



Understanding oceans  
Sustaining future



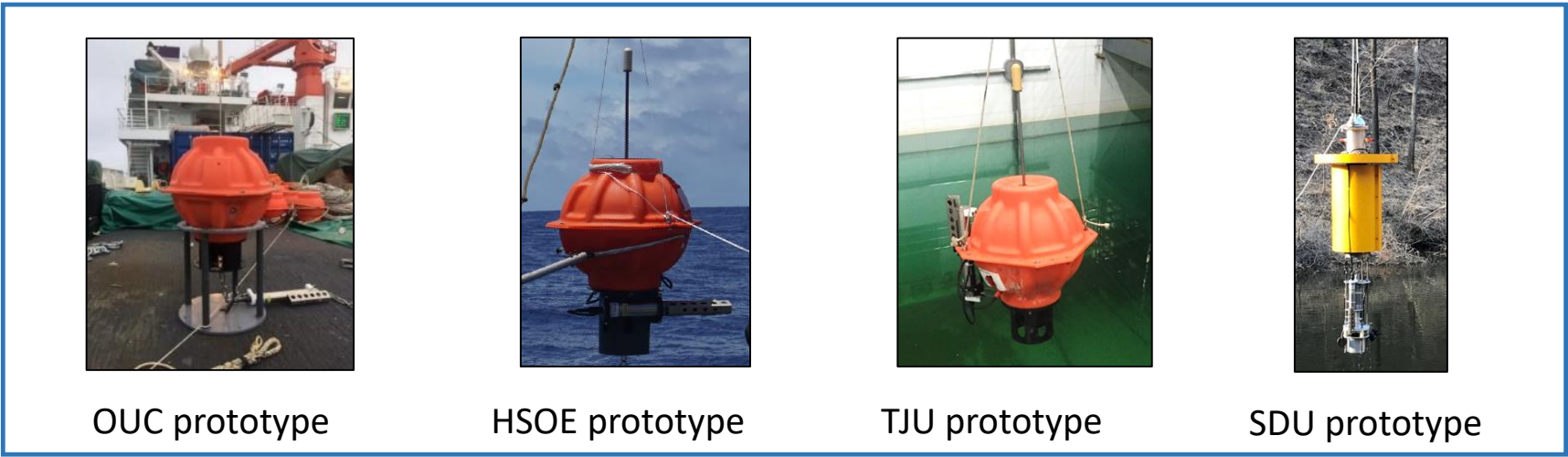
# China Deep Argo

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1) Laoshan Laboratory (formerly QNLM)

2) Ocean University of China (OUC)

3) The Second Institute of Oceanography, Ministry of Natural Resources (CSIO)



Wenhai Project

HSOE won the match

China Deep Argo regional observing network (2022-2025)

2016

2018

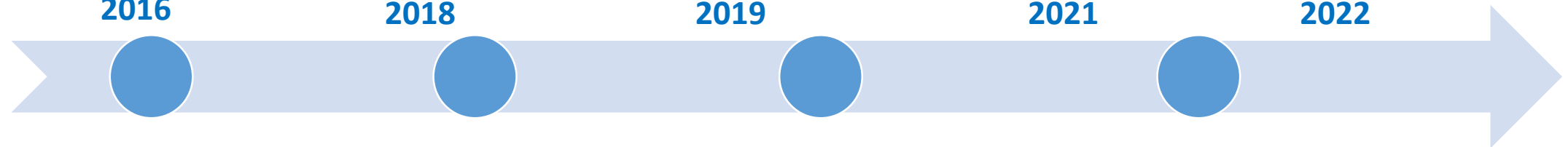
2019

2021

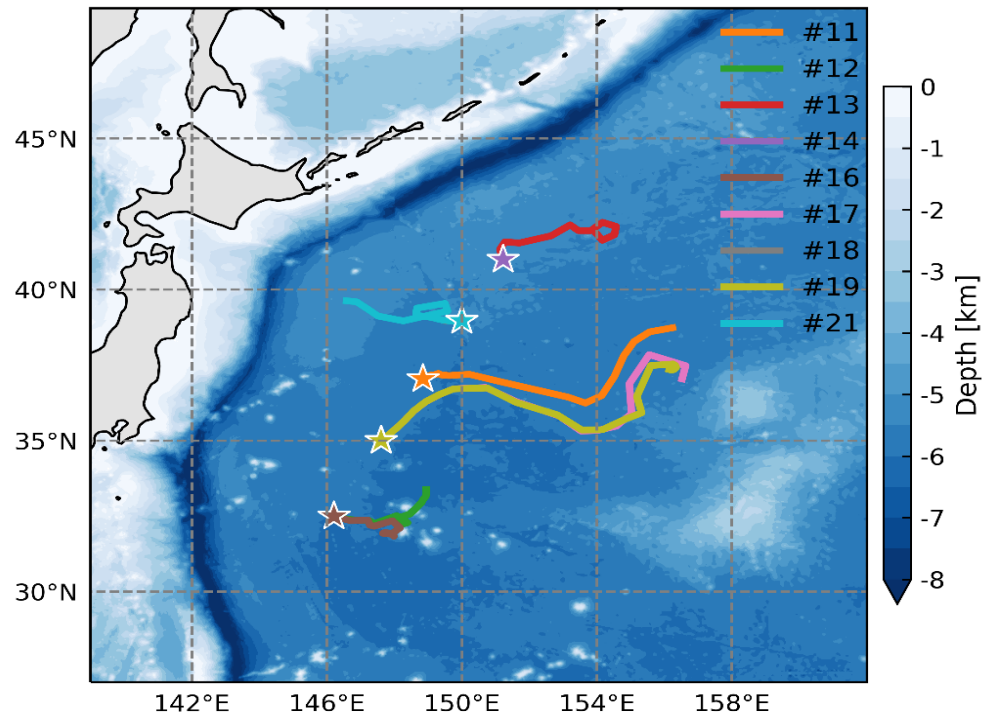
2022

Field test in the western Pacific

Pilot deployment of HM4000



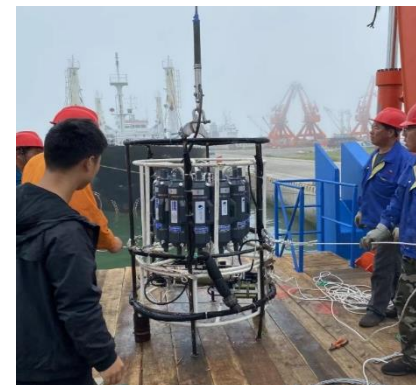
# Pilot deployments of HM4000 float (May-June 2021)



RBRargo<sup>3</sup> CTD

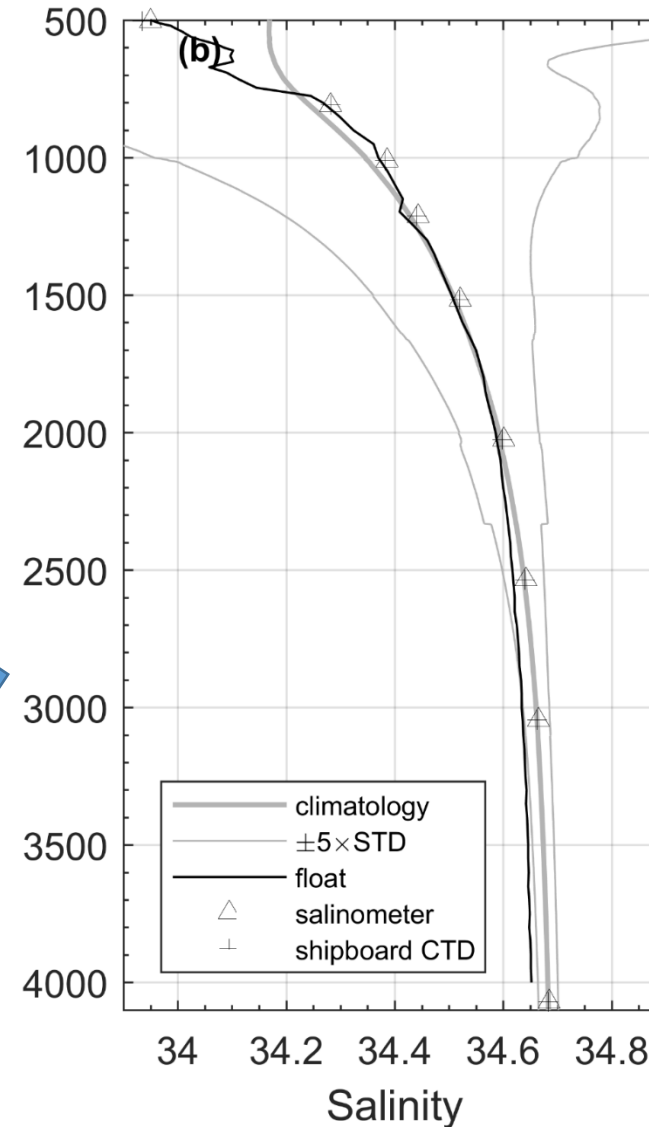


SEB61 CTD



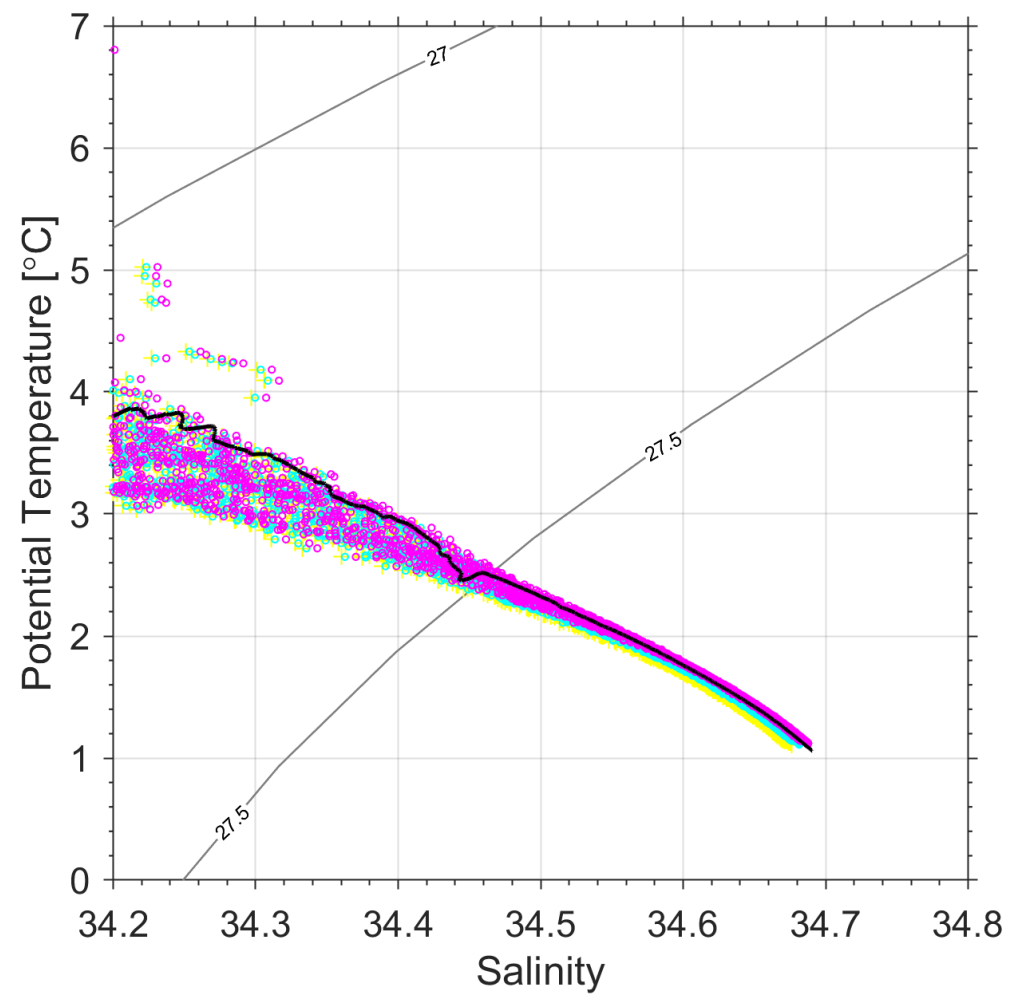
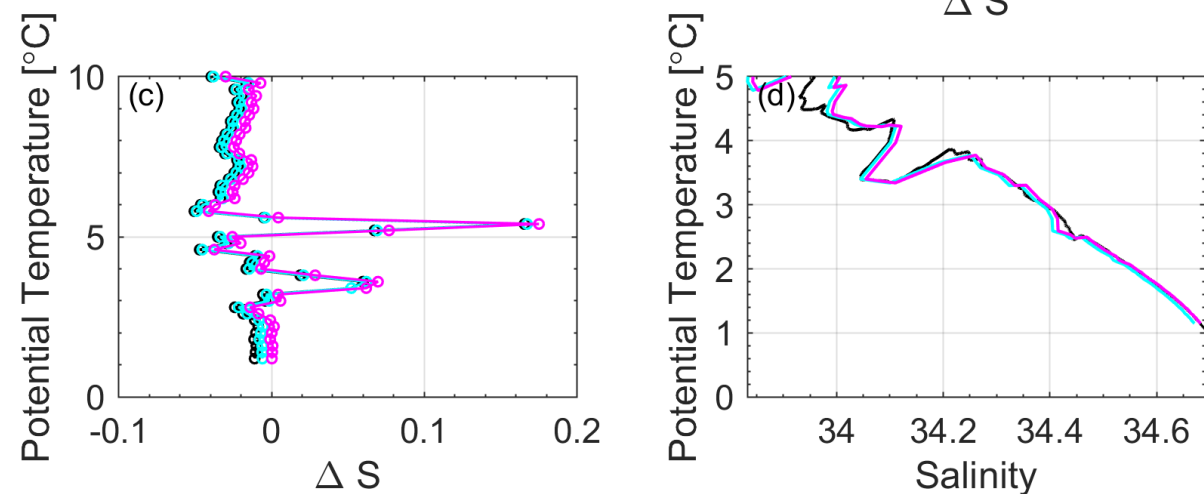
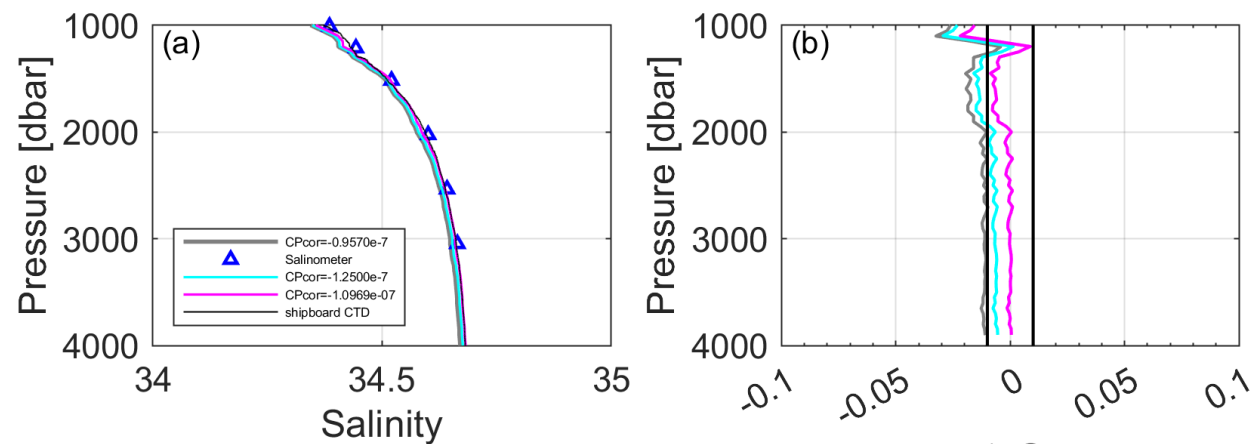
# Data validation (CSIO)

Float	CTD model	Comparison with SBE911
#12	RBR	pressure-dependent bias
#16	RBR	good
#17	RBR	systematic bias
#19	RBR	significant pressure-dependent bias
#11	RBR	good
#18	RBR	significant pressure-dependent bias
#21	SBE-61	significant systematic bias
#13	RBR	good
#14	RBR	good



# PSAL Correction

Float 2902879 Cpcor\_new=10.97e-8



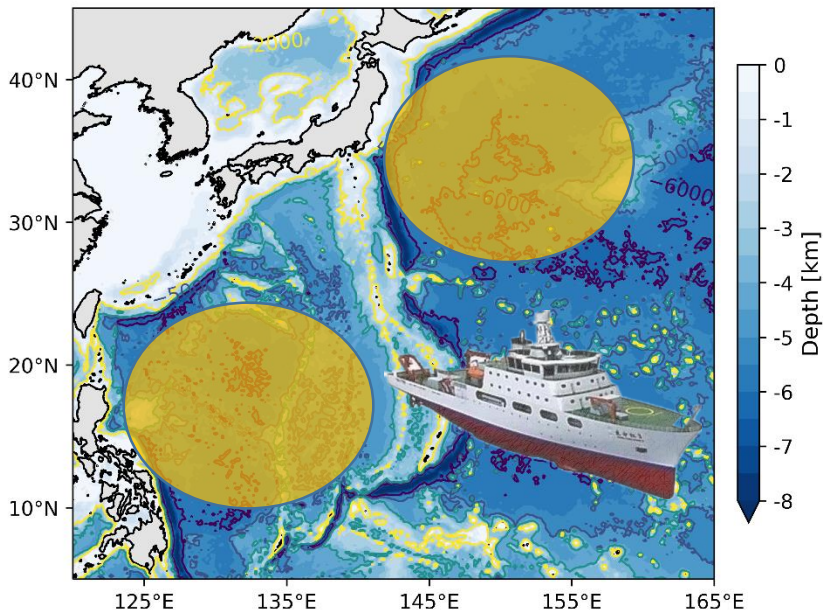
# China Deep Argo regional observing network

**Sponsor:** Laoshan Laboratory (formerly Qingdao Pilot National Laboratory for Marine Science and Technology)

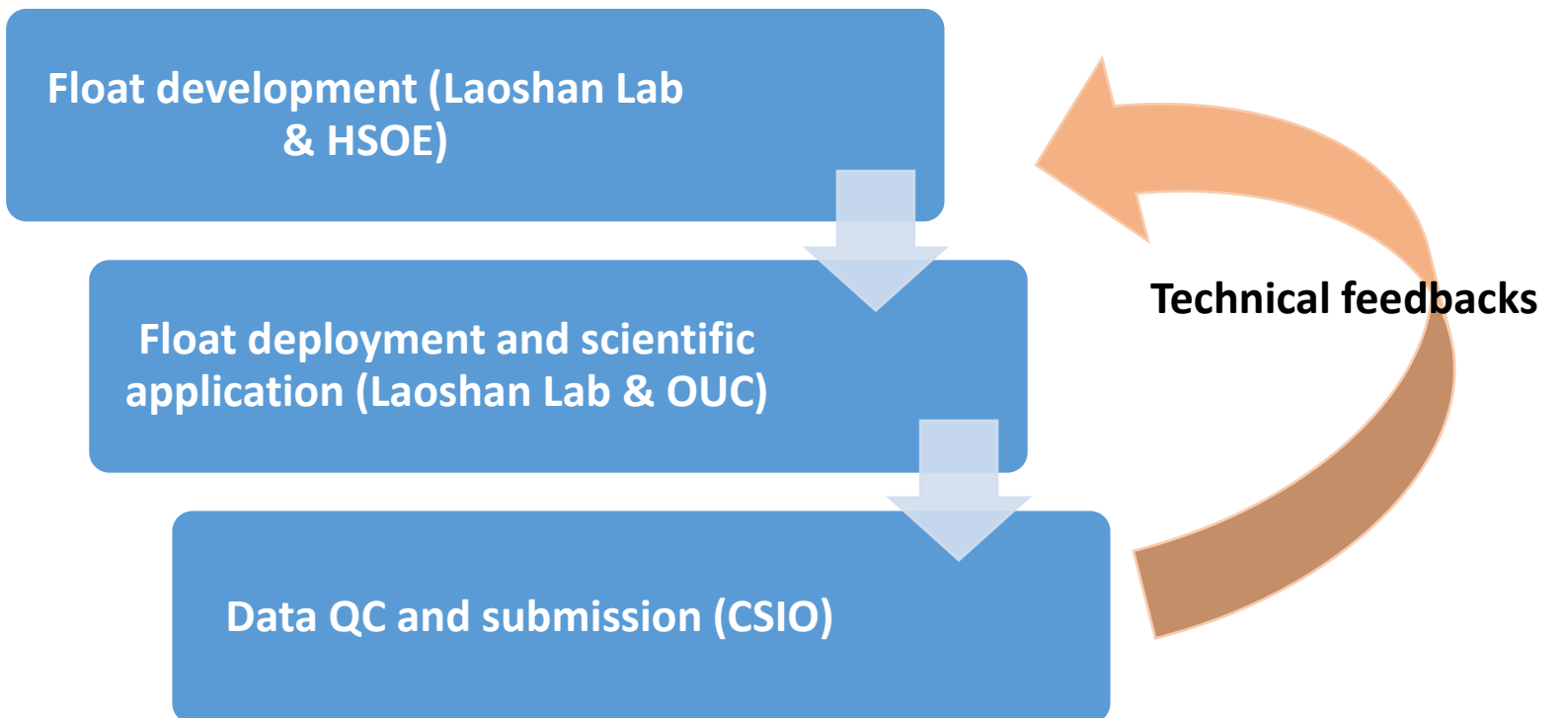
**Goal:** develop 6000-m profiler/industrialization, deploy 60 floats in the NW Pacific

**PI:** Dr. Zhaohui Chen

**Period:** 2022-2025

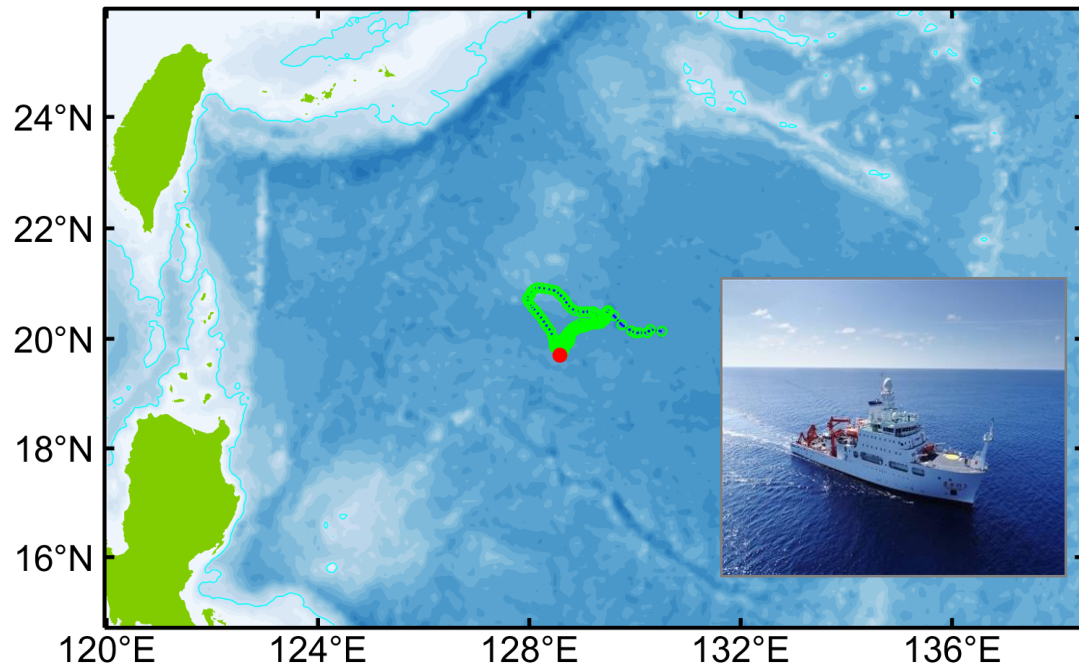


Kuroshio Extension +Philippine Basin

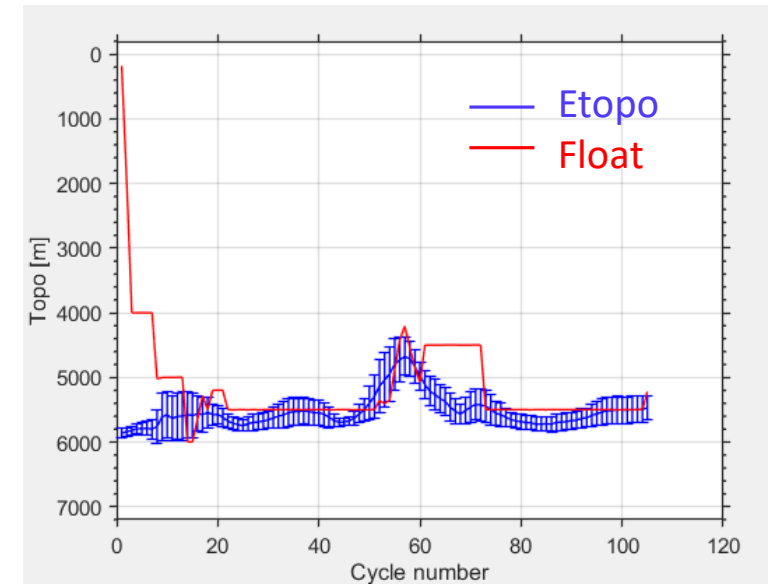


# Pilot deployment of deep XUANWU float (July 2022)

Float 2902880

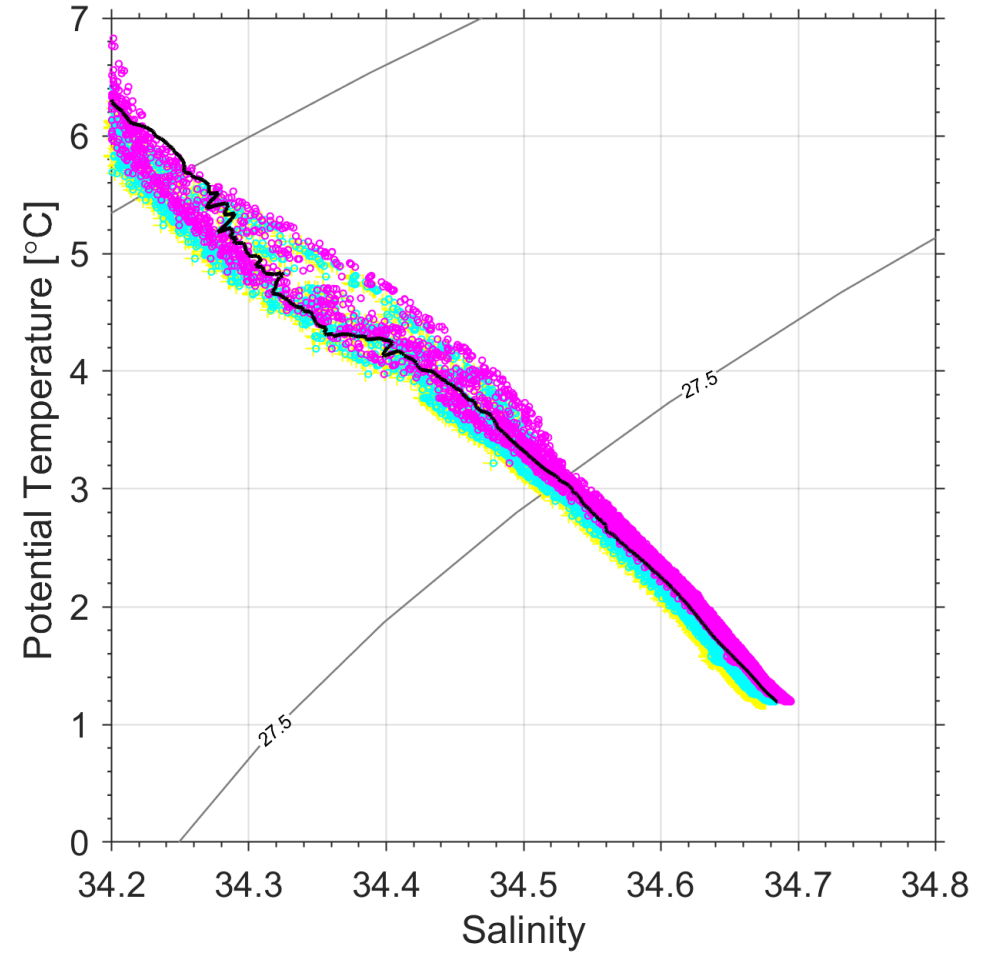
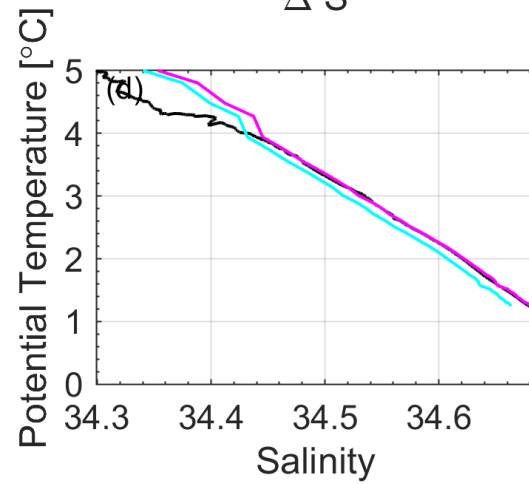
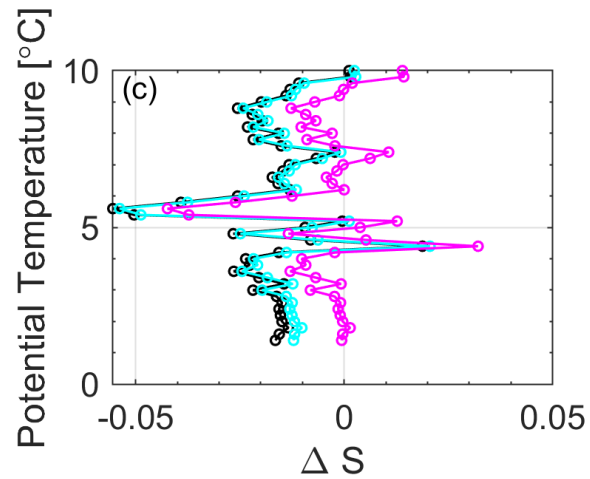
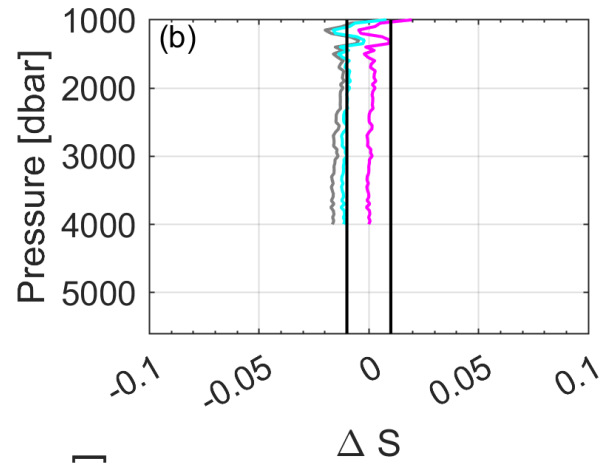
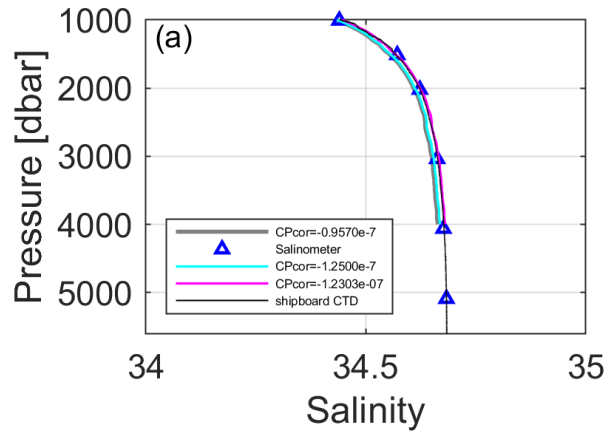


Maximum profiling depth



# PSAL Correction

Float 2902880 Cpcor\_new=12.3e-8



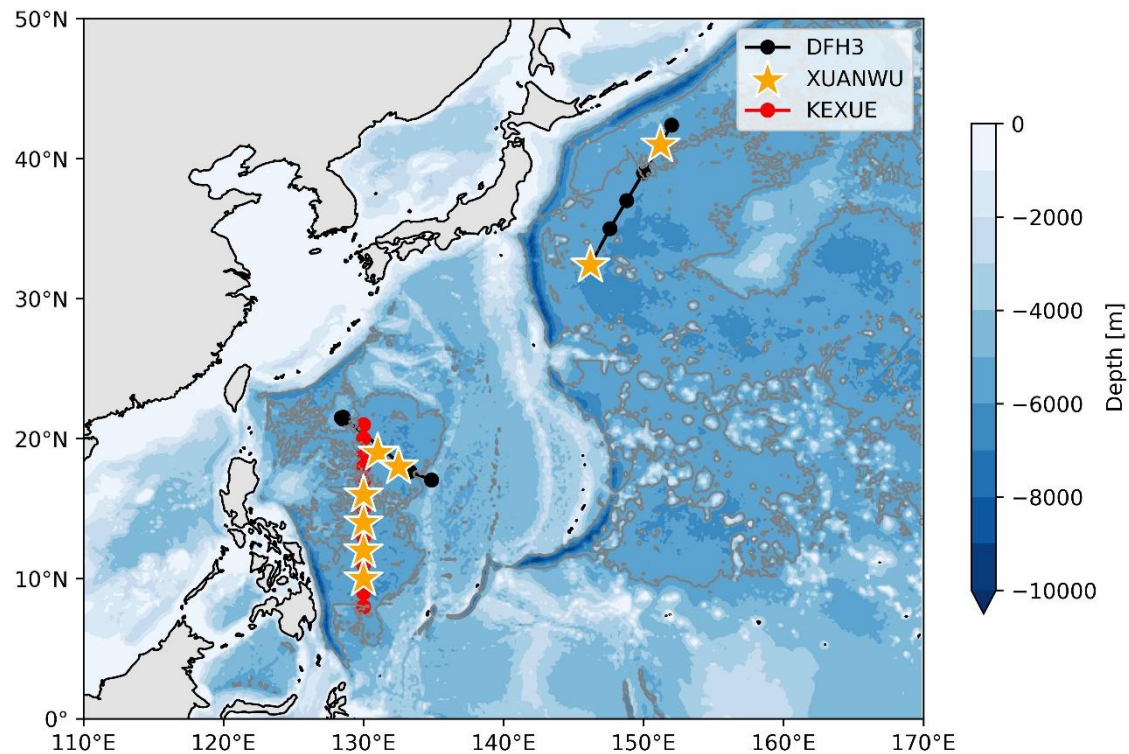


# Deployment plan 2023

Laoshan Laboratory plans to deploy 8 XUANWU floats this year.

**Cruise in May:** 2 in the Kuroshio Extension region and 2 in the Philippine basin

**Cruise in November:** 4 in the Philippine basin, western Pacific



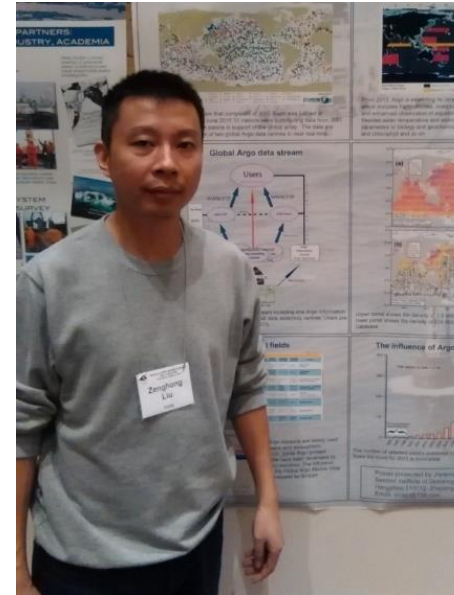
# Thank you for your attention!



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Zenghong Liu  
(CSIO)



Zhiyuan Gao  
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