

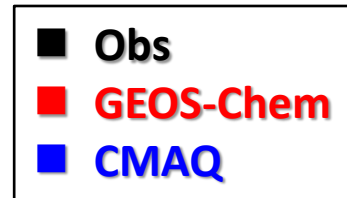
Multi-model comparison of O₃, CO, PM_{2.5}, and BC with cargo ship observations in Asia and Oceania

*Kohei Ikeda, Hiroshi Tanimoto, Hideki Nara, Hitoshi Mukai, Yukihiro Nojiri, Yasunori Tohjima, Yu Morino, and Tatsuya Nagashima (National Institute for Environmental Studies, Japan)



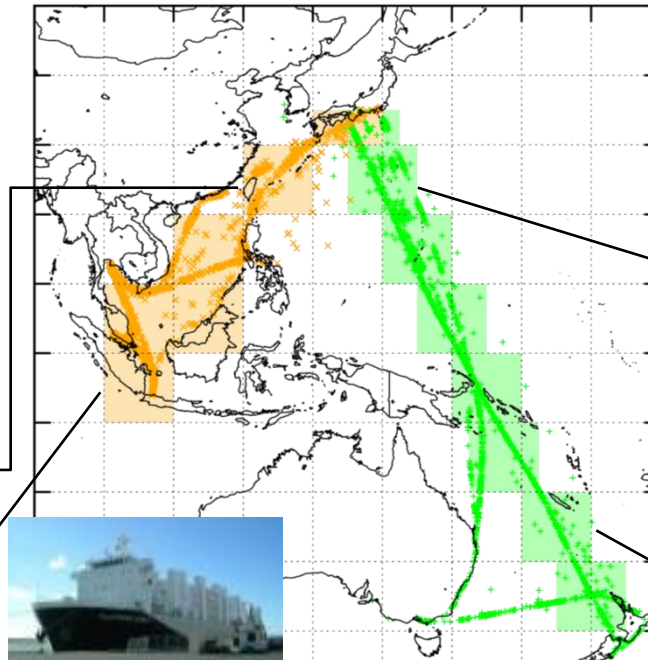
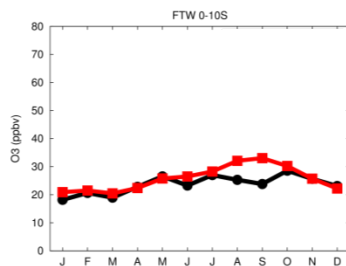
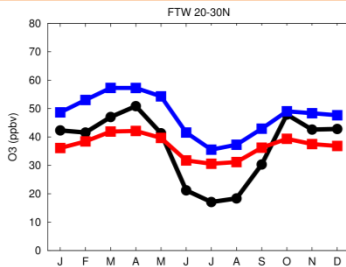
Long-term monitoring using commercial cargo ships: **O₃, CO, PM_{2.5}, & BC**

Comparison of seasonal variations at different latitudes with GEOS-Chem and CMAQ



Japan-Australia/New Zealand

Japan-Southeast Asia



M/V FUJITRANS WORLD



M/V TRANS FUTURE 5

