



**Safety Management: Theory to Practice**

**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.**

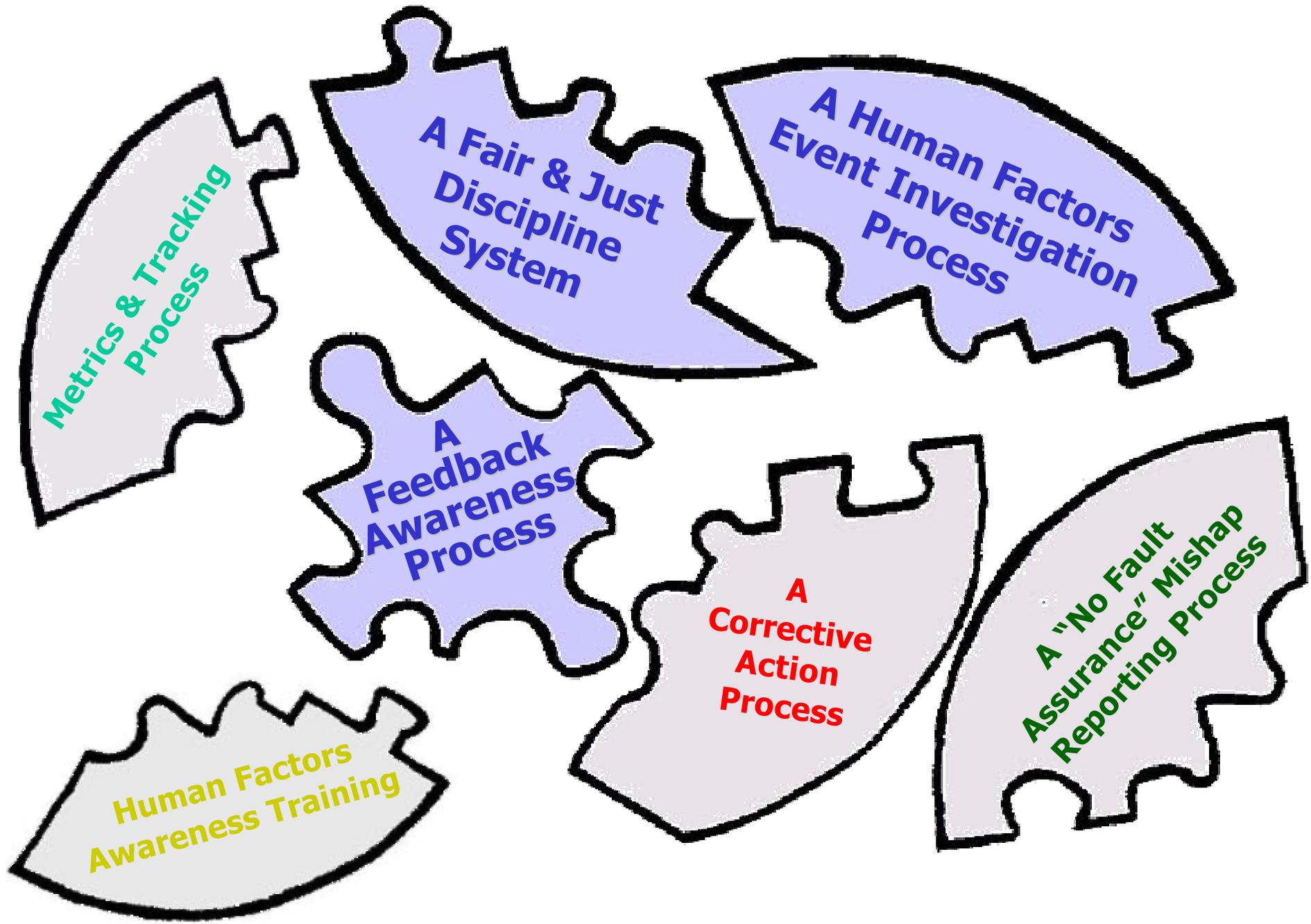
# **Presentation**

- **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



# **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"**



# **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.**

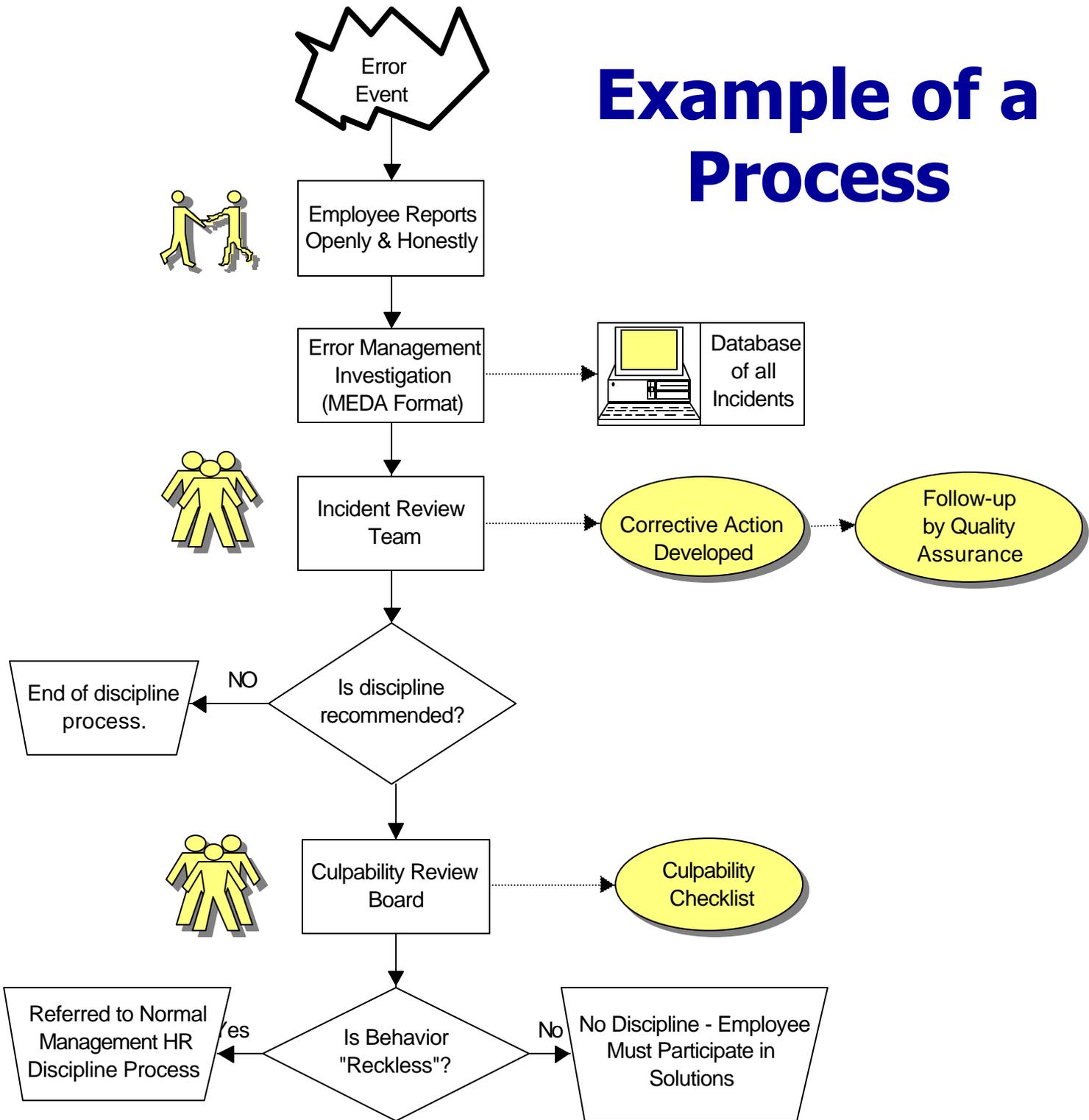
**As a manager of aviation professionals, I must support our ability to learn from our mistakes - by investigating errors, understanding their causes, and developing strategies to minimize error.**

# 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 ...



# Example of a Process



# Moving Forward

- Error Management is a Robust, Multi-Faceted, 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