IAA-01-IAA.9.1.07

THE LOVELL TELESCOPE UPGRADE

Ian Morison
Jodrell Bank Observatory
University of Manchester
Macclesfield, Cheshire SK11 9DL United Kingdom

Tel: +44 (0) 1477-571321 Fax: +44 (0) 1477-571618 Email: im@jb.man.ac.uk

The 76m Lovell Radio Telescope is currently playing a confirmatory role in the Project Phoenix SETI Observations. At present it is not able to carry out this role beyond about 1700 MHz due to its limited surface accuracy. A major upgrade is now in progress to replace the aging surface with new, high precision, galvanized steel panels. These will be set using a holographic technique to greatly improve the overall surface accuracy. The upgraded telescope is expected to have high efficiency at 5 GHz and may well be usable up to 8 GHz. The narrower beam-width at these higher frequencies also requires that the telescope pointing be improved and so a major part of the upgrade is to install a new and sophisticated drive system. The upgrade will be completed in late 2001 and will then allow the Project Phoenix observations to be extended upwards in frequency.