



Maritime and Coastguard Agency

MARINE GUIDANCE NOTE

MGN 365 (M)

Human Element Assessment Tool

Notice to all Shipowners and Operators, Masters and Officers, Classification Societies, Ship Surveyors and all personnel concerned with the implementation, management and operation of the ISM Code and Safety Management Systems

PLEASE NOTE:-

Where this document provides guidance on the law it should not be regarded as definitive. The way the law applies to any particular case can vary according to circumstances - for example, from vessel to vessel and you should consider seeking independent legal advice if you are unsure of your own legal position.

Summary

This Notice provides information on two human element assessment tools developed by the Maritime and Coastguard Agency.

HEAT-S, Human Element Assessment Tool for Ships complements ISM SMC audits and provides an assessment of the effectiveness of safety management on board ships. It has been freely available to the industry since 2007.

HEAT-C, Human Element Assessment Tool for Companies complements ISM DOC audits and provides an assessment of the company's capability to manage the human element effectively. This Notice announces that HEAT-C is now freely available to industry.

Both HEAT-S and HEAT-C can be obtained free by e-mailing the MCA Human Element Team human.element@mca.gov.uk

1. Background

- 1.1 The prime causal factor in nearly all shipping accidents can be attributed to human element issues occurring at some stage in the ship life cycle. Addressing technological failures alone will lead only to a limited improvement in safety. In order to make significant improvements in safety performance much greater attention must be paid to human element issues.
- 1.2 The primary vehicle for making improvements in maritime safety is the International Safety Management (ISM) Code. The ISM Code itself provides a good foundation for assessing the safety management system, but the key to its success is the effectiveness of its development and implementation within each company.

1.3 To maximise the effectiveness of the implementation, those responsible for the Code should have the capability to manage the varied and complex nature of human element issues. They should be able to assess human element safety management capability effectively, including the various human and organisational factors involved, and identify measures to improve that capability. HEAT has been developed to assist in this assessment.

2. Human Element Assessment Tool (HEAT)

2.1 The underpinning philosophy of HEAT is to develop an effective safety culture within companies and on board ship. It aims to promote and embed a culture of continuous improvement in safety performance ensuring that human element issues are given regular and effective consideration.

2.2 HEAT is based on the capability maturity model. It provides an assessment of the current level of maturity of the safety management system together with areas where practical improvements can be made. It is designed in an aide-memoir format that builds upon the scope of the SMC and DOC audits by assessing a wider range of safety performance indicators. It is intended to be a pro-active self improvement tool for use on ships and in companies, enabling continuous improvement by identifying latent threats to safety as well as overt unsafe behaviour and practices.

2.3 HEAT is provided in 2 versions.

Human Element Assessment Tool for Ships (HEAT-S)

Assessed HEAT band: **A B C D E F G H I J** Date of assessment:

Ship name: Assessor:

Additional comments (if any):

Level	Band	Description
Best practice	A	Exceeds industry standard – industry leader in managing human element aspects of operations.
	B	Excellent human element capability and understanding demonstrated, superior skills to best SMS managers on comparable ships.
Good practice	C	Continuous improvement in SMS and best practice is clearly demonstrated.
	D	Well managed SMS with good practice implemented. All indicators at least satisfactory, demonstrating a sound human element capability.
Defined basis for development	E	Satisfactorily managed and implemented SMS with only minor scope for improvement in some of the indicators.
	F	A broadly satisfactory SMS in place but with scope for improvement in many of the indicators.
Weak basis, few working processes	G	Some aspects of the SMS are satisfactory and provide potential for a good foundation, but there are major shortfalls in some indicators.
	H	Several major shortfalls exist, across many of the sections. The SMS is unsatisfactory overall but it has an improvable basis.
Poor practice, no system in place	I	Many major shortfalls across all sections, however those managing the SMS acknowledge this and can provide evidence of corrective action being undertaken.
	J	Unacceptable levels of shortfalls in all indicators – the on-board SMS will not be working.

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HEAT-S, Human Element Assessment Tool for Ships, complements SMC audits and provides an assessment of the effectiveness of the safety management system on board ships. Following a successful UK-wide trial in 2005, HEAT-S was made available to industry in 2006

Human Element Assessment Tool for Companies (HEAT-C)

Assessed HEAT-C band: **A B C D E F G H I J** Date of assessment:

Company name: Assessor:

Any additional comments:

Best practice	A	Exceeds industry standard - industry leader in managing human element aspects of their operations.
	B	Excellent human element capability and understanding demonstrated, on a par with leading Companies in comparable safety related industries.
Good practice	C	Continuous improvement in SMS and best practice is clearly demonstrated.
	D	Well managed SMS with good practice implemented. All indicators at least satisfactory, demonstrating a sound human element capability.
Defined basis for development	E	Satisfactorily managed and implemented SMS with only minor scope for improvement in some of the indicators.
	F	A broadly satisfactory SMS in place but with scope for improvement in many of the indicators.
Weak basis, few working processes	G	Some aspects of the SMS are satisfactory and provide potential for a good foundation, but there are major shortfalls in some indicators.
	H	Several major shortfalls exist across many of the sections. The SMS is unsatisfactory overall but it has an improvable basis.
Poor practice, no system in place	I	Many major shortfalls across all sections, however those managing the SMS acknowledge this and can provide evidence of corrective action being undertaken.
	J	Unacceptable level of shortfalls in all indicators – the SMS will not be working.

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HEAT-C, Human Element Assessment Tool for Companies, complements DOC audits and provides an assessment of the capability of ship operating companies to manage the human element safely. Following a successful trial period during 2007, HEAT-C is now being released.

2.4 Both HEAT-S and HEAT-C are provided in a standard format. However, recognising that the specific needs of individual companies vary, HEAT is sufficiently flexible to enable each company to use only the performance indicators that are most appropriate to its own circumstances whilst retaining the overall integrity of the system.

3. Obtaining HEAT

3.1 HEAT-S and HEAT-C are freely available in electronic format from the Maritime and Coastguard Agency. To obtain a copy, e-mail your request together with your organisation's contact details to human.element@mcga.gov.uk and quote HEAT-S or HEAT-C in the subject title. Feedback on your experience using HEAT-C and HEAT-S would be appreciated.

More Information

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