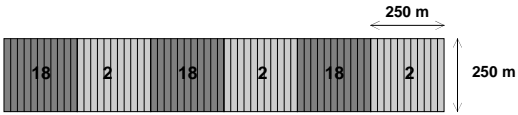
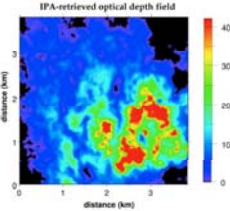
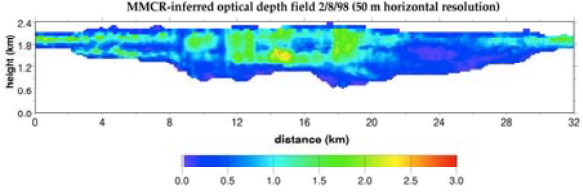
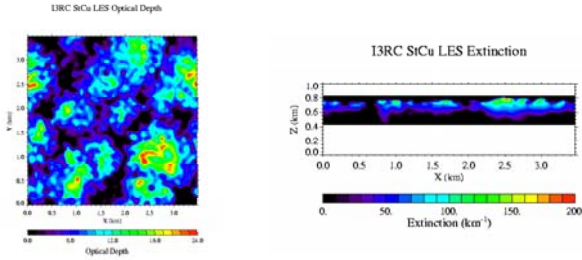
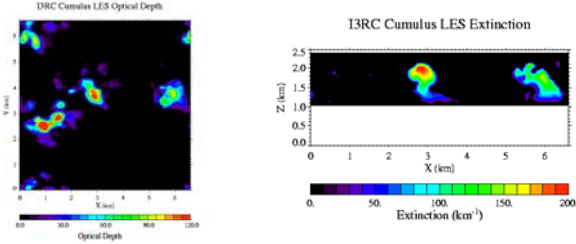
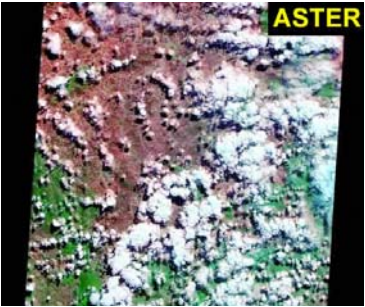
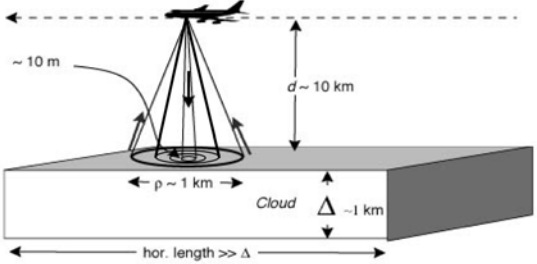


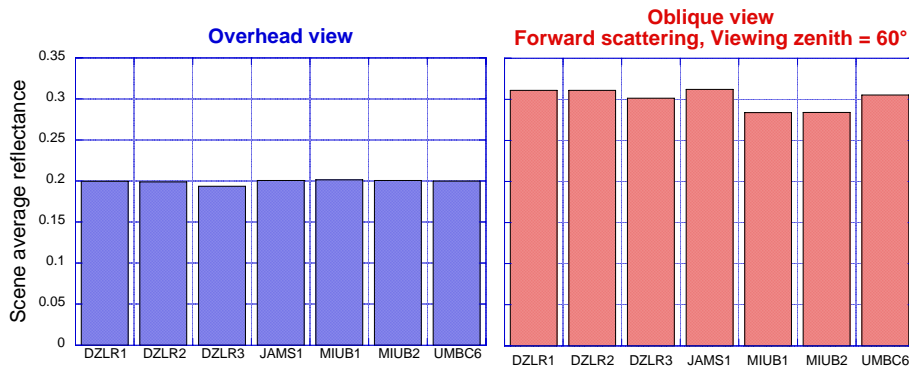
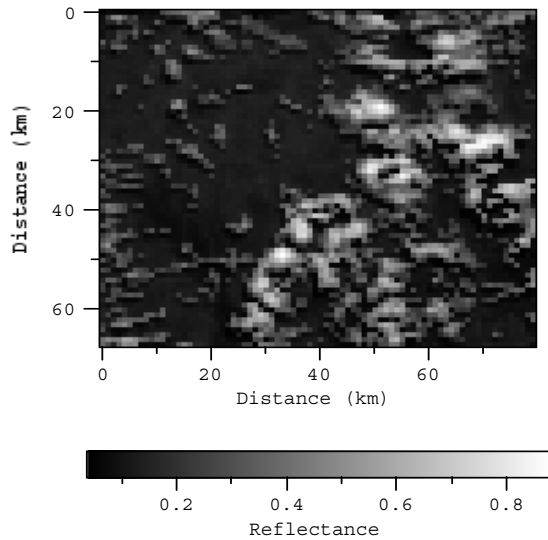
I3RC intercomparison cases

<p>Phase 1</p>			
<p>Phase 2</p>			
<p>Phase 3</p>			

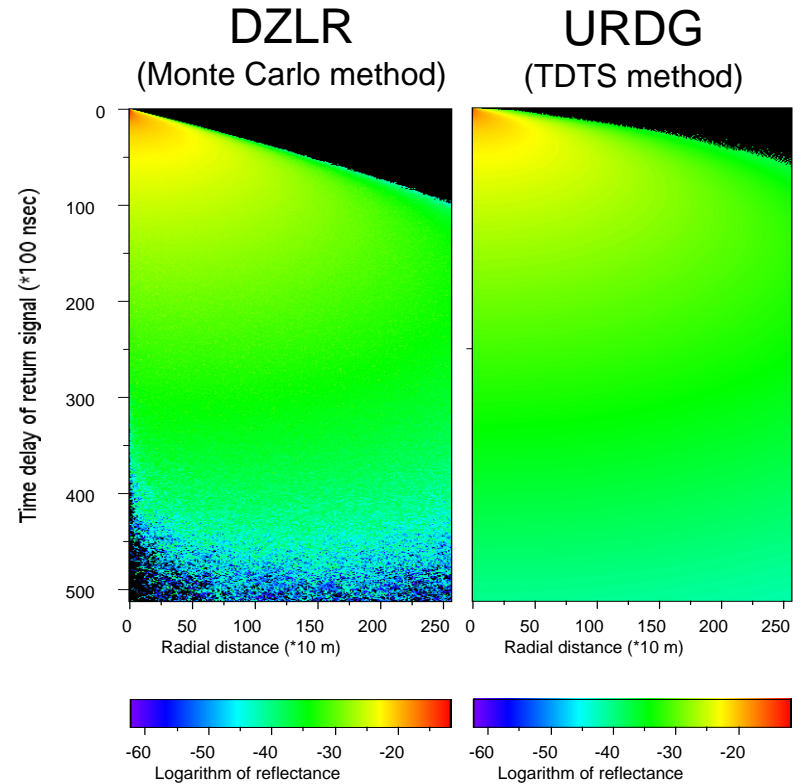
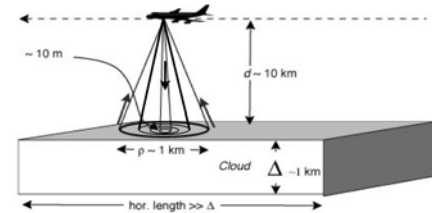
Phase 3 intercomparisons (12 models participated)

Solar reflectance

Overhead view
(simulated by JAMS model)



Lidar multiple scattering



Other I3RC activities

I3RC community code of 3D radiative transfer

- Released in July 2006
- Over 40 downloads in 2007 (since we started keeping track)
- Can calculate radiative fluxes, heating rates, and radiances for any view direction
- Can provide both scene average values and complete fields
- Simulations for single wavelength

Information on 3D radiative transfer codes (including I3RC community code)

- Wikipedia: http://en.wikipedia.org/wiki/List_of_atmospheric_radiative_transfer_codes
- I3RC website: <http://i3rc.gsfc.nasa.gov/> (also includes other resources such as 3D-related publications)

The screenshot shows the I3RC website interface. At the top, there is a header with the I3RC logo, the text 'An Acquisition of 3D Radiative Codes', and a NASA logo with 'Climate and Radiation Branch' and 'NASA | Goddard | Lab for Atmospheres'. The main content area is titled 'Publicly available 3D radiative transfer codes' and includes a note: 'To include additional resources, please send a message to Tamás Várnai. Publicly available codes to generate heterogeneous cloud structures'. Below this, there are several code descriptions: 'I3RC Monte Carlo community model of 3D radiative transfer', 'ARTS package', 'GRMAL2D', 'MCARATS', 'SHDOM', 'Sattaglia-Mentovani model', and 'SHARM-3D'. A sidebar on the left contains navigation links: Home, Cases, Results, Methods, Public model, Work groups, Contacts, Sign up, Resources, and Acronyms. At the bottom, there are contact details for the original I3RC web site (Ken Yezzer) and the current project contact (Robert Cahalan), along with the NASA logo and 'Privacy, Security, Notices'.

Plans

- Easy-to-use community model of 3D radiative transfer: online 3D simulator, executables
- Automated online system for future code verification
- Illustrative archive of 3D radiative effects