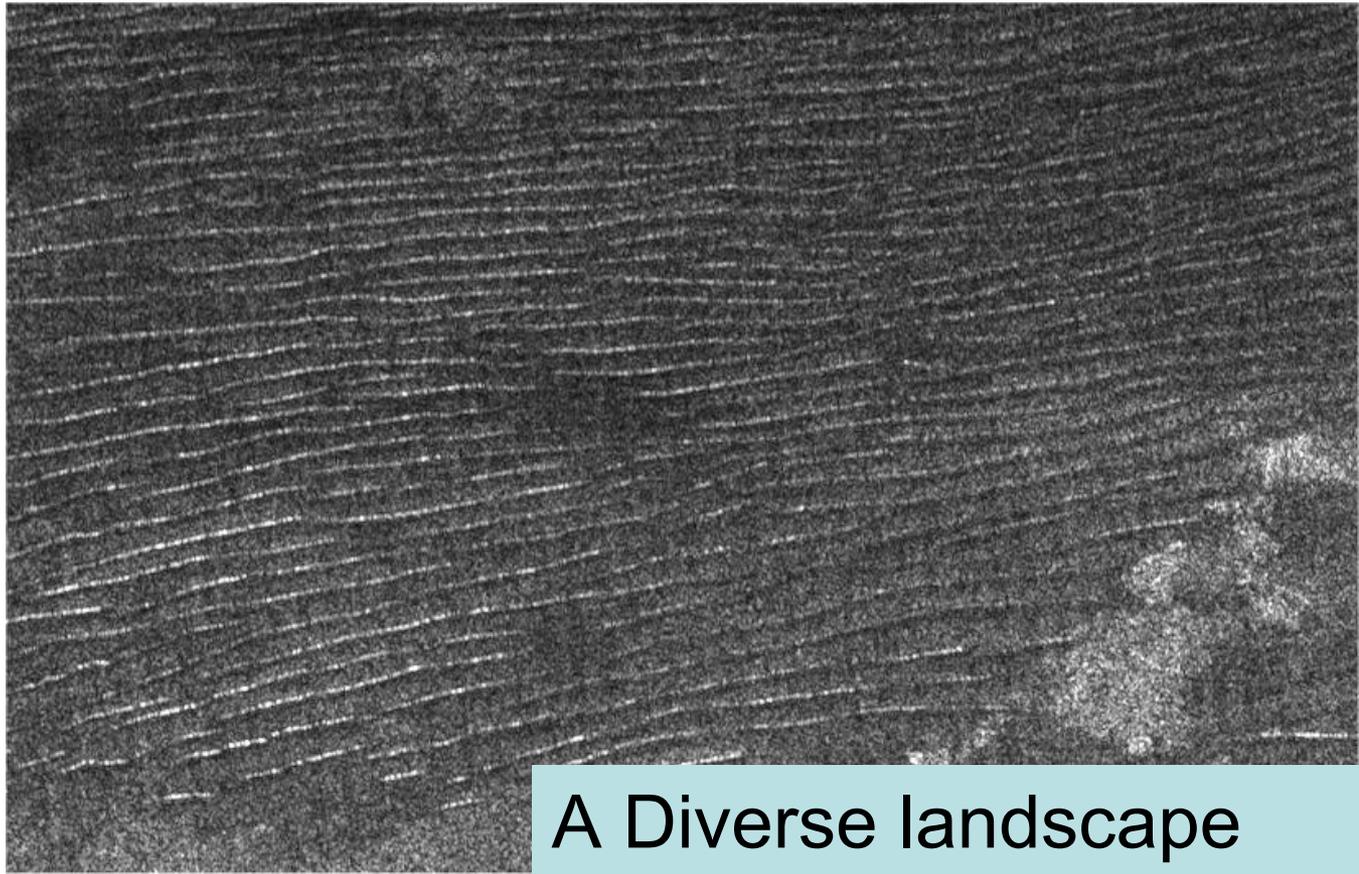
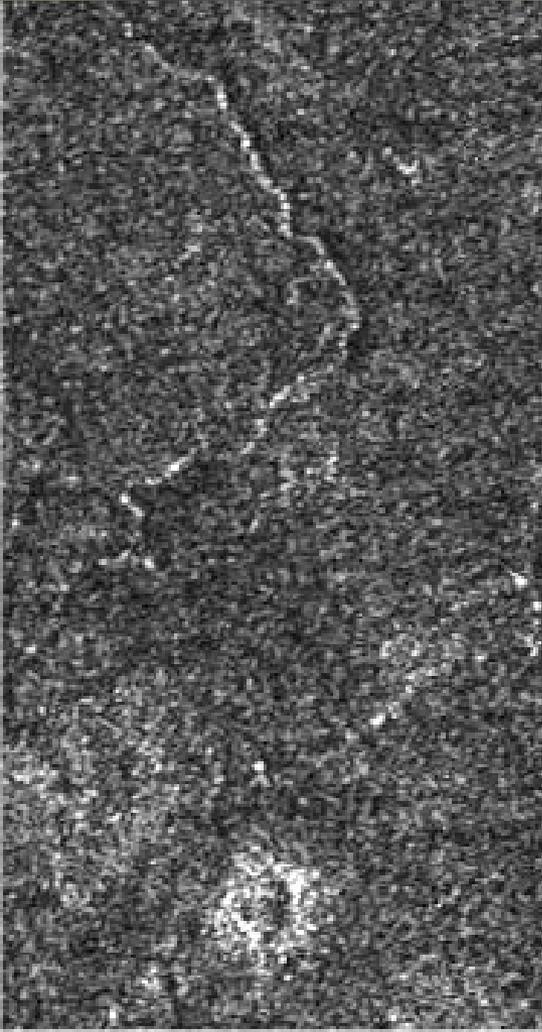
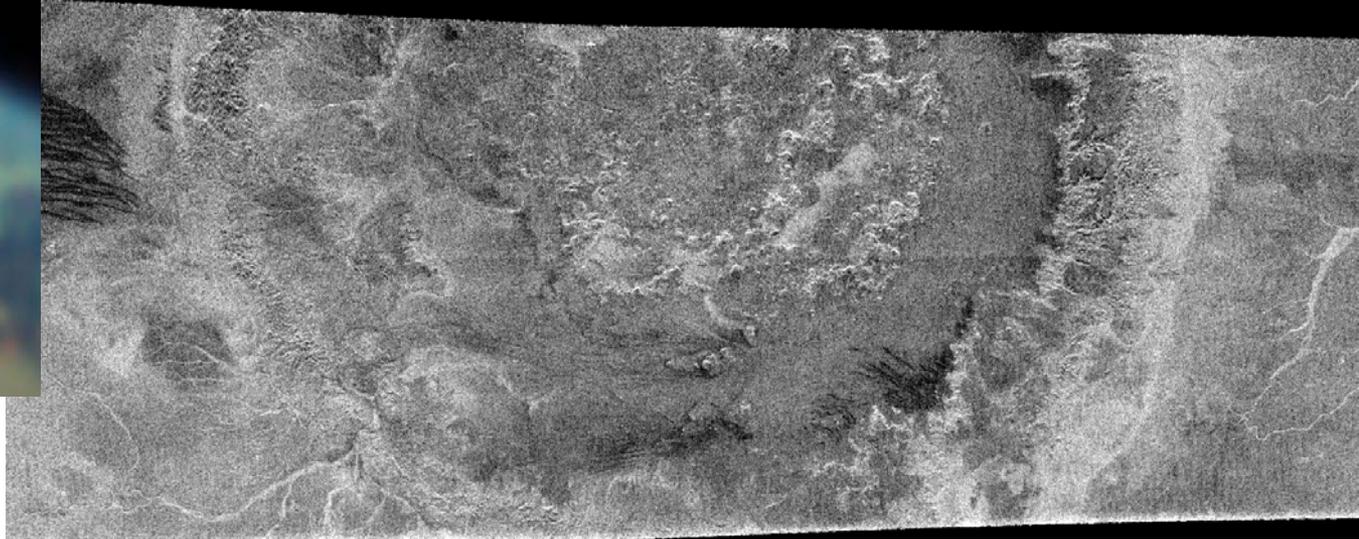




# Science Autonomy on a Titan Airborne Platform

Ralph D Lorenz

Lunar and Planetary Lab, University of Arizona

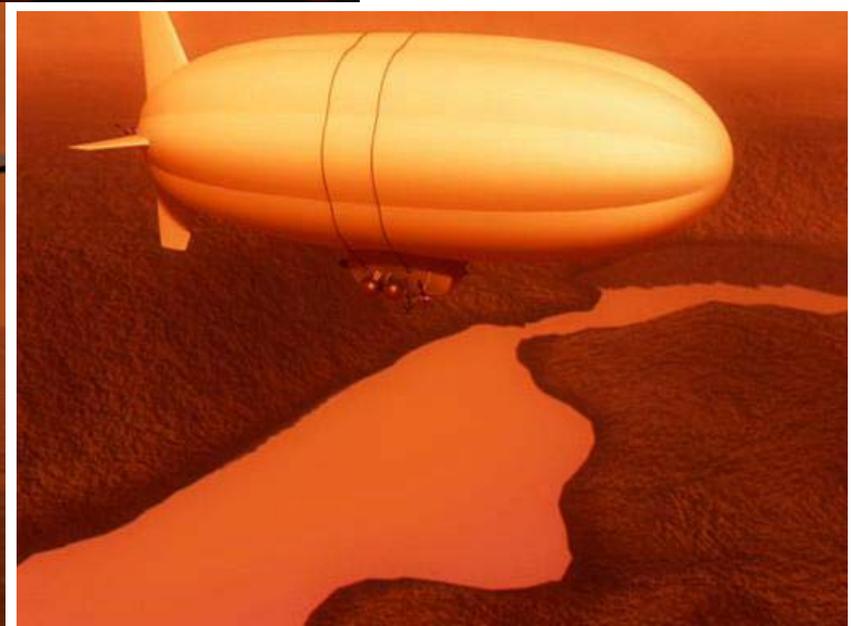
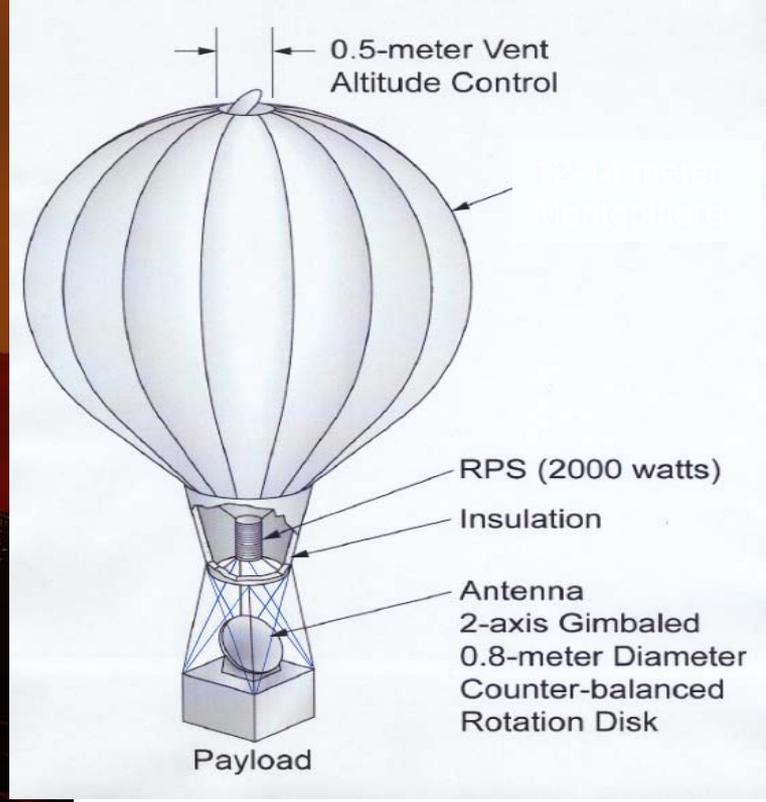


A Diverse landscape

That lends itself to aerial exploration



by Mark Robertson-Tessi and Ralph Lorenz



# On-Board Science Autonomy For A Titan Aerobot Mission

- 2 way light time ~3 hours : can't 'joystick'. Possible long intervals (several days) between communication windows. Need to give platform autonomy 'try to head north'..
- Platform's ability to acquire science information far exceeds downlink capacity. On-board autonomy allows more efficient use of bandwidth to classify scene, identify transient or anomalous features, etc. and transmit first/only the most important data
- Range of mission options, range of autonomy