



Requirements for Improving the QMS

ICAO Secretariat

Ms. Chinga Mazhetese: RO MET/ENV (ICAO ESAF Office)
AFI QMS Virtual Workshop, 19 -21 May 2021





Outline

01

Why do we need to improve the QMS?

02

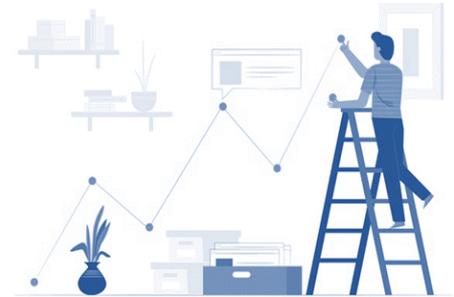
Non-Conformance and Corrective Action

03

Continual Improvement



- To continuously meet the needs of users and enhance their satisfaction.
- To minimize the variations of the systems and identify opportunities for improvement and plan actions to achieve the desired results and increase the customer satisfaction
- To anticipate the mitigation of the risks due to weather conditions.
- To increase the efficiency of the MET Service Provider.

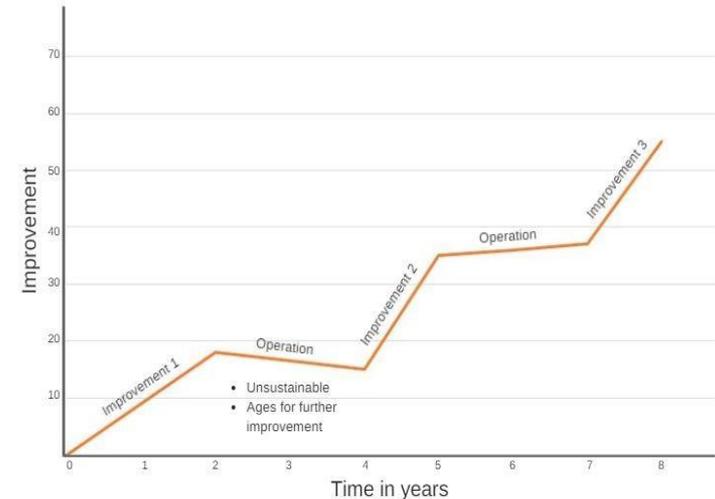




- **ISO 9001:2015, Clause 10** requires the MET Service Provider to implement the QMS improvement process in order to identify opportunities for improvement, plan and implement actions to achieve the desired results and increase customer satisfaction



- Implementing actions to avoid the recurrence of non-conformities
- Step-by-step continuous improvement activities within existing processes, products or services.
- Projects that may involve significant changes to existing processes, implementation of new processes, products or services, introduction of new technology or breakthrough innovation.
- Improvement actions affect processes, products and services and the QMS.



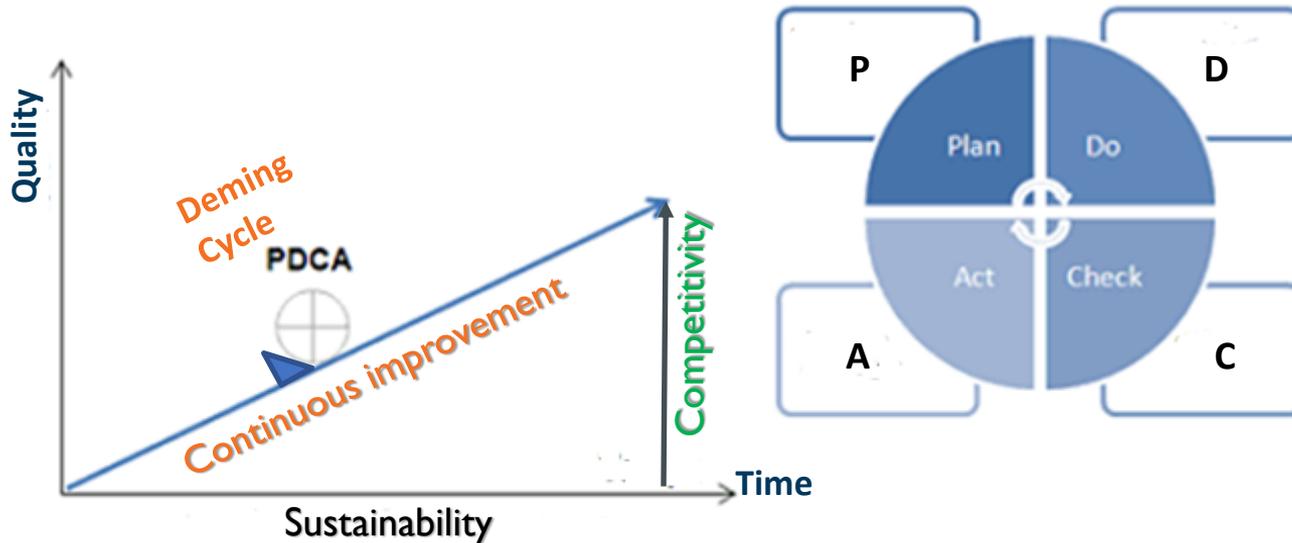


Iterative activities to :

- Increasing the consistency and conformity of outputs, products and services;
- Identify opportunities for process and system improvement;
- Improve process capability and reduce process variation;
- Improve the performance of the Service Provider Organization and provide benefits to its customers and stakeholders.

The MET Service Provider Organization should develop and implement a continuous improvement process following a continuous progress model such as PDCA.

Continuous improvement – Deming PDCA Cycle



- Each person is responsible for "pushing" the "Deming Wheel" up the slope of continuous improvement.
- We have to make gains on the ordinate side in terms of competitiveness and hold on to them on the abscissa side to ensure sustainability.
- It is the steepest possible slope that is aimed at.

Continuous improvement = "Recurrent activities carried out to improve performance".



Non-Conformance and Corrective Actions

- **Non-conformity:** Results that do not comply with the acceptance criteria or established requirements.
- **Corrective action:** Actions to eliminate the causes of non-conformities in order to avoid their recurrence.
- The MET service provider organization **shall develop and implement a procedure to deal with non-conformities** and implement corrective action appropriately.



Non-Conformance and Corrective Actions

How does the MET Authority become aware of non-conforming products in the delivery of MET services?

- Internal and external audit findings (ISO 9001:2015, 9.2)
- Monitoring and measurement results
- Non-conforming output items
- Customer /user complaints
- Non-compliance with legal and regulatory requirements (ex. ICAO Annex 3)
- Problems with external service providers
- Real-time aviation industry feedback while the product is current;
- Feedback from the aviation industry after the operational currency of the product;
- A request as a result of an aeronautical meteorological incident; and
- A request as a result of an aviation safety investigation.



Elimination or rectification of non-conformance

- What circumstances require the elimination or rectification of NCs at the earliest possible convenience?
- When...
 - There is an operational version of the product currently available to the aviation industry and the non-conformance is brought to the attention of the duty aviation meteorologist
 - who will expediently issue an amendment to rectify the non-conformance.
 - There is an operational version of the product currently available to the aviation industry and the non-conformance is identified by the duty aviation meteorologist
 - who will expediently issue an amendment to rectify the non-conformance, for example, an amendment is required as per articulated criteria.
 - The non-conformance has been identified after the operational currency as the result of a request from an investigative body.
 - A non-conformance is raised at an aviation industry forum.
 - Every endeavor shall be made to identify the product(s) in question and the officer responsible for issuing the product(s). Rectification will then be undertaken as expediently as possible.
 - A non-conformance is identified after the operational currency through other (internal) means such as post-analysis or other investigation.
 - The non-conformance should be brought to the attention of forecasters, and any corrective action expediently taken.



Elimination or rectification of non-conformance

- Outcomes pertaining to a non-conformance:
 - should be reported back to the individual or organization that notified the non-conformance.
- A monitoring log of investigations
 - Can be maintained on the internal shared drive.
- All action items from an identified non-conformance (incident)
 - should be logged.



Addressing the root causes of NCs

- The approach to dealing with the non-conformity includes :
 - Assessing the non-conformity;
 - Investigating whether similar nonconformities exist or could potentially occur;
 - Determining the causes of the non-conformity;
 - Identifying actions to eliminate the determined causes;
 - Ensure that there are any adverse effects (risks) associated with the identified actions to be considered before they are implemented;
 - Prioritize and plan the actions to be taken to eliminate the causes of the non-conformity;
 - Evaluate the effectiveness of the actions implemented;
 - Maintain documented information on the actions taken to address the non-conformity

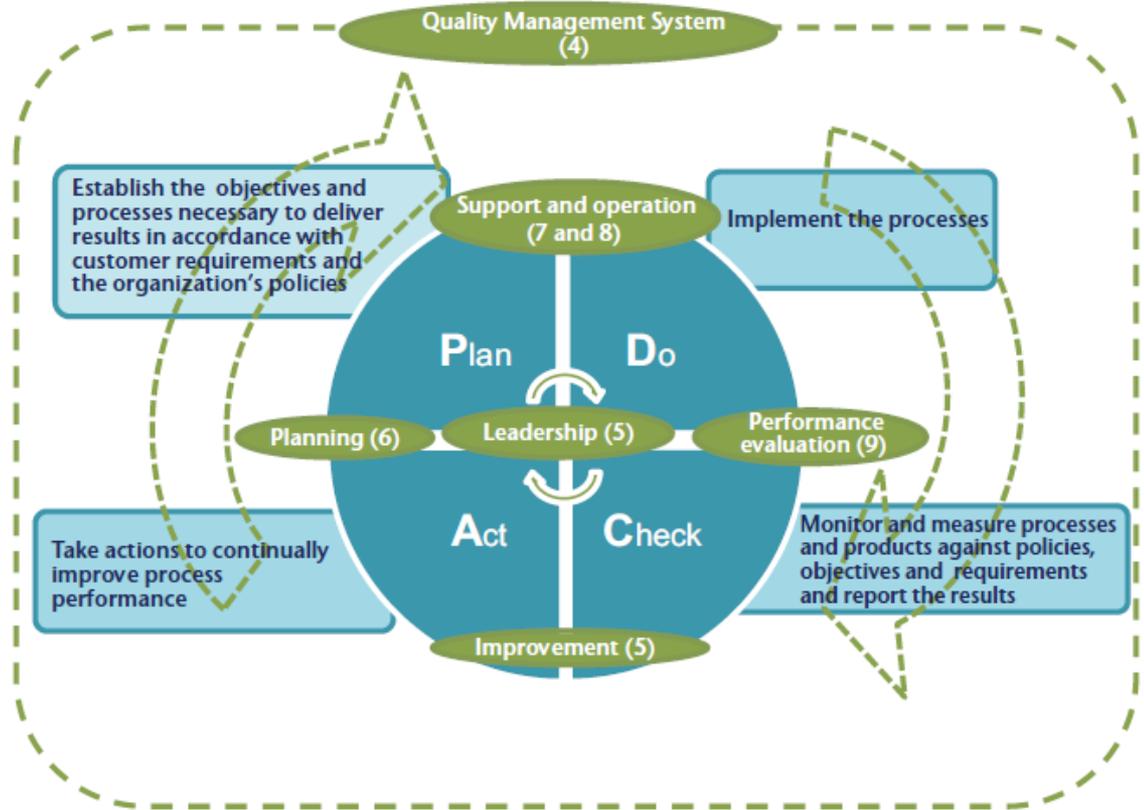


- How do we ensure that the QMS:
 - works continually to improve?
 - uses the outputs from analysis and evaluation and from the management review process?
- Continual improvement aims to ensure progress is being made to improve the effectiveness of the QMS.
- It raises questions such as:
 - Are outputs better this year than last year?
 - Is the use of resources being optimized?
 - Is better use being made of system indicators such as audits, management review and data analysis?

Attention. !!

- Overall, it is important that the QMS processes have identified any issues and that they have been documented and are in the process of being rectified

Continuous improvement governs the operation of the QMS (WMO N°1100)



Questions??

01

Answer 1

02

Answer 2

03

Answer 3





ICAO

UNITING AVIATION

NO COUNTRY LEFT BEHIND



ICAO

North American
Central American
and Caribbean
(NACC) Office
Mexico City

South American
(SAM) Office
Lima

ICAO
Headquarters
Montréal

Western and
Central African
(WACAF) Office
Dakar

European and
North Atlantic
(EUR/NAT) Office
Paris

Middle East
(MID) Office
Cairo

Eastern and
Southern African
(ESAF) Office
Nairobi

Asia and Pacific
(APAC) Sub-office
Beijing

Asia and Pacific
(APAC) Office
Bangkok



THANK YOU