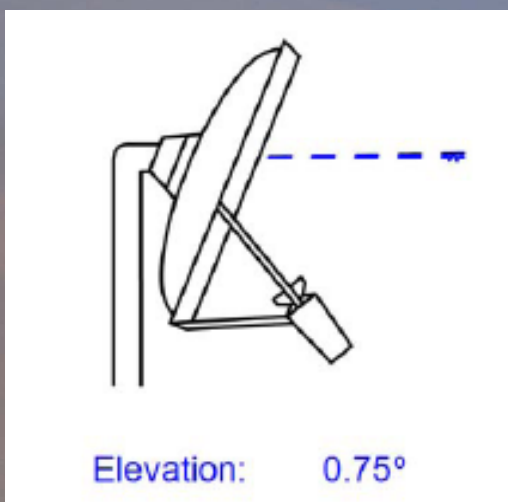
CALR

- ROA Calr is - 4940.160
- Same as reported at 13th Meeting, Delf
- Clarification of ITU format is needed.



PAS-4

- Elevation of PAS-4 is 0.75° , Pol -52.71



- Hard to align, but we will try....



Summary

- H-Maser drives the TW station
- New equips, new setup, new problems.
- PTB –ROA link to be GPS MC-P3 calibrated.
- CC plots continue available. More Tx power
- ROA second V-SAT station for testing.
- Proporsal..



Proporsal

- Folders names containing the ITU files are quite different from laboratories (example to follow).
- When collecting data from labs, one must take into account a lot of variables.
- To make our work easier I propose:
 - Use a root folder
 - Use lower case.
 - Store the files in different folders taken the number of the year.
So:
 - `ftp://ftp.site.lab/root/folder/yyyy/twlabmm.jjd`
 - `ftp://ftp.site.lab/root/folder/yyyy/1s/lab/ammjjdd.hhb`



Example for year 2003

- NPL, "/npl/twstft/2003/",
- VSL, "nmi-pub/time/twstft/2003/",
- PTB, "pub/time/twstt/",
- OCA, "twoca2003/",
- NIST, "pub/twstt/intlfmt/",
- USNO, "twstt/USNO/intlfmt/",
- IEN, "twstft/2003/",
- ROA. "/pub/hora/twstt/2003"



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Thank you, and...

Goodbye or so long?