



Naval Ship Assurance Framework

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NSAF Introduction

What is Naval Ship Assurance?

- Naval Ship Assurance is defined as the process that provides confidence that compliance with key requirements and standards is achieved for a ship through life.

Development of the UK MoD Approach to Naval Ship Assurance

- The NSAF has been developed to provide guidance to projects on the applicable regulatory regime, the selection of a coherent set of commercial and defence standards and the tools available for the generation of naval ship specifications.
- Processes are defined for selecting a library of standards which not only align with the requirements of the project but also provide an understanding of the gaps and overlaps (coherency) between regulations and standards.

The Benefits of a Naval Ship Assurance Framework

- Performance: Naval requirements for safety and capability are clearly communicated and benchmarked against best merchant practice to improve accuracy of application;
- Cost: Elimination of overlaps and gaps between merchant practice and traditional naval practice drives out risk, supports early acceptance, and avoids costly modification to ships once in-service;
- Time: A much simplified framework that is dependent on far fewer key publications reduces the time required for the MoD to select options, industry to apply in design and construction, and assurance organisations to review and confirm compliance; leading directly to further cost savings.

Naval Ship Assurance Framework Model

The Bookcase Model

- The components that make the framework model can be thought of in the context of a bookcase
- The Naval Ship Assurance Framework bookcase model is a system for categorising the required codes and standards for the technical assurance of a naval ship project.
- The components that make the framework model can be thought of in the context of a bookcase (as shown in Figure 1) and include:
 - **Guidance:**
e.g. Design tools, design guides for individual ship types, the General Naval Specification & Maritime Platform Characteristics and this guide on the framework;
 - **Regulatory Regime:**
e.g. UK Naval Authority Regulation, Naval Ship Code, IMO Resolutions, UK Legislation and Port State Control;
 - **Class Rules & Regulations:**
e.g. LR Merchant Class Rules, LR Special Service Class Rules and LR Naval Ship Rules;
 - **Standards:**
e.g. UK and International Naval Standards, British and International Standards.



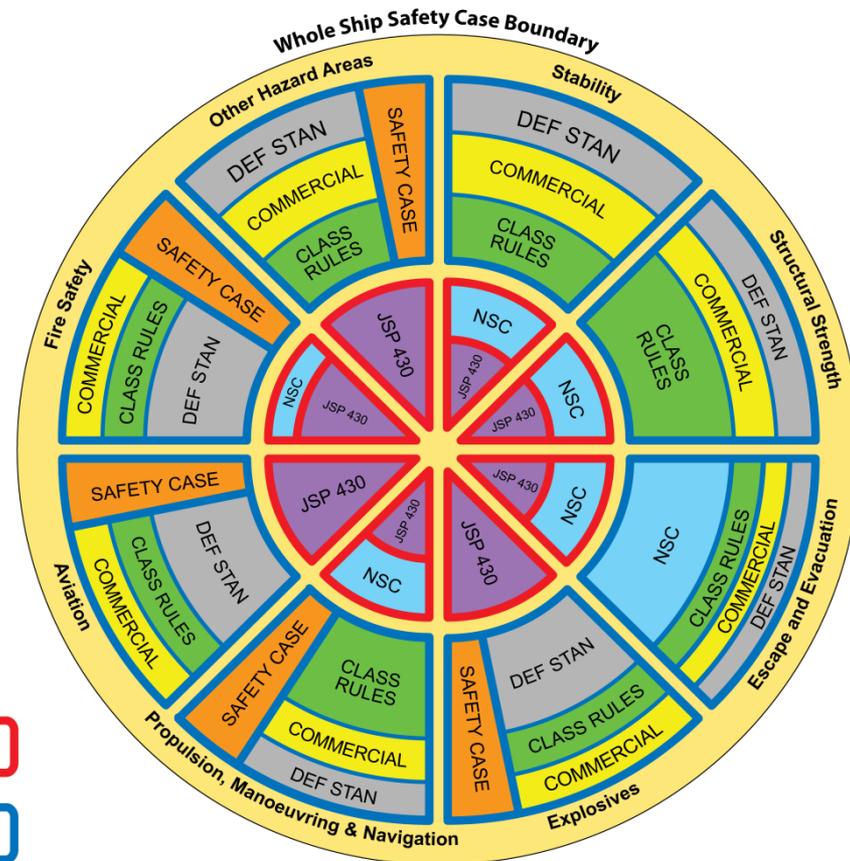
Mapping the Project Portfolio

Overview

- As detailed in the previous slide the NSAF is made up of; guidance, regulation, classification and standards. At initiation a project should start to identify which documents and tools are applicable in order to start to build its own portfolio.

Mapping the Project Portfolio for the Ship Safety Case

- The requirement for a whole ship safety case is defined within DSA02-Shipping Regulations & JSP430 Part 2-3. The whole ship safety case can be evidenced by Naval Authority Certification of key hazard areas, Naval Classification and compliance with suitable standards to demonstrate the management of other remaining hazards.
- For some of the hazard areas, JSP 430 Part 3 directly references the use of the NSC, see NAN 05/2013 (or latest version). The remaining key hazard areas may also be covered by the NSC, nominated standards or risk based assessment. The approach to use for these areas should be determined between the project and the Naval Authority.
- Each key hazard areas will require a different mix of documents, with some areas almost fully covered by the NSC or Class Rules (including UK NNCR) whereas other areas will predominantly use Defence Standards. The actual balance of documents in each hazard area will be different for each project.



REGULATION

STANDARDS

Mapping the Project Portfolio

Selecting and recording the Project Portfolio (UK approach)

- Recent enhancement to the functionality of DStan sponsored StanMIS will allow a project to manage the projects portfolio through the Standardization Management Plan feature (see JSP 920 guidance on this feature).
- For new projects DStan will provide a pre-populated set of maritime defence standards which can be refined and ultimately tailored to the project's needs. The Project user will be required to tick off an 'Intelligent Selection of Standards' guidance checklist for each standards selected.
- The tasks a project would expect to undertake for the management and documentation of the portfolio are:
 - Assign a team member, or members, to manage the project portfolio and establish terms of reference;
 - Develop a Standardisation Management Plan (SMP) that should detail the project policy for the selection of standards and should comply with DStan requirements (in the past, the SMP was formally known as a Standardisation Strategy and Implementation Plan (SSIP));
 - Set up a portfolio tracking database to record all the documents being used by the project and the extent of their use;
 - Conduct periodic audits of the project portfolio against the Standardisation Management Plan to verify relevance, validity, coherency (to identify gaps or overlaps) and impact (on performance, cost and time).

Document Tailoring

- Tailoring in this context is defined as “the use of selected clauses or the amendment of requirements within a document”. For any one project it is recognised that tailoring of class rules, and other standards will be essential in order for the platform to meet the owners safety, environmental and capability requirements.

Feedback for Future Projects

- NSASS undertakes a review of key project information with the aim of capturing feedback from the project and further developing the framework for future projects.

Coherency of Choices

Overview

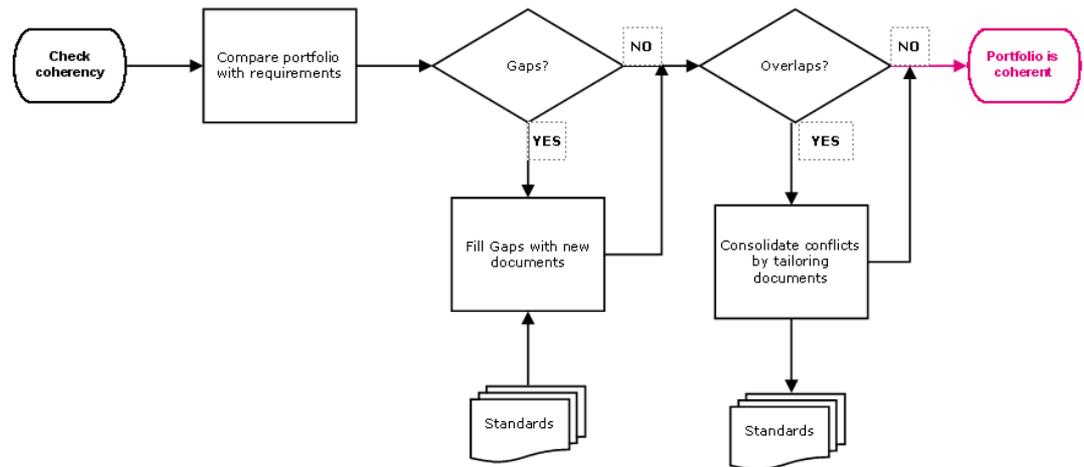
- Coherency of the project portfolio is a measure of how well the project portfolio matches the requirements of the project. A fully coherent portfolio is one which covers all aspects of a project, without any gaps, overlaps or contradiction between documents.

NSAF Coherency Studies

- NSASS undertake regular coherency assessments. This work is to support a project in selecting a cohesive set of standards. Coherency assessments are underway to identify how the Regulatory Regime correlates with the standards that are being applied. An example of a coherency assessment carried out between the Lloyd's Register's Naval Ship Rules and the Naval Ship Code. Details can be obtained from NSASS.

When Should Coherency be Assessed

- Coherency should be assessed, in the first instance, as soon as a set of project requirements has been defined and a project specific portfolio selected. This initial assessment will allow a project to determine any gaps or overlaps in the portfolio, and rectify these (by further population of the portfolio, or tailoring of the existing portfolio documents as applicable) to provide a soundly coherent project portfolio on which to build as the project matures.



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