

The Comprehensive Investigation in Autumn at the Southern West Pacific Basic Report

1 Basic Information

1.1 Cruise name

The Comprehensive Investigation in Autumn at the Southern West Pacific

1.2 Sponsoring institution

Name	Ocean University of China
Address	238 Songling Road, Qingdao, P. R. China
Name of director	Zhigang Yu

1.3 Chief Scientist of the Cruise

Name	Jiwei Tian
Nation	China
Institution	Ocean University of China
Address	238 Songling Road, Qingdao, P. R. China
Telephone	086-532-66782367
Email	tianjw@ouc.edu.cn

1.4 Investigation Application and approval of the United State of America

- 1) Jan. 20, 2017, Submitted the Investigation application of in jurisdictional sea of the United State of America;
- 2) Aug. 2017, the application was approved.

Table1.1. Application and approval Stations

NO.	Application and approval Stations	
	E (°E)	N (°N)
1	146.00	23.00
2	143.00	22.00
3	143.00	21.00
4	143.00	20.00
5	143.00	19.00
6	143.00	18.00
7	143.00	17.00
8	143.00	16.00
9	143.00	15.00
10	143.00	14.00
11	143.00	13.00
12	143.00	12.00

Table1.2. Investigation Contents

Subjects	Type of samples and data	Methods to be used	Instruments to be used
Physical Oceanography	Temperature, salinity and current	Field observation	Conductivity-Temperature-Depth Sampler, Acoustic Doppler Current Profiler
Meteorology	Meteorology elements	Field observation	Auto meteorology station
Marine Chemistry	Marine chemistry elements	Water sample collection	Water sampler
Marine Biology	Marine biology elements	Water sample and plankton sample collection	Water sampler, vertical tow net

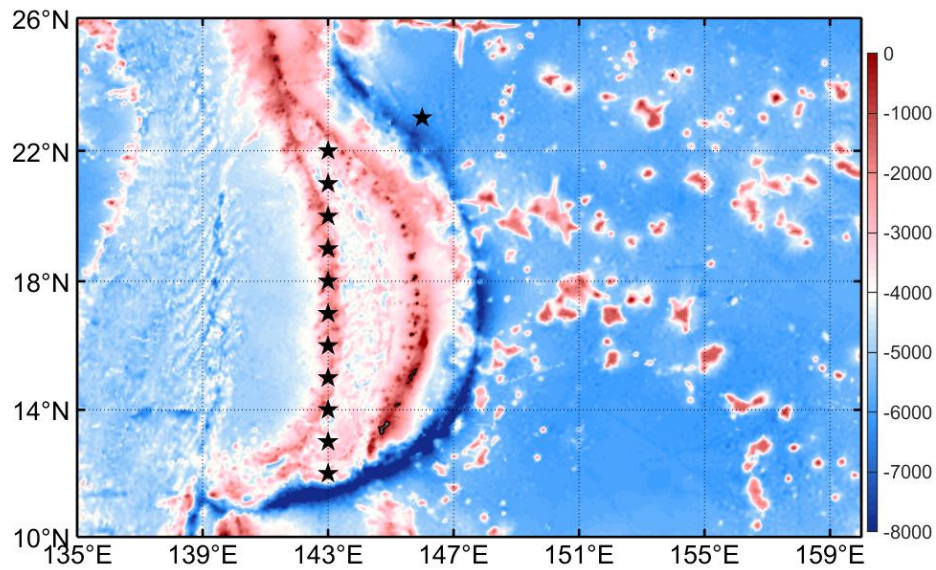


Figure 1.1. The main Investigation area, which located in jurisdictional sea of the United State of America

1.5 Scientific Purpose

To observe water mass, nutrients and biogeochemical cycling variation at island arc area of Western Pacific under global warming.

2 Investigation Execution

2.1 Investigation Date

The comprehensive Investigation in autumn at the Southern West Pacific was executed from, Sep. 26, 2017 to Dec. 15 2017. Originally planned entry & departure (jurisdictional sea of USA) time was Sep.01, 2017 - Nov. 30, 2017; Actual entry & departure time: Oct. 17, 2017 - Dec. 07, 2017.

Table 2.1. Actual Investigation Date

No	Application Stations		Approval Stations		Actual Investigation Date
	(°E)	(°N)	(°E)	(°N)	
1	146.00	23.00	145° 59.711'	23° 00.463'	2017.10.17
2	143.00	22.00	142° 59.397'	21° 59.356'	2017.12.07
3	143.00	21.00	143° 00.013'	20° 59.924'	2017.12.05
4	143.00	20.00	142° 59.901'	20° 00.118'	2017.11.30
5	143.00	19.00	142° 59.829'	19° 00.081'	2017.11.28
6	143.00	18.00	143° 00.016'	17° 59.981'	2017.11.28

7	143.00	17.00	142° 59.856'	16° 59.954'	2017.11.28
8	143.00	16.00	142° 59.267'	16° 00.005'	2017.11.27
9	143.00	15.00	142° 59.315'	14° 59.256'	2017.11.27
10	143.00	14.00	142° 59.995'	14° 00.175'	2017.11.26
11	143.00	13.00	142° 59.893'	13° 00.250'	2017.11.26
12	143.00	12.00	142° 58.815'	12° 00.017'	2017.11.25

2.2 Investigation Researcher

Table 2.2. Investigation Researcher

No.	Name	Title	Affiliation
1.	Tian Jiwei	Chief Scientist	Ocean University of China
2.	Zhou Chun	Researcher	Ocean University of China
3.	Guan Yanfeng	Researcher	Ocean University of China
4.	Xu Qinbo	Researcher	Ocean University of China
5.	Xu Xing	Researcher	Ocean University of China
6.	Zhao Dongliang	Researcher	Ocean University of China
7.	Liu Min	Researcher	Ocean University of China
8.	Chen Hongtao	Researcher	Ocean University of China
9.	Yang Fuxia	Researcher	Ocean University of China
10.	Bai Xueyan	Researcher	Ocean University of China
11.	Dong Mingfan	Researcher	Ocean University of China
12.	Liu Xiangyu	Researcher	Ocean University of China
13.	Zang Han	Researcher	Ocean University of China
14.	Wu Yingcui	Researcher	Ocean University of China
15.	Xu Feng	Researcher	Ocean University of China
16.	Wang Min	Researcher	Ocean University of China
17.	Yang Qingwei	Researcher	Ocean University of China
18.	Zhu Min	Researcher	Ocean University of China

No.	Name	Title	Affiliation
19.	Xiao Shicong	Researcher	Ocean University of China
20.	You Siyuan	Researcher	Ocean University of China
21.	Wang Shihao	Researcher	Ocean University of China
22.	Yu Hao	Researcher	Ocean University of China
23.	Chen Dawei	Researcher	Ocean University of China
24.	Xiao Lin	Researcher	Ocean University of China
25.	Jiang Yifei	Researcher	Ocean University of China
26.	Zhou Qingwei	Researcher	Ocean University of China
27.	Chen Jiaqing	Researcher	Ocean University of China
28.	Meng Jie	Researcher	Ocean University of China

2.3 Sample / Data

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Subjects	Type of samples and data	Methods to be used	Instruments to be used	Sample / Data
Physical Oceanography	Temperature, salinity and current	Field observation	Conductivity-Temperature-Depth Sampler, Acoustic Doppler Current Profiler	Data
Meteorology	Meteorology elements	Field observation	Auto meteorology station	Data
Marine Chemistry	Marine chemistry elements	Water sample collection	Water sampler	Water Sample
Marine Biology	Marine biology elements	Water sample and plankton sample collection	Water sampler, vertical tow net	Water Sample& Biological Samples