

SOUTH PACIFIC COMMISSION

THIRD TECHNICAL MEETING ON FISHERIES

KOROR, PALAU

TRUST TERRITORY OF THE PACIFIC ISLANDS

(JUNE 3 - JUNE 14, 1968)

A NEW CONCEPT IN FAST FISHING PLATFORMS

by

Dr M. Rapson  
Chief of Fisheries  
Department of Agriculture, Stock and Fisheries  
Port Moresby  
Territory of Papua and New Guinea

In a recent publication Smith (1963) describes in theory the possibility of sailing at 40 knots in a 13.5 knot breeze. The book describes early sailing craft and Pacific canoes feature largely in the development of the aerohydrofoil. Dugout canoe design does not lend itself to high speeds, Jefford (1962), but the modern catamaran design may be capable of development as a fishing platform.

Three hydrofoils are recommended, but there is essentially no platform in this type of design and a more conventional lakatoi or catamaran design using the hulls to carry the fish catch may be more efficient in operation. The catamaran hulls must be planing hulls and the hull design must not include air lifting properties which are obvious in some modern catamarans.

The aerofoil is an aeroplane type of wing section mounted upright as a sail. The normal airplane wing is not symmetrical in cross section and lift is generated by the upper surface. Use of such an airfoil would make impossible the problem of going about in the normal yacht type of vessel and this manoeuvre would have to be carried out as in some dugout canoes, namely by reversing the direction of travel of the hull. The use of a symmetrical air foil would permit "going about" as in normal sailing practice.

In parts of New Guinea, tuna are important as local foods. They come inshore in shoals often moving too fast for local fishermen to catch and then quickly move offshore several miles beyond the safe working range of canoes being paddled or even with outboard motors. In normal Pacific weather in New Guinea, but not on the south coast of Papua, an aerohydrofoil type of vessel offers speed and safety.

A carrying capacity of 500 lb. fish is suggested as an economic size plus a crew of two or three.

(cont) . . . As the aero and hydrodynamics of such a craft take this beyond the ability of the amateur or even professional boat builder, South Pacific Commission Secretariat may consider the desirability of engaging professional Naval architects and aircraft designers to consider the possibilities further.

As the sailing characteristics appear to be quite different from the dugout canoe, yacht or catamaran, test sailing should be with personnel skilled in the two disciplines.

o o o

Jefford, A. (1962). Dugout canoes of Papua and New Guinea. Papua and New Guinea Agric. J. 14(4): 167-176.

Smith, B. (1963). A 40 Knot Sail Boat. Lond. Harrap.

o o o

Original Text: English

[Faint, mostly illegible text follows, appearing to be bleed-through or a very light scan of another page.]