

Introduction

The STARMER French–Japanese Joint Project, 1987–1992

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Based on the results of the SEAPSO cruise (R/V *Jean Charcot*, 1985), Japanese and French scientists decided to undertake a joint project to study the rift systems of the Western Pacific. This project, coordinated by IFREMER for France and the Science and Technology Agency (STA) in Japan, was agreed upon in June 1987 and named STARMER.

The STARMER project was also carried out in cooperation with the South Pacific Applied Geosciences Commission (SOPAC). Its precise objective was a five years interdisciplinary (geology, geochemistry, geophysics and biology) study of the North Fiji Basin Ridge Axis. Since this date, seven cruises have been carried out, representing more than ten months at sea. Four of them (KAIYO 87, 88 and 89, and YOKOSUKA 90) were dedicated to surface-ship surveys, including swath bathymetric mapping, geophysical profiling, water sampling, gravity coring and dredging. The other three were diving cruises using the *Nautilie* (STARMER *Nautilie* 89, June–July 1989), the new Japanese submersible *Shinkai* 6500 (YOKOSUKA 91, September–November 1991) and the *Cyana* (SAVANES 91, December 1991–January 1992) (Fig. 1).

On the French side more than 20 scientists coming from the three French Marine Research Institutions (IFREMER, INSU and ORSTOM) have been involved onboard and about 20 more worked in the laboratory on land. On the Japanese side 33 scientists coming from the Geological Survey of Japan, the JAMSTEC, the Maritime Safety Agency,

the NIES and several universities have embarked and 20 more have studied the profiles and samples on land.

As a result of these intensive studies, the North Fiji Basin Ridge, almost unknown seven years ago, is one of the most exhaustively investigated ridge axis of the world ocean. Today, a ridge segment more than 800 km long and 100 km wide is fully mapped using the Sea Beam and Furono echosounders². Along the whole length of the axis, water column samples have been taken about every 20 km and rock samples every 10 km.

The scientific results are very important and have given rise to a considerable amount of scientific papers and oral presentations in international and national journals and symposia. The last of them was the Starmer Special Symposium (C7) of the 29th International Geological Congress held in Kyoto (August 24–September 3, 1992). It was during this congress that it was decided to publish this special issue of *Marine Geology* which constitutes the final summary of the STARMER Project.

The 15 selected papers mark the state of the art of the knowledge of the North Fiji Basin Ridge. They are representative of the multidisciplinary of the research conducted during the project: 3 of them concern the general structure of the NFB Ridge, 2 others the detailed structure of some selected areas of the axis, 4 papers are dedicated to the geophysics, 3 to the petrogeochemistry, 1 to

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²Two recent 1:750,000 scale full coverage multibeam maps of the NFB Ridge between 14°20'S and 21°50' have been published and can be found with this special issue.



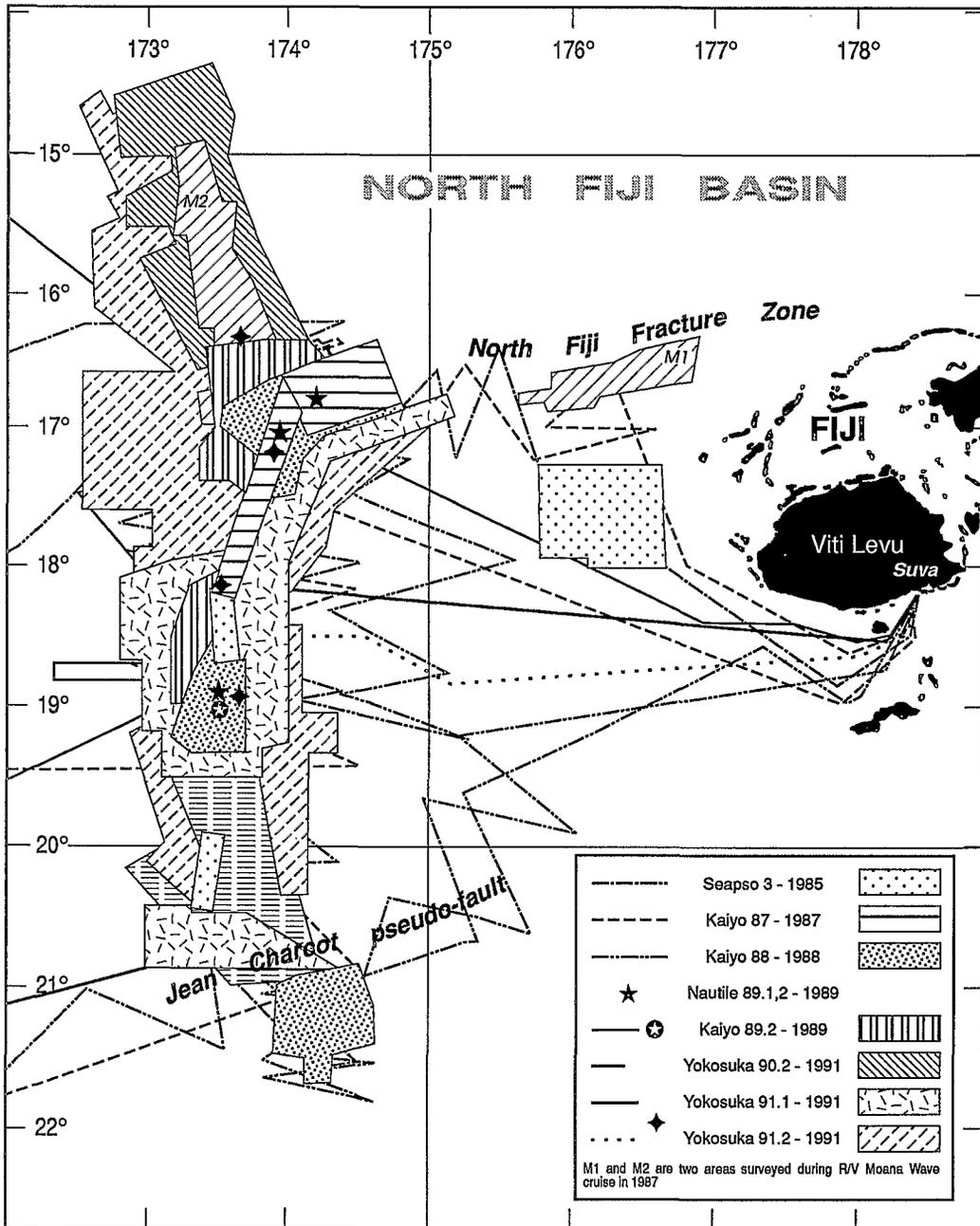


Fig. 1. Extension of the multibeam surveys and locations of the diving cruises carried out during the SEAPSO and STARMER projects (after Ruellan et al., 1994-this volume).

the water chemistry and 2 to the biology and microbiology.

This special issue is an excellent opportunity to associate and thank again the Captains and crews of the four different ships involved in the acquisi-

tion of the data and also the three submersible teams (*Nautile*, *Shinkai 6500* and *Cyana*). They are for a large part responsible for the success of the project.

A new five year cooperative Japanese-French

project will be signed during the following months and will start in 1994. The aim of this new joint program, which may be considered as a contribution to InterRidge, will be the comparative study of the processes and related fluxes in different marginal basins of the Southwest Pacific: the Fiji, Lau, Manus and Woodlark basins. In most cases, taking into account the work previously done by other nations, the bilateral cooperation will be extended to a third or a fourth partner.

Finally we are greatly indebted to the excellent

referees who have accepted to review the different articles of this special issue and to improve the quality of the English.

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