

ADVISORY CIRCULAR CAA-AC-GEN024 JULY 2020

SUPPLEMENTAL GUIDANCE ON SAFETY MANAGEMENT PRINCIPLES RELATED TO COVID-19 RECOVERY PHASE

1.0 INTRODUCTION

The EAC region and the global civil aviation has been under intense pressure exerted by the COVID-19 pandemic. The International Civil Aviation Organization (ICAO) has devised means and ways to cope as well as to alleviate effects posed by the pandemic in civil aviation. As a result of this development, ICAO through its Civil Aviation Recovery Task Force (CART) is coordinating and implementing preparatory measures to facilitate safe operation during return to normal operation. Therefore, it is important at this juncture to instill safety management principles in managing and oversight of operations during the recovery phase whilst at the same time adopting rational and flexible measures without succumbing to undesirable safety occurrences.

2.0 REFERENCE

- CAA-AC-GEN023 Safety Risks and Mitigation Measures Associated with the Covid-19 Global Pandemic.
- ICAO Civil Aviation Recovery Taskforce (CART) Report
- AFCAC High Level Task Force Report
- ICAO Doc 10144, ICAO Handbook for CAAs on the Management of Aviation Safety Risks related to COVID-19.
- Civil Aviation (Safety Management) regulations as amended

3.0 PURPOSE

The purpose of this guidance material is to provide guidance to civil aviation regulatory authorities and service providers when identifying and addressing the safety hazards associated with a return to normal operations following the COVID-19 pandemic. It is important that as a region focus be placed on recovery measures whilst applying principles of management of safety and supporting compliance processes of the service providers.

This is a **supplemental guidance** intended to support the safety managers and coordinators from both the regulatory and operational responsibilities in implementing the management systems in preparation for recovery as described in details in the guidance **No. CAA-AC-GEN023 – "Safety Risks and Mitigation Measures Associated with the COVID-19 Global Pandemic**" issued by the Agency in June 2020. Experts are called to note that, this supplemental guidance is focusing on implementing safety management processes including inspections, audits and surveys necessary for COVID-19 recovery phase; as well as mandatory and voluntary reporting systems.

In addition, this guidance should be read jointly with document **No. CAA-AC-GEN023** in support of Partner States on implementation of safety management related to recovery operations or any operational changes.

4.0 COLLABORATIVE SAFETY MANAGEMENT APPROACH

During this era of COVID-19 collaborative and cooperative approach between the regulators and service providers cannot be overemphasized. It is through collaboration and cooperation within the industry that the EAC region and world the civil aviation industry can maintain safety systems and protect public using air transport system. On one hand, the regulators are tasked with the following responsibilities:

- **Communicate, collaborate and cooperate** with the service providers and stakeholders as part of collaborative decision making (CDM);
- Develop mechanism for collection of data and analysis of operational safety of the air operators, air navigation service providers, aerodrome operators, aircraft maintenance organizations, aviation training organizations and other fixed base operators;
- Promote inclusive and collaborative atmosphere between the regulators and operators in identifying operation hazards, conducting risk assessment processes and identifying mitigative measures in a spirit of "we are in this together" using the recommended Bow Tie method or alternative risk management tools;
- **Promote implementation of recommendations** of the ICAO Civil Aviation Recovery Task Force (CART) and AFCAC High Level Task Force (HLTF) related to safety at State and regional level recovery measures and the ICAO Roadmap to Civil Aviation Recovery;

• **Conduct safety performance monitoring (SPM)** to assess level of effectiveness of the resultant mitigation measures within an operational context to ascertain continued safety and confidence of the travelling public during the recovery period.

On the other hand, the service providers (operators) are tasked with the following responsibilities

- **cooperate and interface** with the regulators and other stakeholders as part of collaborative decision making (CDM) related to implementing COVID-19 recovery measures
- Support the regulator in the collection of data and qualitative analysis related to the domain of operations that the operator is providing;
- Conduct system maintenance and implementation of the safety measures to ensure that return to normal operation is uneventful and that public safety is safeguarded;
- **Participate and support implementation of safety recommendations** of the ICAO Civil Aviation Recovery Task Force (CART) and AFCAC High Level Task Force (HLTF) related to safety including any progressive guidance by ICAO;
- Conduct self-audits, safety controls and share safety information with the regulators to assess level of effectiveness of the resultant mitigation measures within an operational context to ascertain continued safety and confidence of the travelling public during the recovery period.



Figure 1: Regulators – operators' interface and collaborative environment

5.0 FRAMEWORK FOR MANAGEMENT OF SAFETY RELATED TO COVID-19 RECOVERY PHASE

The framework for safety management for the recovery to normal operations constitutes a set of linked process risk-based actions aiming at ensuring that operational safety is maintained during the recovery or re-establishment phase. As a general rule, the framework for safety management constitutes the following actions as described in Table below:

S/N	ELEMENT	ACTION REQUIRED BASED ON RISK-BASED APPROACH	BENEFITS AND DELIVERABLES
1	Stakeholders Interface	Communicate, collaborate and cooperate to achieve collaborative decision making	Interactive resolution of safety issues
2	Collect and analyze data	 Conduct qualitative inspections, safety audits and survey of operators to ascertain system safety; Implement mandatory and voluntary occurrence reporting systems (Ref. CAA-O-GEN032A Procedures for Management of Mandatory Reporting Safety and CAA-AC-GEN021A – Voluntary and Confidential Reporting System 	Understanding existing system condition and performance during and post COVID- 19 pandemic
3	Identification of hazards	Identification of potential and latent conditions leading up safety risks	Understanding inherent threats within the system
4	Assess Risks	Establish level of severity and probability of risks leading up to undesired safety events. Use of Bow-Tie process is recommended	Understanding level of safety risks based Collaborative Decision Making (CDM)
5	Determine Mitigation Actions	Identify measures to reduce or where possible eliminate level of risk in the safety system	Identifying actions to reduce level of risks to as low as practicable
6	Conduct Safety performance Monitoring	Monitor effectiveness of mitigation measures or changes or emerging safety issues	Understanding system performance upon instituting mitigation measures
7	Control of risks	Control the risks to ensure they remain as low as reasonably practicable in return to normal operation	Continuous control of risks to avoid their elevation or emergence of new risks

Table 1: Risk- Based Safety Management Process

For the purpose of description, the process chart below shows the simplified process to assist both the regulators and operators implement a safety risk management system for purpose of ascertaining the reduction or elimination operational risks in return to normal operations.



Figure: 1: Simplified Framework for Management of Safety during the COVID-19 Recovery Phase

6.0 OPERATIONAL CONTEXT FOR SAFETY RISK OVERSIGHT

The regulatory authorities are guided to adopt controlled flexible measures relating to licensing, certification, authorization and approvals. As described earlier, various service providers have been affected by the pandemic in different magnitudes as relates to specialistic operational context. However, the following operational contexts or service provision areas need to be assessed as well inspected and audited to facilitate provision of **qualitative data** necessary for the developing and operationalizing safety risk management system: The following areas are recommended for auditing and inspections to purposes of assessing safety systems of the operators during the recovery (re-establishment) phase in line with the following **operational contexts**:

- a) General considerations;
- b) Human factors;
- c) Flight operations;
- d) Regulators;
- e) Air traffic services;
- f) Aerodromes and Ground Aids;
- g) Airworthiness of Aircraft; and
- h) Ground operations.
- i) Regulators



Figure 2: Domains for safety risk management and oversight during and post COVID-19 recovery

For each of the domains above the Agency has prepared checklists and shared with the Partner States to recovery phase and the responsibilities for assessment, inspections and safety audits as tabulated below:

S/N	CHECKLIST TYPE	QUALITATIVE ASPECTS FOR INSPECTION, AUDITS, COLLECTION AND ANALYSIS OF SAFETY	DOMAIN AND RESPONSIBLE SMEs
		DATA	
1	General Consideration	Collect data and analyze based	• Safety
		 on safety risk management principles 	managers/coordinators
		 Collect data and analyze on staff wellbeing 	• IT
		• Implement mandatory and voluntary reporting system	• HR
			 Operators management level
2	Human factor aspects	Collect data and analyze based on:	Safety managers
		• Assessment of state of human performance for	• HR
		reestablishment of operations (recovery)	 Flight safety experts
3	Operation of aircraft	Collect data and analyze on	Safety managers
		Currency issues	 Flight safety inspectors
		Skills, knowledge and qualifications	 Operators OPS experts
		Flight data monitoring	 Safety review committees
		flight crews training Line and operational proficiency checks	
		Elite and operational proficiency checks Pisk assessment processes	
		need for Exemptions/waivers	
		Dangerous Goods Regulations and policy	
		• flight ops and maintenance when de-storing aircraft	
		• relaxing turn-around and initial report times	
		available air traffic service level	
		 availability of en-route and destination diversions 	
		• risk analysis and processes for non-normal/non-	
		routine operations	

S/N	CHECKLIST TYPE	QUALITATIVE ASPECTS FOR INSPECTION,	DOMAIN AND
		AUDITS, COLLECTION AND ANALYSIS OF SAFETY	RESPONSIBLE SMEs
		DATA	
		 technical flight capability and availability 	
		• software, firmware, navigation and terrain databases	
		are up to date	
		 validity of fuel statistics 	
		 ground services availability 	
		 fuel service meets regulatory standards 	
4	Airworthiness of aircraft	Collect data and analyze on:	Airworthiness inspector
		 currency of line maintenance; 	 Maintenance Engineers
		 training of maintenance personnel 	Safety
		 availability of maintenance crew 	Managers/coordinators
		 expiry of licensees of maintenance 	 Safety review committees
		 reduced availability and timeliness of spare parts 	y
		 reliability of aircraft ground services 	
		 potential for extended MEL/DDL ops 	
		maintenance for immediate availability of aircraft and engines	
		• planning and process for de-storage of airplanes and engines	
		• risks of long-term parking, including wildlife ingress;	
		maintenance and aircraft component checks	
		• compliance with AMM for aircraft and engine de-	
		storage	
		• software, firmware, navigation and terrain databases	
		are up to date	
		• potential for delays in recalibrating tools and	
		equipment	
		• technical flights in light of level and duration of	
		storage	

S/N	CHECKLIST TYPE	QUALITATIVE ASPECTS FOR INSPECTION,	DOMAIN AND
		AUDITS, COLLECTION AND ANALYSIS OF SAFETY	RESPONSIBLE SMEs
		DATA	
		• ground damage to ancrait during prolonged parking	
		down and storage	
		security of stored aircraft	
		• suitability of parking positions for stored aircraft	
5	Air Navigation Services	 Collect data and analyze on: increased risk due to the potential for lack of currency; skills, experience, knowledge and qualification distribution across shifts training and checking requirements and expiry dates' simulator refresher training use of different sets of equipment for each shift availability of medical examiners and potential impact on licensing capacity imbalances and unusual traffic patterns at regional and/or network level need to manage increased volume of training flights threat of increased runway incursions due to 	 ANS inspector Air Navigation Engineers; ATM specialists Safety Managers/coordinators Safety review committees
6	Aerodromes	procedural drift for returning staff Collect data and analysis on:	AGA inspectors
		• increased risk due to the potential for lack of currency	
		• skills, experience, knowledge and qualification	Aerodrome Engineers;
		• risk of airside staff complacency due to growing activity levels	Emergency Operations
		• risk of staff work overload due to growing activity levels	Wildlife specialists
		 risk of returning/current staff inability to perform their duties 	 Safety Managers/coordinators

S/N	CHECKLIST TYPE	QUALITATIVE ASPECTS FOR INSPECTION,	DOMAIN AND
		AUDITS, COLLECTION AND ANALYSIS OF SAFETY	RESPONSIBLE SMEs
1		DATA	
		• potential for increased numbers of disruptive	 Safety review committees
		passengers	
		• risk from staff working in unfamiliar or non-standard	
		locations	
		 accuracy, currency and timely transmission of NOTAMs 	
		 maintenance of active wildlife control measures 	
		• the equipment and airport movement areas are in safe condition	
		 reduced or changed runway/taxiway availability due to parked aircraft 	
		• security provision resulting in an in-flight security incident and degradation of security facilities;	
		• risk of deviations from regulatory and/or	
		organizational requirements, policies and procedures	
		• services (e.g. fuel, water) meet regulatory standards	
		• efficiency of emergency response due to lack of	
		exercises, parked aircraft, obstructed access roads,	
		staff availability;	
		 requirement to keep aerodrome facilities and services operational and certified; 	
		• potential for pavement surface damage from long-	
		term parking of aircraft;	
		• possible ramp incidents to aircraft during increase of	
		ground activities;	
		• likelihood of delays or cancellations to planned	
		infrastructure improvements	
		 sufficient engine running capability exists 	

S/N	CHECKLIST TYPE	QUALITATIVE ASPECTS FOR INSPECTION,	DOMAIN AND
		AUDITS, COLLECTION AND ANALYSIS OF SAFETY	RESPONSIBLE SMEs
		DATA	
		• management of fuel in tanks, vehicles and feeder	
		lines and;	
		 management of potable water supplies 	
7	Ground operations	Collect data and analyze on:	Ground handling
		 risk due to the potential for lack of currency; 	superintendent
		 skills, experience, knowledge and qualification; 	
		• risk of ground staff complacency during growing	• Airport operations
		activity levels;	personnel
		• risk of work overload of staff due to growing activity	Duty managers
		levels;	, ,
		• process for coordination between flight ops	 Safety
		requirements and ground ops for de-storage of	Managers/coordinators
		ground service equipment;	
		 de-storage and checks of ground equipment; 	Salety review committees
		 airport security provision related to ground operations; 	
		• risk of deviations from regulatory and/or	
		organizational requirements, policies and procedures;	
		• loading errors due to unaccounted ULDs on aircraft	
		(e.g. ground staff unaware of ULDs stored on grounded aircraft);	
		• services (e.g. fuel, water) meet regulatory standards;	
		• possible ground damage to aircraft during prolonged	
		parking;	
		• management of fuel in tanks, vehicles and feeder	
		lines;	
		 management of potable water supplies; 	
		•	
8	Regulators	Collect data and analyze on:	
		 sufficient staff available to handle system demands 	 SSP manager;

S/N	CHECKLIST TYPE	QUALITATIVE ASPECTS FOR INSPECTION,	DOMAIN AND
		AUDITS, COLLECTION AND ANALYSIS OF SAFETY	RESPONSIBLE SMEs
		DATA	
		• skills, experience, knowledge and qualification and	 SME inspectors;
		sufficiency of regulatory staff	 Safety review committees
		 possible reduced staffing levels and increasing workloads 	 Safety Review Board
		 sensitivity to the challenges faced by operators, auditors and inspectors during recovery period 	
		 effectiveness of safety resources for operators; 	
		 oversight during phased return to normal operation 	
		 handling of exemptions/waivers 	
		 interface with operator's safety managers on obligations 	
		 flight time limit alleviations/flexibility 	
		availability of medical examiners and potential impact	
		on licensing	
		• use of waivers rather than extensions to meet periodic	
		license and training requirements	
		 extension of the training intervals 	

 Table 2: Summarized Aspects for Qualitative Safety Data Collection and Analysis

7.0 IMPLEMENTING SAFETY RISK MANAGEMENT PROCESS

The safety risk management process is guided in detail in Doc No. CAA-AC-GEN023 -Safety Risks and Mitigation Measures Associated with the COVID-19 Global Pandemic. The identification of safety hazards related to the COVID-19 pandemic and the risk management can be facilitated by the use of the Bow Tie tool on institute necessary controls on the risks for full recovery whilst focusing on the recommendations of the ICAO CART and AFCAC HLTF reports.

The safety managers and coordinators are guided to disseminate the checklist for each of the domain and experts in all ICAO USOAP audit areas and ensure customization at Partner States level and their use to collect and analyze qualitative safety data. In addition, safety managers and coordinators from the regulatory and operational responsibilities must maintain cooperative and collaborative decision making throughout the safety risk management process for optimal results.