



# REDUCING THE HUMAN ELEMENT OF RISK IN SUPERYACHT OPERATIONS

BY CPT. ROBERT HUBBLE

**I**N THE PAST YEAR THERE HAVE BEEN A NUMBER of well publicised accidents involving Superyachts which have proved costly to the owners and operators of the yachts concerned. Whereas the number of these accidents can be verified through the press, there are many which go unreported and therefore are only known to those involved and the insurers. So, in a largely independent industry with no consistent mandatory incident reporting the true accident rate cannot be ascertained. However, in commercial aviation with greater supervision, commonality between licensing states and integrity of reporting systems 75% of all accidents are now attributable to Human Factors. It is not, therefore unreasonable to assume that within the Superyacht Industry the statistic must be at least equal to and probably greater than 75%.

When faced with the catastrophic consequences of the fallibility of simply being human, high risk industries have taken steps to educate management and employees of the financial benefits which can accrue from having a well trained and aware workforce who are minded to acknowledge their frailties and mitigate the consequences. Are the Superyacht operator, crew and owner also in need of a similar educational programme?

During the immediate post war period the aviation industry was populated with military trained crews who spent many

**RIGHT:**  
A REMARKABLE ESCAPE  
– PASSENGERS AWAIT  
RESCUE FROM THE  
HUDSON RIVER AIRBUS

years as a co pilot before gaining their own command. This understudying of old and bold captains was a significant part of the apprenticeship and in common with the maritime environment, the Captain was held in high regard and for a crew member to provide unsolicited advice was tantamount to both undermining his authority and a challenge to his ability. In aviation, the 'Transatlantic Baron' as they became known, were extremely fallible and were soon overloaded in times of stress as their ability to delegate and share information as well as accept advice had not been progressively developed throughout their career. The autocratic role models set in this environment were replicated by their successors and so a self perpetuating cycle of behaviour was set in place such that the empathetic team managing skipper was the rarity. This served the industry reasonably well – until such time that technical unreliability could no longer provide an alibi for poor behaviour on the flightdeck and with the greater reliability of engines and quality control of build, the causal focus for accidents shifted to the individual rather than the machine.

The catalyst for significant change in the UK aviation industry came with the Kegworth disaster in 1989 when a misidentified engine malfunction led to a perfectly serviceable engine being shut down and despite both passengers and crew hearing the Captain inform them of his actions none felt empowered to volunteer their perspective as the Captain always knew what he was doing. As a consequence, when the malfunctioning engine was called upon to provide full power at the final stage of the approach it failed and the aircraft crashed on a motorway embankment with the loss of 47 lives and 74 serious injuries. The European Industry had its own watershed with the Tenerife air disaster when a KLM 747 collided with another aircraft in fog on the runway. The Captain on the Dutch aircraft was none other than the most revered skipper in the company whose face was the image of KLM and stared out from publicity posters creating an aura of calm capable assurance. It was his failure to generate a working environment which acknowledged the input of a First Officer who he had checked out on type that turned an unfortunate sequence of wholly manageable events into the world's worst aviation disaster with the loss of 583 lives.

Problems and crises occur in all industries but it is the manner in which they are resolved which either exacerbates or moderates the situation. Had the pilot of the Hudson River Airbus not been able to call on the training and trust of his fellow crew (*who, unlike crews in the SY industry were relative strangers*) then the outcome may well have been different. This trust was founded on an understanding bought about by Human Factors training and a relationship which could only be developed over a short time.

OK, I hear you say, that is aviation and life on a Superyacht is totally different. However, judging by the comments on the



various industry forums there are a lot of unhappy yachts out there where the communication between all the players in the equation is either stilted, one sided or non-existent. In the medical industry similar views prevailed such that throwing tantrums and flinging instruments across the theatre in an operation was, until fairly recently, not uncommon behaviour and is only now becoming unacceptable, not just for the benefit of colleagues but more importantly because such attitudes are proven to reduce patient safety and a reduction in patient safety costs significant sums of money in negligence lawsuits. As mentioned earlier 75% of accidents in aviation are attributable to human factors so for the medical industry and Superyachts it must be at least equal.

Education in Human Factors revolves around an understanding that we are, by definition prone to failure and that our established methods of behaviour does not necessarily engender the safest of working environments – especially in time of stress. Our brain evolved from Neolithic man is swiftly overloaded and akin to a pinball machine subjected to over-vigorous activity simply shuts down. However, unlike the designer of the pinball machine there is no Tilt sign and the untrained human brain does not recognise that it is no longer functioning effectively. The recognition of impending brain dump allied to the development of personal strategies to prevent events deteriorating to the detriment of safety lie at the core of this

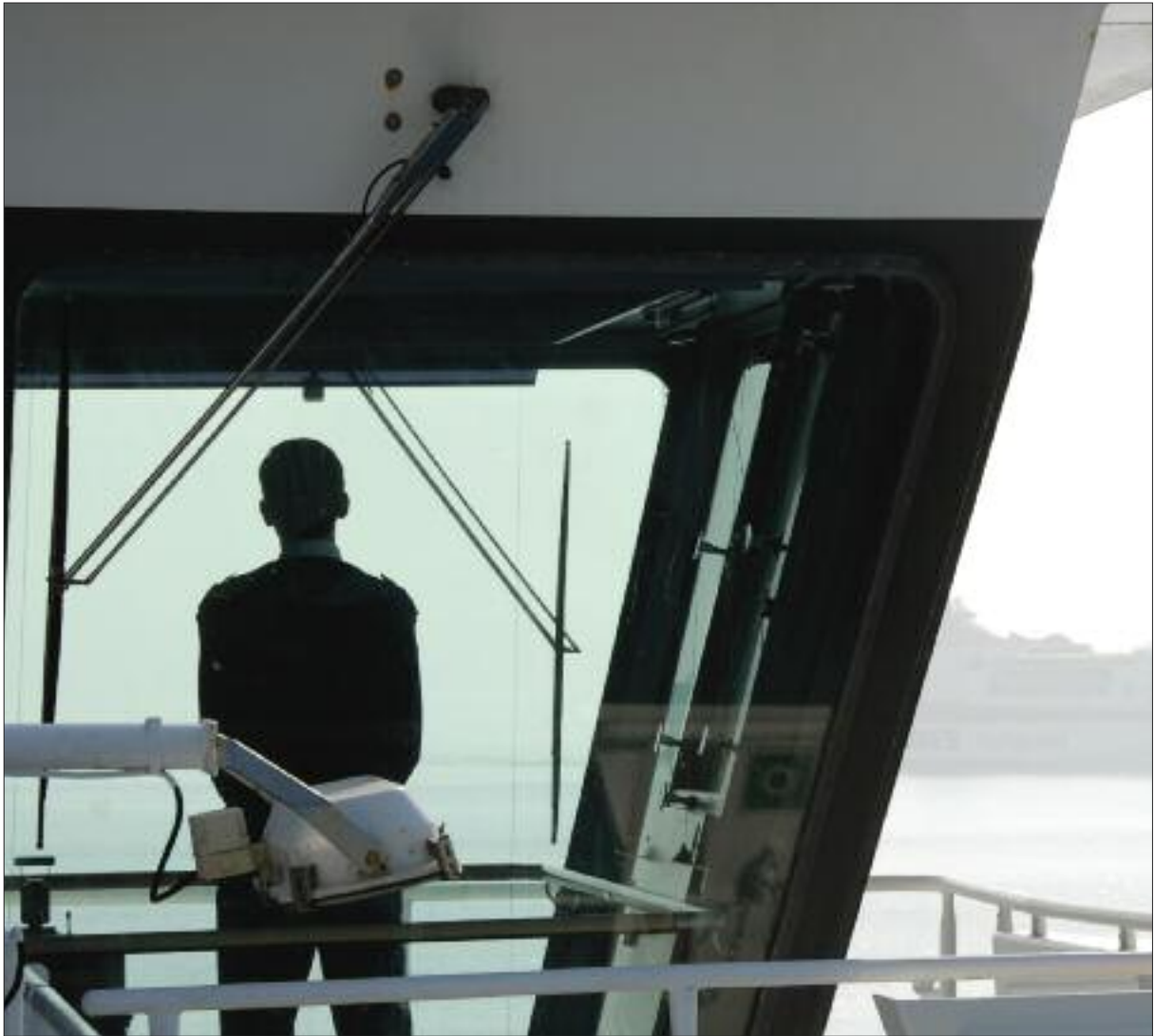
education. In this ever technologically advanced workplace with its reduced manning and increasing financial pressures those personal firewalls are of paramount importance. Another facet of Human Factors training is to encourage and teach crew members to become good team members, how to behave as a team both on board and ashore; how to live within the confines of the crew mess and still maintain a cordial and effective working relationship with Captain, Guests and fellow crew alike. As any seagoing or aviation Captain will attest, when the chips are down and you have a good crew problems are easily resolved whereas with a poor team the converse is painfully true.

Although the foregoing may seem just an extension of pure common sense not everyone has a similarly developed faculty, nor does one person's concept of good common sense necessarily accord with another's, especially given differences of culture, race, training and background. Establishing robust protocols and procedures within a ship are an essential foundation to safe and effective operations especially in the realm of high crew turnover. Paradoxically, crew are less likely to jump from a focussed, well driven and coherent ship than from a more autocratic or anarchic environment. Motivating crew to look beyond their specific sphere of operation to the whole ship concept is a cornerstone of the aviation programme where the maxim of it not being who is right

that is important but what is right that matters. A good team will view focussed, self-disciplined vigorous discussion as beneficial for the effectiveness of the whole ship rather than an attack on their individual standing.

The bedrock of this cohesiveness is Communication. Ambiguities in language, assumptions of another's understanding of the situation and intent are fertile ground for error especially when reinforced with inappropriate body language and strained personal relationships. Effective communication need not be terse, nor is it the barking of instructions, although there are times when a sharp order is necessary for safety. Rather, the effective communicator will have a variety of styles, tones and language to get their message across but in deciding which device to use the communicator must be receptive to the needs of the recipient. Is the recipient physically in a position to listen? Does the recipient need soothing words to calm a situation before taking action? Is the Skipper too preoccupied with his own operational matters to pay full attention? The answers to these questions are much harder to obtain when separated by bulkheads, physical distance across the water or when communicating by intercom or Satphone so again, the style and content of a conversation has to be adapted accordingly. Experience in other industries has shown that adherence to protocols, standard procedures and language significantly reduces ambiguity and greatly





enhances safety. Again, this is not rocket science but just ask yourself how difficult it was to unravel a situation caused by ambiguous communication and compare that with how a few seconds prior thought or waiting until the recipient could focus on the message would have improved the outcome.

Human factors training is not about altering personalities it is about ensuring that we have an appropriate behaviour for each facet of our working life and that all the individuals behaviours meshes to create an effective and safe working environment. Safety management has over recent years generated its own bureaucracy based on an external need for accountability which undoubtedly detracts from the intrinsic aim of generating a safe operating environment. Human factors training does not require a huge logistical back up and although learning these skills takes a little time, effort and some self discipline, the energies and costs expended are significantly less than those expended in maintaining documentation or involved in sorting out an incident, misunderstanding or worse, serious accident or fatality. >||

#### About the Author

*Trained as a Royal Navy officer and specialising as a helicopter pilot, Bob has over a quarter of a century of embarked aviation experience. He is now utilising these skills with Helios Maritime Aviation, working on a number of projects helping designers translate, interpret and apply the MCA large yacht requirements to the needs of yachts both with a helicopter deck and also those with a helicopter hangar. Helios have also been acting as consultants to a number of build projects, health services, insurers and military units to develop and integrate Human Factors programmes and concepts to minimise risk and maximise safety.*

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