

# Airborne Remote Sensing Facility



**Located at Sydney's Bankstown airport, the School of Aviation operates an Airborne Laser Scanner**

- ★ **Pilots experienced in remote sensing**
- ★ **Range of operations; NSW**
- ★ **Customised data products**
- ★ **Rapid deployment**
- ★ **Competitive pricing**
- ★ **Adaptable science payload**

**Mission related and pricing:**

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## LiDAR specifications

60 degree swath, accuracy +/- 20mm, 50 – 550kHz pulse rate, multiple returns

Height maximum @ 60% reflectivity:  
750m@400kHz, 1000m@200kHz

Typical scenario:

Flying height 300m, swath 350m, speed 200km/h

Point density @ 350kHz pulse scan rate ~ 10 points/m<sup>2</sup>

Distance between points 1m along track, 0.2m cross track

## Spatial specifications

Horizontal accuracy: RMS error < 0.2m

Height accuracy: RMS error < 0.1m

GPS/INS post process; SmartNetAus

## Data products

LAS files (v 1.1, 1.2, 1.3)

Colourised height plots

Delta H time series plots

Transects

DSM, DTM

Coordinate formats:

ECEF-XYZ, Easting-Northing-AHD, Lat-Lon-H(ellipsoidal)

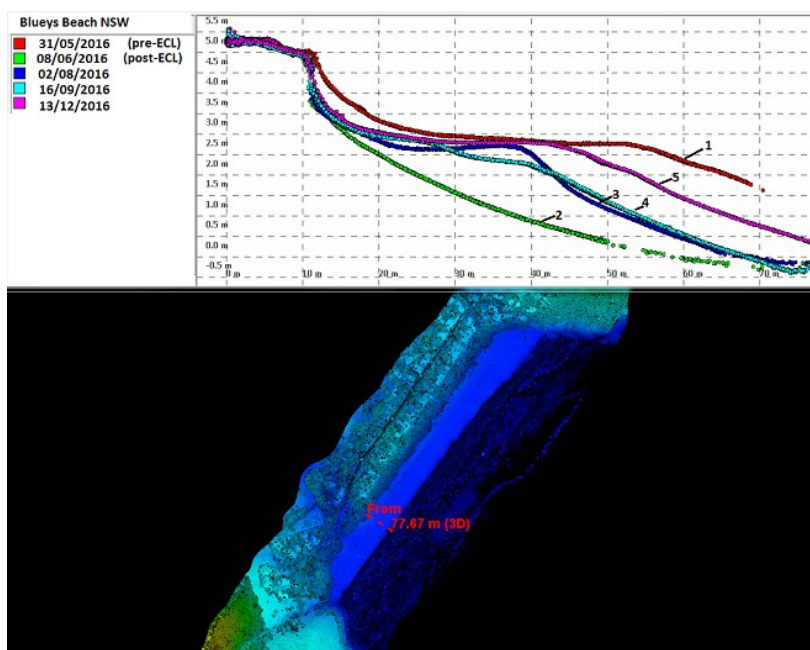


Fig 1. Blueys Beach NSW, sand transects over six months

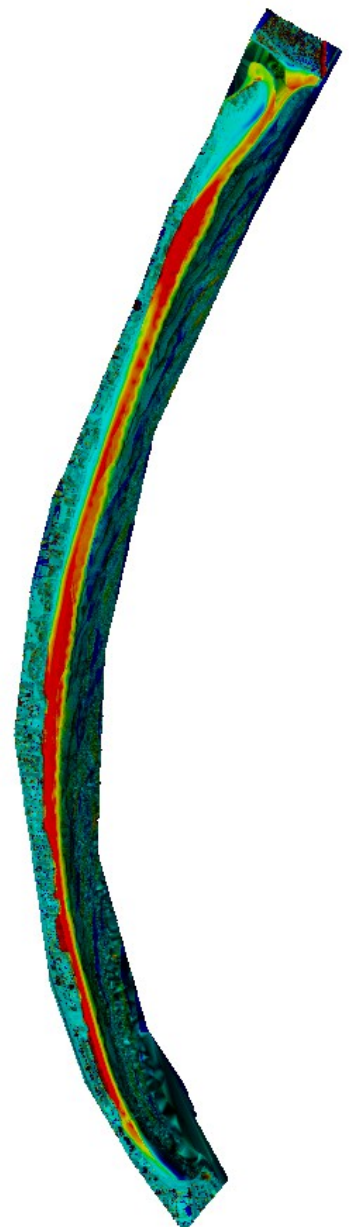


Fig 2. Narrabeen Beach NSW, sand erosion depth (in red)