Human Factors Interventions and Safety Management
Vancouver, BC - March 28-30, 2000
Human Factors Interventions & Safety Management

Exploring One Operation’s Journey Towards Error Reduction Management

Keith Jones
Charles Dunstan - David Deveau
Purpose

The Maintenance Division of Air Nova, in the spirit of “Learning from Our Mistakes,” seeks to actively manage technical human error and enhance system safety through a systematic approach to identifying technical human error events, determining root causes, and implementing error prevention intervention strategies to reduce the reoccurrence of error mishap events.
Presentation

• Background & Corporate Commitment
• Key Elements of Error Management
• Integrating Error Management Into Existing Systems
• Moving Forward
Background & Commitment

- The Awakening to Human Factors
- Future Regulatory Requirements
- Senior Management Commitment
- Human Factors Awareness Training
- Moving to Error Reduction Management
Key Elements of Error Management

- Human Factors Awareness Training
- Metrics & Tracking Process
- A Fair & Just Discipline System
- A Human Factors Event Investigation Process
- A Feedback Awareness Process
- A Corrective Action Process
- A "No Fault Assurance" Mishap Reporting Process
A Fair & Just Discipline System Process ...

...that Supports System Safety

• Facilitates Individual Reporting
• Facilitates an Employees Honest Participation in Event Investigation
• The Discipline System and the Human Factors Event Investigation should be optimized to benefit flight and personnel Safety

IMPACT
“Uses the Event as a Learning and Prevention Tool”
Event Investigation Process ...

...that Supports System Safety

• Determine Why the Event Occurred.
  › What did happen? Tell the story
  › What usually happens? Determine workplace practice
  › What was supposed to happen? Determine Standard practice
  › Determine cause of deviation
  › Investigators job is not to assign blame

• Views the event in terms of task reliability

• Facilitates building prevention strategies that will reduce the potential of future errors

IMPACT

“Uses the Event as a Learning and Prevention Tool”
What Would Be a Productive Prevention Strategy?

Examples of just some of the Factors which may be considered...

**The Dirty Dozen**

- ✓ LACK OF COMMUNICATION
- ✓ Lack of Resources
- ✓ Complacency
- ✓ Pressure
- ✓ Lack of Knowledge
- ✓ Lack of Assertiveness
- ✓ Distraction
- ✓ STRESS
- ✓ Lack of Teamwork
- ✓ Lack of Awareness
- ✓ FATIGUE
- ✓ Norms
A Feedback Awareness Process

Ensure results are communicated to the Frontline...

- Clearly Identify Acceptable and Unacceptable Workplace Behaviors
- Regular Newsletters/ Educational Articles
- Positive Feedback
- Statistics

IMPACT
“Uses the Event as a Learning and Prevention Tool”
Key Elements of Error Management

“IMPROVING SAFETY, AND FLEET RELIABILITY”

- Human Factors Awareness Training
- A Fair and Just Discipline System
- A “No Fault Assurance” Mishap Reporting Process
- A Human Factors Event Investigation Process
- A Corrective Action Process
- A Feedback Awareness Process
- Metrics & Tracking Process
Demand a New Professionalism in the Work Place

Be Responsible & Accountable for your Actions & Decisions

Be Proactively Assertive
Professionalism and Our Error Reduction Management Program

Human error is not an indication of an unprofessional employee - rather it is the mark of being human.

Recognizing our own fallibility, and in accepting the public trust of providing safe, and reliable airline services, we must accept new definitions of professionalism.

As an aviation professional, I must work at my maximum reliability, avoiding any reckless behaviors that would compromise the safety of our operating environment.

As an aviation professional, I must participate in the human error reduction management process - by learning from my own mistakes, and reporting my safety-related errors so that others may learn from my mistakes.

As a manager of aviation professionals, I am responsible for creating an environment that will provide these professionals the best opportunity to get the job done right the first time.

As a manager of aviation professionals, I must support our ability to learn from our mistakes - by investigating errors, understanding their causes, and developing strategies to minimize error.
Integrating with Existing Processes

- Give Error Management profile within the current system, but integrate it with existing processes
- Build on to what you have
- Recognize the relationship with functions like Quality Assurance
- Example of process ...
ERROR MANAGEMENT

- Quality Assurance
- Maintenance Production
- Training
- Regulatory Compliance
- Safety Management
- Other Functions
Example of a Process

Error Event

Employee Reports Openly & Honestly

Error Management Investigation (MEDA Format)

Database of all Incidents

Incident Review Team

Corrective Action Developed

Follow-up by Quality Assurance

Is discipline recommended?

End of discipline process.

Is Behavior “Reckless”?

No Discipline - Employee Must Participate in Solutions

Referred to Normal Management HR Discipline Process

Culpability Review Board

Culpability Checklist

Yes

No
Moving Forward

• Error Management is a Robust, Multi-Facetted, and Comprehensive Program

• Error Reduction Requires Visible Commitment and Momentum!

• Time, Care and Resources are Necessary. It will not happen without focused attention

• “Plan Your Program For Success”
Philosophy….

“The Bottom Line”

Air Nova subscribes to the belief that, while human error is simply a part of being human, employee mistakes are a manageable aspect of our business……..

Air Nova believes that diligent attention to human factors in error reduction go hand in hand with improved safety and improved financial performance
Human Factors Interventions & Safety Management

Exploring One Operation’s Journey Towards Error Reduction Management

Keith Jones
Charles Dunstan
David Deveau