JAPAN

a. Progr	amme description:		
Line	Agency	Sampling programme and mode (if applicable)	No. of ships
IX09N	JAMSTEC	FRX (nominal 4 drops/day, 12 transects/year)	1
IX10	JAMSTEC	FRX (nominal 4 drops/day, 12 transects/year)	1
PX40	Tohoku Univ./ JAMSTEC	HDX (nominal 30nmiles spacing drops, 3 transects/year)	1
PX45	JMA	LDX (nominal 60nmiles spacing CTD, 4 transects/year)	2
PX46	JMA	LDX (nominal 60nmiles spacing CTD, 2 transects/year)	2

b. Data management				
Agency	No. of JJVV messages on the GTS in 2006	Location of delayed-mode data		
JAMSTEC	308*	JODC#, WOCE UOT DAC at IFREMER		
Tohoku Univ./JAMSTEC	206	JODC		
JMA	245 **	JODC		

[#] Japan Oceanographic Data Center
* The number includes that of XCTD sampling (KKYY messages).
** The number includes that of CTD sampling (KKYY messages).

 Major challenges and difficult 	ties
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PX81 Honolulu – Coronel (Chile): JMA asked one candidate for PX81 but found that she did not sail on the line PX81 routinely. JMA is still searching for a suitable ship.

d. Research / development / testing:

Kizu et al. (2008) have evaluated the fall rates of the TSK XCTDs.

e. Other comments:

In addition to the above programs, some research vessels of Japanese domestic institutes carry out XBT/XCTD/CTD observations in the western Pacific and other seas and transmit the data into the GTS by BATHY/TESAC messages. A total of 53 ships reported 9,153 messages in 2007, including the messages along the SOOP lines, as shown in the attached table.

^{*}Kizu et al.(2008): Evaluation of the fall rates of the present and developmental XCTDs, in press, Deep Sea Research I.