

## EASA Part 145 and FAR 145 Perspective

Eng. Hisham Nasser
Chairman Advisor for M& E
EgyptAir Holding Company



Aviation
Safety& Sustainability
19th April 2015
Cairo- EGYPT

## Why My Flight Is Safe-EASA Part 145 and FAR 145 Perspective



ECAR 145 Approved Maintenance Organization.

EASA Part 145 Approved Maintenance Organization.

FAR 145 Certificated Repair Station.



## **Table of Content:**

- Air Transport Industry Evolution,
- EASA Regulation Structure and Standardization,
- The Continuous Monitoring,
- EASA Part 145 and FAR 145 Organization,
- · Moving beyond Safety Compliance and Sustainability.



## **Air Transport Industry Evolution**

















**Aviation** 

#### Aerospace

#### **Defense**

## **Technology**

"Today s innovation is tomorrow 's old hat" **Space** 





| AVIATION SAFETY&SUSTAINABILITY CONFERENCE 19th April 2015-Cairo-Egypt



## **Economy**

#### Prior to 1980's

- · Regulated industry
- Air Travel is Luxury
- Point to Point bases (major cities)
- •All Airlines Functions are bundled (MRO, Catering,...)

#### **Airlines Model**

#### 1980's to 1990's



- Competitions opens travel to middle class
- Hub & Spoke network model
- ·Airlines begin to outsources nonpassengers functions

#### 2000's to?

- •Emerging Market demand & growth of LCC
- · Competition between niche point to point carriers & Legacy hub carriers
- Travel for masses
- •All non-core functions are outsourced

#### All work in-house

- Airframe
- Components
- Logistics

#### **MRO Industry**

#### **Partial Outsourcing**

- · Engineering & Planning
- Line Maintenance

### Airframe

- Components
- Engines
- Logistics

#### All work outsourced

MRO's & MRO Mgt. Firms

- Engineering & Planning
- Airframe
- Engines
- Components
- Line
- Logistics

#### · Engineering & Planning

- Engines
- Line

**MRO's** 



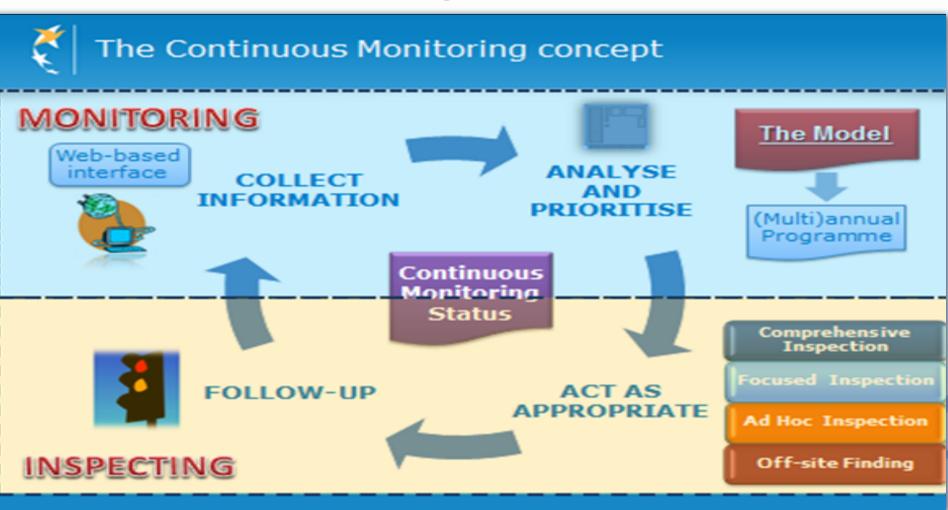
## **EASA Regulation Structure and Standardization:**



Standardization Inspections- Pro-active Standardization- Regulatory feedback



## **The Continuous Monitoring:**

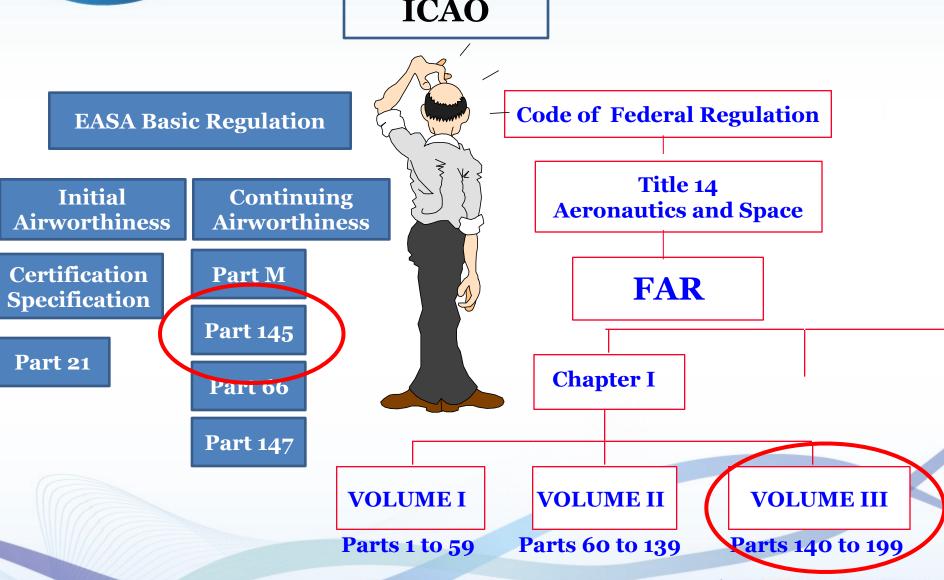




## EASA Part 145 and FAR 145 Organization



#### **ICAO**



AVIATION SAFETY&SUSTAINABILITY CONFERENCE 119th April 2015-Cairo-Egypt



Requirements	EASA Part 145	FAR 145
Scope/ Applicability	Requirements to be met to qualify an organization to become an EASA Part 145 Approved Maintenance Organization (AMO).	<b>Station Certificate and Rules a</b>
Application	Made to EASA for organizations located outside EU.	Made to FAA and must show the necessity for maintaining a U.S. registered aircraft.
Safety and quality policy	Independent audits and a quality feedback reporting system must be demonstrated and reflected into a Maintenance Organization Exposition.	Control System must be demonstrated and reflected into a



Requirements	EASA Part 145	FAR 145	
Personnel	-Accountable Manager has corporate authority for ensuring that all maintenance required by the customer can be financed and carried out to the standard required by this PartPerson with responsibility for monitoring the quality system, including the associated feedback system	by the certificated repair station who is responsible for and has the authority over all repair station operations that are conducted under part 145, including ensuring, that Repair station personnel follow the regulations	
Privileges:	-Maintain any aircraft registered in EU and/or component at its approved locationsArrange for maintenance at Another organization that is working under its quality system.	-Perform maintenance on any article within the rating and limitations in its operations specificationsArrange for another person to perform maintenance for which the certificated repair station is rated.	



Requirements	EASA Part 145	FAR 145
Continued validity/ FAA inspections	-Remaining in compliance with Part-145 in accordance with the provisions related to the handling of findings; and -Authority being granted access to the organization to determine continued compliance with this Part; and the certificate not being surrendered or revoked.	-Must allow the FAA to inspect that it at any time to determine compliance.  -A certificated repair station may not contract a non certificated person unless it provides in its Contract that the FAA may make an inspection and observe the performance of the non certificated person's work on the article.



## Aviation Safety& Sustainability Conference 19th April 2015 Cairo- EGYPT

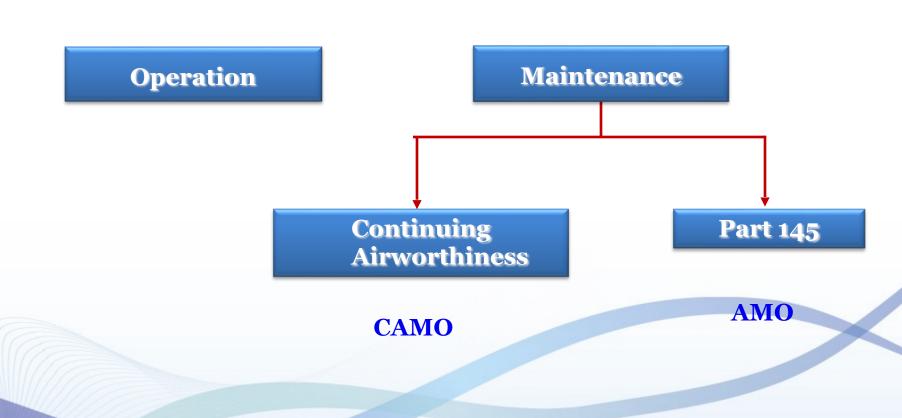
#### **Product and Product Features:**





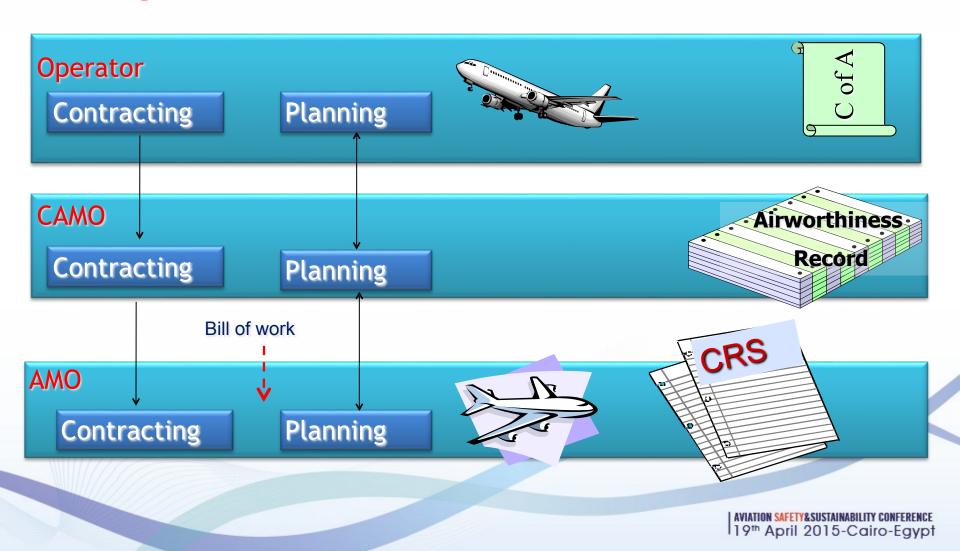
## **MRO Management:**

### **Air Operator Certificate Holder**





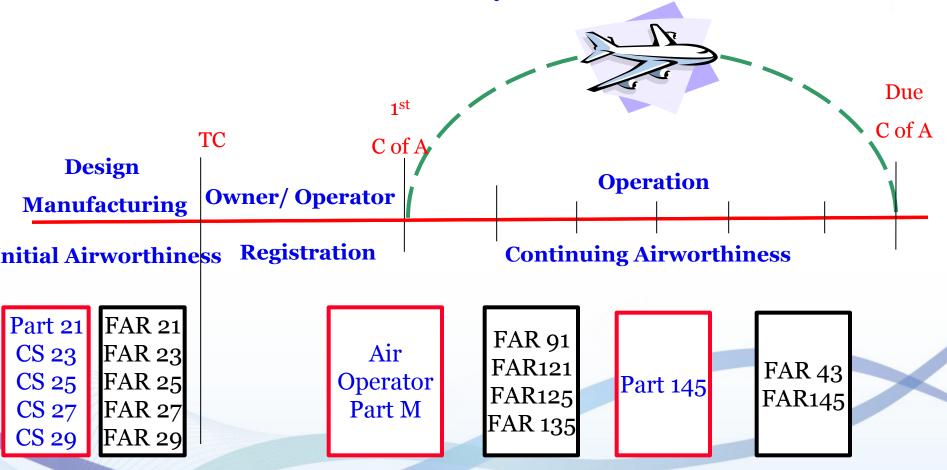
## **Planning for Maintenance:**





#### **Aircraft Certification:**

The aircraft must fly "AIRWORTHY"



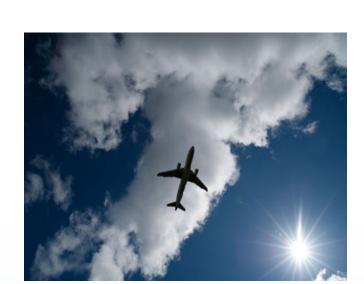




















## Why My Flight Is Safe

- 1- Every aircraft produced is certified by aviation safety authorities before it is allowed to fly,
- 2- Every operating aircraft is certified by AMO before they are allowed to fly
- 3- Because aviation safety is continuously monitored
- 4- Because safety rules are continuously reviewed and improved
- 5- Because the same aviation safety rules apply worldwide
- 6- Because safety benefits from international cooperation

AVIATION SAFETY&SUSTAINABILITY CONFERENCE 19<sup>th</sup> April 2015-Cairo-Egypt



# Moving beyond Safety Compliance and Sustainability



## **Danger and Risk:**

FAA Sanctions

Engine run test

Trent 1000 Blade off

- · <u>Courage</u> to admit mistakes,
- Confidence,
- Transparency.
- <u>Knowledge</u> to correct mistakes,
- Information,
- Education.
- <u>Cash flow</u> to implement corrective and preventive action plans,
- Economics,
- Finance.



**Compromization** Satisfaction:

-Market- Industry- Society --Demand

-Governing& Regulatory Bodies --Needs- Regulation- Evolution

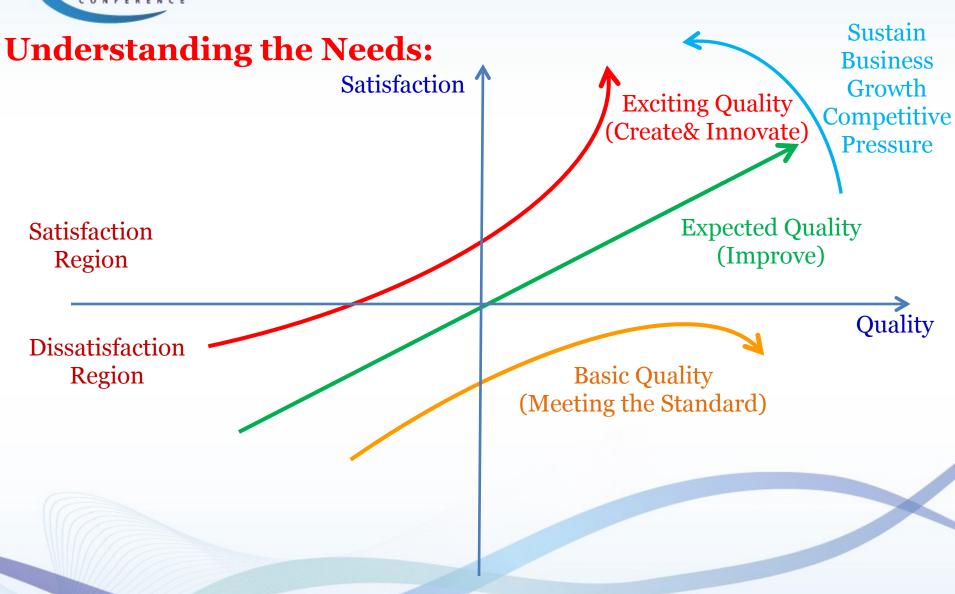
-Average Organizations --Educate- Train- Comply

-Best In Class ---

**Comply-Improve-Innovate** 







AVIATION SAFETY&SUSTAINABILITY CONFERENCE 19<sup>th</sup> April 2015-Cairo-Egypt



#### **Performance and Behavior:**

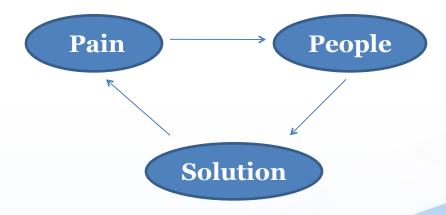
"How can we make the customer more competitive? What is critical to the customer s success?. Learning to answering this question and learning how to provide the solution is the only focus we need".

Jack Welch, CEO, GE









How the organization behavior and performance will enable its people to provide the solution to make the customer more competitive

What makes a customer come and pay money for us!!



## The Challenge:

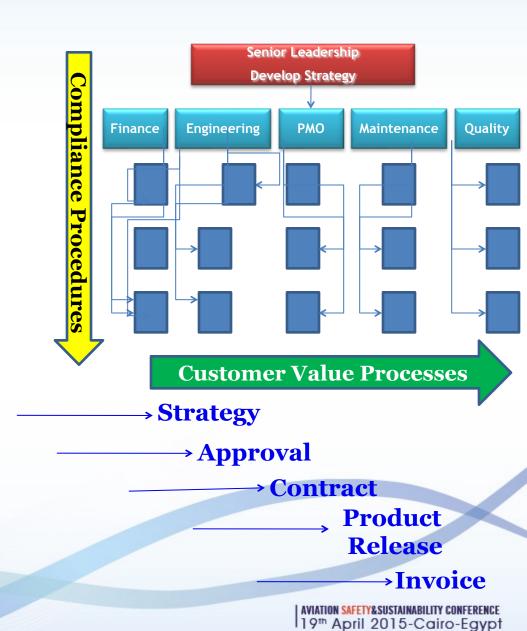


**Process:** 

**Flexible and Consistent** 

**Product:** 

**Complying, Safe and Durable** 





## The Challenge:













## People Since 1932





Competences- Education& Training.
Discipline- Behavior, Attitude& Commitment.

- -Welling.
- Capable.
- Welling.
- · Not capable.
- Not Welling.
- Capable.
- Not willing.Not capable.

AVIATION SAFETY&SUSTAINABILITY CONFERENCE 19<sup>th</sup> April 2015-Cairo-Egypt



## Thank You



Eng. Hisham Nasser
Chairman Advisor for M& E
EgyptAir Holding Company