JUST CULTURE
IN ALITALIA
ENGINEERING & MAINTENANCE

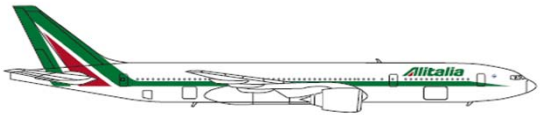
CONTENTS

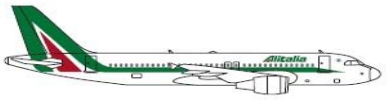
The Company

- **Alitalia SAI (Società Aerea Italiana)** commenced operations on January 1st, 2015 after acquiring the operational activities of Alitalia CAI (Compagnia Aerea Italiana)
- AZ CAI has a 51% controlling stake in Alitalia and the remaining 49% of shares are owned by Etihad Airways, national airline of the United Arab Emirates
- Alitalia has 100% controlling stake in Alitalia CityLiner that flies with AZ code under a wet-lease agreement
- **T**ogether with Airberlin, Air Serbia, Air Seychelles, Etihad Airways, Darwin Airline, Jet Airways and NIKI participates in **Etihad Airways Partners**
- Member of **SkyTeam** Alliance

The Fleet

10	**B777-200**
14	**A330-200**
12	**A321**
44	**A320**
22	**A319**
5	**Emb 190**
15	**Emb 175**





The Network and Staff

In 2015 22.1 million passengers.
Summer 2016 schedule offers 97 destination:

27 Domestic
70 International
4400 weekly flights

Total company staff	11700
Maintenance	1440 (215 in outstations)
Safety & Quality	46

Certifications

ALITALIA GROUP CERTIFICATIONS

AUTHORITY	AIR OPERATIONS	AIR CREW		MAINTENANCE ORGANIZATIONS		
	AOC	ATO	FSTD	CAMO	AMO	AMTO
EASA / ENAC	IT.AOC.130 IT.AOC.113 (CYL)	IT.ATO.0062	IT-007 IT-013 IT-05B IT-004 IT-017 IT-019 IT-067 IT-061	IT.MG.0130 DOA: EASA.21J.219 IT.MG.0113 (CYL)	IT.145.0330	IT.147.0009
OTHERS	OPS SPECS 2CAF267F (USA) F-11156 (CANADA) AZA-FO43-HB (CHINA)	-	-	-	FAA (USA) GCAA (Emirates) ANAC (Argentina) BDCA (Bermuda) MLIT (Korea) CAAV (Vietnam) DCAM (Malaysia) QCAA (Qatar) ECA (Egypt) TDCA (Thailand) CARC (Jordan) BCAA (Bangladesh)	

CONTENTS

- Alitalia today
- **Introduction to “Just Culture**”
- Behaviour classification
- Behaviour analysis
- The Alitalia Procedure
- Example

INTRODUCTION TO “JUST CULTURE”

FOREWORD

- Alitalia adopts Just Culture principles in order to foster the proactive reporting of Safety Issues and the prompt implementation of risk mitigation actions
- **Just Culture accepts the possibility that honest Errors could happen during normal operations**
- Those errors should not lead to punitive actions, but to appropriate corrective actions to avoid their reoccurrence: e.g. training, coaching, job rotation, interventions on contributing factors, etc.
- However, **Violations** which involve **Negligence or Carelessness of Safety Hazards** can incur in punitive actions with proportionality criteria
- Top Management commitment to adopt Just Culture principles is stated in our Safety Policy

INTRODUCTION TO “JUST CULTURE”

OUR POLICY FOR SAFETY, SECURITY AND QUALITY POLICY

Being a customer oriented Company requires business processes focused on Customer's needs; therefore our daily priority is providing Quality products guaranteeing the safest and most secure operational environment possible.
Senior Management is fully committed to constantly improve our Safety, Security and Quality standards through actions which:

- support adoption of Industry best practices;
- warrant the necessary resources to comply with applicable regulations and Company requirements;
- assure implementation of prevention strategies based on regular Hazard Identification and Risk Management processes;
- pursue the continual improvement of Safety and Security performances;
- promote the development of a proactive Safety and Security Culture throughout the Company;
- guarantee effective implementation of Just Culture principles within the organization at all levels and with all parties; all should actively foster mutual trust and respect, and promote support and cooperation to build the necessary trust across the organization;
- encourage voluntary reporting of Safety and Security issues assuring that such information will not be used to find out blame or individual responsibilities but to determine causes and/or contributing factors of reported events in order to achieve effective prevention; this guideline will not apply to information received from a source other than the employee, or which involves illegal acts, reckless and gross negligence, deliberate or willful violation of Company procedures and aviation regulations;
- exploit Companywide effective communication.

The success of our Safety, Security and Quality programs involves all Company employees.

Our Managers are committed to implement and spread this Policy throughout the Company, providing a work environment which promotes motivation and creativity.

Giancarlo SCHISANO
Accountable Manager

INTRODUCTION TO “JUST CULTURE”

FOREWORD

Up to now the analysis of Engineering and Maintenance Occurrences deriving from human errors adopted principles of the methodology created by Boeing soon after the 2000

MEDA (Maintenance Error Decision Aid), with the aim to identify the “Root Cause” at the origin of the error/violation.

No tools to identify the right corrective actions to avoid or to limit reoccurrences.

Today Alitalia becomes enriched by ‘Just Culture’ typical tools to analyze at best Maintenance staff behaviors, in order to identify the actions to be implemented on staff and on the Organization, adopting a ‘no blame culture’ philosophy.

CONTENTS

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BEHAVIOUR CLASSIFICATION

DEFINITIONS (1)

RULE
Precept establishing how to behave in specific circumstances: any formula that prescribes what to do in a particular situation or activity; norm.

ERRORS
Actions or behaviors that unintentionally deviate from the expected action or behavior. In literature they are sometimes further divided in:

- **Errors**
  (skill based errors); associated with human information processing (recognition, memory and attention): e.g. slips, lapses;
- **Mistakes**
  (cognitive errors); planning errors, where the plan is inadequate to achieve the desired goal. They can be:
  - rule-based (misapplying a good rule or applying a bad rule), for example applying the usual rule in a new situation (to a different type of aircraft), where instead a different rule is required.
  - knowledge-based (due to knowledge deficits).

BEHAVIOUR CLASSIFICATION

DEFINITIONS (2)

VIOLATIONS
Actions or behaviors that intentionally deviate form expected actions or behaviors.
We further divided in:
Induced Violations (induced by an external situation/environment), that can be:

- Routine violations (‘’it has always been done this way’’),
- Situational violations (occasional, when deliberately not following the rule was the only way to complete the task. For example, to use an incorrect tool to stick to timings where the correct one is unavailable).

Deliberate Violations (non-induced deviations, made in order to increase advantage, personal or for others).
Exceptional Violations (MEDA: intentional deviation from the rule with carelessness of potential consequent Risk (e.g. recklessness or sabotage).

BEHAVIOUR CLASSIFICATION

DEFINITIONS (3)

CONTRIBUTING FACTORS

In our context, any factor that could have (negatively) affected the performance of the event. Examples can be poor lighting, tools availability or lack of sufficient training to carry out the assigned task, but also mistakes in old procedures, time pressure, etc.

An undesired event can derive from one or more errors/violations, or from a combination of errors and violations. Generally errors and violations are affected by multiple ‘’contributing factors’’.

It is necessary to identify them and act on the various concurrent causes in order to prevent the event reoccurrence.

The graph at following page presents the main types of ERRORS and VIOLATIONS and the related possible corrective or mitigation interventions.

BEHAVIOUR CLASSIFICATION

Intervention: increase Job/task awareness, job rotation…

Intervention: potential disciplinary actions

Intervention: training, coaching, improve data…

Intervention: remove the need to violate (correct contributing factors)

Intervention: remove the need to violate (correct contributing factors)

CONTENTS

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- Example

BEHAVIOUR ANALYSIS

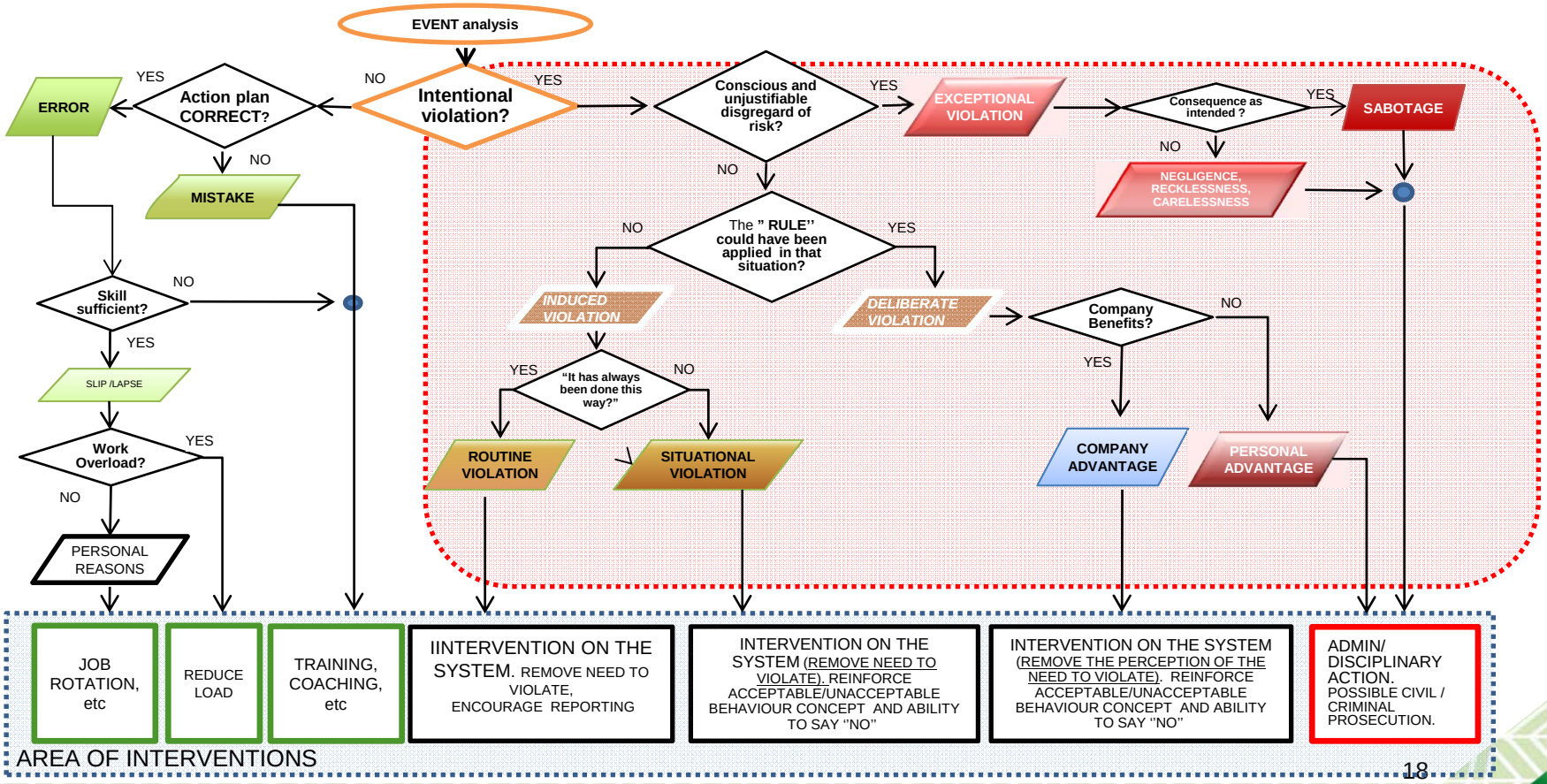
The graph at following page represents the logic process that, starting from Event Investigation results, is used to identify the various type of behaviours and the possible responsibilities, thus allowing to associate the different types of behaviours to the most appropriate corrective actions scenarios.

The graph shall be considered as a guideline, to be adapted to the single event context. This method grants a greater objectivity in the identification of the error/violation type and related corrective action.

In many cases as a results it is appropriate to act mainly on contributing factors as at least concurrent – if not triggering – factors of the event.

Many of these contributing factors are under the control of the Management, and their identification allows interventions aimed to eliminate their probable impact on future events.

BEHAVIOR ANALYSIS



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ALTALIA PROCEDURE

In order to apply the «Safety Culture» concept, Alitalia Engineering & Maintenance has structured a specific procedure also in CAMO & AMO.

Any event that affected - ***or could have potentially affected*** – the Safety of persons and assets shall be reported.

Reports can be

- mandatory
- voluntary.

In any case, Alitalia protects reporters' identity as far as permitted by Law.

ALTALIA PROCEDURE

Maintenance Standard Investigation, Department of the Compliance Monitoring Management System (SMI), collect all reports done by maintenance personnel, acquires information and performs investigations, where necessary, in order to :

- identify possible anomalies in maintenance processes,
- identify “Human Errors” happened when carrying out maintenance tasks,
- analyze events originated by maintenance activities, including identification of what happened and why, and what can prevent future reoccurrence of the same event,
- register events in order to identify ‘’adverse trends’’ due to improper maintenance actions,
- develop recommendations to personnel and maintenance company units, with prevention and safety improvement goals
- analyze technical events occurred during operations (mainly reported by MCC) to identify repetitive events or that could have seriously affected flight safety; activate a deeper analysis of such events by competent Engineering units.

ALTALIA PROCEDURE

In case a human action or behaviour has been identified as cause of a technical event, SMI carries out an investigation including interview with involved personnel, after informing the relevant managers.

In case or errors/mistakes

- the goal is to identify root causes and to issue recommendations for their correction. These can involve procedures modification or interventions on the person, such as briefing or training tasks.

In case of violations

- with regards to the involved personnel, a decision is reached together with the Head of the involved unit and with Human Resources Management unit (Event Review Group) whether to apply a penalty, normally the CA and related economic allowance suspension. Disciplinary actions can also be applied, such as suspension from work or fines.

Contributing factors are always analyzed and always corrected or limited.

In the following slides an example of recently investigated event is presented.

CONTENTS

- Alitalia today
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- **Example**

EXAMPLE

EVENT DESCRIPTION

During walk around found panel 522AB 522CB partially missing and broken on LH wing.

INVESTIGATION RESULTS

- Incident happened on the flight immediately after a maintenance action to solve a “wing leak” fault with Air pack #1 inop.
- Fault was solved by replacing a bellow near Air Pack #1 (located inside belly fairing LH side) found broken. None removed panels 522 to solve this fault
- No records found about the two panels opening/closing
- The technician that partially removed both panels was identified and interviewed

BEHAVIOUR ANALYSIS

Two violations were identified

1. The panels removal was decided by the same technician of his own free will, based on previously similar experience, not required by any of the supervisors in charge in the shift nor by any WO or TC
2. He didn’t record the job nor inform supervisors before leaving.

CONTRIBUTING FACTORS

- The technician was not qualified to work without supervision in hangar (under training); he got only component shop experience and recently moved into hangar maintenance
- his team supervisor was not present in that shift. The team was not coordinated by the other supervisors.
- Daily check performed during other maintenance activities (fault rectification)

CORRECTIVE ACTIONS FOR VIOLATIONS

- The violations can be classified as intentional with carelessness and negligence **because technician was aware of basic rules in aviation maintenance**
- Technician that violated rules was suspended for three days from work with a fine.
- He was assigned to one of the supervisors to perform an OJT for hangar procedures familiarization.

CORRECTIVE ACTIONS FOR CONTRIBUTING FACTORS

- ***New procedure to divide members of a team with no supervisor within the others teams present in the shift.***
- ***New procedure to perform Daily Check only after the other works or after maintenance checks***
- ***QI issued to inform all personnell about recording procedure of works performed by “under training” individuals***

THANK YOU
FOR YOUR ATTENTION