

# SAFETY AT SEA: EXPLORING KEY NON-TECHNICAL SKILLS USED BY COMMERCIAL FISHERMEN.

STAGE 2 PROJECT REPORT: INTERVIEWS  
WITH FISHERS



TRINITY HOUSE



Applied  
Psychology &  
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Group

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# EXECUTIVE SUMMARY



## Non-technical skills

Non-technical skills are the social (e.g. teamwork, leadership, communication) and cognitive (e.g. situation awareness, decision-making) skills considered vital for safe and effective work performance in high-risk industries. These skills have been evaluated across industries such as aviation (where non-technical skills now form part of mandatory pilot training), farming, healthcare and offshore drilling. In each industry non-technical skill lapses have been linked to adverse events, and non-technical skills training has been highlighted as important for enhancing worker safety. The current project (funded by Trinity House) represents the first cohesive look at the full range of these skills in the context of commercial fishing.

## The current project

The current report describes the second stage in a four-stage project examining the non-technical skills relevant to commercial fishing. Stage 1 utilised an analysis of MAIB fishing incident reports to evaluate non-technical skill lapses within incidents, and to establish a basic framework of non-technical skills relevant to the industry.

The current study builds on those findings through critical incident interviews with 19 commercial fishers from a variety of vessels (including prawn, stern and pelagic trawlers, scallop dredgers, potting and hook / line vessels).

The interviews were coded using directed qualitative content analysis. All coding and analysis were conducted using qualitative analysis software NVivo.

## Results

The analysis of the interview data produced eight non-technical skill categories with 23 associated skill elements (Table 1).

**Table 1: Non-technical skills framework for commercial fishing**

Skill category	Skill element
Task & boat management	Respecting standards and following protocol Planning & preparation Safety checks
Personal management	Managing tiredness and mental health Personal capabilities Maintaining focus Manual handling and lone working
Situation awareness	Weather and state of the sea Anticipation of problems Navigational aspects
Problem-solving	Recognition of issues Corrective action
Decision-making	Work-related Business
Leadership	Leadership for safety Collaborative leadership Monitoring the operation
Crew communication & teamwork	Communication Coordination Teamwork for safety
Communication with third parties	Communication with other boats Communication with authorities Communication with family and others

## Key points

- Using critical incident interviews in the current project stage allowed direct insight into fishers' thoughts and actions when dealing with adverse circumstances, mistakes, or accidents. This technique supported the identification and development of clear behavioural markers, providing a foundation for the development of a behavioural marker system specifically for fishers.
- The results highlight the importance of adaptation and problem-solving in the dynamic fishing environment, with a new non-technical skill category (problem-solving) developed specifically for this context.