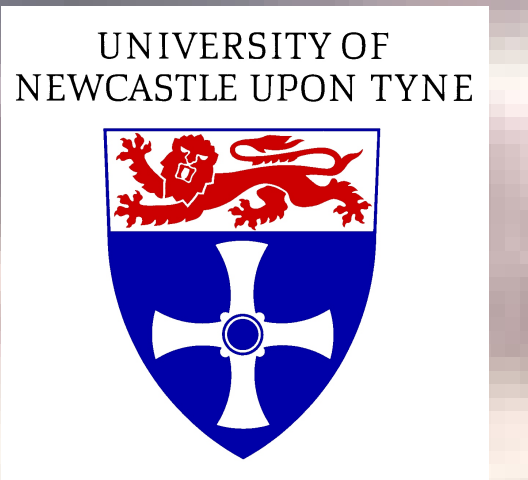
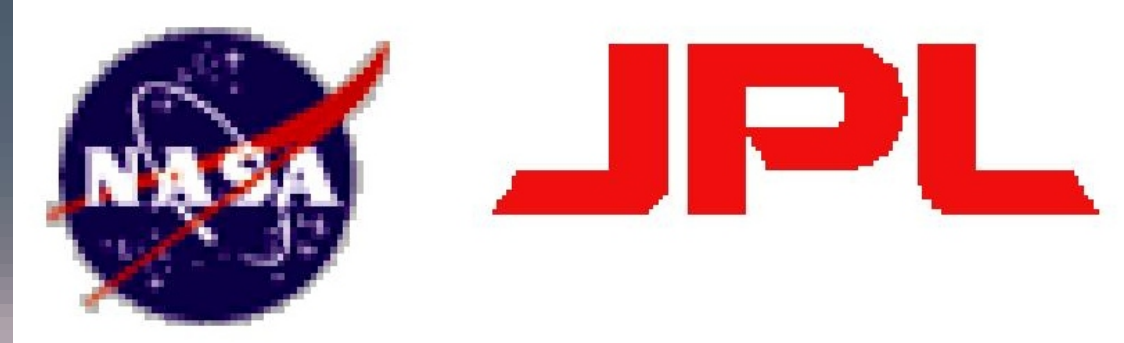


RABID

Drilling to the bed of Rutford Ice Stream, West Antarctica, 2004/05

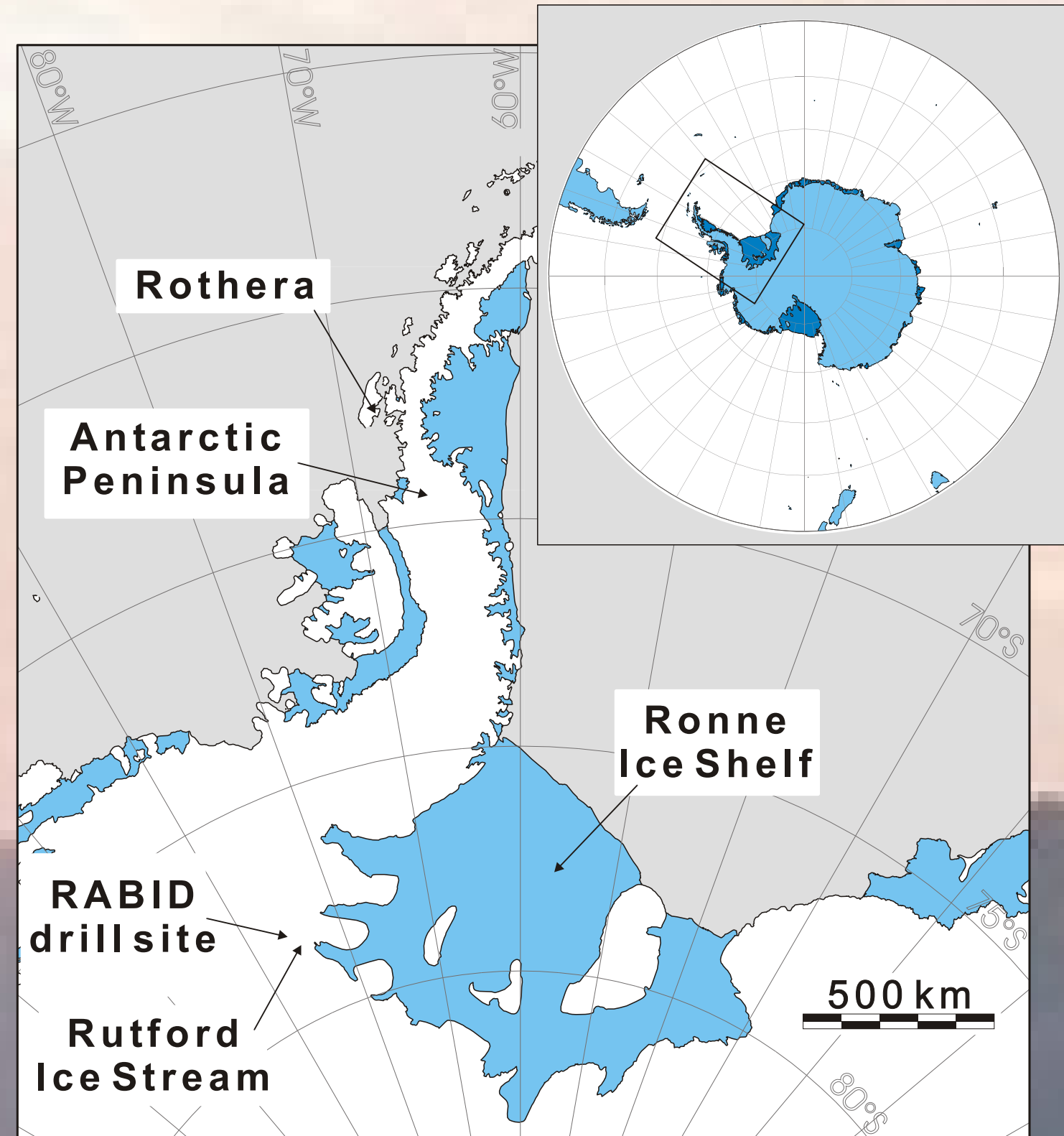


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Testing the tethered stake, (modified CalTech design) Gornergletscher, summer 2004

RABID - AIMS
 West Antarctic Ice Sheet history
 Ice stream basal conditions
 Ice stream dynamics

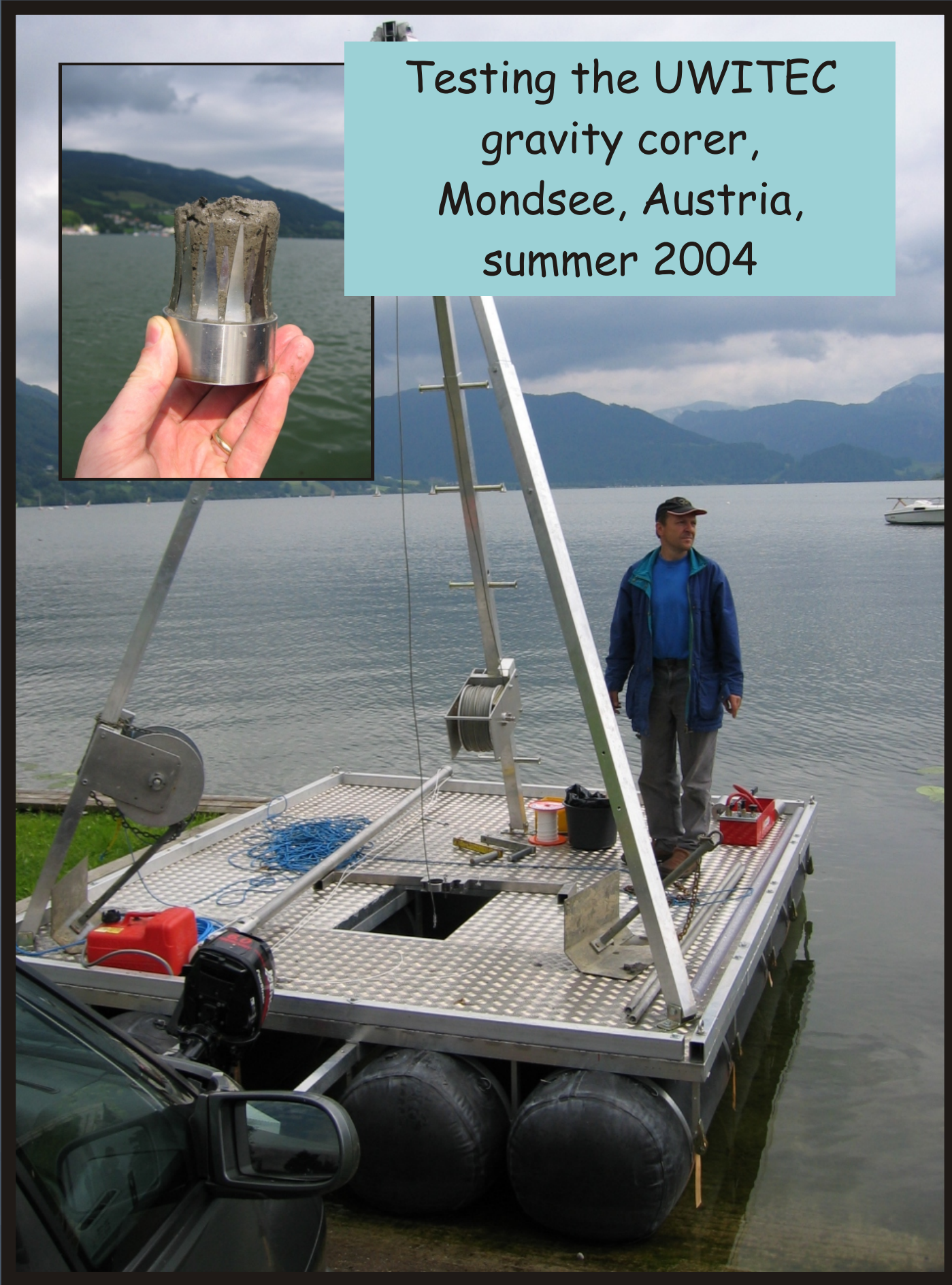


Hot-Water Drill
 BAS HWD upgraded to 2.5 km capability
 Testing on Ronne Ice Shelf, 2002/03

RABID - BOREHOLE METHODS
 Hot-water drill - 2.5 km capability
 - 1 MW power
 Sediment coring (gravity corer)
 Basal sliding (tethered stake)
 Instrument strings - basal water pressure
 - ice column temperature
 - ice column deformation
 Borehole video camera - water flow
 - ice fabric
 - ice sediment content
 Ice core sections - ice fabric
 - ice sediment content



LOGISTICS - THE RABID DEPOT
 Drill site ~1300 km from main station at Rothera
 Everything input by Twin Otter light aircraft
 Depot-laying continuous since 2000
 200 drums now on-site
 15,000 kg equipment now on-site



Testing the UWITEC gravity corer, Mondsee, Austria, summer 2004

RABID - SURFACE METHODS
 Seismic reflection - basal conditions
 - sliding vs deforming bed
 - spatial distribution
 Passive seismic network - basal seismicity
 - sliding mechanisms
 - correlation with ice flow
 GPS network - ice motion
 - short-term variability
 - correlation with basal seismicity
 GPR - shallow firn structure



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