Historical XBT Profile Recovery and Rescue Project in Japan

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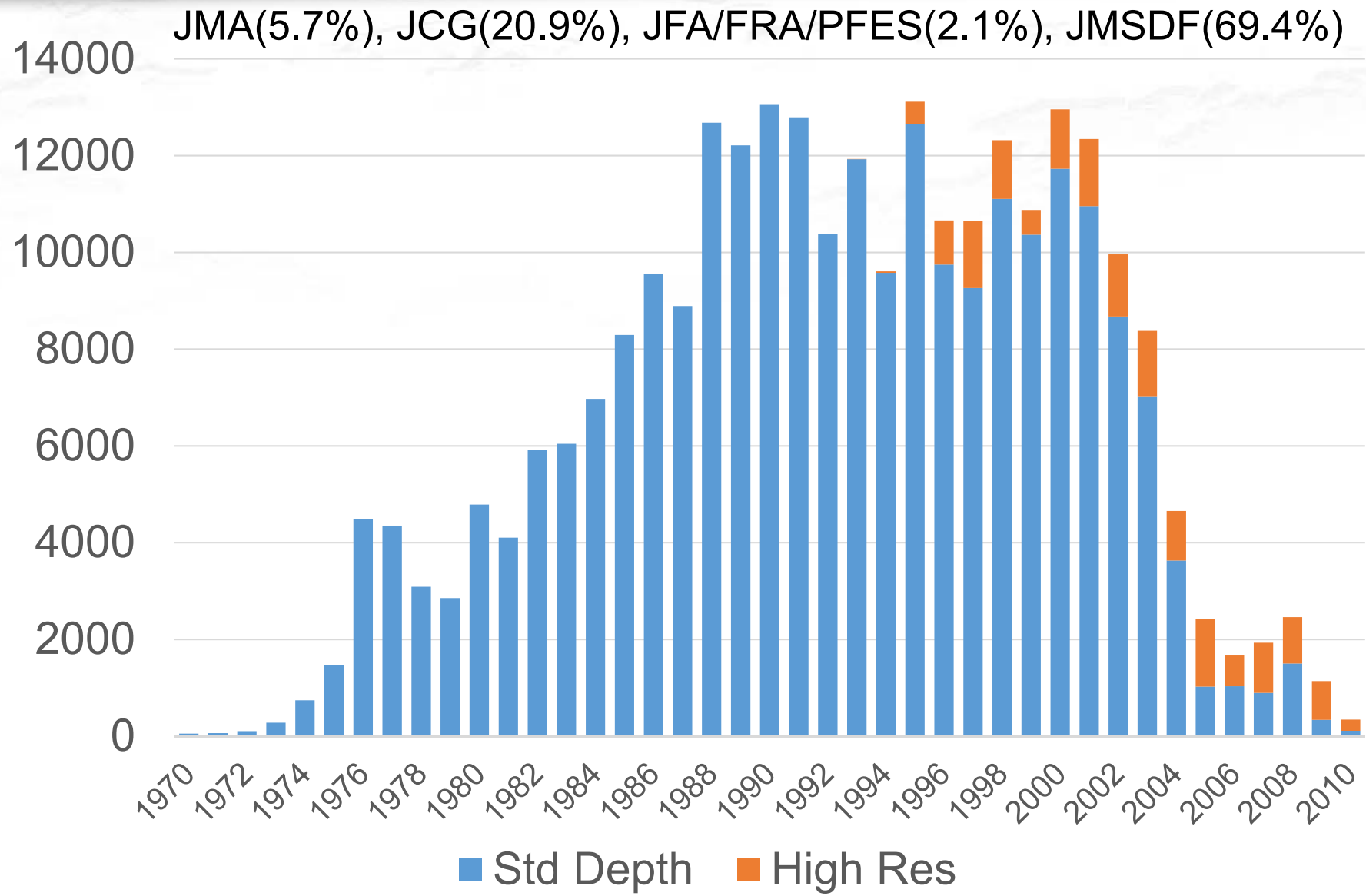
This sutdy is supported by the Environmental Research and Technology Development Fund (2-1506) of the Ministry of the Environment, Japan.

Annual change of XBT profiles in Japan



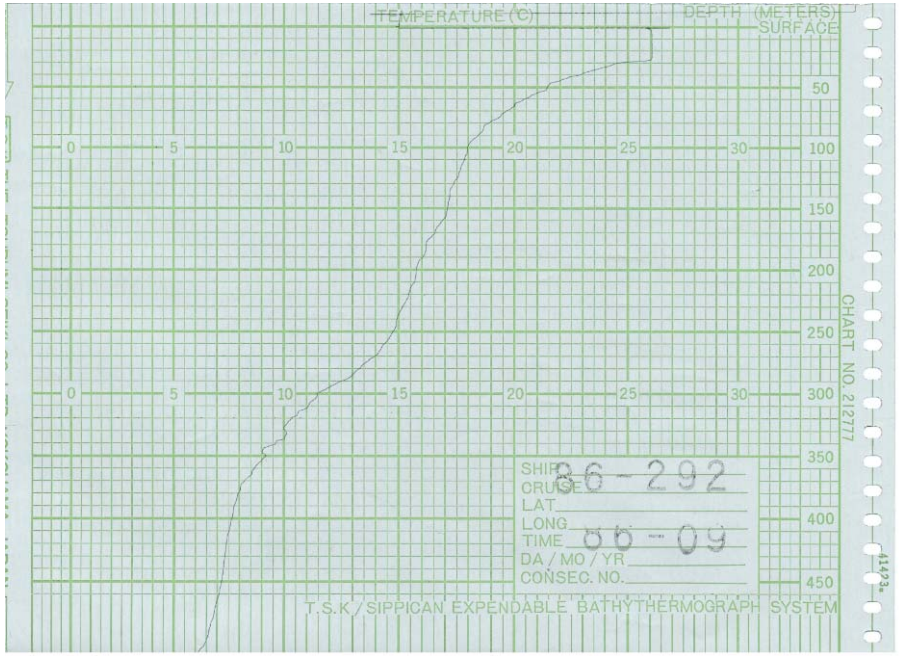
254,777 + 15,863 = 270,640

(XBT in WOD13 = 2,211,689)

XBT chart recorder and strip chart

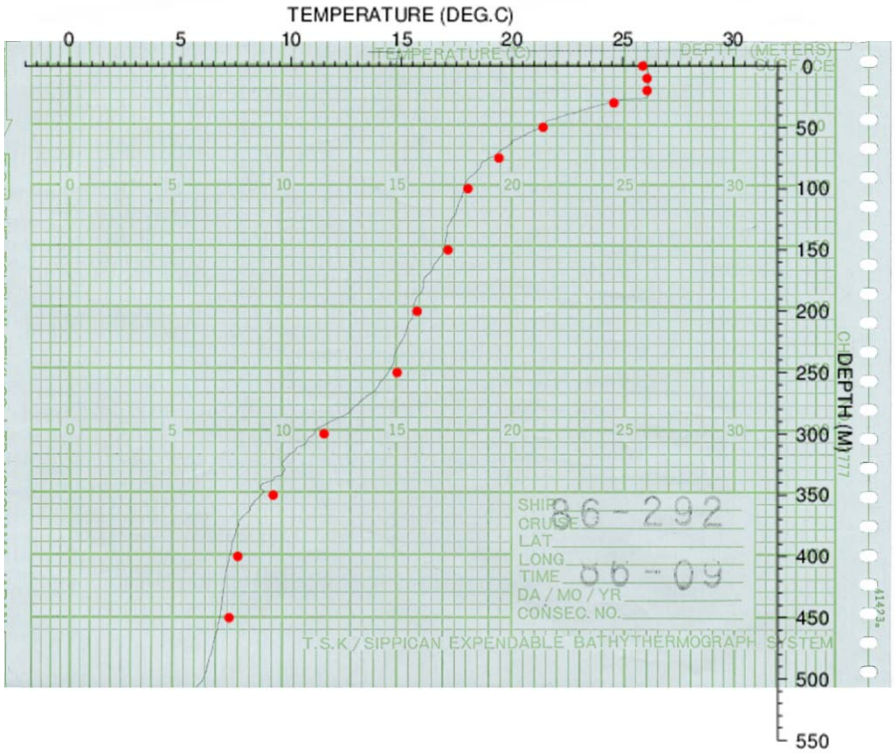
TSK Recorder MK-2S

TSK/SIPPICAN XBT CHART NO.21277 (T-4/6)

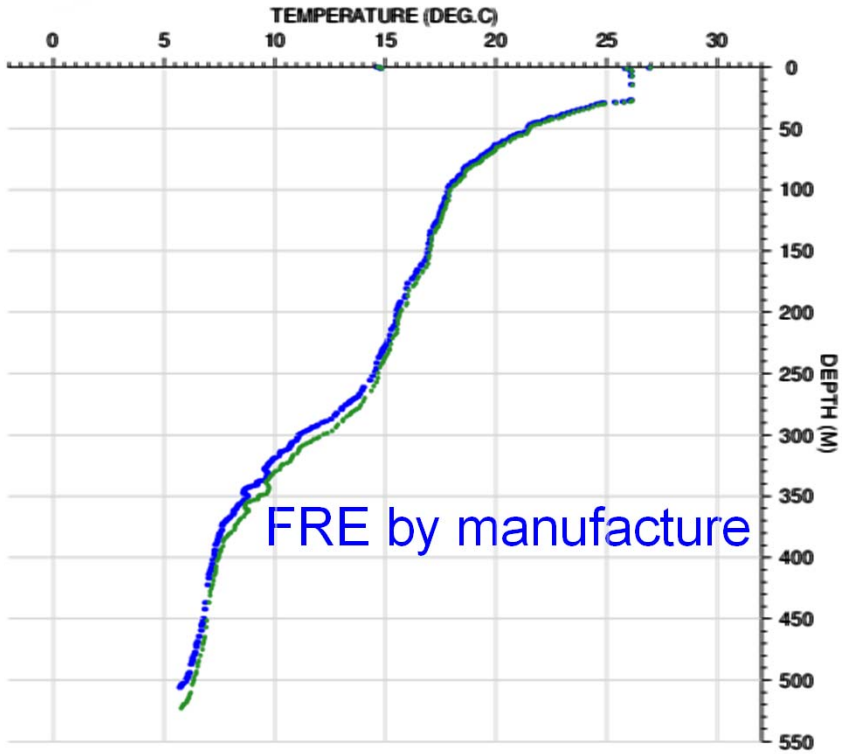


Recovery profile based on strip chart

Temperature at standard depth reading on strip chart

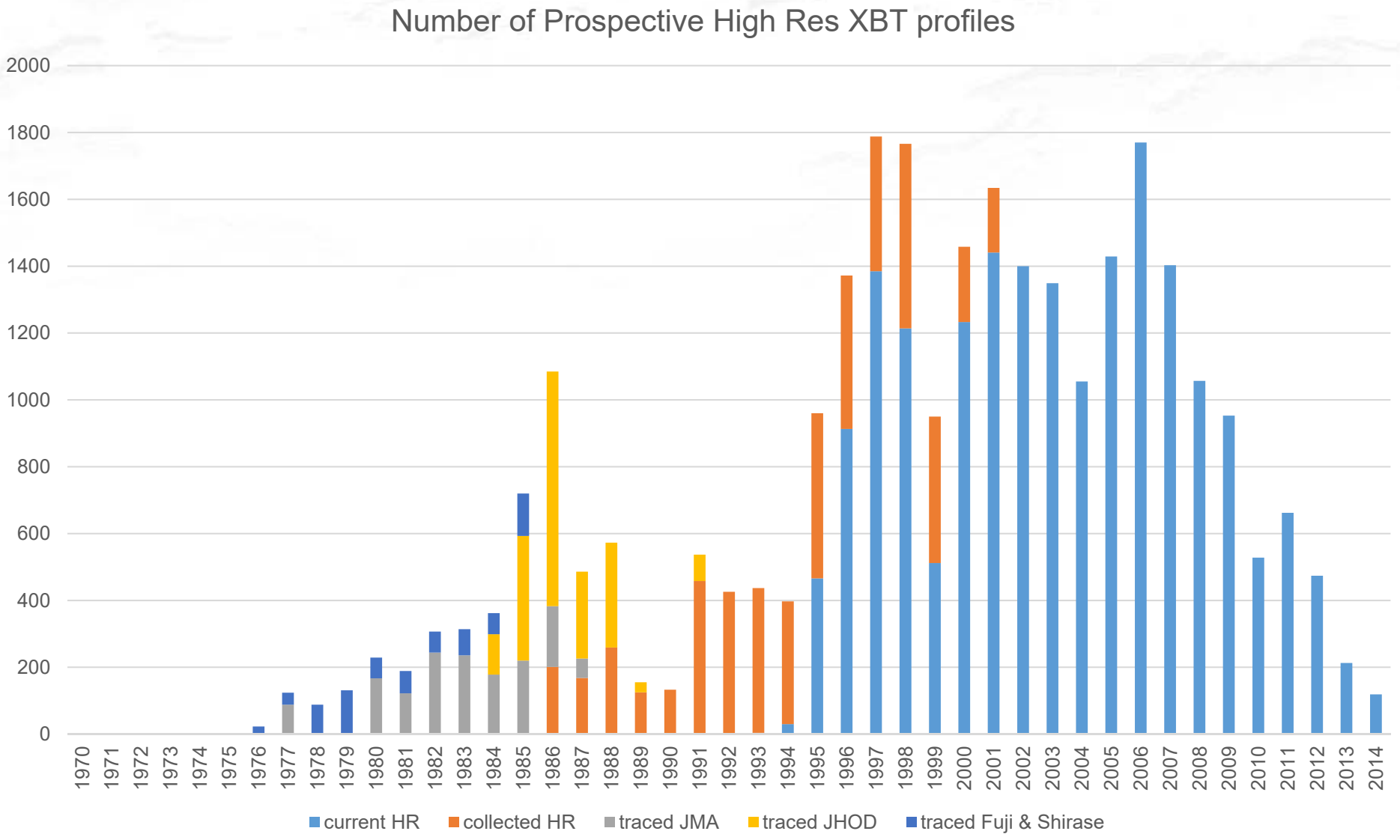


Traced profile at depth as a function of elapsed time



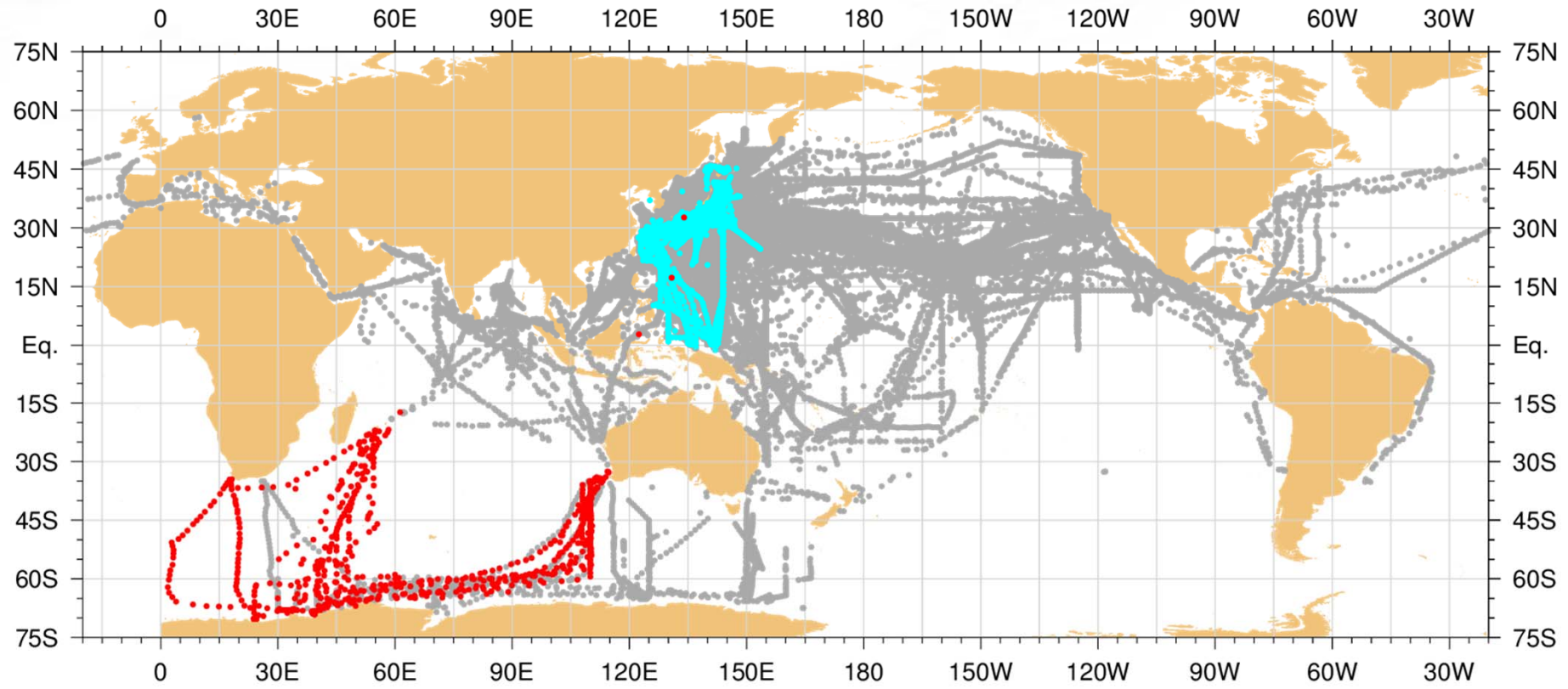
FRE by Hanawa *et al*. (1994)

Prospective high resolution and continuous XBT profiles



19,610 5,334 4,112 (all traced)

Distribution of XBT profiles



Gray: Existing profiles, Cyan: traced profiles, Red: Fuji and Shirase (first appearance)

Next steps

- Auto & Expert QC
- Complement metadata
  - Probe type (TSK T-6/5/7)
  - Recorder/Converter type
  - Strip chart No.
  - Launch height
- Identify current profiles to avoid duplication and compare with current data to estimate error/bias if exist
- Discussion: Should traced profiles replace with or merge to existing DB such as WOD, JODC/J-DOSS, or others?