

CARBON UNDERWAY MEASUREMENTS: PACIFIC

International Ocean Carbon Coordination Project (www.ioccp.org)

Last updated: June 2007.

Track/Ship name	Dates of operation	Area	Brief description (ship track)	Frequency	PI	Nation
Pacific Ocean						
RV Ka'imimoana	1998-	Pacific	San Diego-Honolulu-Samoa	2/year	R. Feely	USA
Columbus Waikato/ Albert Rickmers	2005-	Pacific	Long Beach – New Zealand – Australia	6/year	R. Feely (joint project with Australia)	USA
Line P / John P Tully	1974 -	Pacific	Sidney BC – Station P	3/ year	C. S. Wong	Canada
Pyxis	2002-	Pacific	Nagoya – Portland – L.A. – Toyohashi	Monthly	Y. Nojiri	Japan
RV Tangaora	2009 -	Pacific, Southern	SW Pacific, mainly New Zealand EEZ	Continuous	K. Currie	New Zealand
M/S Transfuture 5	2005-	Western Pacific	Tokyo – Brisbane-Melbourne-Christchurch (NZ)	Monthly	Y. Nojiri	Japan
JMA's monitoring program by RV Ryofu Maru and RV Keifu Maru	On going	North and Eq Pacific	137°E, 34°N – 3°N 137°E, 34°N – 2°S*	Seasonal Jan-Feb*, April-May, June- July*, Oct-Nov	T. Midorikawa S. Minato	Japan
JMA's monitoring program by RV Ryofu Maru and RV Keifu Maru	On going	North Pacific	Tokyo – 50°N ,165°E – 28°N ,165°E	Annual June-July	T. Midorikawa S. Minato	Japan
JMA's monitoring program by RV Ryofu Maru and RV Keifu Maru	On going	North and Eq Pacific	165°E, 28°N – 5°S	Biannual Jan-Feb, June-July	T. Midorikawa S. Minato	Japan

JMA's monitoring program by RV Ryofu Maru and RV Keifu Maru	On going	Eq Pacific	142°E – 165°E, Equator	Biannual Jan-Feb, June-July	T. Midorikawa S. Minato	Japan
RV Ocean Researcher	2003-	North Pacific (South China Sea)	Underway pCO ₂ survey is conducted along the following cruise track in the northern South China Sea: from Kaoshiung (~120.3°E; 22.6°N) to the SEATS site (115.7°E; 18.3°N)	Seasonal	C.-M. Tseng	China (Taiwan)
RV Ocean Researcher	2001-	North Pacific (East China Sea)	Underway pCO ₂ survey is conducted in the area among ~123°E; 31.5°N, ~127°E; 30°N, ~120°E; 26°N, ~121.5°E; 25°N.	Annual	C.-M. Tseng	China (Taiwan)
RV Tamyang	2006-2009	East/Japan Sea	Annual Ulleung Basin Survey	1/year	T. Lee	Korea
Project with irregular tracks						
Southern Surveyor	2007-	SW Pacific / E Indian	Various research cruise East Indian Ocean/Coral Sea/Tasman Sea	8/yr	B. Tilbrook	Australia
Palmer	2000-	Pacific/ Southern Ocean	Various	Random	T. Takahashi	USA
David Starr Jordan	2006 -	N/Tropical Pacific	San Diego-San Diego	Random	R. Feely	USA
MacArthur II	2006-	NE Pacific	Seattle -San Diego	Random	R. Feely	USA
R/V Mirai	1998-	Pacific, Arctic	Depending on cruises	Irregular	A. Murata	Japan
Future plans						
JMA's monitoring program by RV Ryofu Maru and RV Keifu Maru	2010-	N Pacific	40°N, to the west of date line	Biannual	future planning	Japan
JMA's monitoring program by RV Ryofu Maru and RV Keifu Maru	2010-	N Pacific	24°N(P3) to the west of date line	Biannual	future planning	Japan

JMA's monitoring program by RV Ryofu Maru and RV Keifu Maru	2010-	N Pacific	9N° (P4), to the west of date line	Biannual	future planning	Japan
No longer current						
Skaugran VOS	1995-2005	Pacific	Vancouver, Tokyo. Surface measurements of DIC etc., some pCO ₂ surveys with Japan	~10/yr	C.S. Wong	Canada