

GO-SHIP type cruises
2010-2011

PELAGIA (Netherlands)

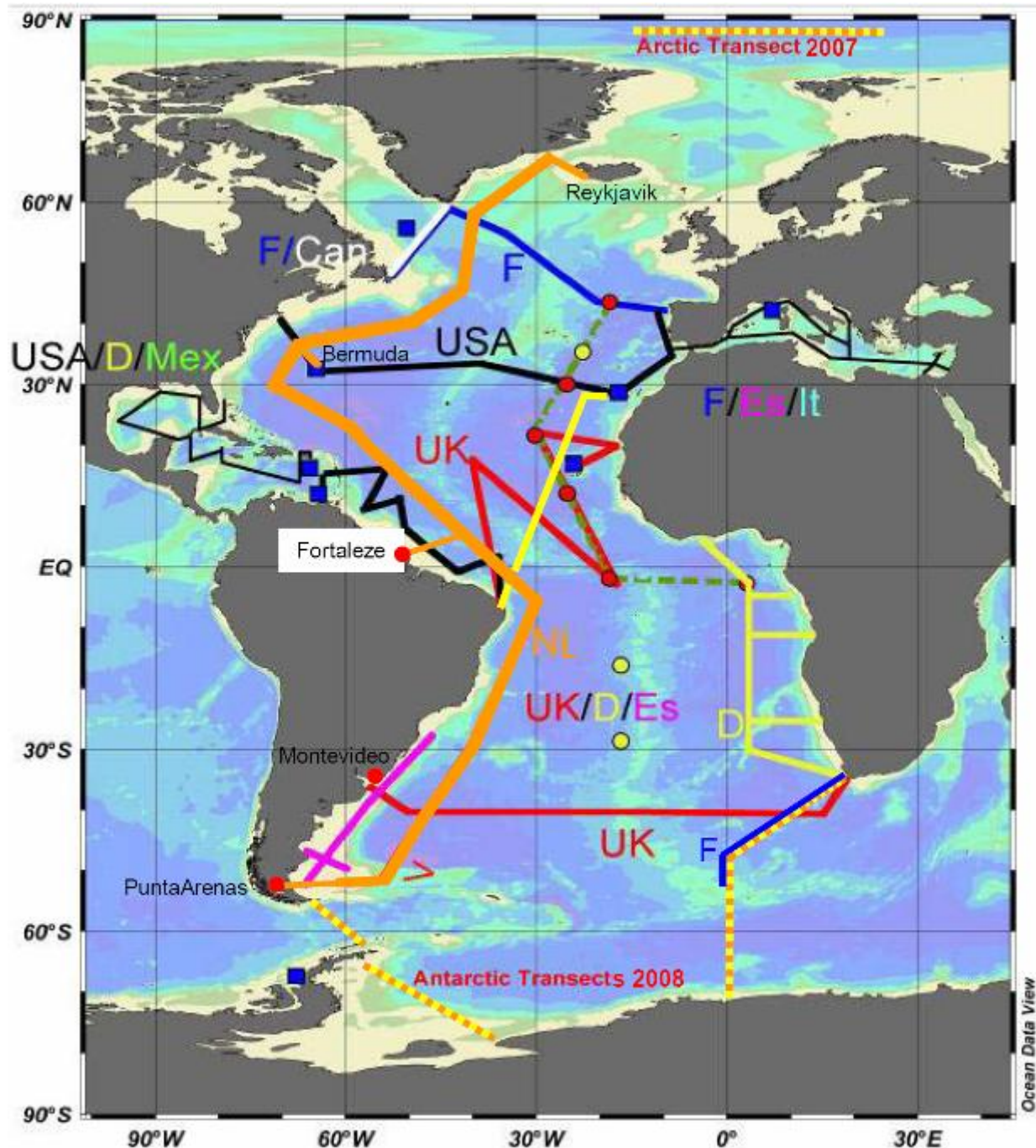
Reykjavik to Bermuda

Bermuda to Fortaleza

Punta Arenas to Fortaleza

POLARSTERN (Germany)
Capetown to Punta Arenas

same track as 2008



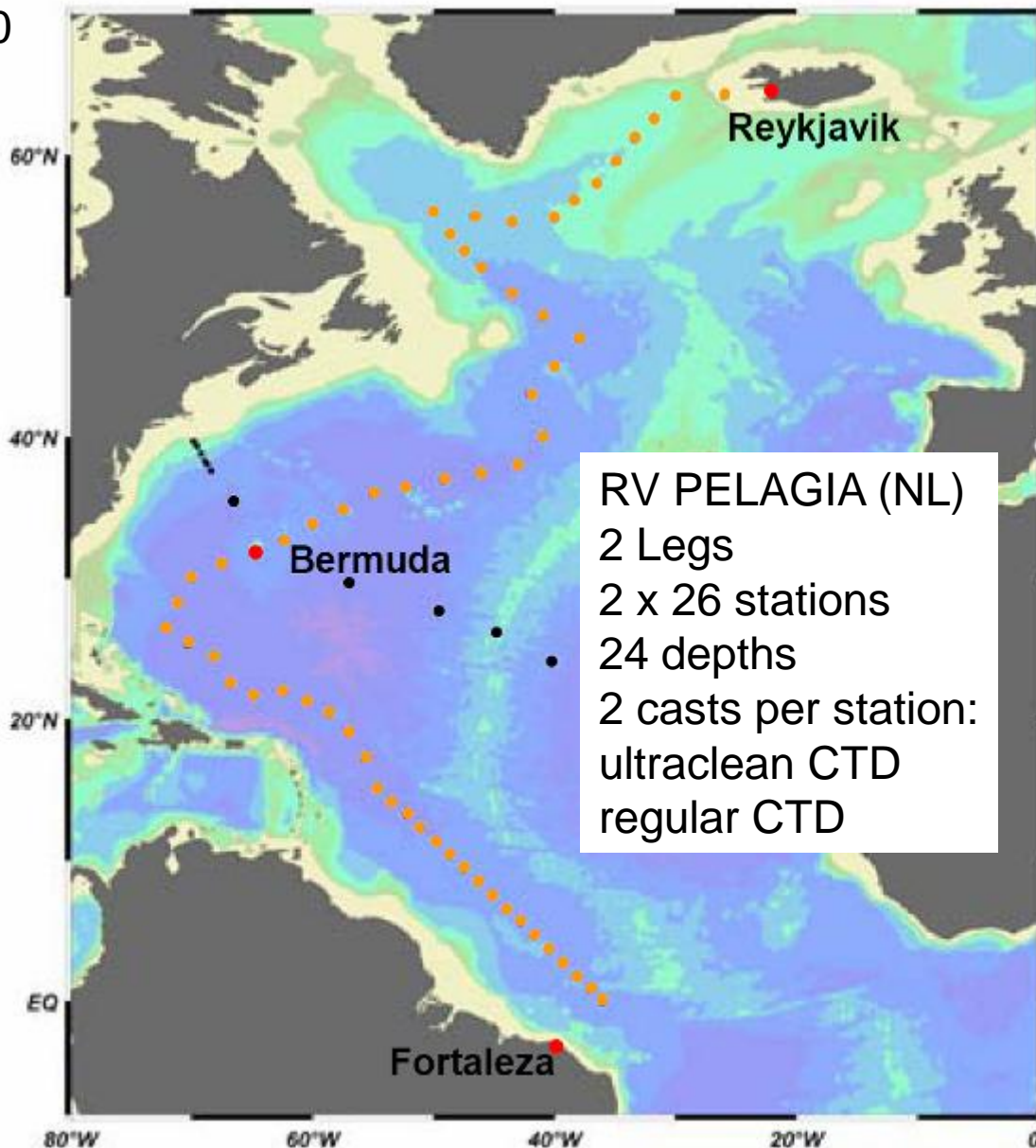
GEOSECS Revisited

GEOTRACES - Global Change - Microbial Oceanography

29 April 2010
Reykjavik

25 May 2010
Bermuda
12 June 2010

8 July 2010
Fortaleza



GO-SHIP

DIC (TotalCO₂)
Alkalinity
CFC's (Bremen)
14C/13C/12C of DIC
nutrients
O₂
CTD
fluorescence
light transmission

GEOTRACES:

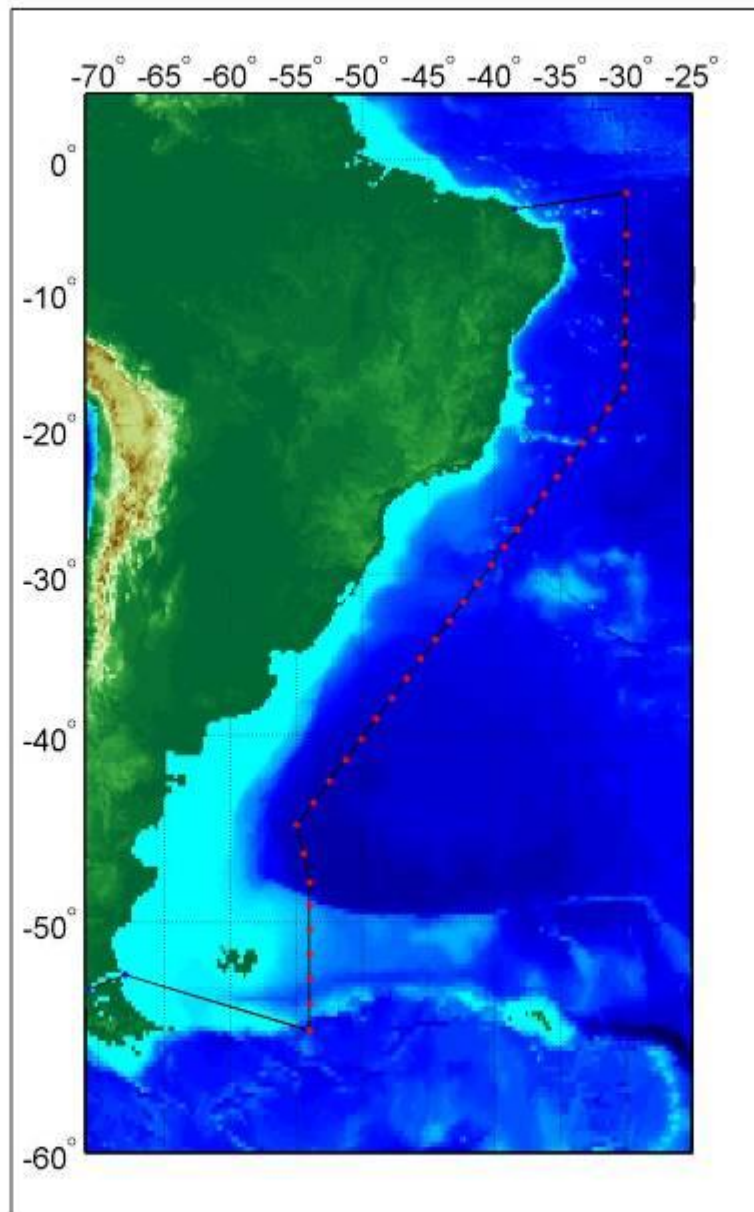
more than the 14
core parameters:
Fe, Al, Mn, Cu, Zn,
Cd, Co, Pb, Ag
Radio isotopes:
Th, Pa, Ra
Stable isotopes:
NO₃, Cd, Pb, Fe, Nd
and several more

GEOSECS Revisited
GEOTRACES - Global Change - Microbial Oceanography

10 April 2011
Fortaleza

RV COOK (UK)
(European Barter)
1 Leg
40 stations
24 depths
2 casts per station:
ultraclean CTD
regular CTD

27 February 2011
Punta Arenas



GO-SHIP

DIC (TotalCO₂)
Alkalinity
CFC's (Bremen)
14C/13C/12C of DIC
nutrients
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GEOTRACES:

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COOK

27 Feb 2011 - 10 April 2011
Punta Arenas - Fortaleza

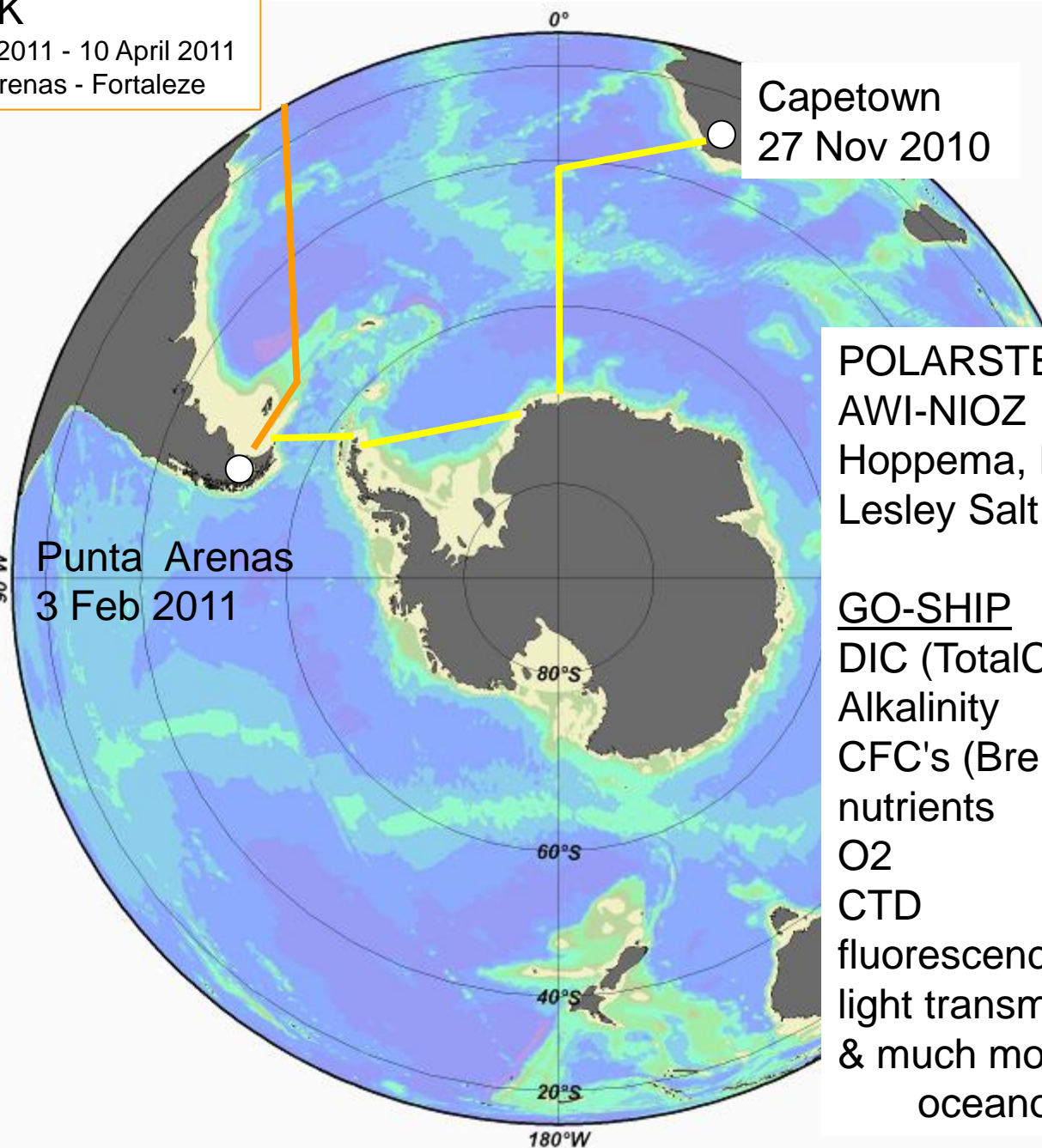
Capetown
27 Nov 2010

Punta Arenas
3 Feb 2011

POLARSTERN
AWI-NIOZ
Hoppema, Fahrbach,
Lesley Salt, Karel Bakker

GO-SHIP
DIC (TotalCO₂)
Alkalinity
CFC's (Bremen)
nutrients
O₂
CTD
fluorescence
light transmission
& much more physical
oceanography

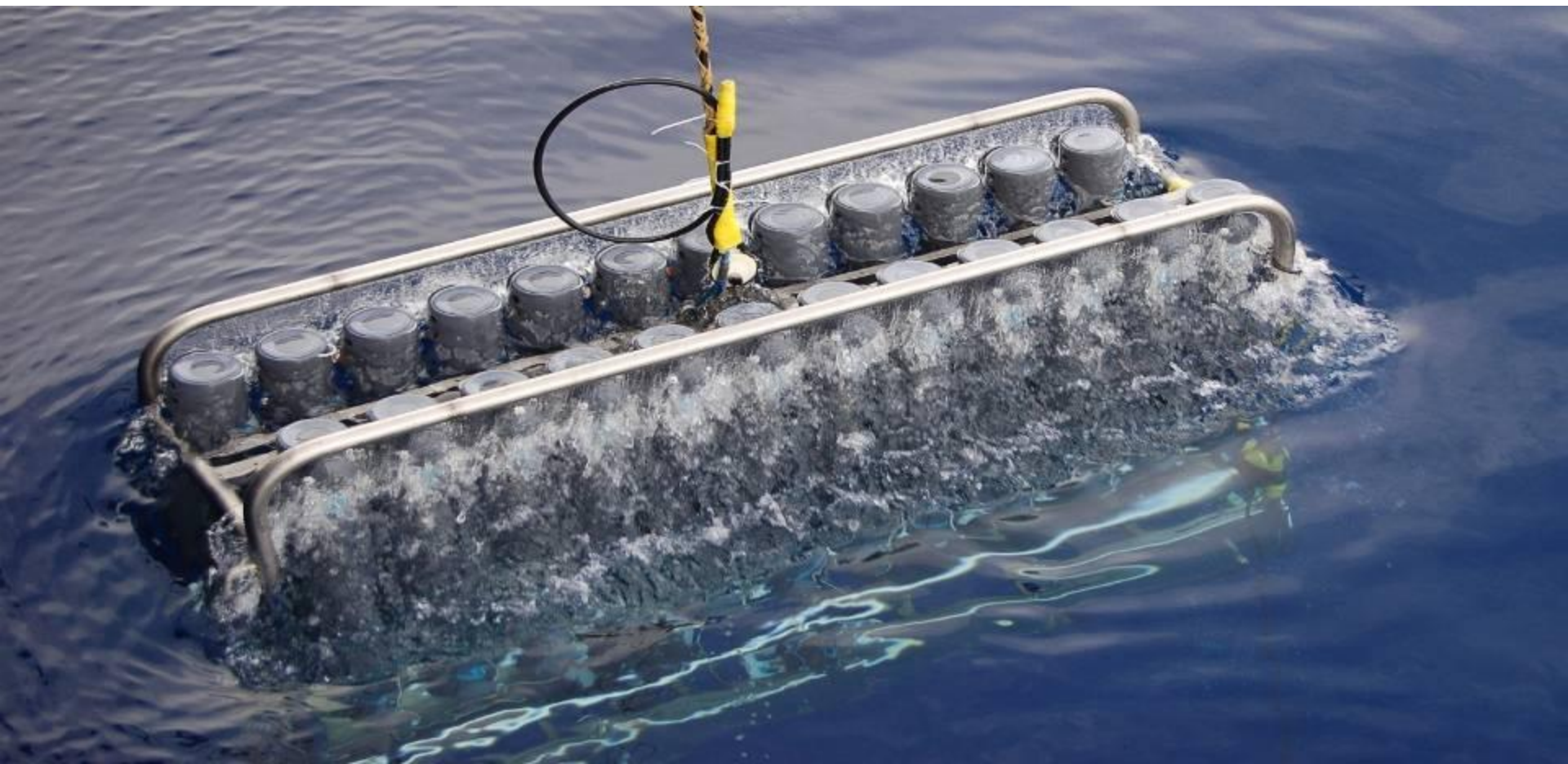
M₀₆





The Titan sampling system for trace metals

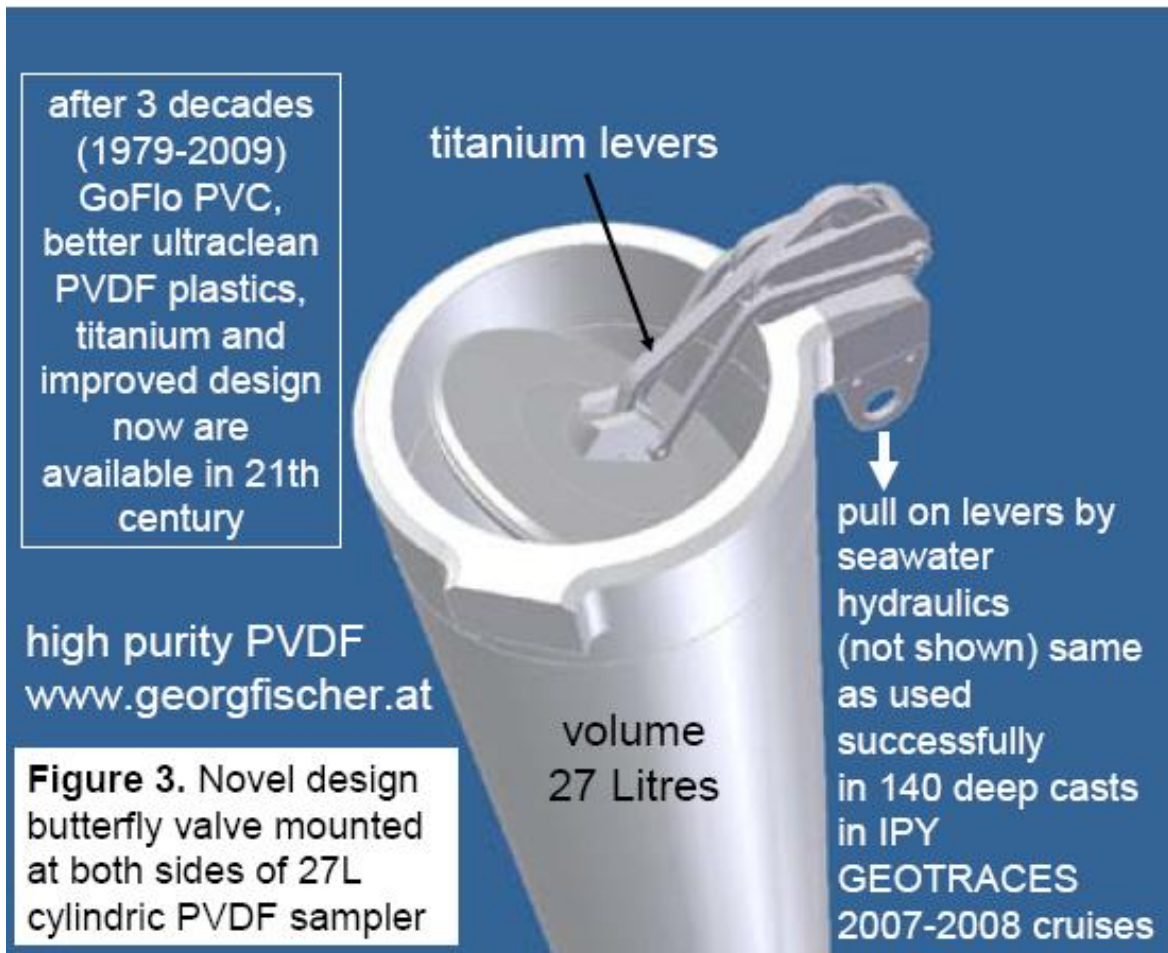
titanium frame with 24 GoFlo samplers of 12 Litres each



over 140 successful deployments in Arctic and Antarctic Oceans

Larger volumes samplers

Novel clean samplers,
24 x 27 Litres, mounted
on Titanium frame with CTD
- trace metals concentrations
- stable isotopes Fe Cd, Zn, Pb



Second hydrocast at each station:
24 x 25 Litres regular Niskin
on standard CTD/Rosette
-large volumes isotopes like Nd, Th, Pa
-large volumes microbial oceanography

**Combination of GO-SHIP
and GEOTRACES
within one cruise
is very well possible
for optimal use
of expensive shiptime**