

From Mike Wickson (Sqn. Ldr.)

In May 1964 the RAF asked for a volunteer to be seconded to Vickers, Weybridge as a flight test navigator. At the time I was OC Navigation and Bombing Trials at BCDU RAF Finningley in Yorkshire. After interviews with Brian Trubshaw, the Chief Test Pilot, I was accepted for the post. I then joined the TSR.2 team at Wisley sharing an office with Dave Bowen and David Morgan, the test pilot with whom I was to be crewed.

The navigation aids for the TSR.2 were to be innovative. However, there was little written about them in a comprehensive and practical sense. Hence one of my first priorities was to liaise with the development engineers at Warton and Weybridge to obtain the details of the equipment and how they were to be operated. Eventually I produced a booklet which contained a blueprint of the navigator's instrument panels together with a complete run down of how each equipment was to be operated. All the details were with respect to the tenth production aircraft as this would be one of the earlier fully equipped modes for full testing. I still have a copy of the booklet and it is interesting to recall the distribution, viz: R.P.Beamont, D.Bowen, D.Morgan (Wisley) all deceased. P.Moneypenny, B.McCann (Warton), D.Harris, J.Elliott (Weybridge).

The low level capabilities of the aircraft would entail much testing. It was therefore arranged for me to check the efficacy of the low level routes flying up through central Wales. This was done in a Canberra aircraft flying from Farnborough with a Flt.Lt. Harper?, at heights below 2000ft, which was a little 'hairy' but good practice. The routes proved acceptable.

The really new and unique navigation equipment was the sideways looking radar system (forward looking is not effective for navigation at low level). This employed two long (some 6ft) slotted aerials, one each side along the fuselage, which could be selected to look left or right as required. The aerial produced a narrow beam of radar returns which were then photographed, developed in seconds so that a complete radar picture could be presented on a moving roll of sensitive papers to the navigator. The system was under test at Boscombe Down in a Hastings aircraft. I accompanied the testing of this equipment on seven low level flights from Boscombe Down. The resulting pictures were encouraging, but the whole system was rather complex.

Other navigation items included Doppler, Inertial platform, moving map display, computers and a forward looking radar for terrain

following and mapping. Amongst all this high tech there was also a continuous chain arrangement whereby messages could be passed from the navigator in the rear cockpit to the pilot!! in case of communication failure.

I witnessed the preparations for the first flight of XR219 from Boscombe Down and the intense activity in preparing the aircraft. There was a long delay of some hours in this work when one of the engineers dropped a pen or pencil in the cockpit, which then disappeared. This had to be found and retrieved.

Towards the end of my secondment period there were doubts (passed to me by Brian Trubshaw) regarding orders for the aircraft. I therefore returned to the RAF, rather than join the company which was an option.