Safety Management in the Airworthiness Domain

Andreas Haase Chair, ASD Military Airworthiness WG

Military Airworthiness Conference 11th – 12th October 2017 Athens, Greece



AeroSpace and Defence Industries Association of Europe

TABLE OF CONTENTS

• PART I – ASD VISION

 \circ Introduction

 $\circ \, \text{Vision}$

• PART II – SAFETY MANAGEMENT PRINCIPLES

- \circ The Need for SMS
- \odot ICAO SMS Framework
- \circ ASD International Implementation Standard

• PART III – SMS IN THE MILITARY DOMAIN

SMS Implementation into EMARsIndustry Aspirations

• PART IV – SUMMARY





ASD Vision for Military Airworthiness in Europe

En Land

The ASD Vision

A single European Military Airworthiness Organisation (JAA Model) owning a suite of European Military Airworthiness Requirements used by all participating Member States to govern peacetime European Military Airworthiness activities...

United Kingdom Belarses Nederland Poinka Densitisic Number Beigio D-miles inquier Like rationa Silve warms have Moldova Former of Outerreich Sector and The designed of Million of the state of the grant of the second state Name and Post of the Sicreption RE-courses described Married Street in La calle a pro- apr ...facilitated by Mutual Recognition, consistent implementation and **Standard Industry Arrangements including Obligations and Privileges** Kumpick N. T. D. I. I.

Acres 1

Washington and

Why SMS – the Need

- Accident rates declining
- Aviation is safest form of transportation in Europe

<u>vs</u>

- Increased system, operational and organisational complexity
- Economy driven environment
- Public perception and regulatory view on safety
- Recognition of operational context on behaviours of individuals

Aviation Systems cannot be completely free of Hazards and associated Risks



Scheduled Commercial Transport operations, excluding acts of unlawful interference

What does "Safety" mean?

Safety

is the state in which the <u>risk</u> of <u>harm</u> to <u>persons</u> or of property damage is <u>reduced to</u>, and <u>maintained</u> at or below, an <u>acceptable level</u> through a <u>continuing process</u> of <u>hazard identification</u> and <u>risk</u> <u>management</u>. (ICAO Safety Management Manual) • There is no one uniform definition of safety

Whatever the definition is:

- Safety is not freedom from Risk
- Safety understood as result of management activities to control safety risks
- Safety determined as the effectiveness of Safety Risk Management (SRM)



Captain Alfred Gilmer Lamplugh British Aviation Ins Group, c. early 1930's



SMS - Managing Safety in Civil Aviation

 Initiation of SMS introduction in civil aviation at ICAO High Level Safety Conference of 2010, decision by ICAO Member States to develop a new ICAO Annex 19

Safety Management System

A systematic approach to managing safety, including the necessary organisational structures, accountabilities, policies and procedures. (ICAO Safety Management Manual)

- Shaping the environment to create Safety
- Application of business management practices to the management of Safety, coupled with routine collection and analysis of data
- Informed decision making
- Systematic approach to identify hazards and control risk SRM
- Assurance that risk controls remain effective
- Promotes Safety Culture

SMS – Framework



Standardisation of SMS implementation

- SMS implementation standard drafted by a group of ASD and GAMA experts, presently evaluated for publication by an international Steering Committee
- Application intended for Design, Manufacturing or Maintenance organisations, considered as GM/AMC to Annex 19 transition into civil aviation regulation (e.g. RMT-0251 for EASA Part 21/145)
- Detailed guidance to implement SMS consistent with ICAO Annex 19 Ed.2, App. 2
- "Just Culture" principles from both Annex 19 and EU 376/2014 reflected
- Potential Steering Committee changes to ASD /GAMA standard for use under FAA 14CFR Part 5
- Final Standard may be considered as GM/AMC to EMAR21/145 once extended to cover SMS

e	AcroSpace and Defence Industries Association of Europe
	IMPLEMENTING
	А
	SAFETY MANAGEMENT SYSTEM
	IN
	DESIGN, MANUFACTURING AND MAINTENANCE
	ORGANISATIONS
	Master Draft
	Issue 2017/06/02
	Paga 1 df 75

SMS in the Military Domain

- ASD welcome MAWA Forum decision to develop SMS requirements for inclusion into Military Regulation of EMARs
- Need for harmonised requirements as systematic approach to managing safety risk applies to SMS in any given organisation – domain independent civil and military
- Given SMS in EMARs is an organisation-wide concept the MAWA Forum should clarify how to meet SMS objectives for areas where NMAAs elect not to implement EMARs as currently implied in draft BFD 3.0
- Considering Safety Risk Management (SRM):
 - Risk definition required for civil and/or military peace time operations
 - Appropriate risk concept required for real combat operations or RPAS



SMS in the Military Domain (cont'd)

- Could the implementation of SMS into EMARs present scope for the MAWA Forum to move forward towards a true single European Military Airworthiness Organisation?
- Could SMS be another generic aspect of regulation proposed for a Central Organisation?
- A military SMS policy would need to define ownership of SSP and State Safety Oversight System
- A military SMS policy would need to define a common and harmonised set of oversight processes and procedures
- Would sharing of occurrence reports, analyses and conclusions across all pMS be the logical choice and are pMS prepared to implement a single corrective / terminating action for all nations?



Military SMS - Industry Aspirations

- Strong interest by industry to work in EMAR arrangements releasing significant benefits as regards cost, time and complexity
- Encourage active involvement of European based defence industries through ASD in defining military SMS approach, consideration of ASD / GAMA Standard for EMAR AMC / GM
- EMAR extension should occur in recognition of SMS about to become the common standard throughout the aviation industry worldwide
- Single SMS Regulation implemented in a common manner including a single uniform oversight system
- Strategy required outlining how to achieve a common occurrence reporting process, including a shared common European military occurrence database and who should lead the implementation of that strategy
- Implementation of single mandatory risk control instructions for all pMS based on an uniform standard

Summary

- ASD welcome MAWA Forum decision to develop SMS requirements for inclusion into Military Regulation of EMARs
- Our preference would be for a common harmonised SMS across all pMS that is as closely aligned with ICAO/EASA as possible
- Definition of SMS policy including SSP and State Safety Oversight System could provide scope to establish a regulation framework under a central organisational construct
- Enhanced role of EDA as the lead organisation further integrating key aspects of MAWA initiative could aid European Military Airworthiness to enter the next harmonisation phase
- Future Evolution of MAWA initiative through a true single European Military Airworthiness Organisation
- ASD are committed to support the MAWA Forum and EDA to achieve this task



Thank you



AeroSpace and Defence Industries Association of Europe ASD Corporate Office rue Montoyer 10 | 1000 Brussels, Belgium info@asd-europe.org | www.asd-europe.org