

ABSTRACT OF ~ 13:30, MARCH 9, 2018 TALK

THE HISTORY OF THE TWO 16-METER TELESCOPES

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The February 13, 2018 ESO NEWS Release eso1806 announced the first time use of the VLT combined four Unit telescope foci (thus making it the first 16-meter in existence!). It reminded me of the other 16-meter telescope which was being designed by National Optical Astronomy Observatory (NOAO) in the USA in the mid-1980's under the name National New Technology Telescope (NNTT). Both VLT and NNTT use four 8-meter mirrors whose light was combined in both incoherent and coherent foci; the former had collecting diameters of 16 meter, the latter had resolution diameters of 22 meter (NNTT) and 130 meter (VLT/VLTI). I was involved in the design of both. Because of unfortunate circumstances the NNTT was cancelled in 1988, shortly after NOAO and ESO had agreed to coordinate their technological efforts. Following that I joined ESO in the implementation of the VLTI. My talk will describe both efforts and the influence my earlier experience as Director of the Multi Mirror Telescope (MMT) affected both designs. That includes the inclusion of the Homothetic Beamcombiner referred to as the VLTI "Beckers Pit". The talk will naturally involve much of my biography.