Safety Management International Collaboration Group

Industry Day – London Gatwick, 16th May 2017

ABSTRACTS & SPEAKER BIOS

CASE – A Collaborative Approach to Safety Management Systems (SMS): Sharing Safety Data and Risk Information in Business Aviation

Captain Malcolm RUSBY – Aviation Safety Consultant, International Directorate Civil Aviation Authority United Kingdom

Abstract: CASE (Corporate Aviation Safety Executive) was established in 2007 with the aim of improving aviation safety. Starting with just a handful of Safety Managers willing to share safety data and work collaboratively on safety projects, CASE has now grown to sixty-five contributing companies. In 2015, the Corporate Helicopter sector formed CHASE to continue the safety initiative in their sector. During 2015, those members who had Flight Data Monitoring Systems started to share and trend FDM data. The DFT showed interest and decided to fund a project to equip aircraft below the weight limit with FDM systems. After numerous setbacks three aircraft within the CASE community were fitted with mini Quick Access Recorders (QARs). This presentation explains the benefits of working together to improve aviation safety.

Biography: Captain Malcolm Rusby was previously the Aviation Safety Director of a large multinational group of Air Operator Certificate (AOC) companies. With more than 30 years of experience as a commercial pilot, Malcolm brings a huge amount of practical safety management expertise and technical knowhow to the State Safety Partnership team. In addition to 30 years as a commercial pilot, including air ambulance and corporate flying, Malcolm has been an aviation safety director and SMS risk manager, head of ground training and an instructor for large ground training centre, and an aviation safety consultant and safety instructor.

Prototype Risk Observatory – The Benefits and Bottlenecks of Sharing Safety Data Within and Between Domains

Joram VERSTRAETEN – Senior Consultant Air Transport Safety, Netherlands Aerospace Centre (NLR)

Abstract: In Europe, the accident rate in commercial aviation has stagnated at around 40 accidents per ten million flights —forty times higher than Europe's ambition. Currently, safety management is done per organisation, focusing on an organisation's own domain. European research institutions and the aviation sector have joined their expertise in the European Union (EU)-funded Future Sky Safety Programme. One project within the programme aims to enable inter-organisation and inter-domain safety management. The four year project will deliver a prototype tool, the Risk Observatory, which acquires safety data and translates it into actionable safety information. The presentation for the SM ICG Industry Day will detail the ongoing development of the prototype Risk Observatory. In 2015, the first year of the project, more than 20 European stakeholder organisations have been consulted to express their needs for a Risk Observatory. The resulting requirements have been used to develop an early prototype —mock-ups of dashboards and a user interface. The Risk Observatory has four main elements: (1) tracking of safety performance indicators distilled from input safety data; (2) trend diagrams and visualisations of accident risk —risk models will be developed to translate the input data into accident risk; (3) risk models that allow assessment of the effects of mitigation measures; and (4) a searchable repository, since there is added value in sharing qualitative safety knowledge, such as identified hazards. The early prototype is successfully used to validate and further specify the requirements. The need for inter-organisation and inter-domain safety data dissemination was confirmed by the stakeholders. In the

following two years, the project will develop a fully functional prototype Risk Observatory, risk models and a business model.

Biography: Joram Verstraeten has more than nine years of research and consultancy experience in safety management of air transport at the Netherlands Aerospace Centre (NLR). He manages a project within the EU-funded Future Sky Safety Programme. The four-year project, started in 2015, will deliver a prototype tool, the Risk Observatory, which acquires safety data and translates it into actionable safety information. Mr. Verstraeten leads a work package in the EU-funded project OPTICS, which assesses the contribution of safety research towards achieving the European Flightpath 2050 goals. He has been project member in several other safety-related European research projects. Mr. Verstraeten advises governments on safety performance metrics for their State Safety Programmes and advises operators —both civil and military— on improving their SMS. He initiated work at NLR on safety assessments of commercial space transportation and is a member of the Commercial Human Spaceflight Safety Technical Committee of the International Association for the Advancement of Space Safety (IAASS). Mr. Verstraeten obtained a Master's Degree in Aerospace Engineering from Delft University of Technology in 2007.

Managing the SMS Interfaces: Operator - Continuing Airworthiness Management Organization (CAMO) - Maintenance, Repair, and Overhaul (MRO)

Jorge LEITE – Vice President Quality and Safety - Maintenance Engineering Compliance & Safety Manager, TAP Portugal

Abstract:
This presentation will address reliance upon the MRO to comply with safety requirements, including the operator's expectations and CAMO responsibilities. It will discuss SMS integration and bridging the gap between the operator, the CAMO and the MRO; and contracted maintenance and occurrence reporting, including how to establish effective channels of communication from the MRO, through the CAMO, up to the operator. Finally, the presentation will address current SMS challenges among players (operator-CAMO-MRO), including whether risk classification integration is possible in reality, making different safety objectives and safety targets compatible, and occurrence reporting and safety data sharing.

Biography: Jorge Leite is a Mechanical Engineer from Lisbon University. He joined TAP Portugal in 1986, starting his aviation career as a repair engineer at the Engine Shop, before becoming CFM56 power plant specialist and chief engineer. In 1995 Jorge became Engine Shop Production Manager, later assuming other management positions as Engineering & Quality Manager and Commercial Director. In 2004, Jorge was appointed Director of Quality for TAP Maintenance & Engineering and later Vice President Quality and Safety. He is a member of the Safety, Engineering & Maintenance, Security (SEMS) working group of Airlines For Europe (A4E) in Brussels and represents A4E in the Engineering & Maintenance Technical Committee (E&M STeB) at the European Aviation Safety Agency (EASA) in Cologne. Jorge also represents TAP at the Aeronautical Repair Station Association (ARSA) in Washington D.C. Jorge was born in Lisbon. His aviation activity extends well outside TAP Portugal. He has been a lecturer in the Air Force Academy and several Flight Schools, teaching Aerodynamics and Flight Performance, and Quality and Aeronautical Regulations at Lisbon University. Jorge holds a Private Pilot License.

SMS Interfaces – From Transaction to Collaboration

Captain Jim PEGRAM – Head of Safety and Compliance, EasyJet

Abstract: From the Wright brothers until the late 1960s, safety focused on technical factors and failures and this resulted in the development of regulation, compliance and oversight. The next area of safety development, from the early 1970s until the mid-1990s, was human factors including the man/machine interface. It was not until the early 1990s that it was first acknowledged that individuals operate in a complex environment. This led to organizations being brought under the safety lens and safety began to be viewed from a systemic perspective. All of these enhancements formed today's move towards a management system approach. So what is next? How can we continue to improve safety? We propose that after safety improvements in technical, human and organisational performance, collaborative working maybe the next opportunity. In an increasingly complex and challenging operating environment where inter-dependencies are becoming more significant, a collaborative relationship management system can deliver a wide range of benefits to enhance safety and operational goals.

Biography: Captain Jim Pegram has over 40 years of experience as an operator, trainer and manager in flight and cabin crew operations, crew training and operations control. He is currently easyJet's acting Director of Safety and Security and the company's Safety and Compliance Manager. Jim joined easyJet in 1997 as part of the leadership team to establish easyJet's AOC and as a senior manager, he has had key responsibilities for introduction of the Boeing 737NG, Airbus 319, Advanced Training Qualification Program (ATQP) and Type Rating Training Organisation (TRTO). He has endured three regulatory changes, integrated three airlines and managed annual growth in excess of 25% year on year. As a pilot, he has flown diverse types such as the Vickers Viscount, Airbus A320, AS332L Super Puma, sailplanes and enjoys flying his microlight on weekends. He also has extensive training experience as a type rating instructor, examiner and revalidation examiner. In his present role, he has brought his considerable experience to the development of easyJet's leading SMS programme and worked closely with the Civil Aviation Authority and EASA.

SMS Interfaces – A Human Factors Perspective - Achieving Peak Safety Performance: Listening and Learning

Andy EVANS – Director Aerossurance & Royal Aeronautical Society (RAeS) Human Factors Group Engineering, Aerossurance

Abstract: Organisations that aspire to peak safety performance need a reliable organisational ability to 'listen' for warning signs and improvement opportunities, analyse their significance, learn, and act on that learning. To do this effectively, they must engage everyone in their organisation, meaning effective safety leadership is vital too. The RAeS Human Factors Group: Engineering set out find out a way to check if organisations are truly listening and learning. Rather than a traditional approach (e.g., audits or analysis of key performance indicators (KPIs)), they developed 10 performance-based questions, organised in three themes, to prompt reflective thought. This presentation looks at how that approach can be applied to look at the interfaces between different organisations to see if they are listening to and learning from each other.

Biography: Andy Evans is director of the UK-based aviation consultancy Aerossurance. Aerossurance provide a range of specialists in air safety, airworthiness and technical services to customers globally. His career has developed from design into safety regulation, aircraft certification, the management of safety and human factors within air operators, safety culture development and all aspects of airworthiness. He is part of the team that developed the Flight Safety Foundation's (FSF) Basic Aviation Risk Standard (BARS) Offshore Helicopter Operations (BARSOHO) standard and a member of the FSF European Advisory Committee. Andy is a Fellow of the Royal Aeronautical Society, a Chartered Engineer, holds a MSc in Manufacturing, Management & Technology and a BEng(Hons) in Aeronautical Engineering. He is a Member of the International Society of Air Safety Investigators, an Associate Member of the Chartered Institute of Ergonomics and Human Factors and an Associate Member of the European Association of Aviation Psychologists. He is a member of the Aerospace Defence Security Space (ADS) Airworthiness Board since 2012 and the RAeS Human Factors Group: Engineering since 2005.

ASD Industry Standard for SMS in Design, Manufacture and Maintenance

Gilles FONTAINE – Head of Design Organisation Approvals (DOA) Expertise - DOA Regulation, Airbus

Abstract: The initiative was launched in 2015, under the lead of ASD, to issue an International Standard as guidance material and means of compliance with the intent of International Civil Aviation Organization (ICAO) Annex 19, appendix 2 "Framework for an SMS - at service providers". The concept for such a standard was positively acknowledged by aviation authorities (the National Civil Aviation Agency (ANAC) of Brazil, the United States Federal Aviation Administration (FAA), EASA, and Transport Canada Civil Aviation (TCCA)) during the Certification Management Team (CMT) meeting held in September 2015. The drafting group was set up in June 2016 with the target to release a mature draft standard in early 2017.
The presentation will quickly review the context and framework, which led to the drafting of this Standard. Then, it will address the objectives of this Standard, its scope and current status as well as the subjects/topics covered with a specific focus on the interfaces between organisations. Robust management of these interfaces contributes significantly to the safety of products and/or services. Such interfaces may involve other organisations from the same or separate companies/legal entities (e.g., interface between design & manufacturing organisation, with Operators, suppliers, with aviation authorities).

Biography: Gilles Fontaine has 20 years of experience in aircraft certification and is currently head of DOA Expertise within Airbus. His organization ensures compliance of Airbus organisation/processes with European Design Organisation Approval (DOA) regulations; represents Airbus in European DOA rulemaking activities with EASA; and contributes to international airworthiness cooperation projects between the EU and foreign countries. Gilles is chairing the SMS International Standard drafting group set up under the lead of ASD. He graduated from French Military Engineering School and was previously, within the French Civil Aviation Authority, (DGAC-F), responsible for Design Organisation Approvals granted to French Companies (Type Certificate/Supplemental Type Certificate (TC/STC) holders).

Best Practices in Terms of SMS Interface Management

Sophie ROUGÉ – Director, Corporate Safety Management - Head of Safety Governance, Airbus

Abstract: This presentation will provide an overview of SMS interface management best practices set-up in Airbus with key suppliers. This initiative is called 'Continued Airworthiness and Safety interface Document' (CASID). Sophie will present the overall principles and objectives and explain how CASID relates with SMS principles.

Biography: After graduating as an Aeronautical Engineer in 1998 from the French Civil Aviation School Ecole Nationale de l'Aviation Civil (ENAC), Sophie Rougé joined Thales Air Traffic Management (ATM) to be responsible for integration systems in ATM up to final acceptance with more than 20 different customers of worldwide aviation authorities. She joined Airbus in 2001 as Test Means Architect for A380 and had several positions in Engineering where she extended her responsibility from Design to Project Management and Change Leadership. In 2013, she joined the Product Safety Department where she led cross-organizational activities to implement safety strategy in product development for future programs and to manage associated safety risks. She became Technical Assistant to the Chief Product Safety Officer and chaired working groups to develop and promote industry-wide accident prevention within Airbus and with suppliers (using the CASID methodology). In November 2015, she built a new team and has been appointed Head of Safety Governance and nominated Process Owner Delegate of Airbus Major Corporate Process for Safety, in charge of managing risks for accident prevention. In addition to leading the Safety Governance Department, Sophie Rougé is currently leading activities to define and implement the Corporate SMS across Airbus, reporting to the Senior Vice President & Chief Product Safety Officer. She is also representing Airbus for Corporate Safety Management in all industry working groups.

SMS Journey at Leonardo Helicopters

Tony PEARCE – UK Geographic Helicopter Division, Leonardo MW Ltd.

Abstract: The Leonardo Helicopters Aviation Safety Department officially formed in September 2014. Since then, the department has been working towards improving the existing SMS with a focus on developing the existing Aviation Safety elements of the management system. Concerns around process adherence for product safety and safety culture provided the motivation to conduct an in-depth review of the safety management for aviation products and services. A companywide safety culture and management survey was conducted and the results initiated six improvement projects. These improvement projects identified a number of issues, which were not only associated with the project topic itself, but were also relevant across the other projects. One of the common issues identified related to the interfaces between departments and functional areas, in particular when associated with change.

Biography: Tony Pearce trained as an RAF airframe/engine engineer predominately working on Wessex HCII and Seaking Mk3a Search and Rescue 2nd line maintenance. In 1997, he joined Westland Helicopters as a final assembly/flight engineer working on Seaking and Lynx variants. Further experience was gained as a flight hangar/final assembly production engineer, a role held for seven years. This led on to working within an aircraft modifications and Field Support department as a safety and quality manager, a role which developed into conducting offsite facility audits at both customer and company locations (UK and abroad), accident and Maintenance Error Decision Aid (MEDA) investigations and Human Factors training. Since 2015, Tony became the Aviation Safety Manager for the Yeovil site. More recently, he has participated in the Aerospace and Defence Industries Association of Europe (ASD) working group for the development of an SMS standard for Design, Production and Maintenance Organisations. As part of his professional development, Tony is coming towards

the end of three years part time study at the Cranfield University Safety and Accident Investigation Centre for an MSc in 'Safety and Human Factors in Aviation.'

Enhancing the Management of Safety at Marshall Aerospace and Defence Group

Gillian WALTON – Head of Safety, Marshall Aerospace and Defence Group (ADG)
Colin RUSSELL – Principal Consultant, Baines Simmons

Abstract: Marshall ADG is a complex and multi-faceted organisation with both military and civil approvals including EASA Part 21 Subpart G & J, Part M and Part 145, not to mention an airfield with air traffic control (ATC). Over the last two years, Marshall ADG has undertaken a considerable programme of safety performance enhancement (called Safety Matters), in order to break down the internal interfaces and silos, thereby improving the communication and learning around safety across ADG; better understand what was really happening, and why; and better defend the organisation from harm. The Safety Matters programme now allows Marshall ADG to: report, discuss and consider safety risks and issues in a common way across ADG; report safety issues to customers with greater confidence, having determined the root cause and contributory factors, and put better defences in place; and share and learn from safety information both within the organisation and externally with customers and regulators. Partnering with Baines Simmons has helped Marshall ADG develop a coherent and flexible SMS, and is helping the organization move from 'Suitable' towards 'Effective' in its journey towards Safety Performance

Gillian Walton Biography: Gillian loves all things cycling, dance and archery. She has never been in the Royal Air Force (RAF), piloted an aircraft or worked for a regulatory body! Currently leading a UK-wide safety culture change programme for Marshall Aerospace and Defence Group, Gillian strongly believes that it is never too late to change, and that staff engagement and a considered, planned approach is key to the success that the Marshall programme is currently showing. Gillian's career stems from a construction background and she still finds solace when wearing safety boots, a hard hat and a hi-viz coat. She is proud to have worked for two world-leading construction organisations on projects ranging from The Court Services programme to the Globe Theatre in London. Joining Marshall ADG in 2009 as the Estates & Buildings Manager, Gillian took on the responsibility for the runway maintenance work at Cambridge Airport. Recognising that there was work to do with compliance, Gillian undertook a review of all UK compliance activities in 2013 and was asked by the Executive team to establish a department and implement her recommendations. This was the start of the safety performance development programme and the Safety Matters brand that identifies the Marshall change programme. She writes, "As we move in to our Embedding phase in 2017, I can already see a change - we no longer do our job and do safety at Marshall, we do our jobs safely!"

Colin Russell Biography: Colin Russell offers a wealth of aviation experience to clients seeking safety management improvement. Colin is a Chartered Engineer and Fellow of the Institute of Leadership and Management, and is passionate about the role that safety leadership and culture plays in powering safety management performance; he has responsibility for developing and sustaining our advanced Safety Leadership thinking within Baines Simmons. With our clients, Colin has responsibility for leading and supporting the development of strategic aviation safety programmes. Colin is adept at assisting clients understand how to drive their SMS beyond compliance to performance. Colin is himself an effective and inclusive leader who brings exceptional drive and ability to develop ideas and deliver logical solutions. He is a dynamic yet diplomatic individual who offers strength of character, energy and intellectual rigour to introduce innovative thoughts. He offers clients broad engineering, leadership and management experience and has a proven track record from the Fleet Air Arm and within the wider Royal Navy. Colin has participated in client safety management diagnostic and consultancy projects across civil and military organisations. He provides specialist advice, guidance and expert recommendations to executives, directors, senior military personnel and senior management teams. He has expertise in safety leadership, strategic, management and technical planning, and facilitation and development in Safety Management, Safety Leadership, Safety Culture, Human Factors, Just Culture, Error Management and Maintenance Error Investigation. In his personal time, Colin is a keen yacht racer (national representational honours) and enjoys cycling and travelling.