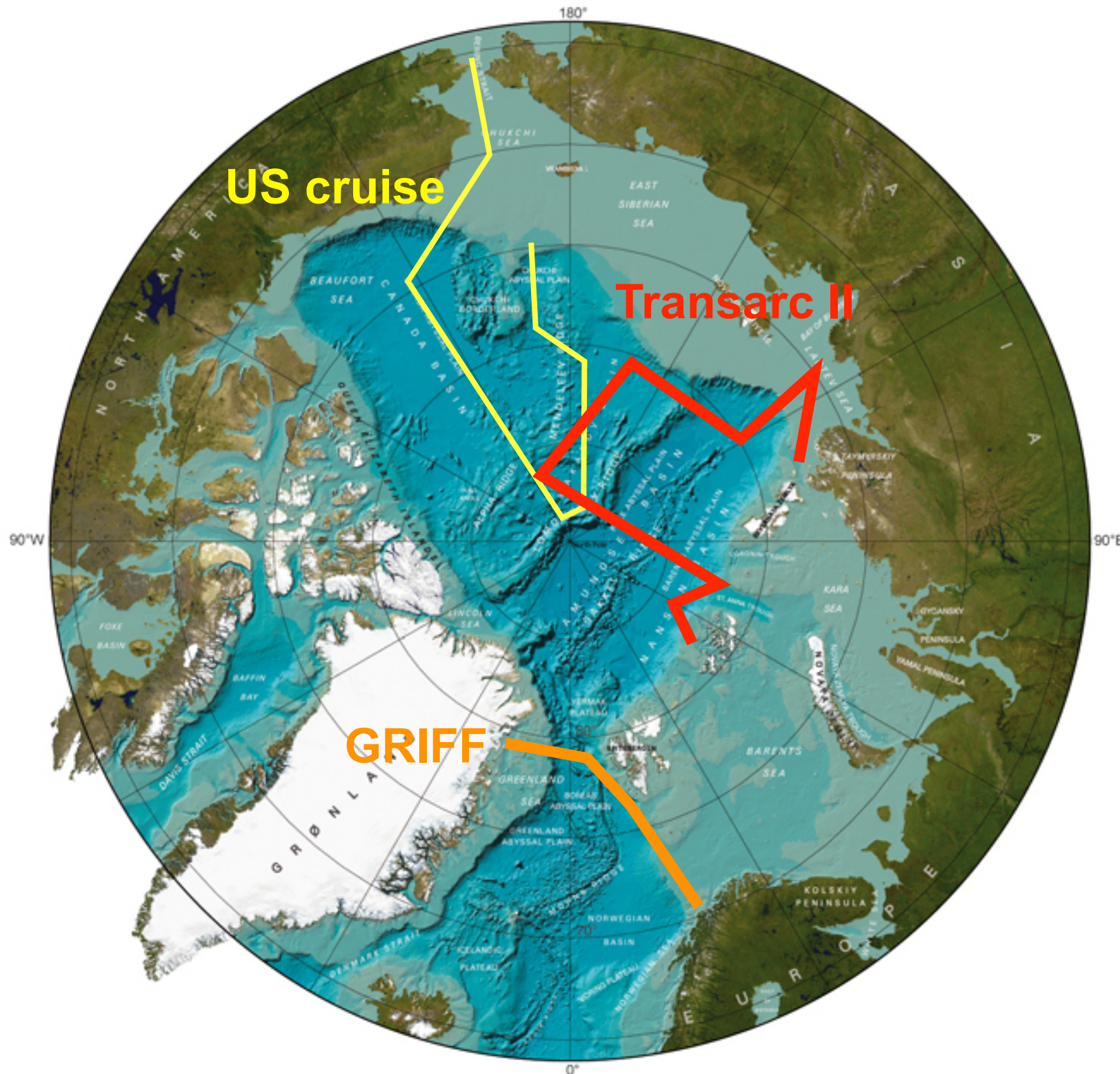




**- Activities in Germany
2012-2013**

**Katharina Pahnke
on behalf of the German GEOTRACES community**



Transarc II (2015) - Central Arctic

GRIFF (2016) - Fram Strait

GEOTRACES PIs:

M. Rutgers v.d. Loeff, M. Frank,
K. Pahnke (DE)

H. de Baar, M. Rijkenberg (NL)

P. Masqué (ES)

on *R/V Polarstern*

in collaboration w/ physical
oceanographers from AWI

both cruises approved

Data for Intermediate Data Product submitted:

NE Atlantic, Nd isotopes, cruise GA11, M. Frank (GEOMAR)

South Pacific, Nd isotopes, cruise ANTXXVI-2, C. Basak, K. Pahnke (MPI, Uni Oldenburg)

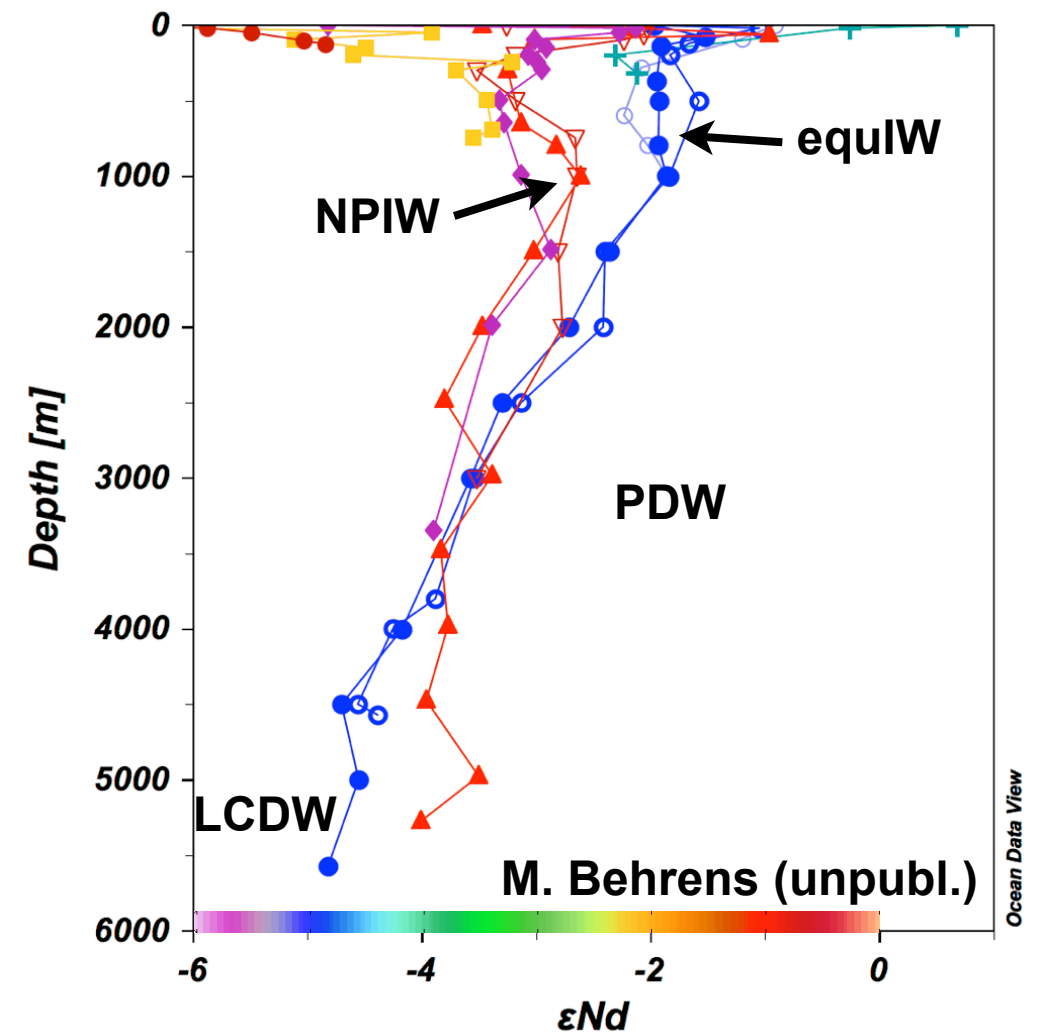
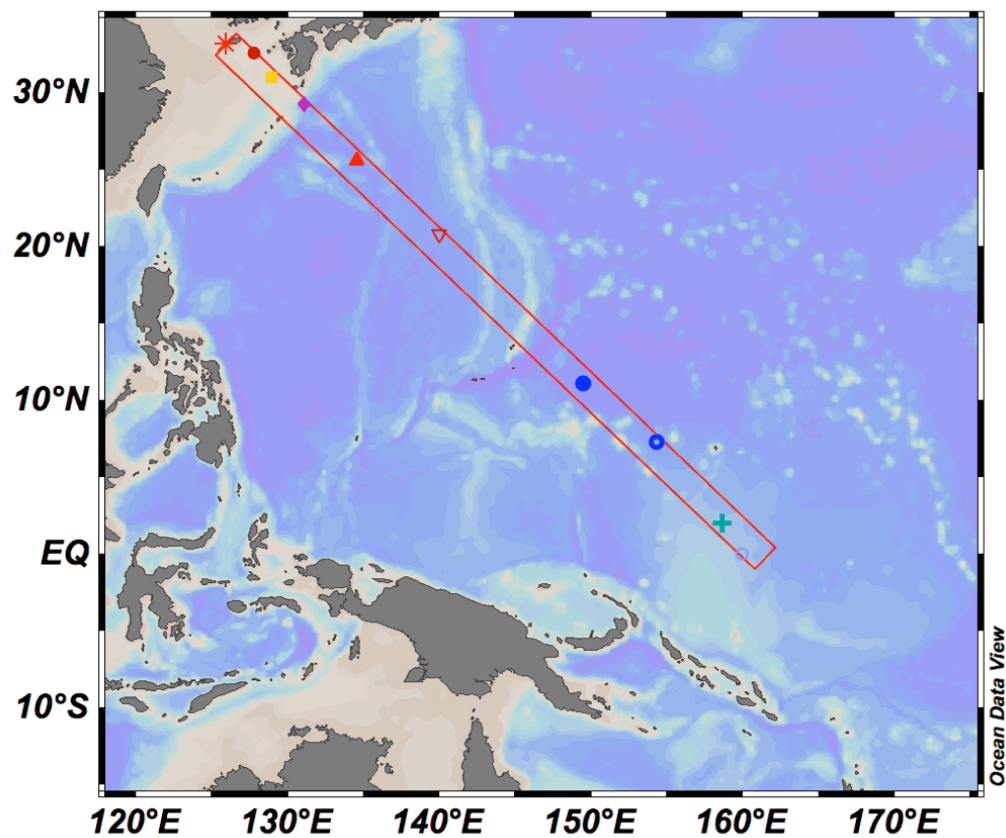
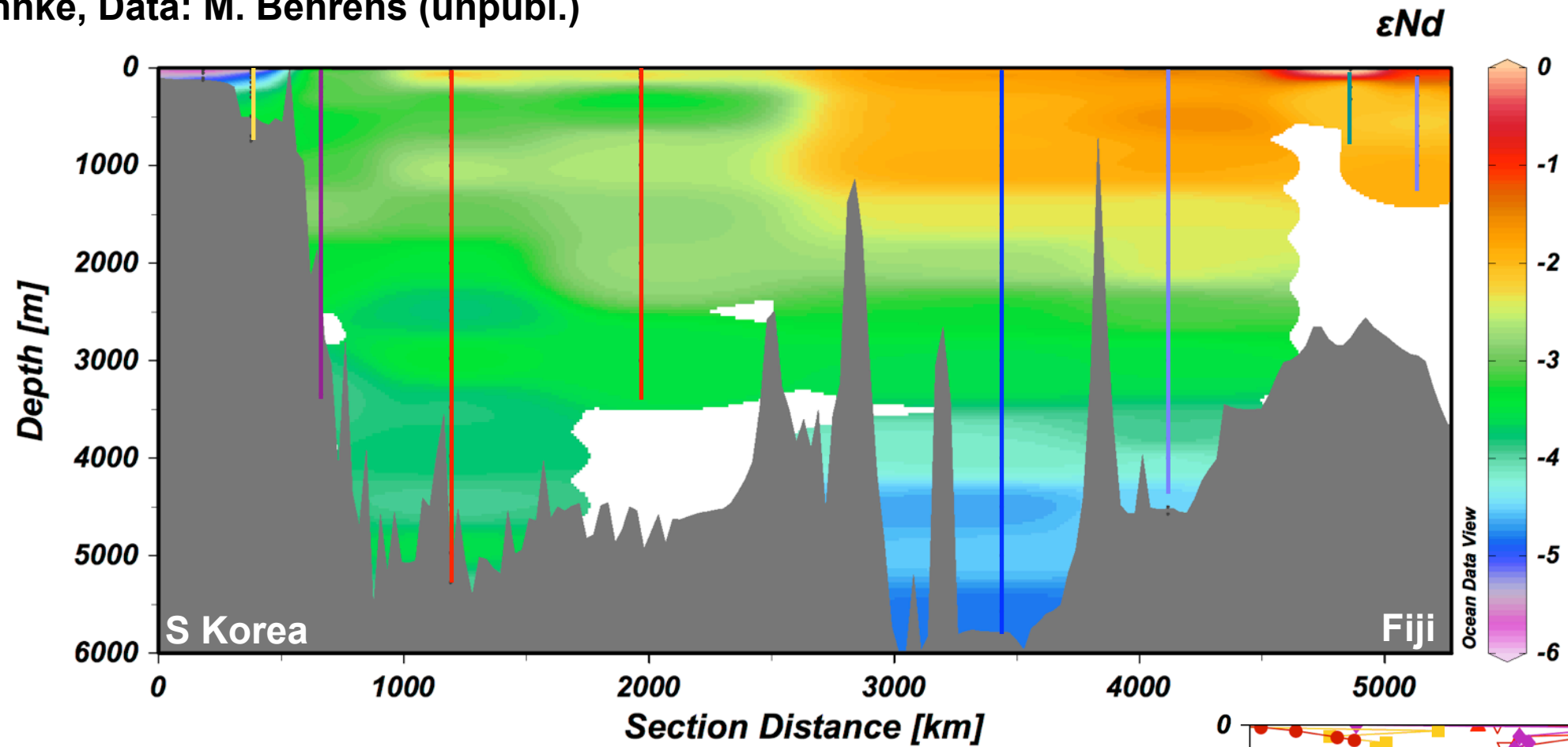
Data acquired:

Cd, Sr, Ca isotope profiles, **Atlantic** cruise PE369, W. Abouchami

Nd isotope profiles, **NW Pacific** cruise SO223T, M. Behrens, K. Pahnke

GEOTRACES Process Study - Northwest Pacific

PI: K. Pahnke, Data: M. Behrens (unpubl.)



Other activities

- Trace-metal clean rosette and CTD of GEOMAR was purchased and delivered
- clean van is close to finished, mobile winch has been ordered
- Eric Achterberg has joined GEOMAR in August 2013
- Samples for the intercalibration of REE concentrations and Si isotopes (to be measured at GEOMAR) have been collected on the Mediterranean cruise.

Publications

Submitted manuscripts:

Abouchami, W., Galer, S.J.G., de Baar, H.J.W., Middag, R., Klunder, M., Mezger, K., Feldmann, H., Andreae, M.O. (2013, Cadmium isotopes in the Southern Ocean – a tracer of nutrient cycling, *Geochimica Cosmochimica Acta* (in revision).

Chen, T.-Y., Stumpf, R., Frank, M., Beldowski J. and Staubwasser, M. (2013) Contrasting geochemical cycling of hafnium and neodymium in the central Baltic Sea. *Geochimica Cosmochimica Acta* (submitted).

Cruise reports:

Frank, M., *et al.* (2012), Trace metals and their isotopes in the tropical Atlantic Ocean, cruise M81-1, Meteor Berichte.

Mohtadi, M. *et al.* (2012), Report and preliminary results of RV Sonne cruise SO223T, TransGeoBiOc, Busan-Suva. Berichte aus dem MARUM und FB Geowissenschaften der Univ. Bremen, No. 289, 47pp.

Oral and poster presentations:

Abouchami, W., Galer, S.J.G., Feldmann, H., Andreae, M. O., de Baar, H.J.W., Middag, R., Klunder, M., Laan, P. (2012) Micronutrient Cadmium, distribution and stable isotope fractionation. AGU Fall Meeting, San Francisco, 2012 (invited talk).

Abouchami, W. *et al.* (2012). Stable Cd Isotopes in Seawater, UK Geotraces Meeting, London, September 2012 (Talk).

Basak, C., Pahnke, K. (2012). Bottom Water Changes in the South Pacific Over the Last 30 ka Documented by Nd Isotopes. Goldschmidt Conference, Montréal, Canada, Mineralogical Magazine 76, 1458 (Talk).

Basak, C., Pahnke, K. (2012). South Pacific Water Mass Structure From Nd Isotopes: Present And Past, AGU Fall Meeting, SF (Talk).

Chen, T., Frank, M. und Stumpf, R. (2012) Nd & Hf concentrations and isotopic compositions in the Baltic Sea. Goldschmidt Conference, Montréal, Canada (Talk).

Pahnke, K., Basak, C., Gersonde, R. (2012) Neodymium isotopic composition of South Pacific bottom water. Goldschmidt Conference, Montréal, Canada, Mineralogical Magazine 76, 2199.

Pöhle, S., Koschinsky, A., and Schmidt, K. (2012) Determination of Zr, Hf, Nb and Ta in seawater by the use of an online-preconcentrations system connected to inductively coupled mass-spectrometry (ICPMS). Geoanalysis, 8th International Conference on the Analysis of Geological and Environmental Materials, Buzios (Brazil), Sept. 16-20, 2012. (Talk)

Pöhle, S., Koschinsky, A., Moos, S., and Sander, S., Chromium speciation in the oceanic water column. ASLO 2013 Ocean Sciences Meeting, New Orleans, 2013. (Talk)

Zieringer, M., Frank, M. and Hathorne, E. (2012) The distribution of neodymium isotopes and REE patterns in the water column of the tropical Atlantic Ocean. Goldschmidt Conference, Montréal, Canada (Talk).