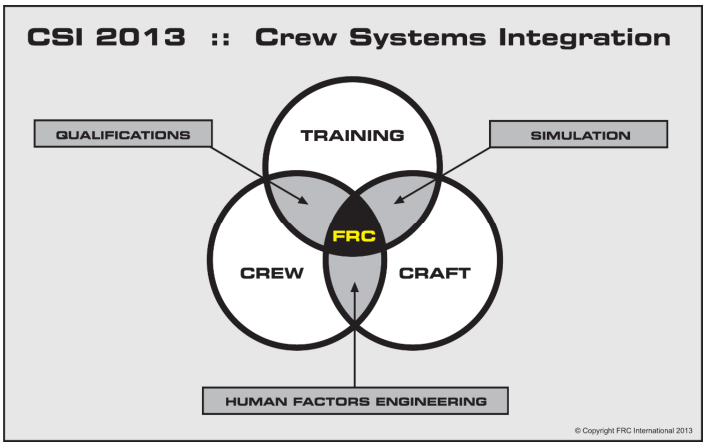
Conference Programme

RNLI College – Poole, UK
2nd to 4th July 2013



CSI 2013 brings together 3 keynote speakers
Over 20 presentations focusing on 9 integrated topics
For the professional RIB and high speed craft sector worldwide

Hosted By

FRC INTERNATIONAL

INTRODUCTION

FRC International are hosting CSI 2013 - Crew Systems Integration conference from 2nd to 4th July 2013 at RNLI Lifeboat College, Poole, UK.

The international conference includes over 20 presentations focusing on 9 integrated topics (described below) for the RIB and high speed craft sector. Keynote speakers include former Royal Navy Rear Admiral Chris Parry, now a noted strategic consultant and geopolitical forecaster. Captain Andrew Moll, MAIB and Commander Chris Pratt MBE (AFNI) Border Agency. CSI 2013 is an independent event that is relevant to all professional operators, boat builders, equipment manufacturers and designers. In addition to networking with their peers, attendees from end-user organisations will learn from industry participants showing state of the art solutions and the latest developments in technology.

Up to date programme information is available online at www.frc-int.com

The CSI 2013 conference covers the following integrated topics which are developed into the programme described in the following programme.

TOPIC:	CRAFT & EQUIPMENT

Description:
The <24m sector is developing at a rapid pace. Not only has this resulted in increased speed and capability, but new technologies and systems are being introduced both into new craft and as retrofits. The conference will highlight current craft development and illustrate how operators may utilise these within their requirements.

TOPIC	CREW

Description:
An increasing operational capability facilitated by enhanced craft no longer means that the craft is simple to operate within the full operational envelope. Slow speeds, and in benign environments are relatively simple to operate in, but as speed increases, the environment deteriorates, and the systems become more complex the competencies' demanded of the crew move to a higher level and are more akin to those required by a helicopter crew where effective situational awareness and Command & Control become crucial for performance and safety. The conference will examine the demands on the Crew and PAX, and how they may be supported to overcome these.

TOPIC	TRAINING

Description:
As the capability of the craft and it's systems have advanced - the crew, in evolutionary terms, remains unchanged and can therefore be outperformed by the craft. To counter this, part of the integrated solution is enhanced training. Boats very rarely operate alone and so standardisation is required to ensure effective interoperability. This is from the teamwork within the boat to multiple craft operating together in coalition operations. The conference will examine current developments in training programmes and Standard Operating Procedures (SOPs) and how they are being developed and disseminated to the global community.

TOPIC	HUMAN FACTORS ENGINEERING

Description:
With new and retrofitted craft being capable of out-performing the crew it is essential that the designers focus on designing for the human to ensure that they can utilise the craft to the edge of it's operating envelope, thus ensuring operational success and safety for the crew and their passengers. The conference will highlight developments in HFE (often called ergonomics) specific to fast craft design and operations.

TOPIC	QUALIFICATIONS

Description:
Qualifications provide the demonstration of competence, both to differentiate between individuals and to allow employers to recruit good crewmembers and provide them with a developmental career structure. Qualifications are the foundation of Standardization-for-Interoperability and so it is essential for that the international marine community have a qualification that provides the ability to ensure minimum standards of competence and demonstrate the advanced competencies required to operate the advanced systems and procedures now being deployed. The conference will highlight the work being undertaken to develop qualifications appropriate to the professional <24m sector and how these can be disseminated to the international community.

TOPIC	SIMULATION

Description:
Simulation is recognized as an effective, and in some circumstances, essential training tool. Although recognized in other sectors (e.g. aviation), and for >24m maritime operations (e.g. bridge and control room), the <24m sector is still to effectively embrace simulation. There are many reasons for this, but with the increasing deployment of sophisticated electronic systems and operating and high speed in austere environments, simulation is in a position to effectively support training and qualification programmes. The conference will highlight the different types of simulation and how operators can effectively use simulation to enhance operational effectiveness and safety.

TOPIC	REPEATED SHOCK & WHOLE BODY VIBRATION

Description:
The exposure of fast craft crew and passengers to RS & WBV has now been recognized and sytems developed to reduce or manage the exposure that can induce fatigue, degrade the interaction between the crew and the craft, and risk acute and chronic injury. The drive for legal compliance within the EU and the demonstration of the employers duty-of-care in the rest of the world has kept the development spiral turning and so it is possible to operators to now engage with the ALARP requirement. The conference will highlight developments related to the management and control of exposure to RS & WBV.

TOPIC	UNMANNED VEHICLES

Description:
The drive for reduced manning (cost and recruitment) and to remove the human from harms way, or constraining the operational envelope, is leading to the development of unmanned systems. Although remote control systems are not new, the technical developments that are leading to more autonomous systems are changing the face of fast craft operations. The conference will highlight the developments in unmanned systems and the opportunities for the marine sector that these developments bring.

TOPIC	OPERATIONS

Description:
All of the eight topics described above integrate to deliver operational capability. The technical developments and systems to support human effectiveness provide the ability to either enhance the operational envelope or provide more resilience within the system for current operations. The conference will examine how fast craft operations are changing and what the future may hold for the crews and their organisations.

CSI 2013 :: Crew Systems Integration

DAY 1: Tuesday 2ND JULY		
TIME	TOPIC	NAME : ORGANISATION : TITLE
08:00		REGISTRATION
09:30	WELCOME	John Haynes; FRC Int.
09:45	KEYNOTE	**Name:** Rear Admiral Chris Parry (Rtd) **Organisation:** Former Director - Concept and Doctrine Development, UK MOD **Title:** The future use of the sea in a globalised world. Interoperability, including the interaction between shipping and small craft, is crucial to safety and security at sea.
10:30		BREAK
11:00	C&E	**Name:** Peter Eyre **Organisation:** RNLI, UK **Title:** The design and development of the Shannon Class Lifeboat
11:30		Supporters Presentations
12:30		LUNCH & NETWORKING
14:00	TRAINING	**Name:** Capt. Fredrik Forsman **Organisation:** Chalmers University & SSRS; Sweden **Title:** How Dynamic Navigation can enhance performance and safety at sea. Innovative and effective navigation methods for high speed craft
14:30	UV	**Name:** Richard Daltry **Organisation:** ASV Global Ltd. UK **Title:** USV & 3D - how unmanned craft can take over the Dull, Dirty & Dangerous tasks. Developing USV capabilities from 1 metre to 100 miles.
15:00		BREAK
15:30	HFE	**Name:** Dr Trevor Dobbins **Organisation:** FRC International & STR Ltd **Title:** Information displays for fast craft. Developing standard views to improve multiple tasks, high-speed navigation and situational awareness.
16:00	TRAINING	**Name:** Tyler Brand **Organisation:** Strongwake. Canada **Title:** The Canadian Coast Guard Rigid Hull Inflatable Operator Training (RHIOT) School: integrating simulation and on-water training
16;30	QUALS	**Name:** Jonathan Hill AFNI, AmRINA **Organisation:** FRC International & Trident Marine Ltd **Title:** Professional training and qualifications in boarding / transfer operations and the increasing safety demands.
17:00		NETWORK RECEPTION **Sponsor: Coast Dynamics Group**

DAY 2: Wednesday 3RD JULY		
TIME	TOPIC	NAME : ORGANISATION : TITLE
08:00		Registration
09:10	WELCOME	John Haynes; FRC Int.
09:15	KEYNOTE	**Name:** Captain Andrew Moll **Organisation:** Deputy Chief Inspector, Marine Accident Investigation Branch (MAIB), UK **Title:** Lessons learnt from incidents and accidents with small fast craft
10:00	CRAFT	**Name:** John Nieboer **Organisation:** Damen, NL **Title:** Development of the next generation KNRM Dutch lifeboat utilising the new Sea-Axe hull shape and comparative testing with the current 19m (62 feet) RHIB lifeboat
10:30		BREAK
11:00	OPS	**Name:** Prof. Bob Cripps **Organisation:** Longitude Engineering, UK **Title:** Boat Safety Management strategies for commercial and military craft: what are the benefits?
11:30	TRG	**Name:** Jonathan Hill AFNI, AmRINA **Organisation:** FRC International & Trident Marine Ltd **Title:** Mission planning for success. Tools for managing performance and risk in extreme operating environments
12:00	HFE	**Name:** Prof. Don Harris **Organisation:** Coventry University, UK **Title:** Sweet SA; Situational Awareness – an essential element but what is it, how do you get it, and how do you keep it.
12:30		LUNCH & NETWORKING
14:00	SIM	**Name:** Tyler Brand **Organisation:** Strongwake, Canada **Title:** Simulation and learning for fast response craft. Gamification - how computer game technology can support 21st Century learning strategies
14:30	USV	**Name:** Simon Knight **Organisation:** NDP Team Leader, UK MoD **Title:** Exploring innovative methods to develop future launch and recovery systems for RIBs and unmanned craft.
15:00		BREAK
15:30	WBV	**Name:** John Haynes, AFNI **Organisation:** FRC International & Shock Mitigation Ltd **Title:** How professional organisations are using WBV & RS awareness training to improve safety and operational effectiveness
16:00	CREW	**Name:** Dr Steve Myers **Organisation:** Chichester University, UK **Title:** The fast response exercise programme FR-X. What type of fitness is relevant for professional boat crews and PAX.
16;30	OPS	**Name:** JoJo Mains **Organisation:** USCG: Rtd **Title:** Integrated Small Boat Operations: Oil – Guns – Drugs – Migrants – and a Monkey.
17:00		NETWORK RECEPTION

DAY 3: Thursday 4TH JULY		
TIME	TOPIC	NAME : ORGANISATION : TITLE
08:00		REGISTRATION
09:10	WELCOME	John Haynes; FRC Int.
09:15	KEYNOTE	**Name:** Commander Chris Pratt MBE (AFNI) **Organisation:** Maritime & Aviation Operations, UK Border Force **Title:** Integrating cutters, RIBs and maritime operations within the Border Force
10:00	CRAFT	**Name:** Lorne Campbell **Organisation:** Lorne Campbell Design, UK **Title:** Power and speed are nothing without control
10:30		BREAK
11:00	SIM	**Name:** David Edinburgh **Organisation:** cd-ADAPCO **Title:** Modeling and visualising planning craft motion
11:30	WBV	**Name:** Dr Tom Coe & Dr Kieran Rutherford **Organisation:** NDP & dstl, UK MOD **Title:** Technical solutions for shock mitigation on high speed government craft
12:00	OPS	**Name:** JoJo Mains **Organisation:** USCG: Rtd **Title:** The men that kill ships – asymmetric warfare from 1776 to the present day.
12:30		INDEPENDENCE DAY LUNCH & NETWORKING
14:00	OPS	**Name:** Sgt Tony Birr **Organisation:** Hampshire Police Marine Unit **Title:** Selecting effective craft (RHIB / mono-hull / multi-hull) to fulfill multiple policing functions in the modern port and for open sea operations
14:30	HFE	**Name:** Dr Trevor Dobbins **Organisation:** FRC International & STR Ltd **Title:** The MAN in CAD. Fitting the fully equipped digital human model into Computer Aided Design
15:00		BREAK
15:30		**Name:** Dr Tom Gunston **Organisation:** VJ Technology Ltd **Title:** Developing standards for fast craft seating – measurements, test methods and performance metrics for use at sea and in the laboratory
16;00		**Name:** Captain Fredrik Forsman **Organisation:** Chalmers University, Sweden & SSRS **Title:** SMACS in Northern Europe - Small Craft Emergency Response and Survival Training for Arctic Conditions
16:30		CONFERENCE END