

REQUEST FOR QUOTATION (RFQ)

FOR GOODS

Project Title:	Propeller Boss Cap Fin (PBCF)
Nature of the goods	The Propeller Boss Cap Fin (PBCF) is an energy-saving device installed on the hub of a ship's propeller. It consists of a propeller boss fitted with short blades inclined to convert hub vortex energy into additional torque and thrust transmitted back to the shaft. Propulsion improvements are 4%-5%
Location:	Suva
Date of issue:	10/03/2023
Closing Date:	17/03/2023
SPC Reference:	RFQ23-5153-PRO

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Part 1: INTRODUCTION

1.1 About the Pacific Community (SPC)

The Pacific Community (SPC) is the principal scientific and technical organisation of the Pacific region, established by treaty in 1947 with the signing of the *Agreement Establishing the South Pacific Commission* (the Canberra Agreement).

Our unique organisation covers more than 20 sectors and is renowned for knowledge and innovation in such areas as fisheries science, public health surveillance, geoscience and conservation of plant genetic resources for food security.

For more information about SPC and the work that we do, please visit our website: <https://www.spc.int/>.

1.2 SPC's procurement activities

SPC's procurement activities are guided by the principles of high ethical standards, value for money, open competition and social and environmental responsibility and are carried out under our Procurement Policy.

For further information or enquiries about SPC's procurement activities, please visit the procurement pages on our website: <https://www.spc.int/procurement> or email: procurement@spc.int

1.3 SPC's Request for Quotation (RFQ) Process

At SPC, procurement valued at more than EUR 2,000 and less than or equal to EUR 45,000 requires an evaluation of at least three quotations to determine the offer that provides the best value for money through a Request for Quotation (RFQ) process.

This RFQ sets out SPC's requirements for a project and it asks you, as a bidder, to respond in writing in a prescribed format with pricing and other required information.

Your participation confirms your acceptance of SPC's conditions of participation in the RFQ process.

Part 2: INSTRUCTIONS TO BIDDERS

2.1 Background

SPC invites you to submit a quotation to deliver the goods as specified in [Part 3](#).

SPC has compiled these instructions to guide prospective bidders and to ensure that all bidders are given equal and fair consideration. Please read the instructions carefully before submitting your bid. For your quotation to be considered, it is important that you provide all the prescribed information by the closing date and in the format specified.

2.2 Submission Instructions

You must **submit your quotation and all supporting documents** in English and as an attachment to an email sent to oret@spc.int and with the subject line of your email as follows: **Submission RFQ23-5153-PRO**. The email should also be copied to rfq@spc.int.

The supporting documents expected in this RFQ are:

- [The Conflict-of-Interest Declaration form](#) completed
- Company Profile

Your submission must be clear, concise and complete and should only include a quotation and information that is necessary to respond effectively to this RFQ. Please note that you may be marked down or excluded from the procurement exercise if your submission contains any ambiguities or lacks clarity.

Bids will be evaluated on the basis of information received by **04.00PM Fiji Time on 17/03/2023**.

2.3 Evaluation & Contract Award

Each quotation validly received will be assessed against the evaluation criteria matrix set out in [Part 4](#). Any changes in the evaluation criteria will result in the RFQ process being re-issued.

SPC may award the contract once it has determined that a bidder has met the prescribed requirements and the bidder's proposal has been determined to be substantially responsive to the RFQ documents, provide the best value for money (highest cumulative score) and best serve the interests of SPC.

In the event of a bid being accepted, procurement will take place under SPC's [General Terms and Conditions of Contract](#) and depending on the value or nature of the procurement, the award will be made by issuing a purchase order or a signed and dated contract, or both.

2.4 Key Contacts

Please contact SPC should you have any doubt as to what is required or if we can help answer any questions that you may have.

Ms Ore Toua, Maritime Training Adviser will be your primary point of contact for this RFQ and can be contacted at oret@spc.int. You should copy any communications into rfq@spc.int.

Details will be kept of any communications between SPC and bidders. This assists SPC to ensure transparency of the procurement process. While SPC prefers written communication in the RFQ process, at any point where there is phone call or other conversation, SPC expects to keep a file note of the exchange, with all forms of communication with prospective bidders to be retained as source documents for the procurement of the goods.

2.5 Key Dates

Please see the proposed procurement timetable in the table below. This timetable is intended as a guide only and while SPC does not intend to depart from the timetable, it reserves the right to do so at any stage.

STAGE	DATE
RFQ sent to potential vendors	10/03/2023
RFQ Closing Date	17/03/2023
Award of Contract	24/03/2023
Commencement of Contract	27/03/2023
Conclusion of Contract	2/10/2023

2.6 Legal and compliance

Confidentiality: Unless otherwise agreed by SPC in advance or where the contents of the RFQ are already in the public domain when shared with the bidder, bidders shall at all times treat the contents of the RFQ and any related documents as confidential. SPC will also treat the information it receives from the bidders as confidential.

Conflict of interest: Bidders must take all necessary measures to prevent any situation of conflict of interest. You must notify SPC in writing as soon as possible of any situation that could constitute a conflict of interest during the RFQ process. If you have any familial connection with SPC staff, this must be declared, and approval will then be sought for you to engage in the RFQ process. **In support of your response to this RFQ, you must submit to SPC [the Conflict-of-Interest Declaration form](#) available on our procurement page website: <https://spc.int/procurement>.**

Breach of this requirement can result in SPC terminating any contract with a successful bidder.

Currency, validity, duties, taxes: Unless specifically otherwise requested, all proposals should be in EURO and must be net of any direct or indirect taxes and duties, and shall remain valid for 120 days from the closing date. The successful bidder is bound by their proposal for a further 60 days following notification they are the preferred bidder so that the contract may be awarded. No price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted at any time during this period.

No offer of contract or invitation to contract: This RFQ is not an offer to contract or an invitation by SPC to enter into a contract with you.

Privacy: The bidder is to comply with the requirements of applicable legislation and regulatory requirements in force for the use of personal data that is disclosed for the purposes of this RFQ. SPC will handle any personal information it receives under the RFQ in line with its [Privacy Policy](#), and the [Guidelines for handling personal information of bidders and grantees](#).

Warranty, representation, assurance, undertaking: The bidder acknowledges and agrees that no person has any authority to give any warranty, representation, assurance or undertaking on behalf of SPC in connection with any contract which may (or may not) follow on from this RFQ process.

2.7 Complaints process

Bidders that consider they were not treated fairly during any SPC procurement process may lodge a protest. The protest should be addressed to complaints@spc.int. The bidder must provide the following information: (1) full contact details; (2) details of the relevant procurement; (3) reasons for the protest, including how the alleged behaviour negatively impacted the bidder; (4) copies of any documents supporting grounds for protest; (5) the relief that is sought.

Part 3: SPECIFICATION OF GOODS

A. Background/context

The Maritime Technology Cooperation Centre in the Pacific (MTCC-Pacific) is one of the five centres of the Global MTCC Network (GMN) project for capacity building for climate mitigation in the maritime shipping industry funded by the European Union and implemented by the International Maritime Organization (IMO). The MTCC-Pacific is hosted by the Pacific Community (SPC) in collaboration with the Secretariat of the Pacific Regional Environment Programme (SPREP), the Pacific MTCC.

The vision of the MTCC-Pacific is a Pacific low-carbon maritime transport that supports the sustainable development goals of Pacific Island Countries and Territories (PICTs) and the transition towards a greener economy in the Pacific. The project accepts national approaches to uptake low-carbon technologies and operations within maritime sectors and collect relevant data for informed decision-making thus reducing their Green House Gas emissions, their reliance to fossil fuel and contributing to the global efforts in addressing climate change issues.

The objective of this project is to install on a Fijian government ship a propulsion improvement device known as Propeller Boss Cap Fins (PBCF) that can enhance propeller efficiency, thus resulting in reduced fuel consumption and associated GHG emissions.

In support to the implementation of the Initial IMO Strategy on reduction of GHG emissions from ships (resolution MEPC.304(72)), the activity, to be implemented by SPC, is to conduct a pilot project with Fiji Government Shipping Services to retrofit a Fijian government ship with new technology systems to increase energy efficiency and reduce carbon emissions.

Following the outcome of the Technology Needs Assessment National Stakeholder Consultation organized by Fiji Climate Change & International Cooperation Division of the Ministry of Economy on 13 September 2019, the Government of Fiji has agreed that MTCC-Pacific would install on a Fijian government ship a propulsion improvement device known as Propeller Boss Cap Fins (PBCF) that can enhance propeller efficiency, thus resulting in reduced fuel consumption and associated GHG emissions (see approval letter in the annex).

A two-day round table discussion will take place with Fiji Ship Owners Association to share the results of the pilot project and the lessons learned from it. The discussion may be facilitated by an expert to help with promoting effective flow of information and understanding between ship operators, government institutions and regulatory bodies. Building on national workshop experiences and newly identified opportunities, the objective is to foster ambition and trust needed to bring the domestic ship operators and relevant authorities into the GHG emission reduction process and lay the groundwork for the development of a National Action Plan (NAP) to address GHG emissions from ships in Fiji, as appropriate in accordance with resolution MEPC.327(75) on National Action Plans.

B. Functional Specification

The Propeller Boss Cap Fins (PBCF) is a device that improves propulsive efficiency by recovering energy from the hub vortex generated behind a propeller. As a result, PBCF reduces fuel oil consumption by 5% as well as Green House Gas Emissions. The PBCF resolves the propeller torque rich condition, reduces underwater noise and stern vibration, and prevents rudder erosion.

The PBCF being procured is a fixed device that will be attached to the hub of a ship's existing propeller. Vessel and propeller modifications are not required, and no welding work is necessary. There is no specific maintenance required after installation.

C. Design Specification

Minimum specification for the PBCF and associated services are as follows:

Preparation for the installation of the PBCF

All relevant tools and machinery required in the installation process such as new lock wire, bolts, wrenches and washers, are set up by contractor with assistance from vessel's dry dock crew. A gasket is then glued onto the PBCF to fill uneven spaces between PBCF and the propeller hub. This mechanical seal prevents leakage from or into the joined objects while under compression.

Removal of the Original Propeller Boss Cap (PBC)

The process firstly requires the removal of the cement or epoxy filling from the bolt pockets on the perimeter of the Propeller Boss Cap. The bolts around the cap are then removed to separate the cap from the propeller hub. Once the Propeller Boss Cap is clear, it is removed by crane and lifted to a designated storage area on deck.

Installment of the PBCF

After removal of the original Propeller Boss Cap, the crane lowers the new PBCF into position behind the propeller and its position is aligned with the propeller hub. Once positioned correctly at the 12 o'clock mark, the bolts are progressively tightened in the prescribed pattern. Grease is then pumped into the PBCF and the cement or epoxy is prepared according to the manufacturer's instructions. The ecologically compatible grease works as a lubricant to lower the friction resistance of the propeller.

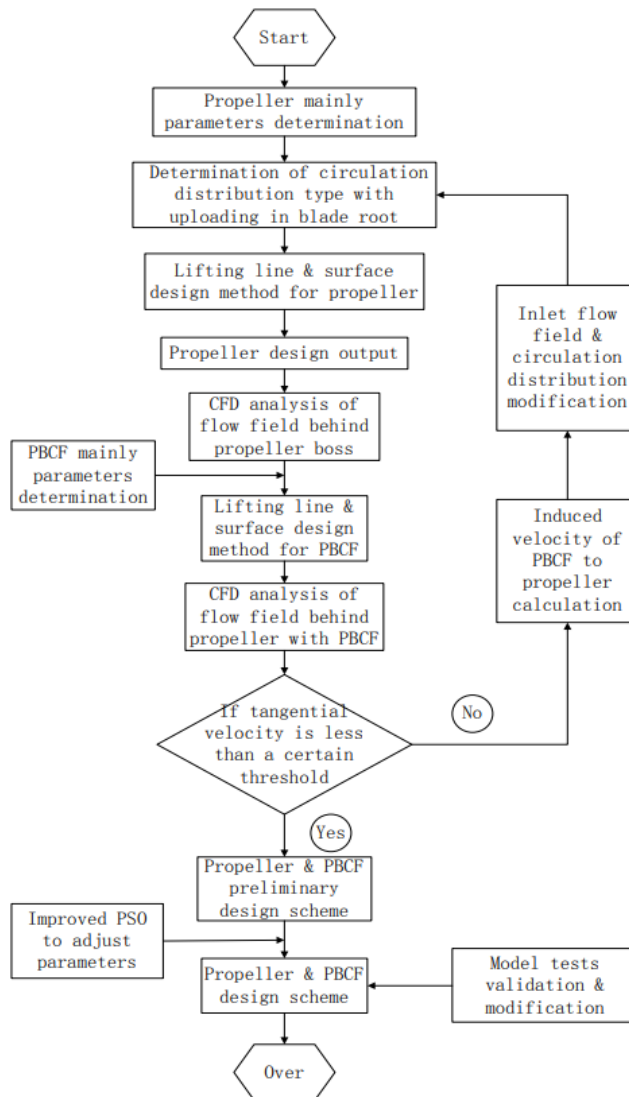
Maintenance

Since the PBCF is not a moving part, regular maintenance is not required. Inspection and polishing can be conducted during the vessels' dry-docking or during regular underwater inspections and maintenance. The performance of the device does not decline over time since it doesn't require an engine.

D. Technical specification

The detailed description of the PBCF are as follows:

The following flow chart of the PBCF design procedure should be followed



Flowchart of PBCF design procedure (adapted from [Hao-peng, et al., 2013](#))

Propeller drawing from vessel will be provided to awardee of contract

The following are required of the contractor:

- Arrangement drawing of propeller and rudder
- Drawing of propeller cap or alternatively hydraulic bolts (to measure inner space of cap)

Actual positioning of bolt thread holes on boss cap matches drawing

Modifications to bolt thread holes are understandable – they may be re-drilled or expanded as the rotary inertia of a PBCF is bigger than a propeller cap and therefore requires stronger bolts.

- Warranty of PBCF

E. Delivery Requirements

Delivery will be made to below address:

Ms Ore Toua
Maritime Training Adviser
The Pacific Community (SPC)
Private Mail Bag
Suva
Fiji Islands

Unless otherwise specified in the Contract, (including, but not limited to, in any “INCOTERM” or similar trade term), the entire risk of loss, damage to, or destruction of the goods shall be borne exclusively by the Contractor until physical delivery of the goods to SPC in accordance with the terms of the Contract. Delivery of the goods shall not be deemed as constituting acceptance of the goods by SPC.

Packaging of the goods

The Contractor shall package the goods for delivery in accordance with the highest standards of packaging for the type and quantities and modes of transport of the goods. The goods shall be packed and marked in a proper manner in accordance with the instructions stipulated in the Contract or, otherwise, as customarily done in the trade, and in accordance with any requirements imposed by applicable law or by the transporters and manufacturer of the goods. The packing shall mark the Contract or Purchase Order number and any other identification information provided by SPC as well as such other information as is necessary for the correct handling and safe delivery of the goods. Unless otherwise specified in the Contract, the Contractor shall have no right to any return of the packing materials

Transportation and freight

Unless otherwise specified in the Contract (including, but not limited to, in any “INCOTERM” or similar trade term), The Contractor shall be solely liable for making all transport arrangements and for payment of freight and insurance costs for the shipment and delivery of the goods in accordance with the requirements of the Contract. The Contractor shall ensure that SPC receives all necessary transport documents in a timely manner so as to enable SPC to take delivery of the goods in accordance with the requirements of the Contract

Acceptance of Goods

Under no circumstances shall SPC be required to accept any goods that do not conform to the specifications or requirements of the Contract. SPC may condition its acceptance of the goods upon the successful completion of acceptance tests as may be specified in the Contract or otherwise agreed in writing by the Parties. In no case shall SPC be obligated to accept any goods unless and until SPC has had a reasonable opportunity to inspect the goods following delivery. If the Contract specifies that SPC shall provide a written acceptance of the goods, the goods shall not be deemed accepted unless and until SPC in fact provides such written acceptance. In no case shall payment by SPC constitute acceptance of the goods

Rejection of the goods

Notwithstanding any other rights of, or remedies available to SPC under the Contract, in case any of the goods are defective or otherwise do not conform to the specifications or other requirements of the Contract, SPC, at its sole option, may reject or refuse to accept the goods, and within thirty (30) days

following receipt of notice from SPC of such rejection or refusal to accept the goods, the Contractor shall, in sole option of SPC:

- a) Provide a full refund upon return of the goods, or a partial refund upon a return of a portion of the goods, by SPC; or,
- b) Repair the goods in a manner that would enable the goods to conform to the specifications or other requirements of the Contract; or,
- c) Replace the goods with goods of equal or better quality; and,
- d) Pay all costs relating to the repair or return of the defective goods as well as the costs relating to the storage of any such defective goods and for the delivery of any replacement goods to SPC.

F. Warranty Requirements (when applicable)

In addition to and without limiting any other warranties, remedies or rights of SPC stated in or arising under the Contract, the Contractor warrants and represents that:

- a) The goods, including all packaging and packing thereof, conform to the specifications of the Contract, are fit for the purposes for which such goods are ordinarily used and for any purposes expressly made known in writing in the Contract, and shall be of even quality, free from faults and defects in design, material, manufacturer and workmanship;
- b) If the Contractor is not the original manufacturer of the goods, the Contractor shall provide SPC with the benefit of all manufacturers' warranties in addition to any other warranties required to be provided under the Contract;
- c) The goods are of the quality, quantity and description required by the Contract, including when subjected to conditions prevailing in the place of destination;
- d) The goods are new and unused;
- e) All warranties, even after the end of the Contract, will remain fully valid following any delivery of the goods and for a period of not less than one (1) year following acceptance of the goods by SPC in accordance with the Contract;
- f) During any period in which the Contractor's warranties are effective, upon notice by SPC that the goods do not conform to the requirements of the Contract, the Contractor shall promptly and at its own expense correct such non-conformities or, in case of its inability to do so, replace the defective goods with goods of the same or better quality or, at its own cost, remove the defective goods and fully reimburse SPC for the purchase price paid for the defective goods; and,
- g) The Contractor shall remain responsive to the needs of SPC for any services that may be required in connection with any of the Contractor's warranties under the Contract.

G. Reporting Arrangements

The contractor will be directly responsible to Ms Ore Toua oret@spc.int of SPC, for seeking approval/acceptance during the process for ordering and delivery of goods.

H. Scope of Bid Price and Schedule of Payments

The contract will be awarded to the supplier that meets the requirements and demonstrates value for money for the equipment supplied.

Upon satisfactory compliance with the delivery terms and conditions of the purchase order or the contract, SPC shall, unless otherwise provided on the purchase order, make payment within 30 days of receipt of the contractor's invoice for the goods delivered on board the designated ship and copies of the shipping documents specified in the purchase order or contract.

Milestone/deliverables	Deadline	% payment
Signing of Contract/ Issue of PO	24 March 2023	20
Upon receipt and approval of goods by SPC	31 May 2023	80
TOTAL		100

Part 4: PROPOSAL EVALUATION MATRIX

4.1 Competency Requirements & Score Weight

The evaluation matrix below reflects the obtainable score specified for each evaluation criterion (technical requirement) which indicates the relative significance or weight of the items in the overall evaluation process.

Competency Requirements	Score Weight (%)	Points obtainable
<ul style="list-style-type: none"> Conflict of Interest Company Profile 	Mandatory requirements. Bidders will be disqualified if any of the requirements are not met	
Qualifications/Knowledge/Experience At least 5 years of demonstrated experience in the field of maritime, including ship designs and equipment	10%	10
Functional specification: Refer Part 3 (B)	30%	30
Design specification: Refer Part 3 (C)	20%	20
Technical specification: Refer Part 3 (D)	20%	20
Delivery Experience : Within the Pacific Region	10%	10
Price	10%	10
Total Score	100%	100