HUMAN FACTORS TRAINING
Improved Safety, Reliability, Risk and Compliance
Human Factors Training

What is Human Factors?

Human Factors (HF) is the discipline that examines the interaction of individuals with each other, with facilities and equipment, and with management systems. Crew Resource Management (CRM) is the effective utilisation of all these resources to achieve a safe and efficient operation. In the Aviation Industry this discipline has been perfected for over 30 years resulting in a significant reduction in incidents, accidents, near misses and in the establishment of a safety culture.

In other industries where safety and risk management are crucial, teams and individuals can benefit from the application of this discipline. Over the years, Human Factors is increasingly being adopted in sectors such as Oil & Gas, Healthcare, Blue Light Services, Construction, Maritime and Disaster Relief. Mission Performance has expertise and experience in bespoke training across all these sectors, delivering programmes globally.

“The CRM course has a positive impact on the readiness of our front-line personnel. It improves situational awareness via a combination of non-technical skills training and tackling technical challenges.”

Vice President (Operations)
Why is Human Factors training important?

Human errors account for most avoidable incidents, accidents and near misses. Usually, systems and processes deployed to reduce risks and improve safety overlook the role of individuals and the ‘human factors’ that affect risk, safety, reliability and compliance. Human Factors optimises all these by focusing on the key factors such as errors, accident chains, decision making, collaboration, communication, fatigue, stress and situational awareness. Human Factors training offers the most time and cost-efficient route to a further step change in safety, reliability and risk management.

Non-Technical Skills (NOTECHS)

Mission Performance Human Factors training is based on six core modules that focus on critical soft skills, also known as ‘NOTECHS’:

Seven further modules complement the core ones to provide a complete picture of all ‘human factors’ that matter to safety and performance.
Who is Human Factors Training for?

Mission Performance Human Factors training is designed for all individuals who work in dynamic, demanding and risk-filled environments, which require an excellent safety culture. Roles range from Supervisor and Technician to Manager, Superintendent and Board level. Human Factors training provides the cognitive and personal resource skills to complement specific technical training within a team based environment, leading to a safer and more efficient task performance.

OIL & GAS: Best Practice for Reporting, Safety & Reliability

Mission Performance solutions for Oil & Gas comply fully with the Human Factors competencies and guidelines laid down by the International Association of Oil and Gas Producers (IOGP), and are offered through the Society of Petroleum Engineers (SPE). Our expertise made us the preferred supplier to the largest oil field services company in the world. The use of App-based checklists ensures application and compliance in the field. Our approach enables integration with existing Health, Safety & Environment (HSE) and safety management processes and systems. Our expertise in leadership ensures people feel confident to apply these new Human Factors practices through a supportive safety culture and

MARITIME: Extra Challenge for Safety

The volatility of the maritime environment, security, crews with different languages and cultures, the sheer size of assets involved and the general intensification of sea trade and traffic are some of the extra challenges the maritime sector faces from a safety perspective. Interactions on the bridge and between the bridge and other operating parts of vessels pose further challenges. All these make the Marine sector one of the riskiest from a human error perspective. Human Factors training with the right case studies and simulations can help in the creation of a safety culture and proper reporting as part of a wider Safety Management System (SMS).
HEALTHCARE: Human Factors and Patient Safety

Human Factors training can help healthcare professionals understand and design processes aimed to avoiding mistakes and errors during critical situations. It helps doctors and nurses ensure they use safe prescribing practices, communicate well in teams and hand over complete and accurate information to other healthcare professionals in a timely manner. Those who do not apply the basics of Human Factors are more likely to put patient safety at risk. Human Factors can make it easier to provide better care for patients by reducing mistakes and improving the interaction of doctors and nurses within the environment and with patients and families.

CONSTRUCTION: Safety and Reliability

In Construction there are issues with risk-perception (underestimation / normalisation), numbers of staff on busy sites, multi-party projects, the use of contractors, different standards and Standard Operating Procedures (SOPs) which all place extra demands on communication, clarity and adherence to standards, compliance management, permissions etc. Shortcomings in any of these can and do result in incidents, near misses and work accidents. Human Factors training for Construction helps optimise all these and meets the requirements of safe performance. It emphasises the importance of staff training and (site) leadership in particular for work safety.

EMERGENCY SERVICES & DISASTER RELIEF: Multi-operation and Human Factors

Human Factors training helps emergency services to achieve higher standard of safety in hazardous environments. The training can improve the effectiveness of the response teams by focusing, particularly, on stress and fatigue management, communication and decision-making under pressure in multi-agency and time-critical operations. Teams will be able to apply practical skills to improve team performance and management of plans in unpredictable and fast-changing environments.
How we do it?

At Mission Performance we work with you to decide which level of engagement is right to achieve your objectives. We offer solutions ranging from those to simply raise awareness to a fully auditable and assessed programmes that change the safety culture of operations and lift performance.

We use our Learning Mission Methodology and other parts our wider solution portfolio to enhance each programme. We tend to use a combination of our Modes of Engagement - Face-to-Face sessions, Live Coaching and refreshingly accessible online learning - to create impact, drive levels of engagement and application and make learning cost- and time efficient.

All Face-to-Face training is highly interactive with typically a series of activities of increasing complexity, which immerse participants in the core NOTECHS. Each exercise is introduced by a brief and concluded with a debrief. All activities are student-led, with instructor reviews on completion. We use facilitated group discussions to promote full understanding of how Human Factors can be applied in our clients’ own operational environment and we explore industry-specific case studies with a range of video and audio material to assist with analysis.

WE ARE CERTIFIED

Mission Performance Crew Resource Management Instructors (CRMi) have an extensive background in aviation or other high-risk and high-reliability industries. Our lead facilitators are all experienced UK Civil Aviation Authority qualified instructors.

Human Factors Training Outcomes

1. Learn how to apply crucial Human Factors NOTECHS (Situational Awareness, Decisions Making, Stress and Fatigue, Leadership vs Management, Teamwork, Communication and Collaboration) and have the ability to improve decision-making under pressure and practice the key skills learned.

2. Actual improvements in safety, reliability and other desired operational outcomes (KPIs), including leadership, creating the right culture (Just, Reporting) and integration of Human Factors into existing processes and systems.

Our three guiding principles to learning

1. We tailor the learning journey to the development needs of the individual and to the desired outcomes of the organisation.
2. We make sure that the learning sticks, that it is actually applied and yields tangible results.
3. We make the journey easy, fun, experiential and exciting.

Our process:

• We start the design of each programme by listening and asking the right questions. We adopt a rigorous design process to ensure we understand correctly and deliver the right outcomes.
• Typically, these outcomes are linked to the delivery of a specific strategy or project.
• We then create ‘powerful awareness’ through rich experiential learning and back it up with comprehensive support to coach application in the business. We use technology to support the whole learning process end to end.
“The idea of learning how safety cultures in other industries are applied is great. I believe the oil and gas industry and the airline industry have a lot in common, in particular, the impact of pressure and how to have better decision making and situational awareness. The instructor has a wonderful ability of giving constructive feedback which enhances participation in class and hence improves the learning experience. Great course, great learning.”

Team Leader

Learning Mission
Modes of Engagement

Face to Face
Experiential programmes facilitated by exceptional human beings that you can touch and interact with, how novel is that?

Live Coaching
Ongoing support to implement learning on the job – remote Live Coaching based on 90-120 minutes sessions designed for individual or teams

Mission – Hub
Micro learning meets social learning all geared around fun and informality with delightful multi-media content directed and produced by our in house team
"This course is excellent! It was much more than I expected which is great! The instructors are great teachers. The course content is really good and the application on our job is really needed."

"Overall the course was good and excellent and for sure helps in dealing with pressure/stress/tough situations and above all helps in controlling ourselves."

"The instructor has a wonderful ability of giving constructive feedback, which enhances participation in class and hence enhancing the learning experience. Great course, great learning."

Delegates feedback

"I was amazed to see the transformation of the Team leaders by the end of the course. We need to continue with CRM courses and we have to include the refresher training. We are heading in the right direction."

Head of Operations
Human Factors Learning Modules

Our Human Factors modules cover all six NOTECHS key factors plus seven more soft skills that affect the workplace and personnel. All our modules are available through Live Coaching or as part of our programmes.

**CORE NOTECHS MODULES**

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<tr>
<th>Module</th>
<th>Description</th>
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<tr>
<td>SITUATIONAL AWARENESS</td>
<td>Developing and maintaining a dynamic awareness of the situation and the risks present during operations, based on gathering information from multiple sources from the task environment, understanding what the information means and using it to think ahead about what may happen next.</td>
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<td>DECISION MAKING</td>
<td>How to define and diagnose a problem; generate alternative options with crew; assess risks and select develop options; review solution outcomes against pre-defined goals.</td>
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<td>STRESS &amp; FATIGUE</td>
<td>Equips the learner with an understanding of causes and impacts of the factors that affect the ability of people to perform reliably.</td>
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<td>LEADERSHIP vs MANAGEMENT</td>
<td>This covers use of authority and assertiveness; the ability to create a proper and balanced challenge and response atmosphere; crew participation in planning and task completion; and adaptation.</td>
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<td>COMMUNICATION &amp; COLLABORATION</td>
<td>The exchange (transmission and reception) of information, ideas and beliefs, by verbal and non-verbal methods. Understanding the barriers to, and characteristics of, effective communication.</td>
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<td>TEAMWORK</td>
<td>This covers Team Building (establishing positive interpersonal relations between team members and their active participation in fulfilling the tasks as well as an atmosphere for open communication and participation, encourages inputs) and Team ‘Development’</td>
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<td>SUPPORTING MODULES</td>
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<td><strong>HUMAN ERRORS, THREAT &amp; ERROR MANAGEMENT</strong></td>
<td>Mitigation of the principal causes of error such as distraction, overload, fatigue and excessive pressure, along with the potential of complacency and overconfidence. Threat analysis with an emphasis on how to Avoid, Trap and Mitigate different latent risks that can lie within operational environments.</td>
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<td><strong>SMARTER USE OF STANDARD OPERATING PROCEDURES (SOPs)</strong></td>
<td>Providing and maintaining standards: Compliance with essential standards (SOPs and others) for the task completion. Supervision and intervention in case of deviations from standards by crew members.</td>
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<td><strong>ACCIDENT CHAIN</strong></td>
<td>Highlights the links in a chain that lead to an accident, with a focus on the importance of balancing process, training, supervision and individual responsibility. Important to understand that there is often an opportunity to ‘break’ the chain, and that the RCA of an accident usually highlights where those opportunities lie.</td>
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<td><strong>BRAIN&amp;HABITS</strong></td>
<td>This covers basic understanding of how brains learn new things and what they can do themselves to manage and accelerate that process.</td>
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<td><strong>RISK CREEP</strong></td>
<td>Highlights how risky behaviours get normalised in a dynamic and dangerous environment, with techniques and models to recognise and mitigate such behaviours.</td>
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<td><strong>THE ROLE OF CULTURE</strong></td>
<td>The importance of creating a positive workplace culture. The different types of culture (Blame, Reporting, Just Culture, Fair Culture) that are often created. How to create an open safety culture which encourages incident reporting, as well as how to respond and not respond to mistakes, mishaps and near-misses.</td>
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<td><strong>BRIEFING &amp; DEBRIEFING</strong></td>
<td>This covers how to ensure understanding, ensuring honesty, how (the leader’s) tone, language and style matter; how to effectively question; how to ‘lead’ a debrief to maximise ownership and learning; how to teach and use clean feedback.</td>
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Human Factors Programmes

**Live Coaching**
90/120 Minutes

Singular sessions or more modules can be linked in a series of sessions together to meet a particular set of needs.

**Two-Hour Workshop**
This workshop offers an insight and develops awareness of Human Factors and why and how it matters to safety, compliance and risk optimisation.

**Half-Day Workshop**
This workshop covers the 4-6 most important Human Factors and explores the 2 most relevant ones to the audience in more depth.

**One-Day Training/ One-Day Masterclass**
The one-day training covers the full spectrum of Human Factors topics and explores two to three most relevant ones in depth through case studies and/or exercises, enabling delegates to walk away with a set of practical actions they can adopt. The Masterclass covers the full spectrum of Human Factors topics, exploring the most relevant factors through case studies, exercises and team practical application in a great interactive day.

**Three/Four-Day Training**
This fully tailored training course covers all the topics through presentations, facilitated discussion by experts, case studies, experiential exercises, simulations or ‘real life’ scenarios, and formal assessment. All with a view to lifting delegates’ Human Factors competency levels to ‘Intermediate Level’ by making their knowledge ‘actionable’. Delegates walk away with a clear understanding and an ‘action plan’.

**Awareness Training**
Human Factors Training really has impact if the people around those who have undergone the actual training understand the basics of Human Factors and are receptive to it. The Awareness course is similar in content to the 2-hour or ½ day workshop but emphasises what participants can do and should refrain from to allow Human Factors to have maximum impact in the shortest possible time. This can be delivered online and at scale.

**Refresher Training**
We recommend that tailored Refresher Training is carried out every six to twelve months after the initial in depth training.

**Follow-Up Coaching**
This session can be arranged as a 1-on-1 and also for groups of 4-8 in size. It can be delivered Face-to-Face and online. The timing of this can vary in length and is designed in consultation with you.
Why Choose Mission Performance?

Getting real and sustainable operational impact from Human Factors requires more than simply putting ‘front line’ people through ‘one-off’ or ‘off-the-shelf’ training.

Mission Performance leverages all its capabilities, its 20 years’ experience of delivering tailored leadership, culture change, coaching, and high performing teams programmes, as well as technology, to create bespoke, integrated solutions that engage all relevant staff, and that can be scaled cost-efficiently across wider populations.

96% of course participants recommend Mission Performance HF Trainings to others.
Meet some of our Human Factors Team

**Don Evans**
- Former Royal Air Force Wing Commander & Fast jet aviator with 20+ years of experience
- Head of Leadership Training for Royal Air Force officer training
- Senior executive in industry leading a field engineering team of 2000 people
- UK Civil Aviation Authority qualified CRM Instructor
- Head of Mission’s Human Factors Practice

**Gary Wakefield**
- Former Royal Navy officer with 21 years of service.
- Served as Head of Leadership Training at Britannia Royal Naval College Dartmouth
- Facilitated CRM training for entire career UK Civil Aviation Authority qualified CRM Instructor, CRM Trainer Examiner
- Ex-Flight Safety Manager and Training Captain and CRM Manager at a leading Aerospace Company

**Brendan Hall**
- Winner of the 2009-10 Clipper Round the World Yacht race
- Author of the Mountbatten award shortlisted ‘Team Spirit – Life and Leadership’
- AoEC diploma of Executive coaching
- Brendan now uses his skills and race narrative in the L&D field, helping business leaders perform at their best and inspire their teams. He has taught at the RNLI

**Gerry de Vries**
- Expert in improving performance through effective leadership and culture change
- Led over 35 teams globally in safety critical environments
- Former Marines officer
- Operational and experience with Shell, globally
- Qualified CRM instructor
Ross Preston, MBE
- Former Royal Marines Lieutenant Colonel with 18 years’ experience.
- Decorated for leadership in Afghanistan.
- Director of Operations for a global disaster relief charity.
- Qualified CRM Instructor.
- Highly experienced Leadership coach.

Alastair Duns
- Responsible for Skipper and Crew Training for the Clipper Round the World Yacht Race.
- Spanish Speaking.
- Highly experienced seaman. Skippered 20 metre racing yachts whilst training Round the World Race crews.
- Experienced coach with over 15 years’ experience.
- Qualified CRM Instructor.

Mandy Hickson
- Former Royal Air Force Pilot. One of first female fast jet pilots in the UK.
- Prominent speaker on Safety, Human Factors & embedding Culture change at events and conferences across the Globe.
- UK Civil Aviation Authority qualified CRM Instructor.
- Culture Change.

Richard Tarran, MVO
- Broad experience in high risk environments; fire fighting, O&G construction, high altitude mountaineering, first aid and engineering.
- Charge qualified as a ship’s Engineer.
- Royal Navy Officer and Equerry to the Royal Family.
- Facilitator and executive coach for 19 years across many sectors.
- Qualified CRM Instructor.