

Bottle sampling  
Aircraft sampling/  
Sampling from commercial airlines

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## FLASK SAMPLING NETWORKS

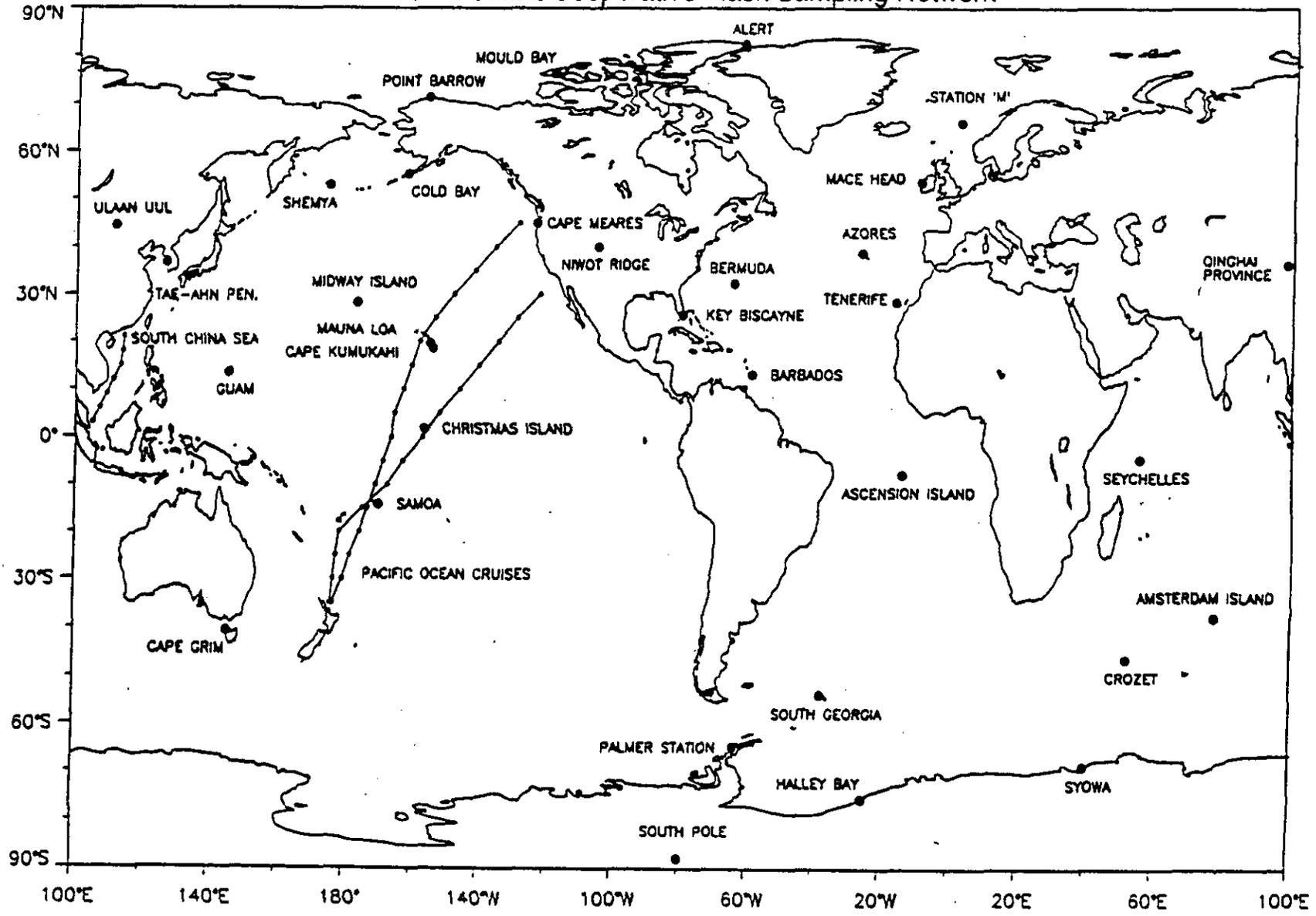
### ADVANTAGES

- \* COST-EFFECTIVE
  - MANY SPECIES FROM EACH FLASK  
(IN GASLAB, CO<sub>2</sub>, CH<sub>4</sub>, CO, H<sub>2</sub>, N<sub>2</sub>O  
13C, 18O IN CO<sub>2</sub>, 13C IN CH<sub>4</sub> LATER)
- \* WIDE GEOGRAPHICAL COVERAGE, WITH MODEST INVESTMENT.
- \* CAN INITIALLY EVALUATE PARTICULAR REGIONS OR PROCESSES.
- \* ALLOW EASY INTERCOMPARISON BETWEEN DIFFERENT AGENCIES OR COUNTRIES, BY EXCHANGING FLASK SAMPLES.
- \* SIMULTANEOUS MEASUREMENTS OF TRACE GASES WHICH FLASK SAMPLES CAN PROVIDE EXPAND POSSIBILITIES FOR INTERPRETATION OF VARIATIONS.

### DISADVANTAGES

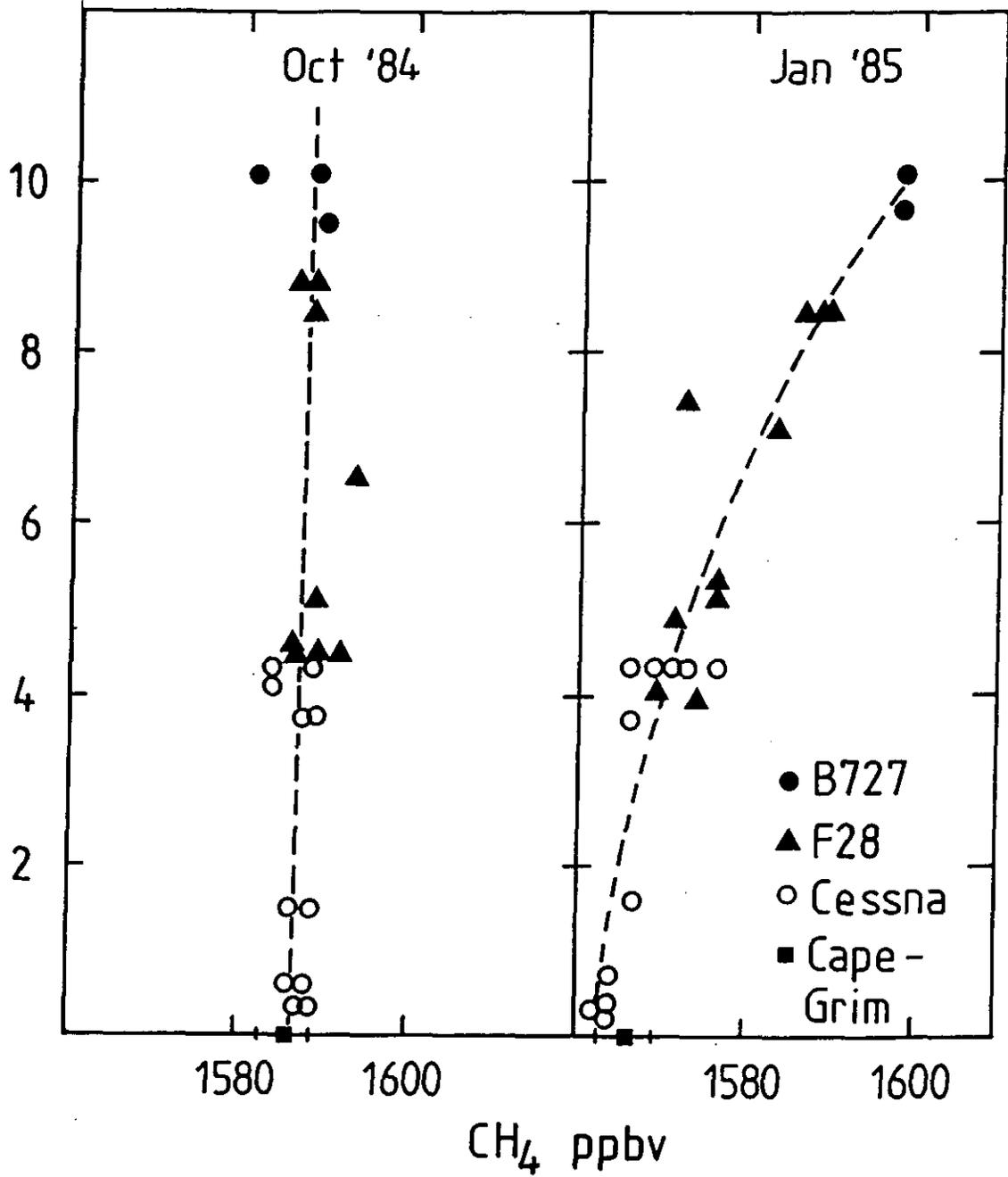
- \* TIME RESOLUTION INADEQUATE TO STUDY SOME PHENOMENA.
- \* FLASKS CAN BE BROKEN OR LOST.
- \* LOGISTICS OF MAINTAINING FLASK NETWORK CAN BE DIFFICULT IF HUNDREDS OR THOUSANDS OF FLASKS ARE INVOLVED.

# NOAA/CMDL Cooperative Flask Sampling Network



# Mid-latitude

## SE Australia



YEAR: 1991

MONTH: 11

