



الهيئة العامة للطيران المدني
CIVIL AVIATION AUTHORITY
قطر QATAR



ICAO

MIDANPIRG/22 & RASG-MID/12

Doha, Qatar | May 4-8, 2025



Michael V. Elmir

Senior Director Safety & Quality/Saudi Arabia



How the Regulations Positively Impact – on Safety Performance in Ground Handling



01

Regulations Support GHA

02

Safety Performance

03

GACA Regulations Part 151

04

Safety Management Systems



01

GACA
Regulations
Supporting
Ground
Handling



Overview – Embarking on Rich Clientele for Local & Global Growth



100+
Airlines



118 M
Passengers



714,000
Flights



100 M
Baggage



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Safety Culture – A New Structure to Institutionalize a New Culture



Complete restructuring to comply with **GACAR Part 151 and Part 5** (Safety Management System)



Establish and maintain an **SMS and QMS** that reflects SGS organization and its operation.



Added **new management level** with an airline and fixed wing experience.

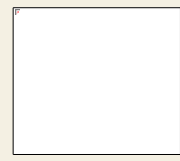


02

Safety Performance

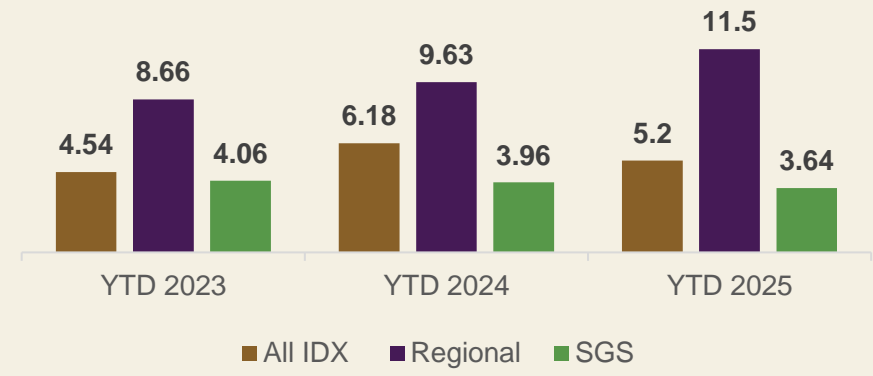


Incident Ratio per 10,000 Flights – 12 month rolling rate



Ramp
Incidents

SGS has performed better than regional and International benchmarks of IATA Incidents Data Exchange (IDX) regarding all **Ramp incident activities**.

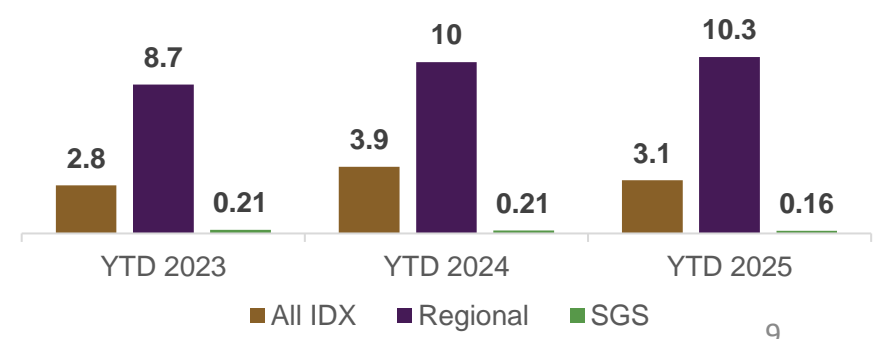


Source: IATA Incidents Data Exchange



Aircraft
Incidents

SGS has performed better than International benchmarks of IATA Incidents Data Exchange (IDX) with 0.25 regarding **Aircraft Incidents in Ramp/Loading/Ground services Equipment**.

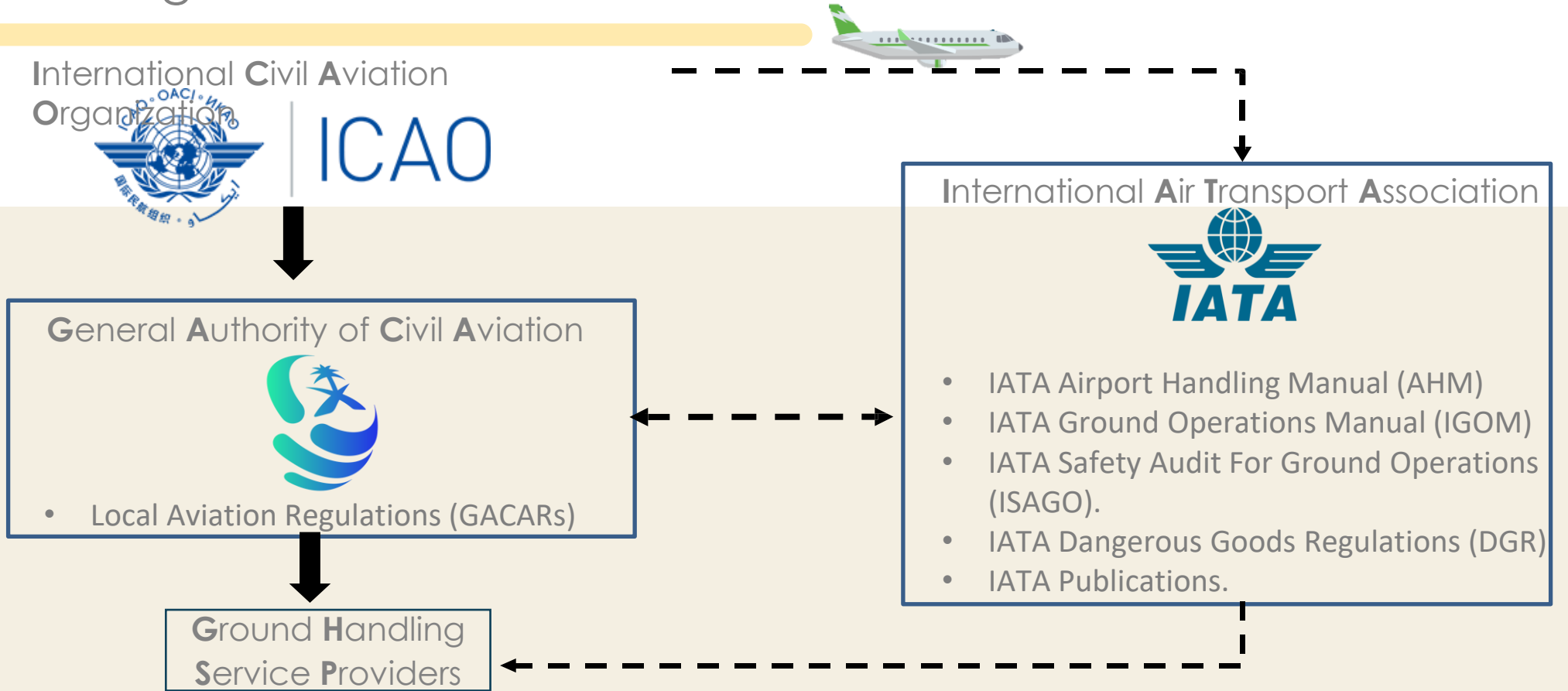


03

GACA
Regulations
Part 151



GACAR – GACA Regulations



GACAR – GACA Regulations



GACAR 151 prescribes the rules and technical requirements governing organizations who provide ground services at an aerodrome within the Kingdom of Saudi Arabia (KSA) within the applicability of GACAR Part 139.

GACAR 151 Relates to Ground Service Providers and includes:

- Subpart A – General.
- Subpart B – Certification.
- Subpart C – Personnel Requirements.
- Subpart D – Ground Operations Manual Requirements.
- Subpart E – Training Requirements.
- Subpart F – Ground Support Equipment and Facilities.
- Subpart G – Fatigue Management.
- Subpart H – Quality Assurance.
- Subpart I – Records and Reports.

(GACAR 151) GROUND SERVICE PROVIDERS

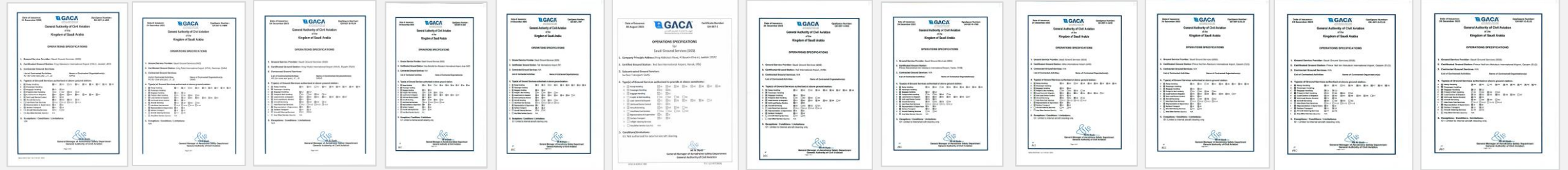


GACAR – GACA Regulations



GACA 151 RE-CERTIFICATION

JED, DMM, RUH, and MED, AHB, TUU, GIZ, ELQ, TUI, AJF, RSI, NUM, BHH, ULH,



ISAGO CERTIFICATION

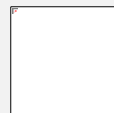
Head Office (HQ), JED, RUH, MED, DMM, AHB, TUU, GIZ, ELQ



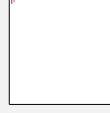
SAFETY PROMOTION | CONTINUOUS IMPROVEMENT



30
Safety Officers



+1500
Safety Session



+13000
employees

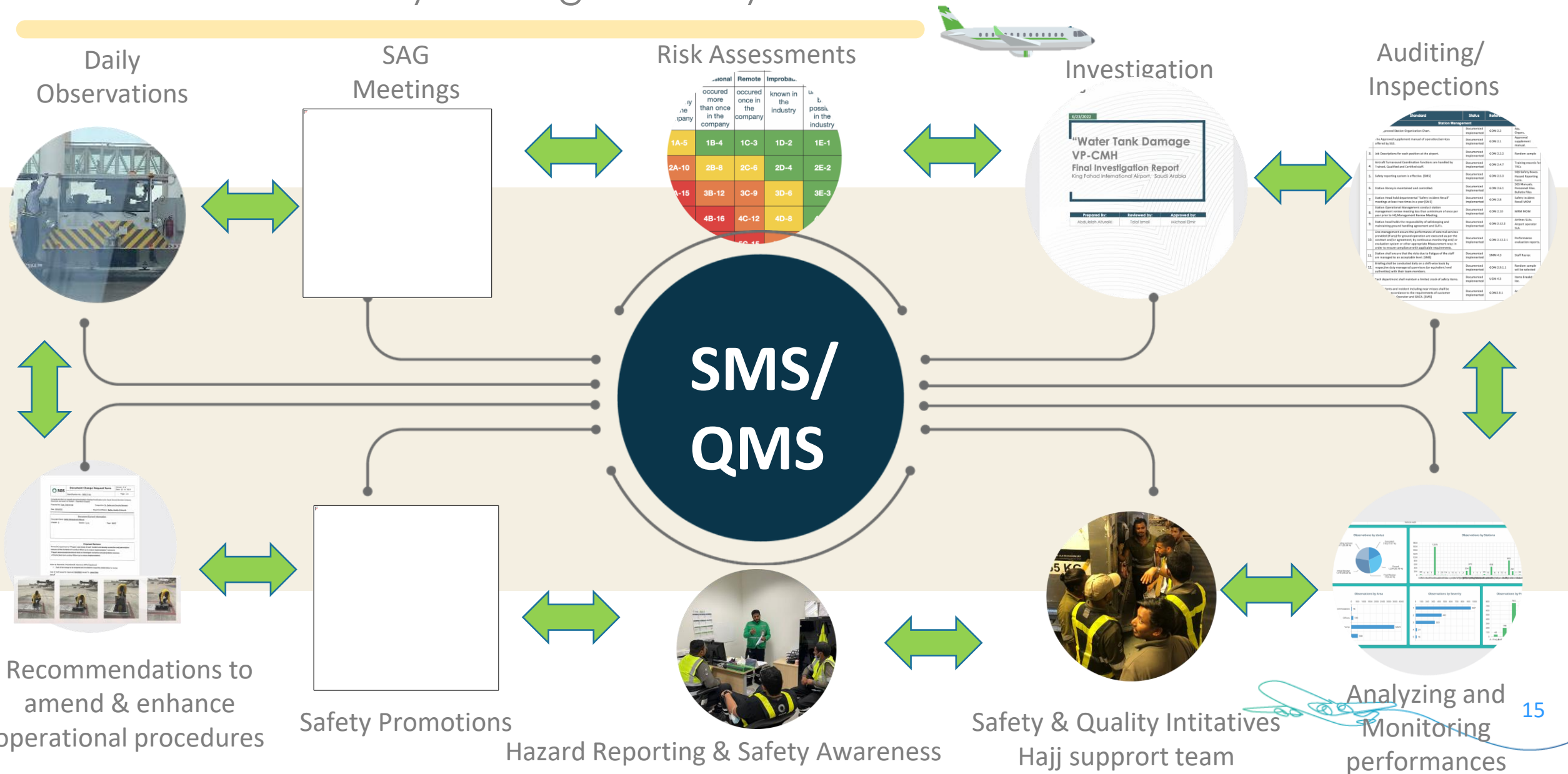


04

Safety Management Systems



GACA Part 5 – Safety Management Systems





The certificate holder must define accountability for safety within the organization's safety policy for the following individuals:

- Accountable executive, as described in GACAR § 5.25.
- All members of management with regard to developing, implementing, and maintaining SMS processes within their area of responsibility, including, but not limited to:
 - ✓ Hazard identification and safety risk assessment.
 - ✓ Assuring the effectiveness of safety risk controls.





GACAR Subpart C 5.53 When applying safety risk management, the certificate holder must have a process to describe and analyze the system for use in identifying hazards under paragraph (c) of this section, and developing and implementing risk controls related to the system under GACAR § 5.55(c)

- ❖ **Identify** risks posing a threat to the organisation;
 - ❖ **Eliminate** the risk where possible or **reduce** the risk to an acceptable level;
 - ❖ **Manage** the remaining risk so as to avoid any undesirable outcomes.
- This process enables the organization to minimize losses and maximize gains.



**Only once a risk is identified
can it be managed.**



GACA Part 5 – Risk Management

Description

The initiative of demonstrating Hydrogen powered vehicle / GSE by partnering with both Toyota and Air product providing Hydrogen mobile refueling equipment for the demonstration in Dammam Airport.



Toyota Vehicle
/ GSE

MIRAI

Forklift

Stakeholders

GACA, DACO, SGS, Air Products

Phase 1

- SGS – Toyota – Air product

Phase 2

- SGS – Toyota – Air product & DACO

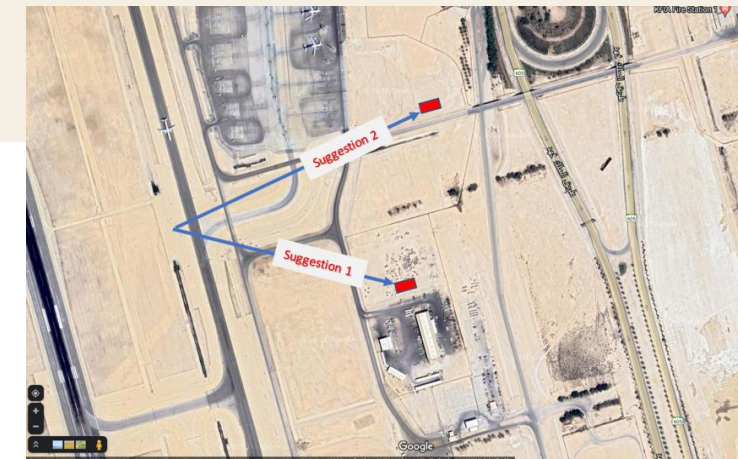
Phase 3

- SGS – Toyota – Air product & DACO
- MOE & GACA

SGS Operational Risk Assessment

Station	DMM	Risk Rating	Underlying Hazard, Related Mitigation and Reference
Purpose	Possible Hazards of H2 Mobile Station	Negligible	No Action required, but facts must be recorded.
Date	18/12/2022	Minor	Perform any action thought to be possible to at local level where reasonably practicable to move risk into green category.
Assessor	Capt. Talal Ismail Mohamad Sebah	Medium	Risk must be reduced as safety is not fully ensured. Action shall be taken urgently to reduce the risk by one category minimum.
Department	Safety, Quality and Security	High/Major	Urgent action must be taken to reduce the risk to lowest reasonably practicable level. Substantial risk. Safety is not ensured

Sr #	Hazard	Risk Intended(Consequence)	Severity	Probability	Risk With Existing Controls	Existing Controls	Action Owner	Target	Severity	Probability	Risk With Mitigation
1	Ignition in the vicinity of H2 and O2 mixture	Fire and explosion: Equipment damage and possible injuries Potential fire and Explosion	5	C	5C	The site will be barricaded to restrict any operational staff or equipment for operating in close proximity, signage is prepared to avoid any ignition or sparks around the Hydrogen fueler along with no smoking and caution signages as well. Memo will be sent out to all staff to ensure compliance with the precautionary measures	SGS	25-Dec-2022	5	E	5E
2	Mechanical failure/improper joints and fittings	Hydrogen leak in piping could cause fire and explosion.	3	C	3C	Joints and fittings are sized to prevent any catastrophic failure. Gas detection system integrated with actuator valve to cut the supply of H2	SGS	Completed	3	E	3E
3	Overpressure rupturing membrane	Hydrogen leak in electrolyser causes fire and explosion.	4	B	4B	Not Applicable to Equipment	SGS	Completed	4	D	4D
4	Mechanical failure/improper joints and fittings.	Hydrogen leak in storage tank could cause fire and explosion.	4	B	4B	Relief devices are sized to prevent catastrophic failure. Gas detection system integrated with actuator valve to cut the supply of H2	SGS	Completed	4	D	4D
5	Equipment failure, worn out seals	Compressor failure, Potential H2 leaks.	3	C	3C	Not Applicable to Equipment	SGS	Completed	3	E	3E



GACA Part 5 – Management of Change

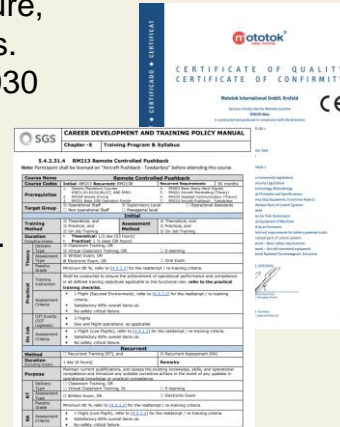


MOC

Ground Handlers need to ensure that every change is carefully assessed for risks and mitigation before implementation, focusing on **safe change**. As part of the SMS framework, change management is a proactive safety activity to identify new hazards, reassess existing controls, and maintain operational safety standards.

Mototok Spacer 8600

- Reviewed risks related to introducing the electric Mototok Spacer 8600 at NEOM Airport, focusing on remote control failure, interference, and battery issues. The change supports Vision 2030 and sustainability goals by improving safety, cutting emissions, reducing costs, and enhancing pushback efficiency.



Trailer-mounted versus truck-mounted units, Hybrid Equipment (Belt Loader & Pax)

- Risk assessing and evaluating the use of trailer-mounted vs. truck-mounted ASU, ACU, GPU units, and Hybrid Equipment to optimize safety, efficiency, and sustainability, noting a current higher reliance on trailer-mounted units.

Item	Category	Severity	Frequency	Control	Residual Risk	Owner	Due Date	Status
1	1	High	Medium	1	Low	1	1	1
2	2	Medium	Low	2	Low	2	2	2
3	3	Low	Low	3	Low	3	3	3
4	4	Low	Low	4	Low	4	4	4
5	5	Low	Low	5	Low	5	5	5
6	6	Low	Low	6	Low	6	6	6
7	7	Low	Low	7	Low	7	7	7
8	8	Low	Low	8	Low	8	8	8
9	9	Low	Low	9	Low	9	9	9
10	10	Low	Low	10	Low	10	10	10

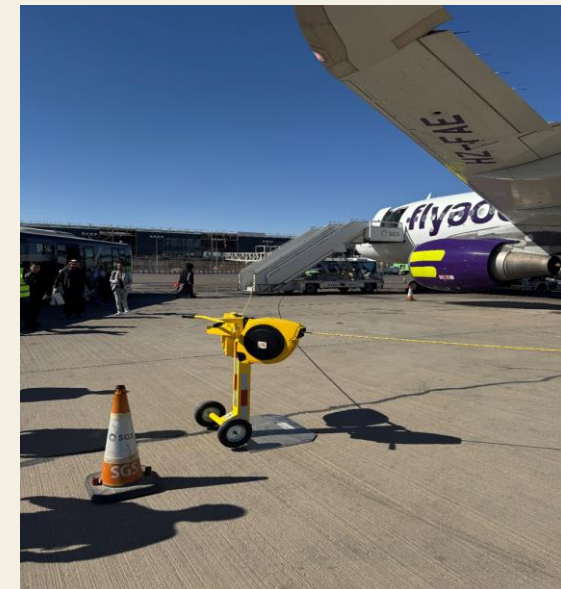


PLB Operations Door L1 B787 Assessment

- Assessed the risks of docking Passenger Boarding Bridges (PBB) to the L1 door on B787 aircraft at KAIA Terminal 1, addressing challenges due to the Angle of Attack (AOA) sensor proximity and absence of SOPs. Recommendations and SOPs were developed to enable safe docking at both L1 and L2 doors, supporting faster and safer turnaround times.

Passenger Guide Device Assessment

- Evaluated hazards related to the Passenger Guide Device, including severe weather, incorrect placement risks, and visibility issues at night. Recommendations were made to ensure safe deployment and improve passenger flow, boarding times, and ground handling efficiency.



GACA Part 5 – Safety Assurance



The certificate holder must develop and maintain processes and systems to acquire data with respect to its operations, products, and services to monitor the safety performance of the organization.

The Three Lines of Defense Model



Safety, Quality and Security Department
SQS Audit Plan - 2022

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1 SAT	1 TUE	1 TUE	1 FRI	1 SUN	1 WED	1 FRI	1 MON	1 THU	1 SAT	1 THU	1 FRI
2 SUN	2 WED	2 SAT	2 MON	2 THU	2 SAT	2 TUE	2 WED	2 FRI	2 SUN	2 WED	2 THU
3 MON	3 THU	3 THU	3 SUN	3 FRI	3 SUN	3 SUN	3 WED	3 SAT	3 MON	3 THU	3 SAT
4 TUE	4 FRI	4 MON	4 MON	4 WED	4 MON	4 THU	4 THU	4 TUE	4 FRI	4 FRI	4 SUN
5 WED	5 SAT	5 SAT	5 TUE	5 THU	5 TUE	5 FRI	5 MON	5 WED	5 THU	5 SAT	5 MON
6 THU	6 SUN	6 SUN	6 THU	6 FRI	6 WED	6 WED	6 THU	6 THU	6 SUN	6 MON	6 TUE
7 FRI	7 MON	7 MON	7 THU	7 THU	7 SUN	7 SUN	7 WED	7 FRI	7 THU	7 MON	7 WED
8 SAT	8 TUE	8 TUE	8 FRI	8 FRI	8 MON	8 FRI	8 MON	8 THU	8 SUN	8 FRI	8 THU
9 SUN	9 WED	9 WED	9 SAT	9 MON	9 THU	9 TUE	9 TUE	9 FRI	9 SAT	9 MON	9 FRI
10 MON	10 THU	10 THU	10 SUN	10 SUN	10 FRI	10 SUN	10 WED	10 SAT	10 MON	10 THU	10 SAT
11 TUE	11 FRI	11 MON	11 MON	11 WED	11 SAT	11 MON	11 THU	11 SUN	11 TUE	11 SUN	11 SUN
12 WED	12 SAT	12 SAT	12 TUE	12 THU	12 TUE	12 FRI	12 MON	12 WED	12 THU	12 SAT	12 MON
13 THU	13 SUN	13 SUN	13 THU	13 THU	13 SUN	13 SUN	13 WED	13 FRI	13 THU	13 SAT	13 THU
14 FRI	14 MON	14 MON	14 THU	14 THU	14 TUE	14 THU	14 THU	14 SUN	14 MON	14 THU	14 WED
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18 TUE	18 FRI	18 MON	18 MON	18 WED	18 SAT	18 MON	18 THU	18 SUN	18 THU	18 THU	18 THU
19 WED	19 SAT	19 SAT	19 TUE	19 THU	19 TUE	19 THU	19 THU	19 SAT	19 MON	19 THU	19 MON
20 THU	20 SUN	20 SUN	20 THU	20 THU	20 SUN	20 SUN	20 WED	20 FRI	20 THU	20 SAT	20 THU
21 FRI	21 MON	21 MON	21 THU	21 THU	21 TUE	21 THU	21 THU	21 SAT	21 MON	21 THU	21 WED
22 SAT	22 TUE	22 TUE	22 FRI	22 MON	22 THU	22 THU	22 THU	22 SUN	22 THU	22 THU	22 THU
23 SUN	23 WED	23 WED	23 SAT	23 SAT	23 SUN	23 SUN	23 WED	23 FRI	23 SUN	23 THU	23 FRI
24 MON	24 THU	24 THU	24 SUN	24 MON	24 THU	24 THU	24 THU	24 SAT	24 MON	24 THU	24 SAT
25 TUE	25 FRI	25 MON	25 MON	25 WED	25 SAT	25 MON	25 THU	25 SUN	25 THU	25 THU	25 THU
26 WED	26 SAT	26 SAT	26 TUE	26 THU	26 TUE	26 THU	26 THU	26 SAT	26 MON	26 THU	26 THU
27 THU	27 SUN	27 SUN	27 THU	27 THU	27 SUN	27 SUN	27 WED	27 FRI	27 THU	27 SAT	27 THU
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30 SUN	30 WED	30 WED	30 SAT	30 SAT	30 SUN	30 SUN	30 WED	30 FRI	30 SUN	30 THU	30 FRI
31 MON	31 THU	31 THU	31 SUN	31 MON	31 THU	31 THU	31 THU	31 SAT	31 MON	31 THU	31 THU

Remarks:
• Supplier Scope "Laundry, Mopower, GSE Maintenance, Staff Feeding, Pest Control, Crew & PAX Transportation" As Applicable.

Main Stations
Regional Station
Local Stations
Service Provider

CEO
Raed H. Al-Idrissi



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GACA Part 5 – Safety Incident Investigation



SGS

3/17/2022

"Case Title" Interim Investigation Report
King Khalid International Airport, Saudi Arabia

Prepared by:	Reviewed by:	Approved by:

SGS

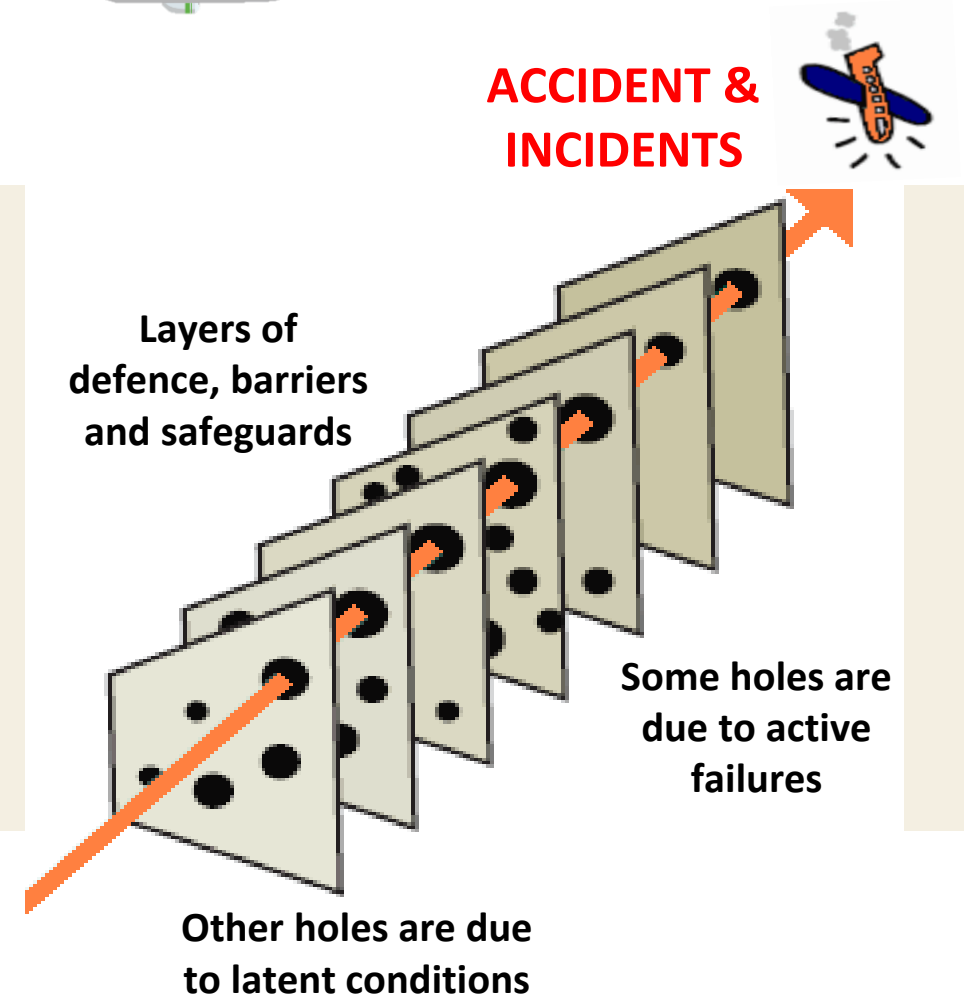
4/11/2022

"Case Title" Final Investigation Report
King Fahad International Airport, Saudi Arabia

Prepared by:	Reviewed by:	Approved by:

SGS INC - 1951
DATED: 18 APRIL 2022

WHY
WHY
WHY
WHY
5



GACA Part 5 – Safety Promotion



Safety Toolbox Talks

SAFETY TOOLBOX TALK

Preventing Dehydration - Importance of Hydration

Operation workers are the athletes of the work world. Just like athletes in sports, people working in the trades have a higher hydration requirement compared to someone working in the office setting. **Dehydration in any setting negatively affects performance and can lead to injury.** Here we will explore what proper hydration is and how to prevent dehydration on the workplace.

What is Dehydration?

We will start with the assumption that we are all healthy and have no underlying health issues increasing our hydration needs. Given this condition, **dehydration happens when you lose more body fluids than you take in**, essentially placing your body in a fluid deficit. In fact, studies have shown that just a slight decrease in bodily fluid levels, as little as 2%, can result in mental complications with short term memory. Common signs and symptoms include:

- Feeling thirsty
- Dark urine
- Headache
- Dizziness or lightheaded
- Muscle fatigue
- Confusion
- Blurred vision
- Elevated body temperature

What Causes Dehydration?

Normal body temperature when healthy is 98.6 degrees F or 37 degrees C. When your environment, activity level, stress, or a combination of these factors increase your body temperature you will notice an increase in:

- Sweating
- Respiratory rate
- Feeling thirsty
- Dry mouth

These are all signs your body is working harder to keep cool and prevent your temperature from getting too high. Unfortunately, when these signs occur dehydration has already begun. Meaning your body is in a fluid or water deficit and needs to be replenished.

Sweat and Dehydration go hand in hand since most of the work is done without the benefit of air conditioning. Consequently, workers in the hottest trades deal with dehydration primarily during the summer months. Increased heat causes the body to lose water through sweat and an increased respiratory rate. This workload is on top of your body's water needs for the labor of your job.

Health and Safety Hydration Campaign

SGS

How to stay hydrated at work

YOUR BODY IS 60% WATER

Loss of Body Weight from Dehydration

2%	Headaches, Dry mouth, Dry lips, Irritation with fatigue
5-7%	Increased heart rate, Decreased alertness, Dry skin, Dry mouth
8%	Loss of muscle mass, Dry mouth, Dry skin, Dry lips, Irritation with fatigue

How much water your body needs every day?

The amount of water required to stay hydrated is different for everyone.

x 40ml =

Please scan the QR code and help us assess station preparedness.

Safety Bulletins

GO SAFELY

BE AWARE

STOP! THINK

PC Air System Cover Hazards

Background

Over the past number of weeks, we have received multiple reports of injuries due to the Cover used as PC Air System. Reports varied from feet, back and hand slipping in between parts, falling, and being struck. A number of work surface exposures to the feet and back happened due to the cover. The workplace safety team has issued a report of the PC Air System "Bulldozer" to the cover.

Prevention Action


Take the following precautions

- Make sure you are wearing the required PPE.
- Always give feet and hands one meter from the side of the pit.
- Use proper lifting techniques.
- Always spread the poles and put it towards you.

This is reminding that all employees should wear safety shoes, contact your manager if any PPE required.

Report all damaged PC Air Covers immediately to the duty managers and/or SGS.

Safety Action Group Meeting



Safety Action Group (SAG)

No.22 Meeting Minute

Thursday 4 of Aug 2022

Project:

Safety Action Group (SAG) Meeting Minute No.22

Subject:

SAG Meeting No.22

Minutes taken by:

Mohammad F Alsharif

Attendees:

Representative	Department
Mr. Abdullah Alghamdi	Representing Station Senior Director
Mr. Ali Alsharif	SGS Safety Officer
Mr. Mohammed Alsharif	SGS Representative
Mr. Abdullah F. Alsharif	Representing Passenger Services
Mr. Abdullah J. Alsharif	Representing Ramp Operations
Mr. Abdulmuneem A. Alsharif	TGH
Mr. Ali Gola	Representing Fleet Solutions
Mr. Abdul K. Alsharif	Representing Royal Fleet
Mr. Wasim M. Alsharif	Representing Royal Fleet
Mr. Kham S. Alsharif	TGH

Agenda:

Presentation from SGS for the previous month of violation.
ISAGO Audit preparation.
External and Internal NCR's KPI's.

Minutes

Owner

Due Date

Close the Incident/Accident reports on Intex.	SGS	1 st Sep 2022
Close all External and Internal NCRs.	TGH	1 st Sep 2022
POD in GSE & Non-Prohibited: 44 "Bulldozer"		
POD in A/C Parking (Service) (Departure): 28 "Bulldozer"		
Expired GSE & Vehicles License: 28 "Bulldozer"		
Not Securing Hand Brake & Chocks (Doilies): "Bulldozer" 12	Ramp Operations Senior Manager	1 st Sep 2022
Safety Cases (Not Placed at all - Incomplete): 19 "Bulldozer"		
Prepare all required documentation and implementation for ISAGO Audit.	All Members	1 st Aug 2022

Mohammad F Alsharif

Prepared by:

Mr. Abdullah Alghamdi

Approved By:



GACA Part 5 – Sustaining Safety Qualifications through Training



Provide **training to attain and maintain the qualifications necessary** to perform duties relevant to the operation and performance of the SMS

Partnership with other leading aviation academies to help enhancing SGS training academy programs particularly in:



Terminal
operations



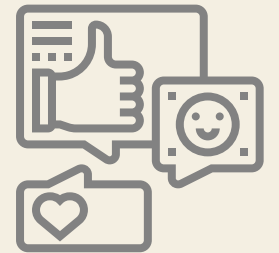
Baggage
handling system



Human
factors



Ramp safety
awareness



Organization
loyalty



GACA Part 5 – Safety Communication



Safety Reporting & Just Culture

Life Saving Rules

FOD Prevention

Checking Pax Documents

Validity of Documents

Hydration in the Heat

Pilfering from Aircraft

Safety Cones Placement

Airline Stationary Control

Fire Fighting & Protection

Cold Stress

Aircraft Arrival Walkaround

Loading into Pallets

Solar Eclipse & Eye Safety

Cargo Compartment

Brakes Engaged on all Dollies

PCAir System (JED)

Baggage Check-in Procedures

Passenger Acceptance



Thank You

