BCA Aviation Safety

Voluntary Occurrence Reporting

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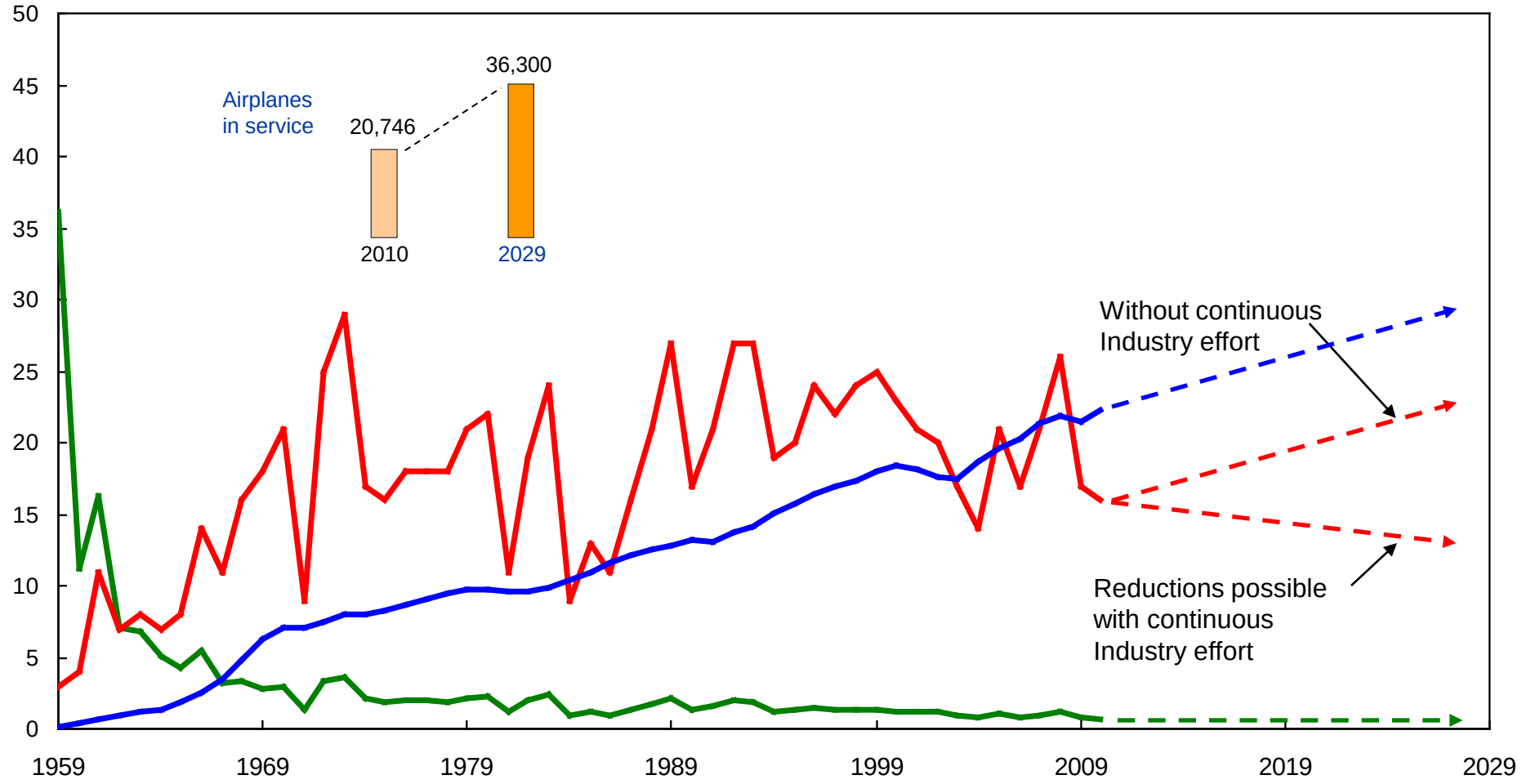
May 2013

Accidents, Incidents, Events

- **Reactive Safety Assurance**
  - *responding to events with costly results, such as incidents and accidents*

Continuous Safety Improvement Required as Departures Increase



Annual hull loss accidents

Annual departures, millions

Annual hull loss accident rate per million departures

ICAO Annex 13, 19, Doc 9859

- **Proactive safety assurance**
  - identification of safety risks through the analysis of the organization's activities
- **The best source of operational data?**
  - Direct reporting by front-line personnel since they observe hazards as part of their daily activities

(ICAO SMM, 3rd edition)

ICAO Annex 13, 19, Doc 9859

- **Mandatory reporting – yes, but also voluntary incident reporting systems**
  - Identification of hazards and unsafe conditions that have not yet caused an incident.
  - *A non-punitive environment is fundamental to voluntary reporting.*
  - Protection of the sources (de-identification) to encourage and promote voluntary occurrence reporting
  - States may need to adjust applicable legislative and regulatory frameworks and policies.

Annex 19, Chapter 5

- **5.3.1 A voluntary incident reporting system shall be non-punitive and afford protection to the sources of the information.**
  - *Safety Management Manual (SMM) (Doc 9859).*
  - *States should not make available or use safety data …**for other than safety-related purposes**,*
    - *Adverse impact on reporting culture and thus on aviation safety.*

Proactive Hazard Identification through Voluntary Reporting

- **Enables much better system awareness**
  - *You can only fix what you know about*

- **A "Force multiplier" – a system full of "trained inspectors"**
  - No more "catch me if you can"

High Safety-Consequence Industries

- Nuclear power
- Petroleum Refining
- Medicine
- Aviation (building, maintaining, operating)

How does it work?

- Program Manager to collect and de-identify reports
- De-identified reports are reviewed by a team comprised of workers, regulator and the air carrier (Event Review Committee) who utilize *consensus* (within acceptable range of solutions)
- Safety issues resolved through *corrective action* rather than punishment or discipline
- Provides for collection, analysis and retention of safety data which might otherwise be unobtainable
  - 93% of reports (US example) are sole-source

Reporting Cultures

Culture of Blame and Punishment

- Event occurs
- WHAT happened? (FDM, Investigation)
- Who is Responsible? (Assign blame)
- Punish those involved, and maybe their manager

Culture of Openness and Accountability

- Event occurs
- WHAT happened? (FDM, Investigation)
- WHY did it happen? (Reporting)
- How do we prevent it from happening again? (Corrective Action, Learning/Teaching)

Culture of Openness and Accountability

- *Does not tolerate reckless behavior and deliberate malfeasance*
- Employees are encouraged to report safety deficiencies *without fear of punishment*
- Recognizes that well trained, motivated and responsible employees *still make mistakes*
- Emphasizes *identification and correction of the safety deficiency*, rather than assigning blame and punishment
- Promotes a workplace where employees are able to report incidents of human errors (honest mistakes) without fear of disciplinary action

Examples of Safety Issue or Crew Error

- Poor airport signage – taxi route error
  - *SQ006 – Oct 31, 2000 (TPE)*
- Military example
  - *Over “g” loading events*
- Would you prefer a Hard Landing or Runway Excursion?
  - *Ill-advised use of FDM information*

Acceptable Reports - example policy

- **Reports must not include:**
  - Intentional Falsification
  - Intentional Disregard for Safety
- **Reports must be Timely**
  - Typically 24 hours after the end of the duty period
- **Reported events must not involve**
  - Illegal activity
  - Drug or alcohol use

Any such reports would be excluded and traditional remedies applied

Intentional Falsification

Intentional falsification means a false statement in reference to a material fact made with knowledge of falsity.

It does not include mistakes, inadvertent omissions, or errors

Intentional Disregard for Safety

Reckless Behavior -unjustifiable risk or a conscious disregard for the safety of passengers and crew.

OOPS! (human error) – Remember, even the best and most conscientious workers will commit errors

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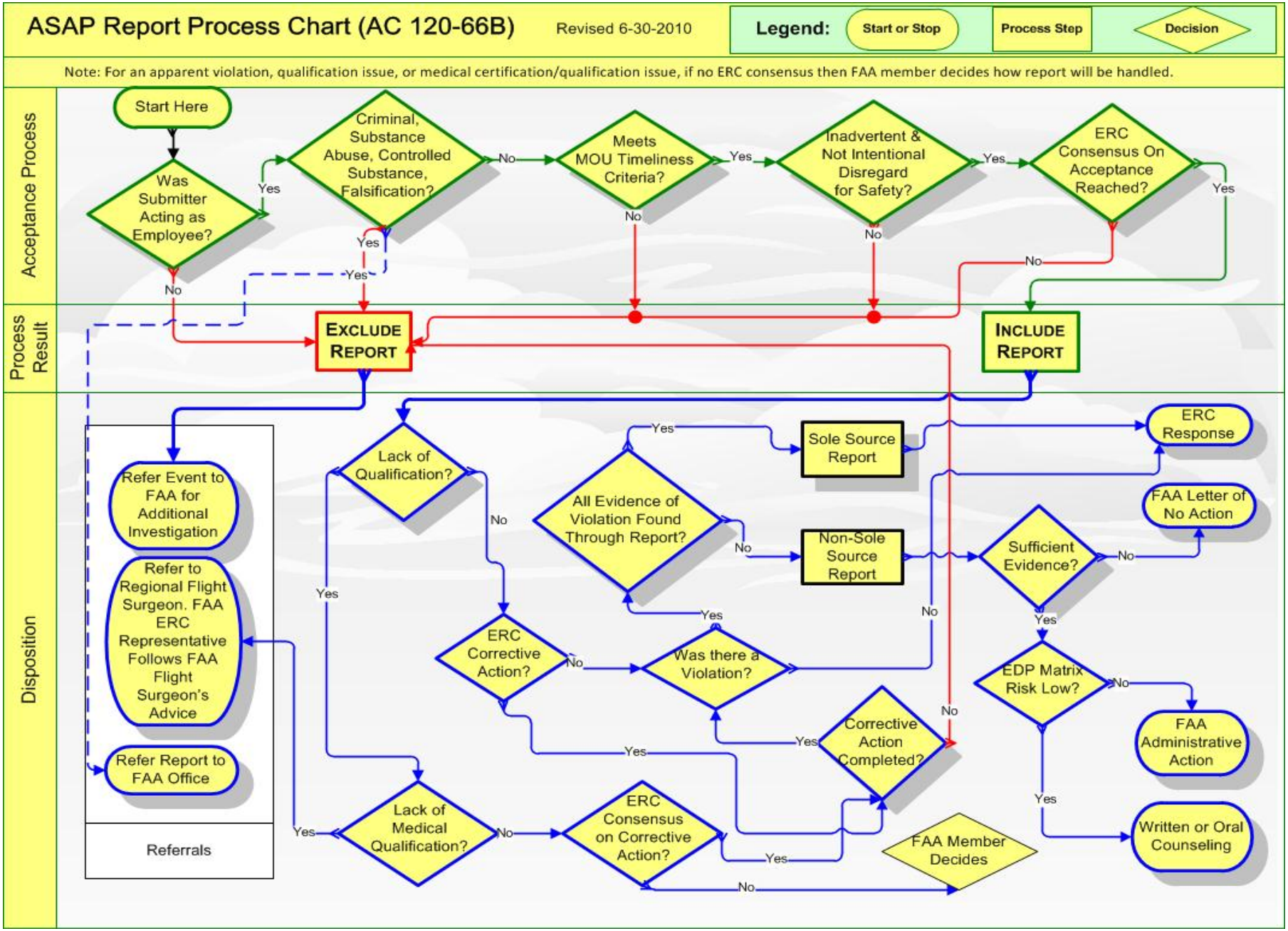
Mission above all! (at-risk behavior) - Intentional procedural changes or shortcuts undertaken with the best of intentions for saving time, money or effort (doing the wrong thing for the right reason).

Inclusion of Reports is Important

- By nature, professionals do not intentionally disregard safety or make errors.
- Encourages employee participation.
- Strengthens cooperation between workers, management and the regulator.
- Provides insight and solutions to systemic problems and undesirable trends.

Exclusion benefits no one.


ASAP Report Process Chart (AC 120-66B)
Revised 6-30-2010
Legend:
Start or Stop
Process Step
Decision
Note: For an apparent violation, qualification issue, or medical certification/qualification issue, if no ERC consensus then FAA member decides how report will be handled.
Acceptance Process
Process Result
Disposition
Start Here
Was Submitter Acting as Employee?
Criminal, Substance Abuse, Controlled Substance, Falsification?
Meets MOU Timeliness Criteria?
Inadvertent & Not Intentional Disregard for Safety?
ERC Consensus On Acceptance Reached?
EXCLUDE REPORT
INCLUDE REPORT
Refer Event to FAA for Additional Investigation
Refer to Regional Flight Surgeon. FAA ERC Representative Follows FAA Flight Surgeon's Advice
Refer Report to FAA Office
Referrals
Lack of Qualification?
Lack of Medical Qualification?
All Evidence of Violation Found Through Report?
Sole Source Report
Non-Sole Source Report
ERC Corrective Action?
Was there a Violation?
Corrective Action Completed?
ERC Consensus on Corrective Action?
FAA Member Decides
Sufficient Evidence?
EDP Matrix Risk Low?
ERC Response
FAA Letter of No Action
FAA Administrative Action
Written or Oral Counseling
Yes
No

Corrective Action

A non-punitive reporting program, resolves safety issues through *corrective action* rather than through punishment or discipline.

The resulting safety data, much of which would otherwise be unobtainable, is used to develop corrective actions for identified safety concerns, and to educate the appropriate parties to prevent a reoccurrence of the **same type of safety event**

Corrective Action

- Any safety-related action
  - As determined by the report reviewing group (Regulator, Company, Employees)
  - Based upon a review and analysis of the reports submitted.
  - Data driven!
- May involve joint (system) or individual action

Examples of Corrective Action

- **Regulator**
  - Review and modification of guidance materials or regulations for certificated entities (airline, airport, ATC)
- **Individual Pilot**
  - Training to proficiency (phone/ground/simulator)
  - Supervised flying.
- **ATC**
  - Procedure review and modification
  - Equipment upgrade
  - Controller training to proficiency

Examples of Corrective Action

- **Air Carrier – Operations/Training**
  - Review and modification of policy, procedure or manuals
  - Annual training modifications or Line Check emphasis items.
  - Pilot publications.
- **Airport**
  - Improvement of taxiway signage or markings

Benefits to Regulator

- Enhances operational safety in the aviation system
- Encourages strong reporting culture at air carriers and repair shops.
- Clear picture of the operation – warts and all.
- Allows targeted use of limited resources – the “force multiplier” effect
- In compliance with SMS requirements.

Benefits to Air Carrier

- Enhances operational safety in the operation.
  - A means of seeing trends before they become incidents or accidents.
- Reduces costs and liability.
- Fosters strong reporting culture.
- Yields accountability at all levels.
- Enhances cross-divisional and internal communication.

Summary

- Front-line employees are the best source of operational information (threats and errors) that show system weakness
- Confidential and non-punitive voluntary reporting generates many times more reports than mandatory reporting
- Non-punitive reporting program absolutely requires accountability and professionalism of workers
- Broader safety data will lead to better safety management

“If you do what you’ve always done, you’ll get what you’ve always gotten”

Tony Robbins

Thank You for your Time!