

# MERLIN

- Multi-Element Radio Linked Interferometer
- Connected with microwave links
- Based at Jodrell Bank
- 21 baselines from 6 to 218 km

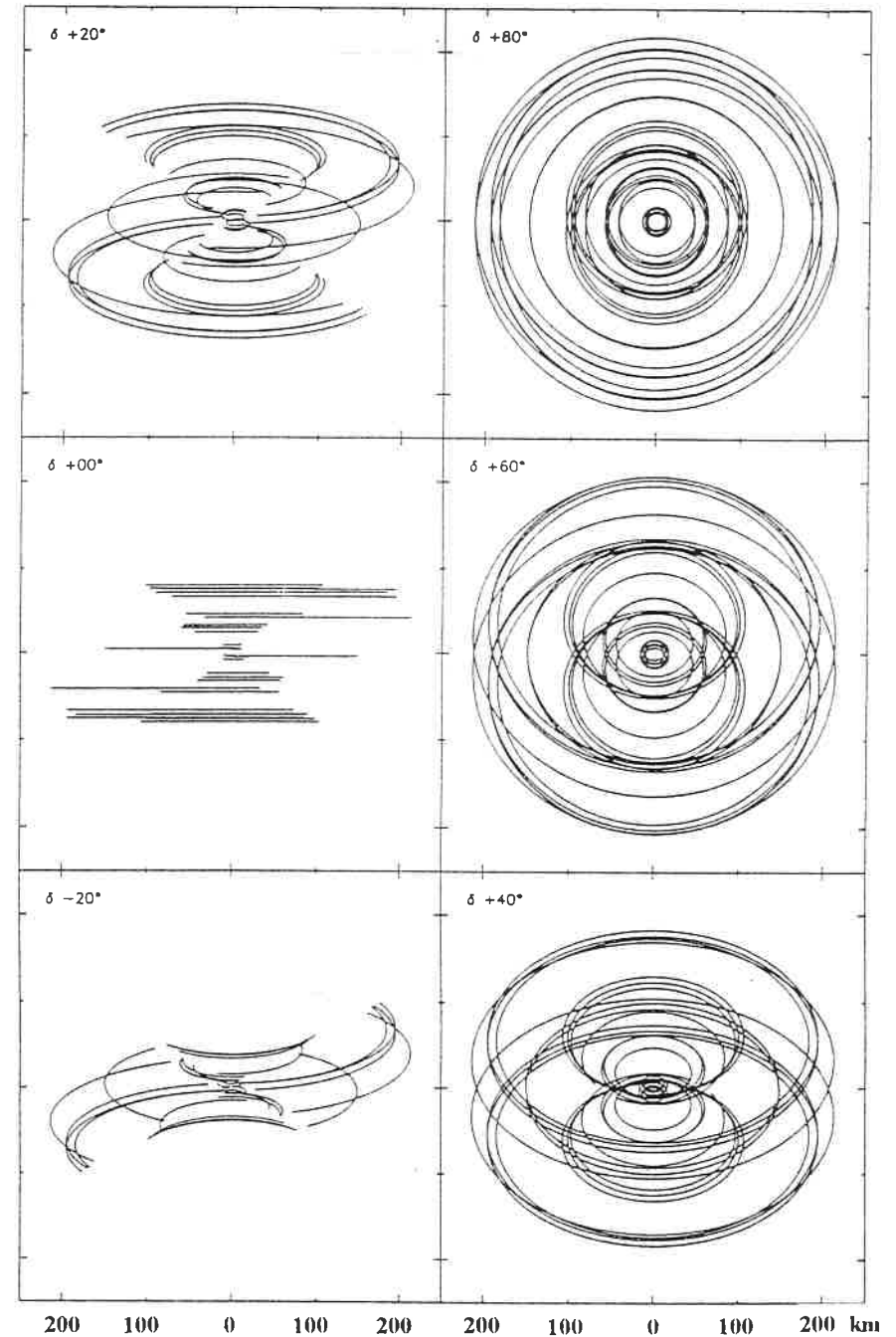
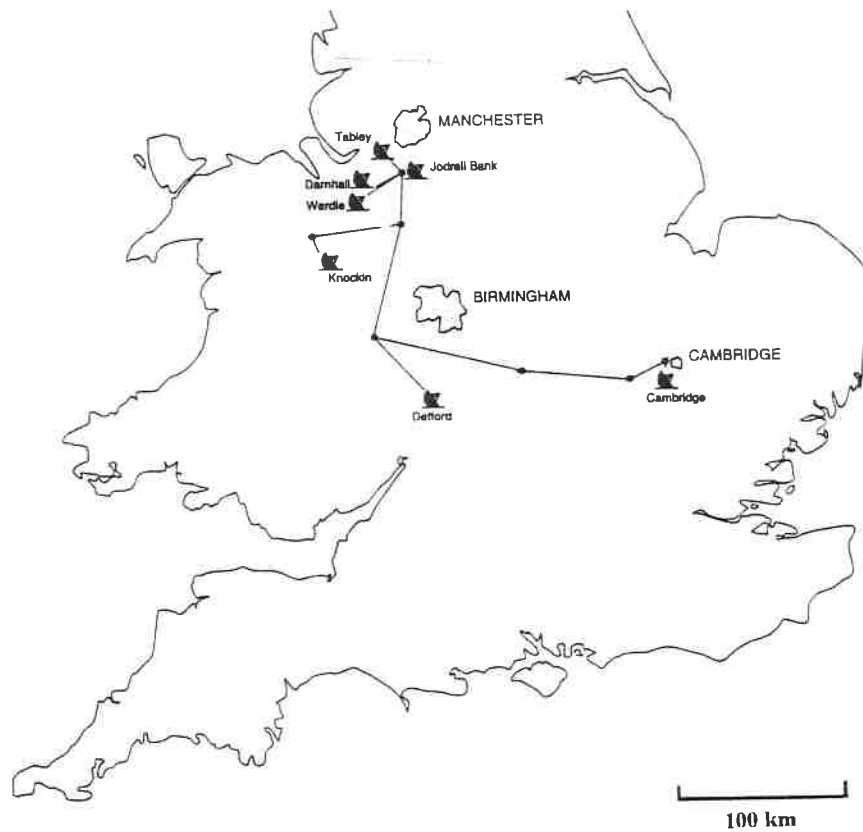
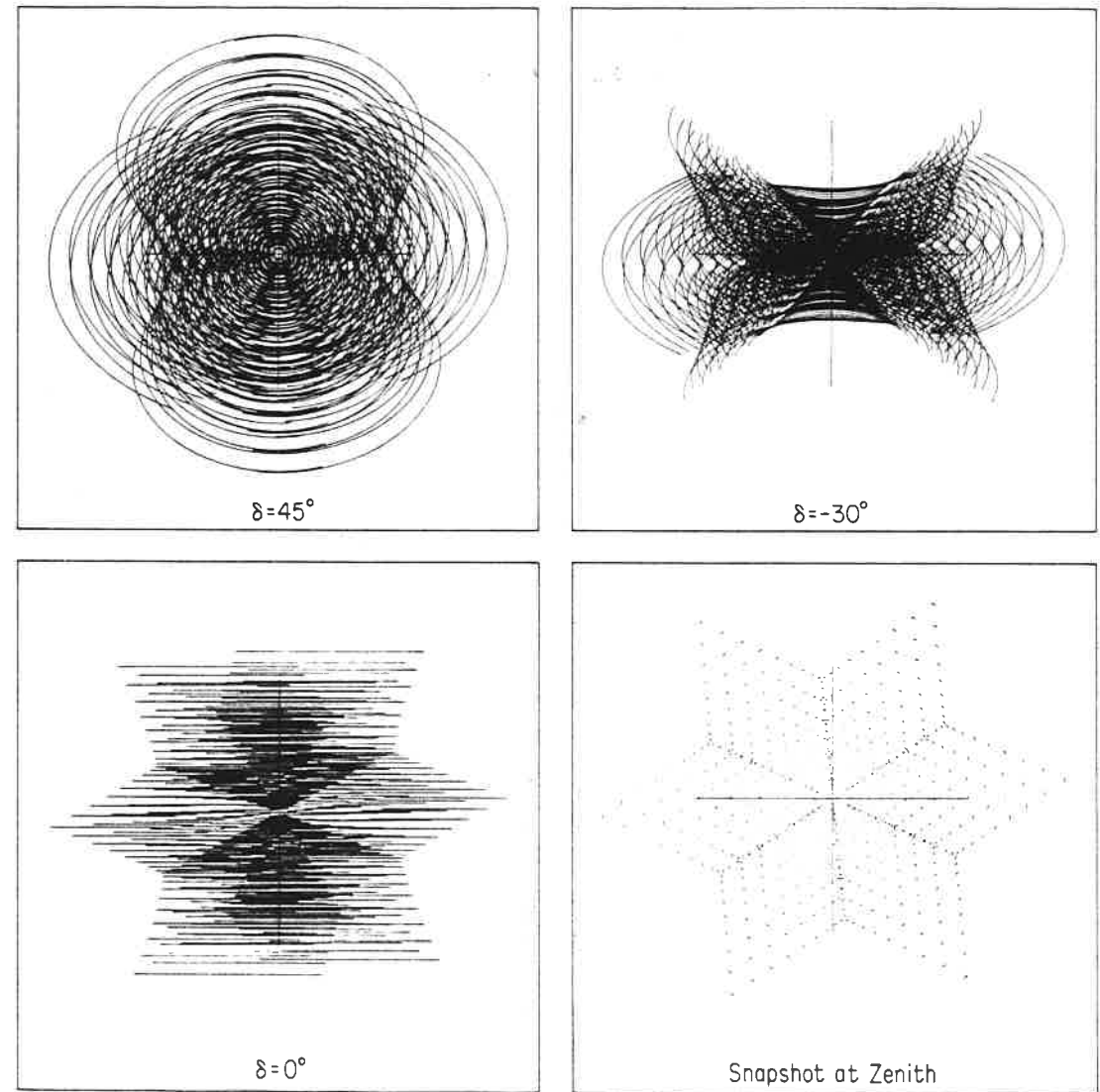
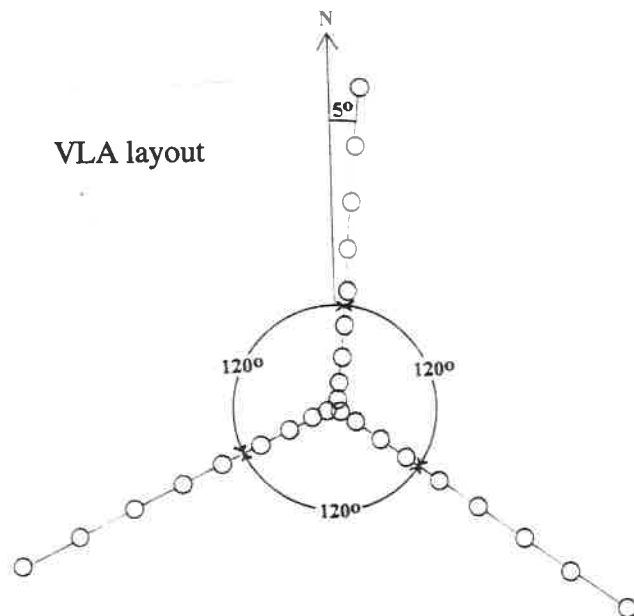


Fig. 6.7. The radio-linked interferometer MERLIN using six telescopes; the  $u, v$ -coverage for an 8 hr tracking observation at six declinations.

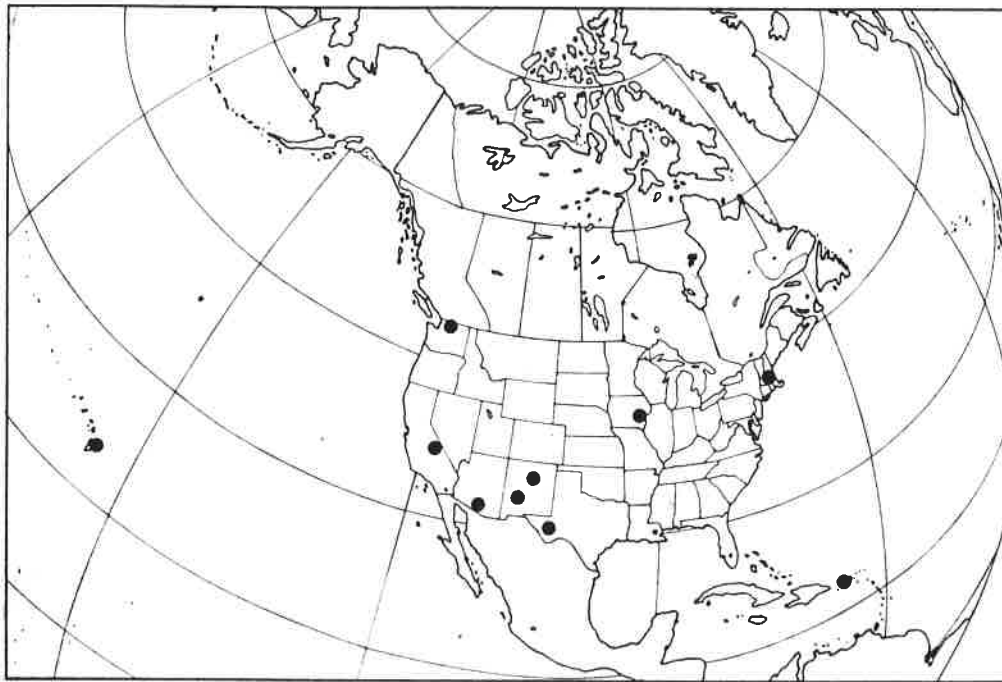
## The Very Large Array (VLA)

- 'Y'-shaped configuration with 21 km arms
- 27 dishes, each 25 m in diameter
- dish surface accuracy: 0.5 mm; weight 193 tonnes
- 351 simultaneous baselines
- wavelengths of 1.3 to 90 cm



**Figure 5.18** Transfer functions in the  $(u, v)$  plane obtained with the power-law configuration of Fig. 5.17b. The range of hour angle is  $\pm 4$  hr or as limited by a minimum pointing elevation of  $9^\circ$ , and  $\pm 5$  min for the snapshot. The lengths of the  $(u, v)$  axes from the origin represent the maximum distance of an antenna from the array center, that is, 21 km for the largest configuration. From Napier, Thompson, and Ekers (1983), © 1983 IEEE.

# Very Long Baseline Array



(a)

