

RADAR PENETRATION IN THE AMAZONIAN RAIN FOREST

Roberto Pereira da Cunha
Ministério da Ciência e Tecnologia - MCT
Instituto de Pesquisas Espaciais - INPE
Av. dos Astronautas, 1758 - Caixa Postal - 515
12201 - São José dos Campos - SP

John Ford
Jet Propulsion Laboratory - JPL
California Institute of Technology
4800 Oak Grove Drive
Pasadena, California 91109

Radar return from vegetation covered terrains is due to three components: (1) the scattering resulting from the top surface of the vegetation canopy (Surface Scattering); (2) the scattering which occurs within the vegetation layer (volume scattering) and (3) the scattering which takes place at the surface below the vegetation canopy (ground scattering). Through the studies of selected areas in the Amazon Region a case is presented where most of the radar return observed in radar imageries results from the scattering at the surface below vegetation layer (ground scattering). Thus, radar penetration have occurred.