

الشركة المصرية للمطارات
EGYPTIAN AIRPORTS CO.



مطار الغردقة الدولي

Hurghada International Airport Certification Challenges and lessons learned



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1

Overview of Hurghada International Airport /Certification History

2

The Challenges and lesson learned

a: Dealing with Non compliance

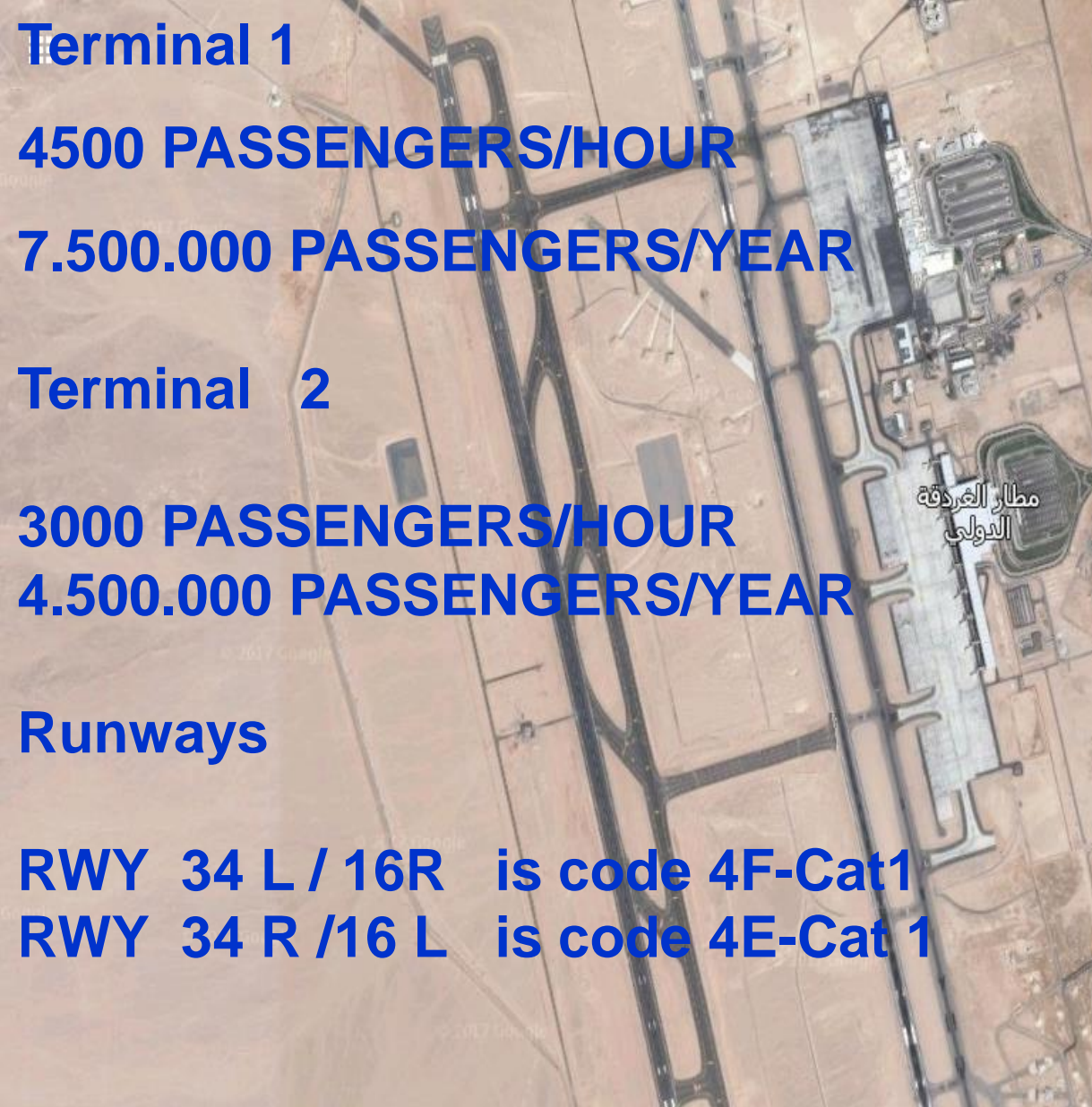
b: Projects (WIP)

c: Maintain Certification Requirements

Maintenance / Operation

Wildlife Hazard Management

SMS implementation



Terminal 1

4500 PASSENGERS/HOUR

7.500.000 PASSENGERS/YEAR

Terminal 2

3000 PASSENGERS/HOUR

4.500.000 PASSENGERS/YEAR

Runways

RWY 34 L / 16R is code 4F-Cat1

RWY 34 R /16 L is code 4E-Cat 1

The Airport had certificate in 2008 And its Renewal has been going on since then

ACM

دليل تشغيل المطار

**HEGN CONSIDERS THE EFFORT DONE IN
CERTIFICATE & PREPARATION OF ACM IS
A STEP AND Added value TO SAFETY
PERFORMANCE**

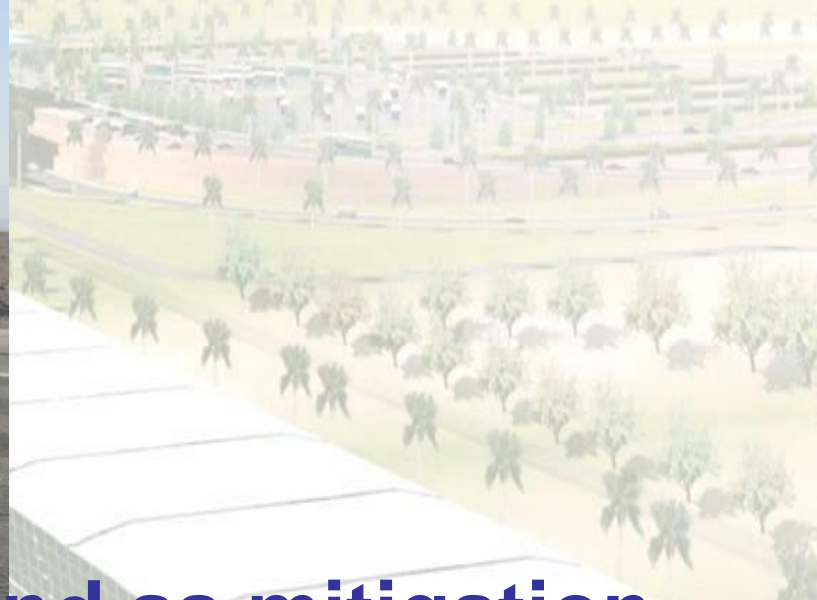
ECAR 139.201

- Physical Characteristics
 - Emergency Planning
 - ARFF
 - Self inspection
 - Visual aids
 - WIP
 - Obstacles control
 - Lighting
 - Zoning regulation
 - WILD LIFE HAZARD CONTROL
 - SMSM
-
- **SOC**
 - **MAINTENANCE MANUAL**
 - **COMPLIANCE Plan RISK ASSESMENT**

Airport Deviations

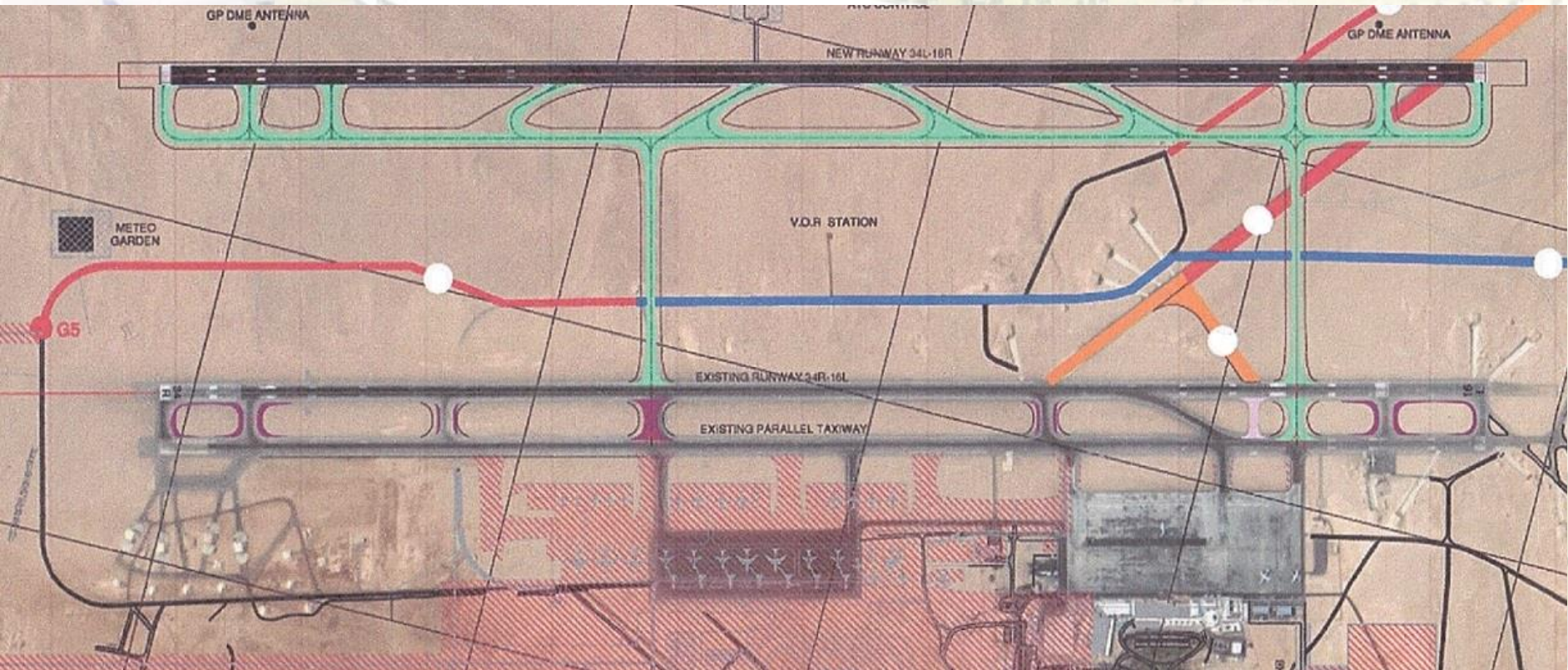


Terrain in RWY strip



**Risk assessment is done and as mitigation
It is marked with flags, lighted by obstruction
lights and published in the AIP
In addition we keep monitor friction
characteristics and weather condition**

Airport Fencing



A fence is built surrounding the entrance

A 22 Km of airport outside fence is built equipped with CCTV surveillance systems & monitor by civil -military

Fences & Gates



An aerial view of an airport terminal and tarmac. The terminal is a large, modern building with a white roof and glass facade. Several aircraft are parked at gates, including a large white jet with a blue tail. The tarmac is paved and has various ground service equipment. In the background, there are palm trees and a clear sky. A blue banner with white text is overlaid on the image.

Airport aeronautical Study



Aeronautical Study – Taxiway 'A' is separated from runway 16L-34R by 165 meters.

- **The separation is published in AIP.**
- **A M.O.A signed between NANSC and EAC that A is not used for A/C with WS more than 30m while there is an aircraft landing or takeoff .**
- **Random and periodic check is done by operation supervisor And recorded in log book.**
- **With 2 RWY the effect will be in case of RWY 34L /16 R closed due to maintenance.**

An aerial view of an airport terminal building with a white roof and a glass facade. Several aircraft are parked at gates to the left. The background shows a green field with palm trees under a clear sky. A dark blue banner with the word "Exemption" in white text is overlaid across the middle of the image.

Exemption



Sings



DONE

Fuel person training

DONE

Training

APRON2 AFL CONTROL

DONE

Training

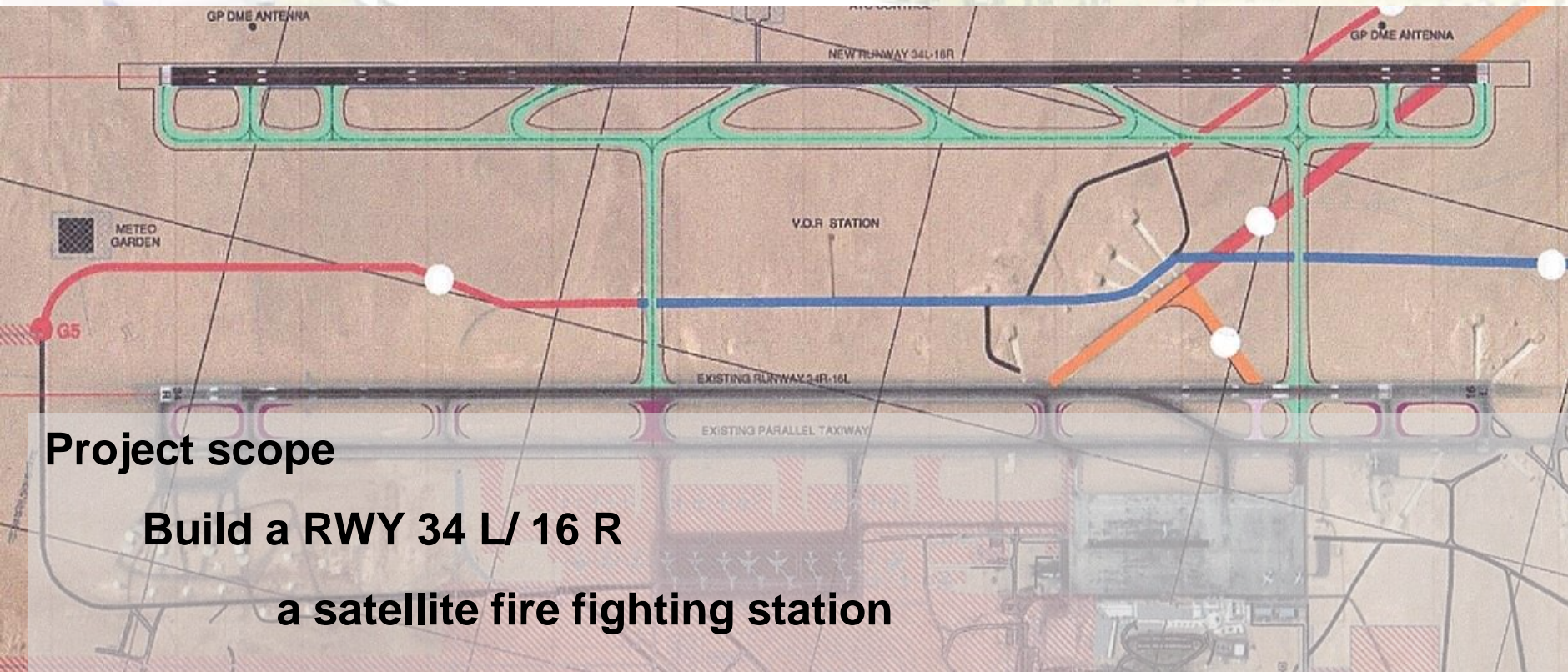
- Safety dep.
- Maintenance dep.
- Operation dep.
- A plan of training for two years is prepared and 78% is done.
- A five years plan in progress

O J T

An aerial view of an airport terminal building under construction. The terminal has a long, white, rectangular roof structure. Several aircraft are parked at gates to the left. In the foreground, there are ground service vehicles and a yellow bell icon. The background shows a green landscape with palm trees. A dark blue banner with white text is overlaid across the middle of the image.

Work In Progress WIP

WIP



Project scope

Build a RWY 34 L/ 16 R

a satellite fire fighting station

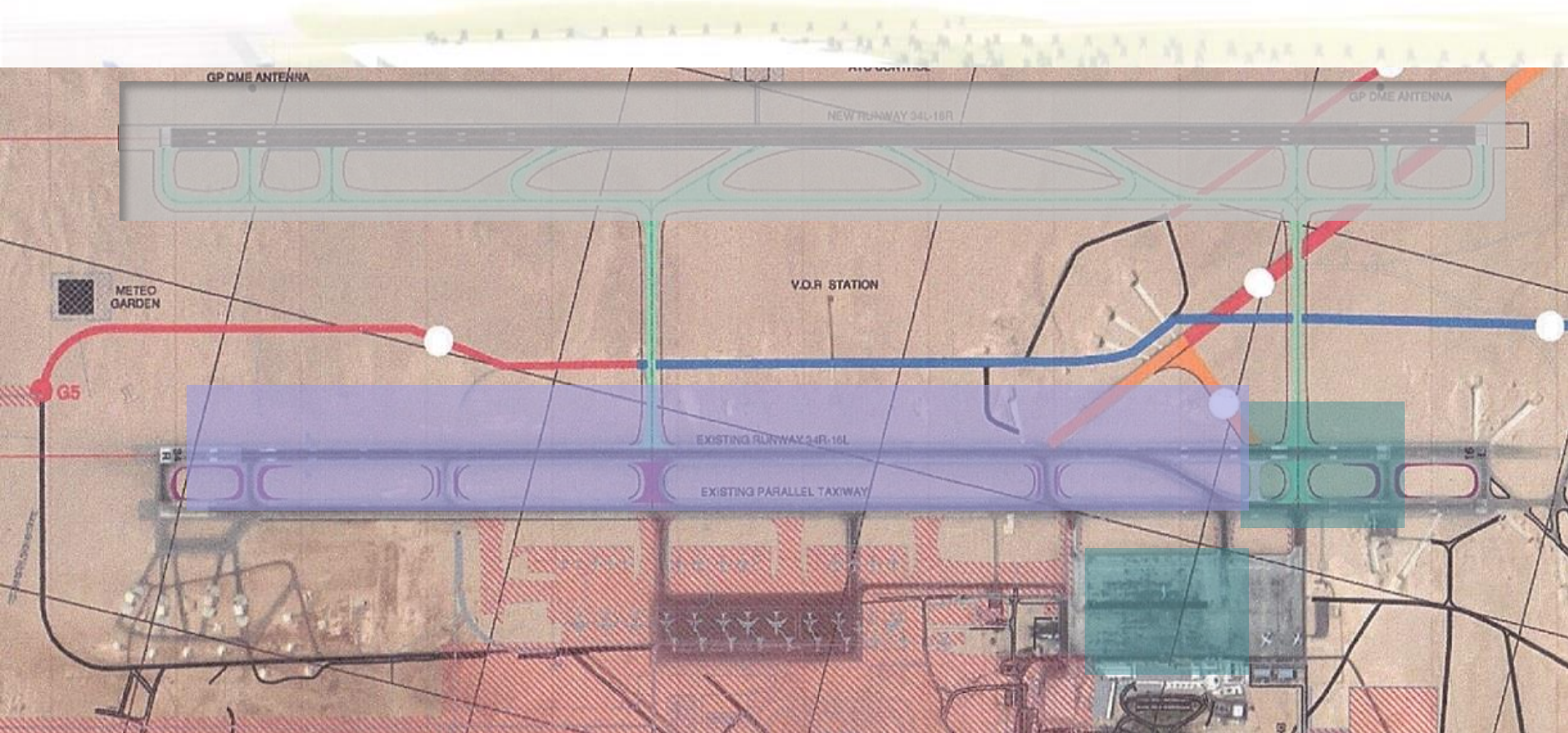
a drainage system

Repaved of RWY 34 R /16 L

upgrade of visual aids and electrical stations

apron1 maintenance project

WIP



Fences equipped with flags and obstruction lights
WIP – M.O.A -Standard taxi routes –equipment routes

Hurghada Airport project - Works related to Add 6 Updated
31-3-2017

Activity ID

Hurghada A
Constructi

6 of 37

Hurghada Airport Project
Phase 2
(16/12/2016-15/1/2017) - 30 Days
The Fence After Modification



A follow up meeting is done weekly

A RST is held several times before start

A program of training for engineers and technicians take place

Management Of Change

Review the ECAR 139 Items -Identifying any possible future negative impact on safe operation

Review the project action plan –unfinished items

Review ECAA Reports

Risk management

Monitor mitigation measures and corrective action

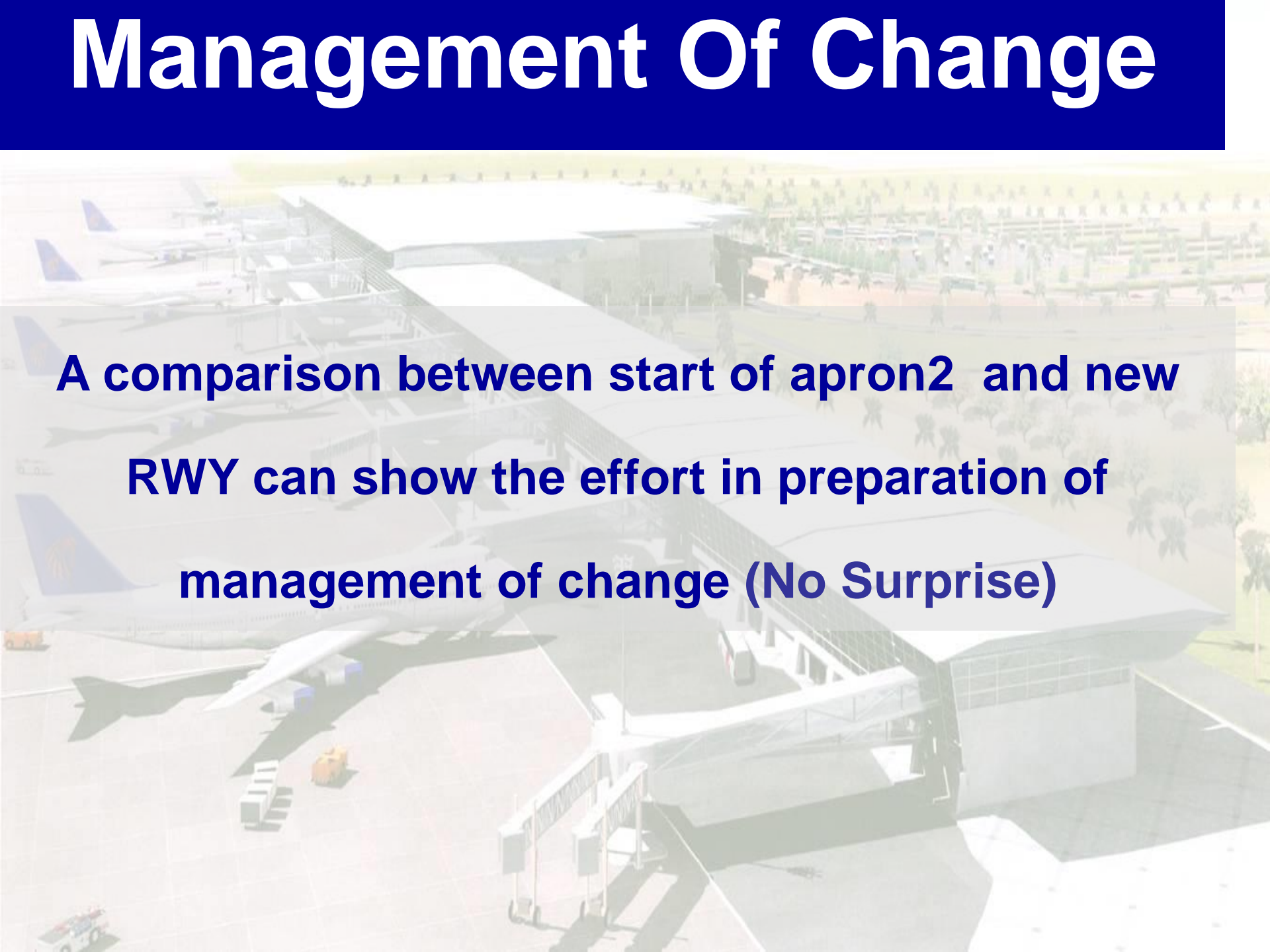
The airport increase the times of inspection and pilot survey that helps a lot

evaluate



Management Of Change

A comparison between start of apron2 and new RWY can show the effort in preparation of management of change (No Surprise)

An aerial photograph of an airport terminal and apron area. The terminal is a large, modern building with a glass facade and a curved roof. Several aircraft are parked at gates, and ground service equipment is visible on the apron. The image is semi-transparent, allowing the text to be overlaid.



Airport Action Plans

RWY STRIP Maintenance project

ECAR 139.(309-3011-315)

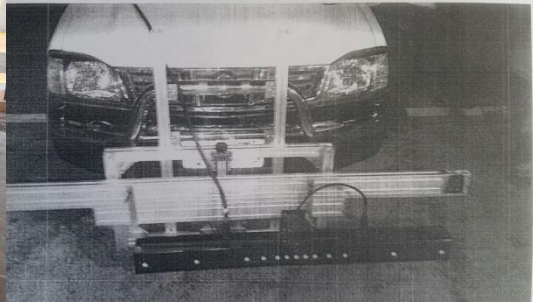
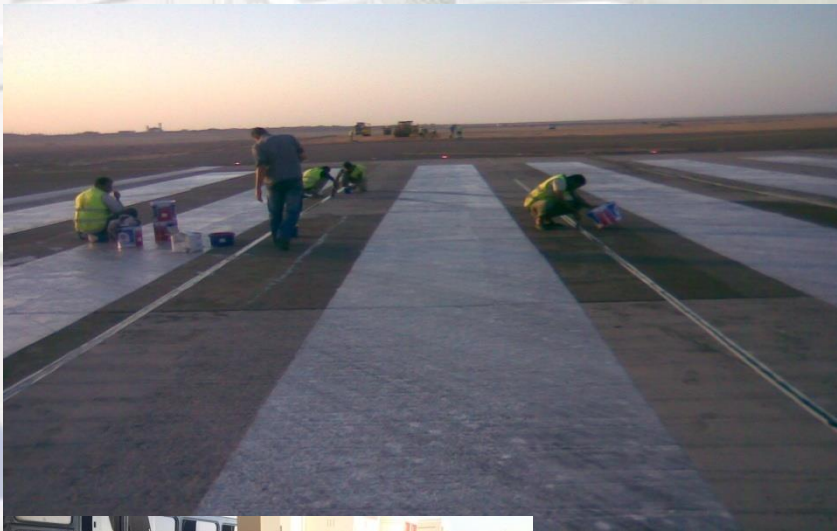


before

RWY STRIP Maintenance project



Maintenance Manuals -Procedures -Equipment



equipment shelter

Apron Flood lighting

ECAR 139.323

Mobile Light used until A Project to increase the lux in Apron1 is finished according to action plan



Firefighting



- Periodic check of no. of ARFF staff is checked
- several successful recorded on site test is done to achieve respons time

A resource management study is done for distribution of ARFF personal

ARFF Equipments

- ARFF equipment is completed according



ECAR 139.335

Rescue
and fire
fighting
training
program

Full scale exercise



27/9/2017

Real Case



Fuel Farm Development



New supplies &
equipments

- Upgrade the station fire system by hiring a consultant to upgrade the fire station's network
- Substitute 2 water pump with others a discharge rate of 1500 gallon / min.



Two supervisors had completed an aviation fuel training course in fire safety .

Aeronautical information

- **The AIP Is Updated to include new movement area and its is reviewed periodically .**



Quality Management system

- Hurghada International Airport started in ISO 9001:2008 certification project at 2009 - certified 11/2012 renewed 11/2015.
- Now we prepare for ISO 9001:2015 transition which planned to be completed in 07/2018
- **Quality management system integrated with SMS by covering the activities in the Air side as “ Apron management processes, Runway self inspection process, Maintenance processes , Aeronautical Revenue process and safety process” which support in safety process enhancement.**

Wild life



The airport completed the equipment's of bird observation according to the plan and it is activated according to action plan

Pest & wildlife Control Company is hiered

An aerial view of an airport terminal building with several aircraft parked at gates. A large blue banner is overlaid across the middle of the image, containing the text 'SMS Implementation'.

S M S

Implementation



Gap Analysis

الهيئة المصرية للطيران
 EGYPTIAN AIRPORTS CO.
 المجلس القومي للطيران
 إدارة سلامة المطارات

ICAO reference	Aspect to be analyzed or question to be answered	Answer	Status of implementation	Action required
Component 1 — SAFETY POLICY AND OBJECTIVES				
Element 1.1 — Management commitment and responsibility				
Chapter 8	Is there a safety policy in place?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Fully Implemented <input type="checkbox"/> Partially Implemented <input type="checkbox"/> Not Implemented	Already HRG Airport has safety policy statement at this Manual Ch.3 (3.1.1.1) and its distributed, understood and communicated through HRG airport.
Chapters 3 and 8	Does the safety policy reflect organizational commitments regarding safety?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Fully Implemented <input type="checkbox"/> Partially Implemented <input type="checkbox"/> Not Implemented	
Chapters 3 and 8	Does the policy provide a clear statement of the organization's safety objectives?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Fully Implemented <input type="checkbox"/> Partially Implemented <input type="checkbox"/> Not Implemented	
Chapters 3 and 8	Does the policy provide a clear statement of the organization's safety objectives?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Fully Implemented <input type="checkbox"/> Partially Implemented <input type="checkbox"/> Not Implemented	
Chapter 8	Does the safety policy include a statement of the organization's safety objectives?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Fully Implemented <input type="checkbox"/> Partially Implemented <input type="checkbox"/> Not Implemented	
Chapter 8	Does the safety policy include a statement of the organization's safety objectives?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Fully Implemented <input type="checkbox"/> Partially Implemented <input type="checkbox"/> Not Implemented	
Chapter 8	Does the safety policy include a statement of the organization's safety objectives?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Fully Implemented <input type="checkbox"/> Partially Implemented <input type="checkbox"/> Not Implemented	
Chapter 8	Does the safety policy include a statement of the organization's safety objectives?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Fully Implemented <input type="checkbox"/> Partially Implemented <input type="checkbox"/> Not Implemented	

HRG Airport
PHASE IV: Operational Safety Assurance

Project (HRG)
 Date: 11/11/2012

Signature: _____ Page 5

Once the gap analysis is complete and fully documented, the resources, structures and arrangements that have been identified as missing or deficient will form, together with those already existing, the basis of **THE SMS IMPLEMENTATION PLAN**

**DATA
sources**

**For
HEGN**

SMS

**Internal
Audits**

**ECAA
Audits
reports**

**Safety
statistical
analysis**

**Safety
Reports**

Reporting system

HURGHADA INTERNATIONAL AIRPORT
ISO 9001:2008 Certified No. EG3/8837

Date: _____ Aircraft Type: _____ Company: _____
Registration: _____

PILOT SAFETY SURVEY

Dear Captain
Welcome to Egyptian Airspace, The Egyptian Airport Company " Hurghada International Airport" is currently carrying out a safety survey to know your opinion and your suggestions in order to improve on existing of aviation safety

AIR NAVIGATION SERVICES		v. good	good	bad
A: Radar Services				
Radar Coverage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
B: Communication				
Area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Approach	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Tower	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Ground (121.9 MHz)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
C: Navigation Aids (En- Route)				
VOR-DME	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
D: Navigation Aids (Approach Landing)				
ILS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
VOR-DME	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
E: ATS				
ATC Radar Services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Vectoring Final App.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Phraseology (rate/quality)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Delaying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FPL/RPL Services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
PIB Services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
AIRPORT SERVICES				
F: Surface Movement Guidance Control System				
Aeronautical Beacon	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Approach Lighting System	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
PAPI System	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
RWY Marking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Taxiways Marking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Obstruction Marking & Lights				
RWY Threshold Light	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
RWY Edge Light	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
RWY End Light	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TWY Lights	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Apron Flood Lights	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Wind cone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
RWY Signs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TWY Signs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Braking action				
Evaluation of Pavement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
RWY Strips	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FOD	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
H: Taxiway				
Braking action	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Evaluation of Pavement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TWY Strips	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FOD	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I: Apron				
Size of aircraft stands	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Marshall	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Follow me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
VDGS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Bridges	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Ground services (speed/quality)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Fuel services (speed/quality)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FOD	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
I: Others				
Surrounding Laser Emission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Confusion of new HRG RWY	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Wildlife and Birds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Please write your comment here:

Safety Committees



- **Safety awareness is implemented Periodically**
- **coordination between all services providers SMS**

There are several safety bulletin are published by safety dep



RVR Not less than 550 m



نشرة سلامة 4 SAFETY BULLETIN 4

وزارة الطيران المدني
الشرعة المصرية للطائرات
مستطير العرفهه الدولي

Temporary
Area

نشرة سلامة رقم 3
Safety bulletin No. 3

لا تعبث
أسفل
الجناح

حافض
السلامة
لا تضعه على حافة الطائرة

الانكماش أمام
الطائرة وعند
طرق الجناح
والمحركات

ممنوع استخدام
المسحوق في حدود
10 م من الطائرة
لتنظيف التكوين

أخطار الطريق
أمام سيارة
الوقود

لا تزيد عن
3 صفوف
3 عربات عشش

رخصة المدة
موجودة بالمدة
ورخصة القيادة
سارية ومناسبة
للمدة

البيكين الأمامي ليد

من كحبات إضاءة التسمية وشاش الترميز

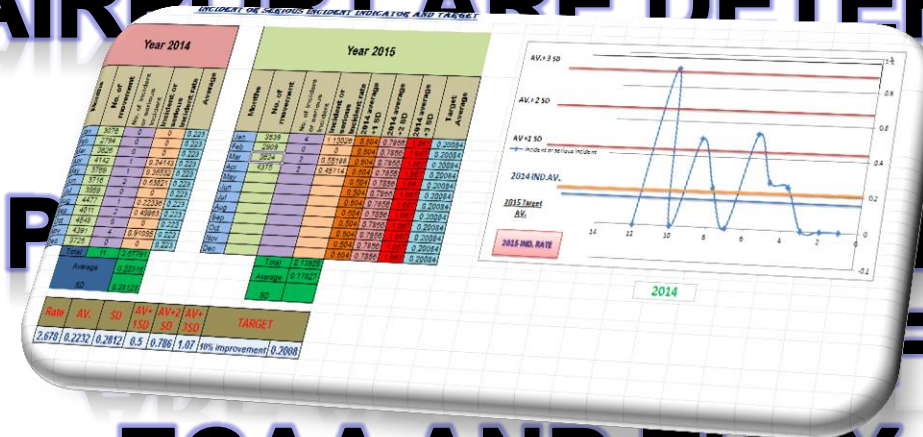
السرعة لا تزيد عن 20
وهكم حول الطائرة

20

50 51

INDICATORS & TARGETS

SAFETY PERFORMANCE INDICATORS FOR HEGN AIRPORT ARE DETERMINED



PERFORMANCE INDICATORS ARE DETERMINED FROM ECAA AND THEY ARE MONITORED MONTHLY AND SENT TO ECAA PERIODICALLY



**We think we on
right way
and
we promise to continue**