PAAMS PROCUREMENT UPDATE

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ABSTRACT

Following the changes to the procurement arrangements for the platform to which it will be fitted, this article provides an update to the article on PAAMS which was published in the last edition of the *Journal*.

Introduction

The Principal Anti-Air Missile System (PAAMS) and its associated Long Range Radar (LRR) are being procured under a tri-national collaborative procurement programme with France and Italy to meet the Tripartite Staff Requirement (TSR) for the Common New Generation Frigate (CNGF) Programme signed on 18 December 1992 by the British, French and Italian Chiefs of Naval Staff. On 25 April 1999, the French, Italian and British Defence Ministers issued a joint statement announcing that it was intended quickly to place a joint contract for the Full Scale Engineering Development and Initial Production (FSED/IP) of the PAAMS missile system which will be the heart of the future air defence for their nations' fleets. They also concluded that in the light of the industrial proposals, it would not be cost-effective to pursue a single prime contract for the warship. The anti-air warfare escort to replace the Royal Navy's Type 42 destroyers will now be procured as a national programme that will incorporate work completed on HORIZON, where possible. PAAMS will be fitted to this platform, which is now known, as the Type 45 destroyer.

Progress

The tri-national PAAMS (Step 2) FSED/IP contract to provide the capability previously described,[1] was notified on 11 August 1999. The UK is establishing the Type 45 Programme while France and Italy are examining the way ahead for the procurement of their ships, which may be via a joint programme. The PAAMS trinational contract includes all the technical and programme interface requirements and assumptions to meet the contractual performance and other commitments previously agreed with the HORIZON Joint Project Office. Although it is acknowledged that changes will be required to ensure good co-ordination as the ship programmes evolve, it is intended that such changes should be minimized to avoid disruption and delay to the demanding PAAMS and LRR development work. The considerable co-ordination work carried out between PAAMS and HORIZON should not be lost as the three nations intend to build on the tri-national HORIZON project work already carried out. The PAAMS Programme will need from the ship programmes, the technical definition and programme inputs committed to in the PAAMS contract, to ensure a harmonized delivery of the PAAMS capabilities.

Technical implications

Functional interfaces

The PAAMS design is in accordance with HORIZON Combat System (CS) principles (e.g. for Picture Management and platform Threat Evaluation and Weapon Assignment (TEWA)) and provides a common interface between the two PAAMS variants and the CS. The functional interfaces to meet these principles have been defined in the PAAMS contract (to level B) but will

now need to be developed in more detail (to levels C and D) in conjunction with the designs of the different Combat Systems. Any deviation by the nations from the HORIZON principles in the PAAMS or ship programmes could lead to additional work. It will be necessary to ensure adherence to the PAAMS common functional interface.

Physical Interfaces

Interface information, including ship environmental data, ship flexure, and position of the superstructure relative to the PAAMS launcher silo, were due to be provided early for PAAMS development work (e.g. for computation of missile efflux clear volume calculations). Additional installation design work may be necessary specific to the different ship designs and it may be necessary to delay some of the PAAMS work. It will be necessary to provide ship design information to PAAMS industry in good time.

Integration with the Combat System

The strategy adopted for PAAMS with HORIZON included the provision of government furnished equipment and facilities (with notably a single common Shore Integration Facility (SIF)). Procurement of PAAMS simulators and stimulators by the ship with requirements studied under the PAAMS contract, and provision by the ship programme of a CS simulator was also foreseen. Early confirmation of the integration strategies for the different ships will be needed. It will be necessary to adopt warship integration strategies, which fully support the PAAMS requirements.

PAAMS for the future

The need for close co-ordination of the design and integration of the principal weapons system with its platform in order to provide an escort with an advanced anti-air warfare capability, has resulted in much effort being applied to these activities with the HORIZON Programme. PAAMS remains a key element required for a successful ship programme. With the change to national platform procurement arrangements, it will be necessary for the different ship programmes to respect the PAAMS contractual agreements as negotiated with PAAMS Industry.

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Reference

1. YOUNG I.J. 'PAAMS A New Generation Air Defence Weapons System' *Journal of Naval Engineering*. Volume 38 No.2, June 1999, pp 237-255.