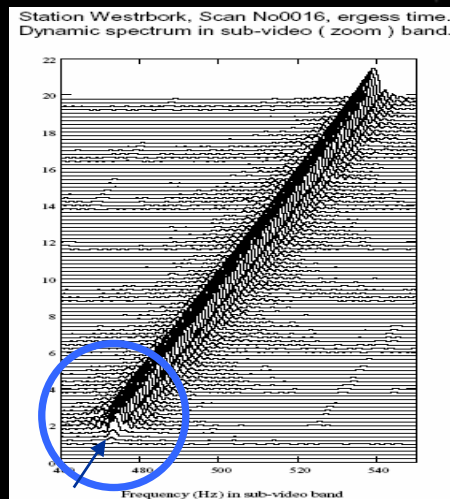


S. Pogrebenko (JIVE), A. Foley (ASTRON), I. Avruch (JIVE), H.J. Stiepel, (ASTRON)

On July 17th 2006 the ESA spacecraft Smart-1 was successfully tracked by the WSRT during a test run in the frame work of EH019 project and KNAW - CAS grant for collaboration in Radio Astronomy in support of CHANG'E mission.

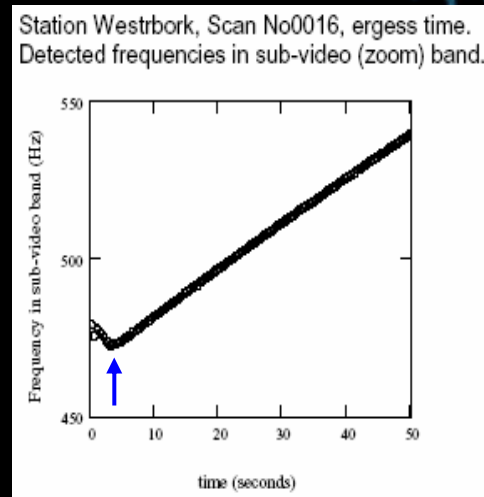
Data processing was done at JIVE using Huygens software correlator

Dynamic spectrum

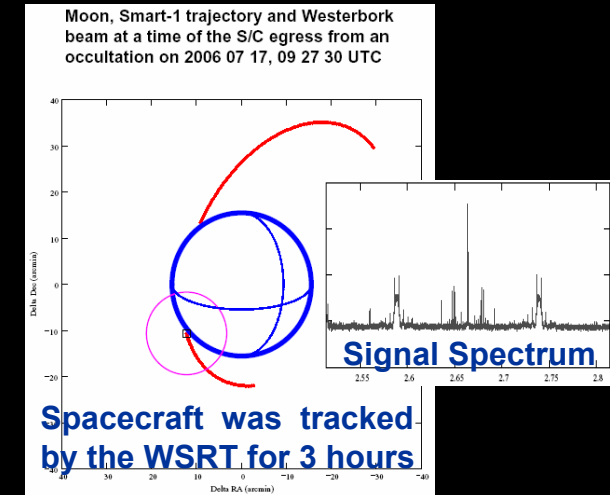


A small “mouse tail” at the beginning of the spectrum is the diffracted signal, received few seconds before the S/C became really visible

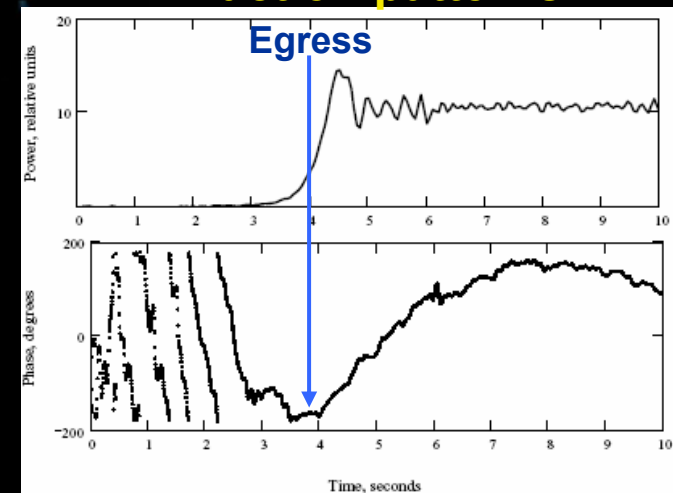
Frequency detections



Note a sharp change in Doppler shift acceleration at pre-egress times



Diffraction patterns



Signal power (top) and phase (bottom) during egress. Geometrical egress happened at second 4 of this scan. Power of a diffracted signal is 4 orders of magnitude less than that of a direct beam