Converting to other file formats

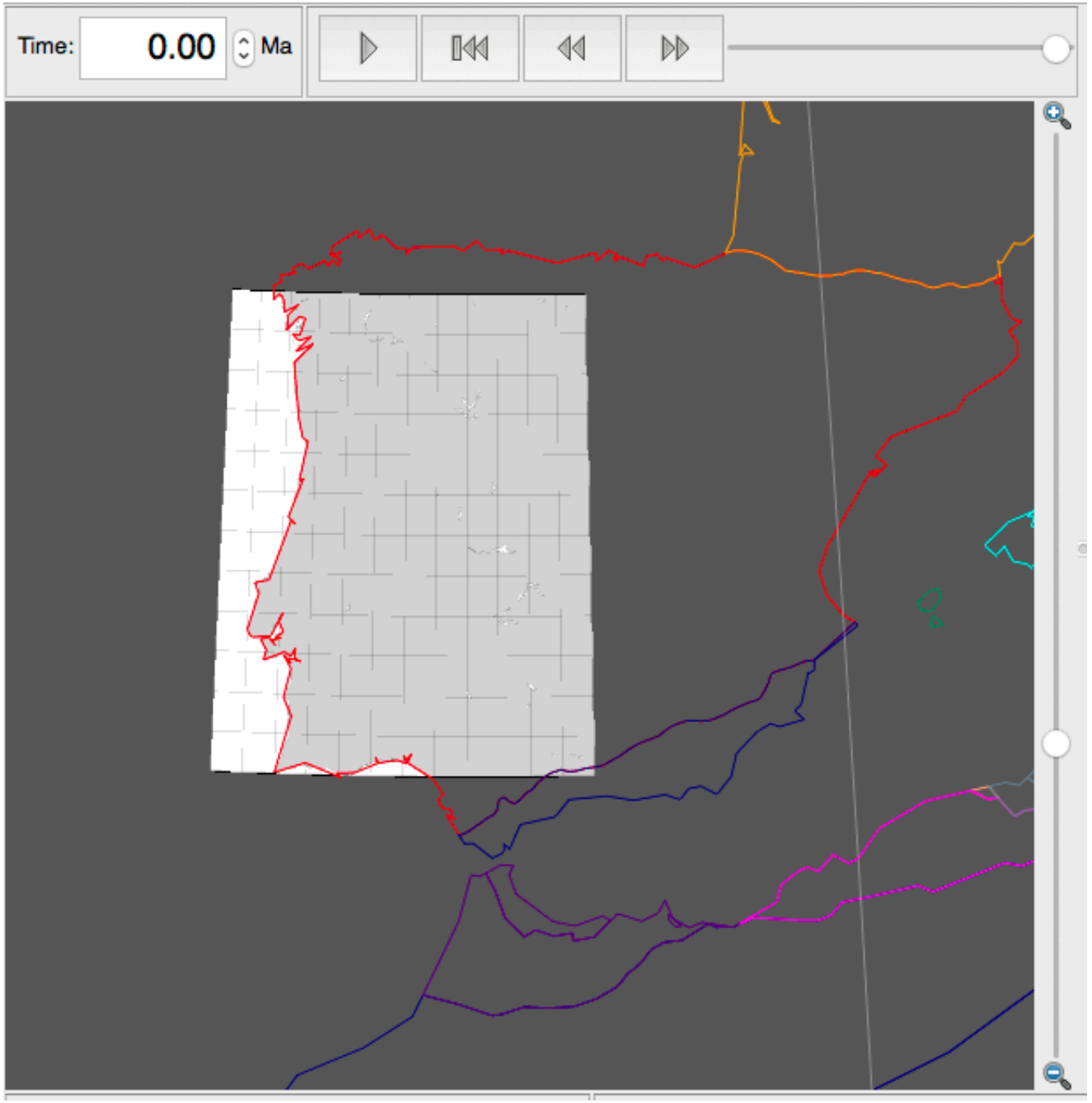
- You can use GMT (and other tools) to help you convert between file formats for raster and vector data
- e.g.
  - PS to tiff / geotiff
  - PS to kml
  - ogr2ogr
    - gmt <-> shapefile
    - etc.

Convert PS files to GeoTiff

- You can use ps2raster to convert to TIFF images, which can be geo-coded to become GEOTIFFs (same .tif file extension, but additional info in the metadata can be used to geo-code information)
- GEOTIFFs load easily in ArcGIS, GPlates, and other GIS platforms

Convert PS files to GeoTiff

- To create a simple linear map with pscoast and convert it to tif with a .tfw the tight BoundingBox computation. Try:
  - pscoast -JX12cd -R-10/-4/37/43 -W1 -Di -Bg30m -P -G200 --BASEMAP_TYPE=inside > map_tif_test.ps
  - ps2raster map_tif_test.ps -Tt -W
- You can import the TIF raster to GPlates, or add it to your Table of Contents/Layers in QGIS or ArcGIS

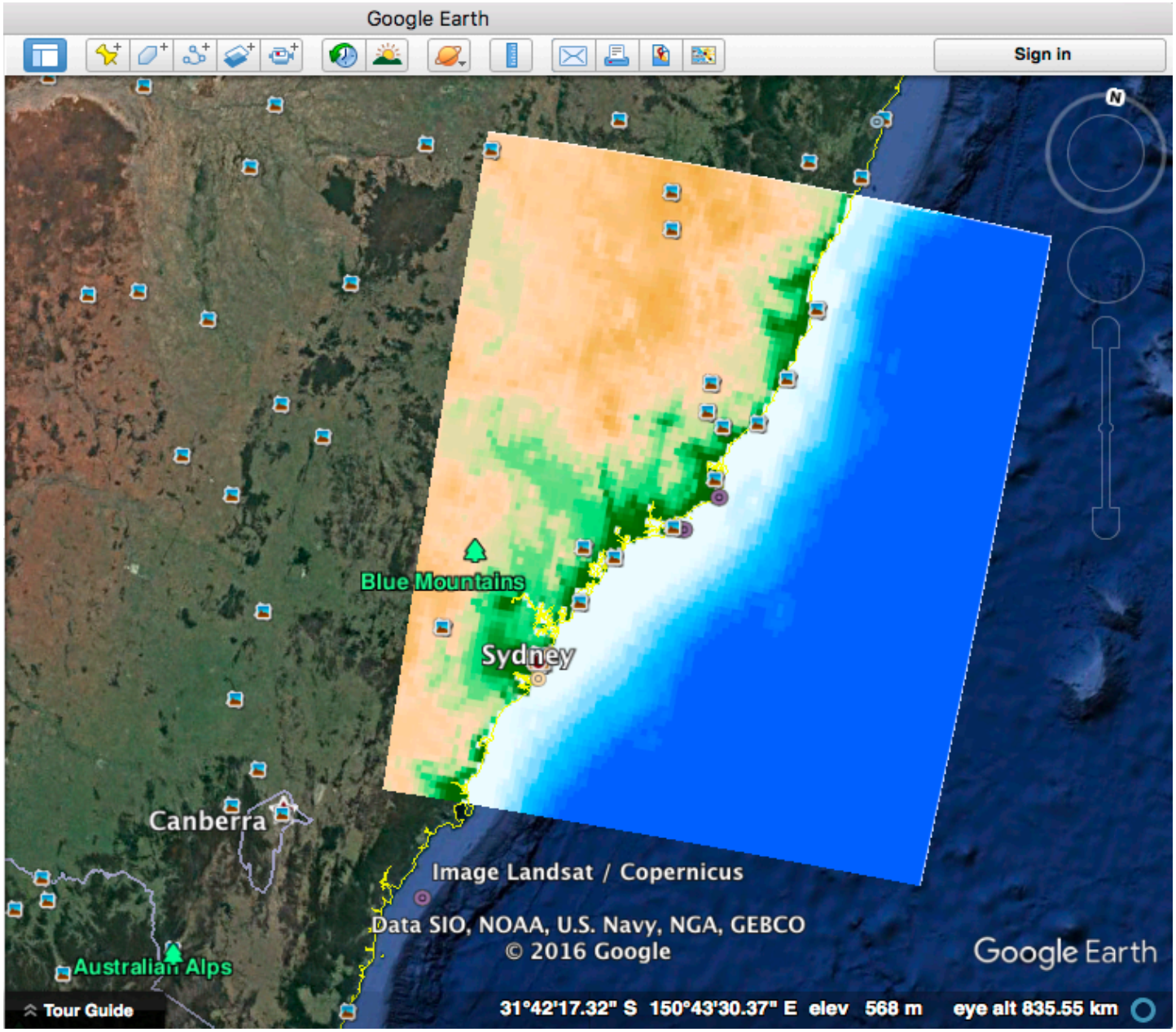

Time:
0.00
Ma

Convert PS files to GeoTiff

- To create a Mercator version of the above example and use GDAL to produce a true geotiff file. If you don't have GDAL installed, install it using "sudo port install gdal". Try:
  - pscoast -JM0/12c -R-10/-4/37/43 -W1 -Di \ -Bg30m -P -G200 --BASEMAP_TYPE=inside > map_tif_test.ps
  - ps2raster map_tif_test.ps -Tt -W
  - gdalwarp -s_srs +proj=merc map_tif_test.tif map_tif_test_geo.tiff

Convert PS files to Google Earth KML files

- You can use ps2raster to convert PS files to Google Earth KML/KMZ files
  - grdimage -CETOPO.cpt gtopo_etopo_5km.grd -Jx1 -R90/95/-15/-10 -P --BASEMAP_TYPE=inside > tile.p
  - ps2raster tile.ps -Tg -W+k+t"my title"+l256/-1 -V
  - You will find the CPT and GRD files in Data/Day5/KML


Google Earth
Sign in
Blue Mountains
Sydney
Canberra
Australian Alps
Image Landsat / Copernicus
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
© 2016 Google
Google Earth
Tour Guide
31°42'17.32" S 150°43'30.37" E elev 568 m eye alt 835.55 km

GMT files (xy/gmt) <-> Shapefiles (shp)

- By default GMT can only plot simple ASCII files
  - .xy files have a simpler structure, with geometry segments separated by ">"
  - .gmt files have a more complex structure, but can hold more information, such as the datum and projection information, etc. (stored in # comments) and delimited by the same ">" symbol
- You can convert between vector file formats using GDAL (ogr2ogr)

GMT files (xy/gmt) <- -> Shapefiles (shp)

- GDAL ogr2ogr
- Conversion file types: shp, gmt, kms, geojson, csv, cad, and many many more (http://www.gdal.org/ogr_formats.html)
- Try these examples:
  - Input file is in Data/Day5/OGR
  - ogr2ogr -f 'OGR_GMT' volc.gmt volcanoes.shp
  - ogr2ogr -f 'ESRI Shapefile' volc.shp volc.gmt