

seek
teach communicate
benefit



Welcome to Scripps Forum

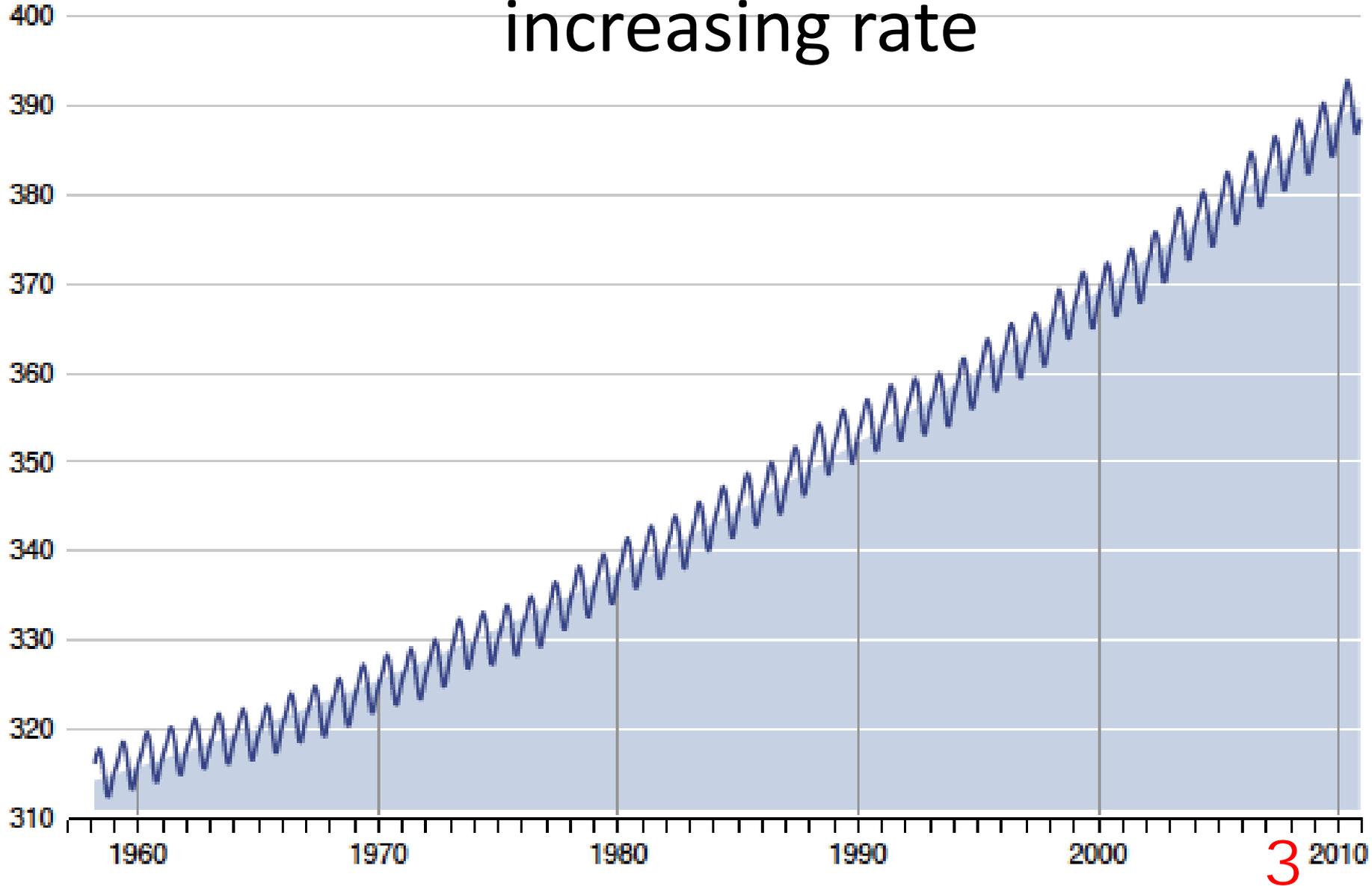
March 1, 2011

“Focus on the Future” 2010 Summer Program with Compton High School



CO₂ rising, and at an ever increasing rate

parts per million





Mace Head 52°N



Trinidad Head 41°N



Ragged Point 13°N



Cape Matatula 14°S

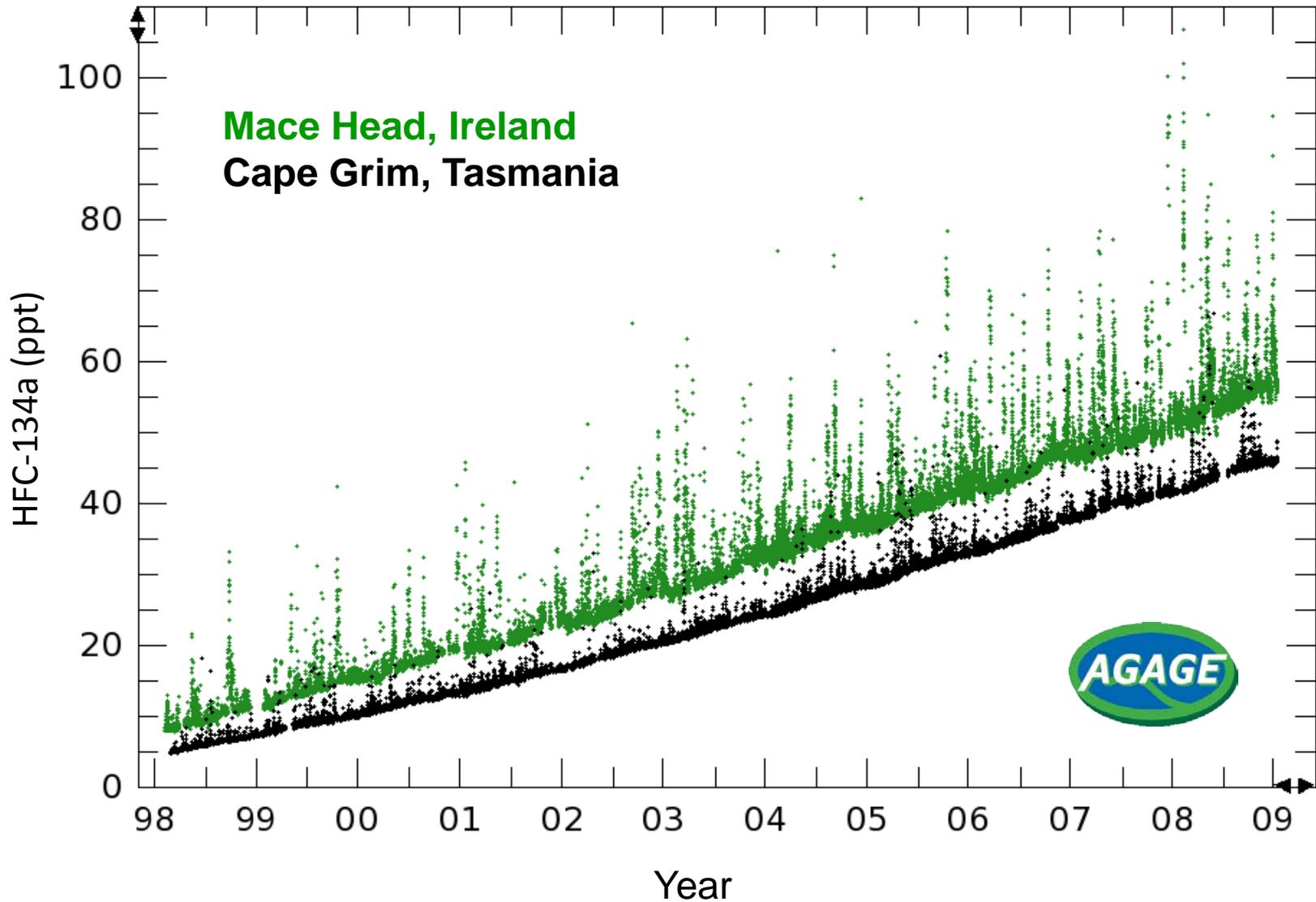


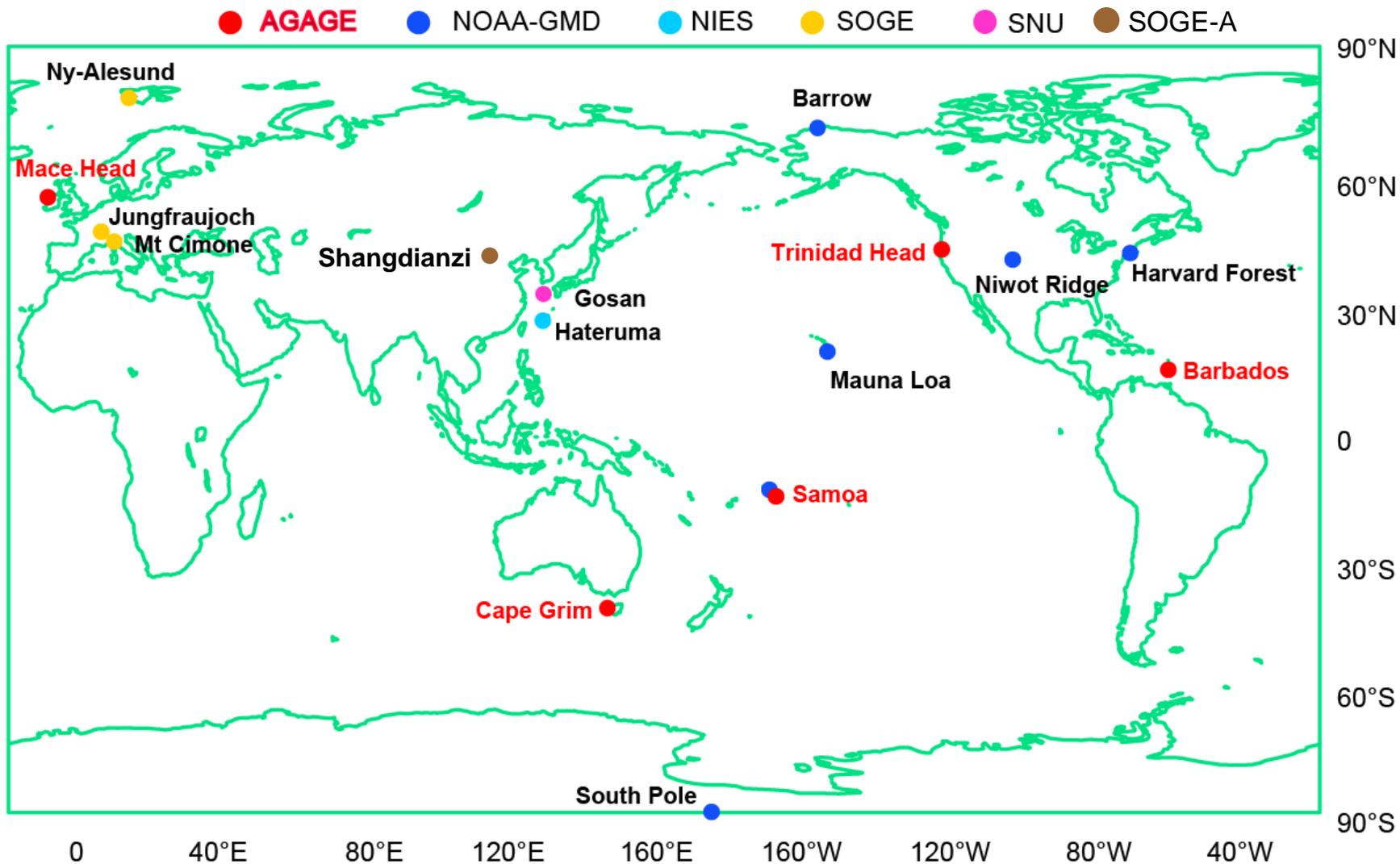
Cape Grim 41°S



Primary Station Locations

HFC-134a at two Remote Measurement Stations (CH_2FCF_3 , GWP= 1,430)





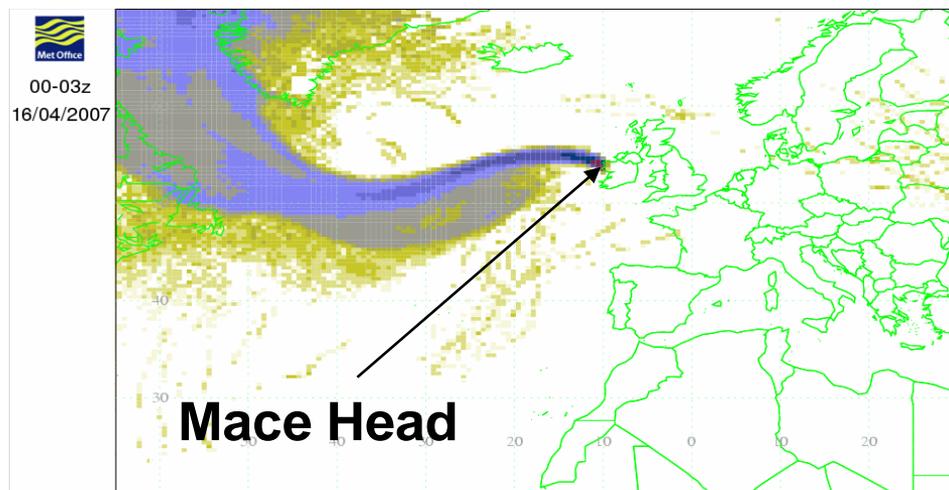
**AGAGE and collaborative networks:
real-time in-situ trace gas measurement stations**

Estimating Baseline Concentrations at each remote measurement site*

- NAME model (Lagrangian particle dispersion model).
- Uses 3D meteorological data from UK Met Office NWP model (40-60 km resolution).
- Derive air history map for each site for a 3-hour period:
 - Combination of tens of thousands of trajectories.
 - Darker shade means greater contribution from that area.
 - All surface sources within previous 12 days of travel that contribute to an observation during a 3-hour period are recorded.

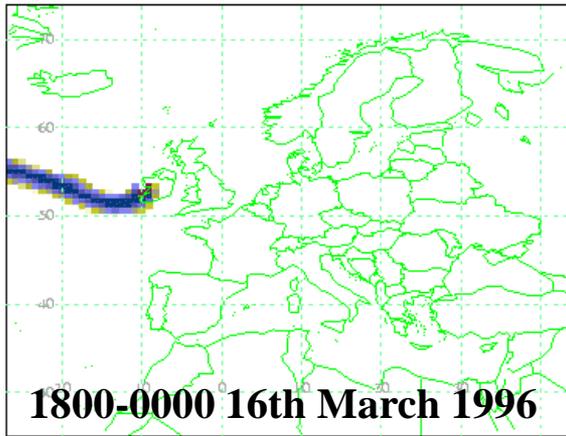
Maps generated for each 3-hour period:

- 1995 onwards Mace Head
- 2002 onwards Cape Grim
- 2005 onwards Trinidad Head

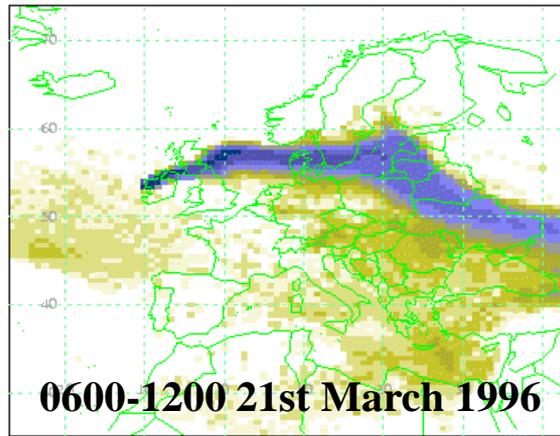


Where has the air come from? Some examples:

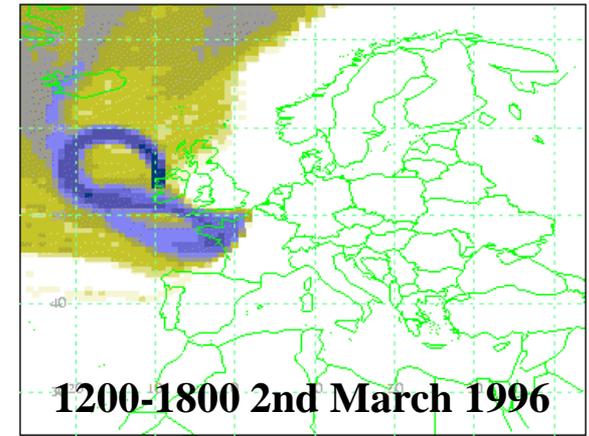
Mace Head - Baseline



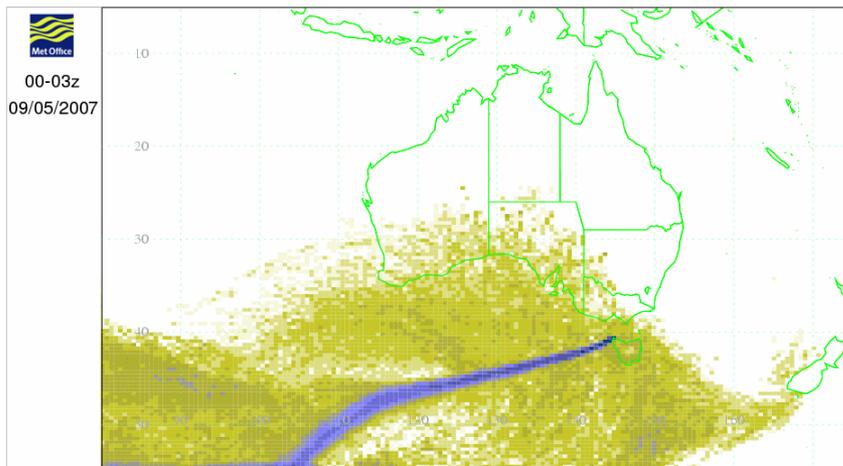
Mace Head - Polluted



Mace Head - Complicated



Cape Grim, Tasmania



Trinidad Head, California

