

BOSTONAIR TECHNICAL TRAINING LTD
ONLINE HUMAN FACTORS WITH SAFETY RISK MANAGEMENT
INITIAL SAFETY TRAINING INCLUDING HUMAN FACTORS (GM1 CAMO.A.305(G) & GM1 145.A.30(E))

Satisfies the requirements of GM1 CAMO.A.305(g) and the new requirements of GM1 145.A.30(e) Personnel requirements ED Decision 2022/011/R, along with the associated AMC and GM for Maintenance Human Factors and Initial Safety Training (including Human Factors).

Slide(s)

Title Slide

Welcome to Bostonair

FAQS

Course Overview

Frequently Asked Questions

- Introduction
- Cannot Proceed
- Returning to Previous Slide
- Logging Out
- Failing the Exam
- More Help

Regulatory Framework

EASA and Human Factors

- The European Aviation Safety Agency
- EASA
- (EU) 1321/2014
- CAMO.A.305(g)
- PART 145 ACCEPTABLE MEANS OF COMPLIANCE (AMC)
- GM 145.A.30 (e)
- FAA
- National Plan for HF

CAA Reference CAPs

- CAP715
- CAP716

Introduction to Human Factors

What is Human Factors?

HF Training

Definition

HF and Safety Management Overview

Typical Errors

Implication of Errors



Incidents and Error

Historical Incidents

- Background
- British Airways BAC1-11
- Aloha Airlines B737-200
- British Midland B737-400

TransAsia Airways Flight 235

- Introduction
- News Coverage
- Recreation of Events
- Results of Human Error

Airbus A319 Incident – May 2013

- Introduction
- CAA Investigation
- Summary

Accident Investigation – Tire Pressure Gauge

Misconfigured A330

Accident Data and Statistics

- Success Stories

Typical Errors in Maintenance

Implication of Errors in the Aviation Industry

Error Models

The SHELL Model

Murphy's Law

Murphy's Law in Action

Swiss Cheese Model

The Error Iceberg

Maintenance Error

- Human Error vs System Error
- Types of Error: Slips, Lapses Mistakes & Violations
- Errors and Mistakes
- Perception

Human Performance

Decision and Information Processing

- Information Processing
- Sensory Receptors and Stores
- Attention
- Perception
- Decision Making
- Short Term Memory
- Long Term Memory
- Motor Programmes
- Action
- Feedback
- Situation Awareness
- Distraction
- Summary

Attention

- Selective Attention
- Divided Attention
- Focused Attention
- Sustained Attention

Distraction

Situational Awareness

Internal and External Factors of Performance

Fitness and Health

- Performance



- Fitness for Work
- Drugs, Alcohol and Medication
- Shift-work
- The Circadian Rhythm
- Fatigue
- Shift-work and Fatigue

Vision and Sight

The Eye

Eye Defects

The Ear

Ear Defects

Sound Level Comparisons

Audio/Visual Impairment

Other Aspects of Health

Fears and Phobias

- Phobias – everyone is different
- Claustrophobia
- Acrophobia

Stress and Stressors

- Introduction to Stress
- Stress Overload
- Stressors
- Managing Stress
- Arousal – Yerkes Dodson Law

Workload Management

- Types of Workloads
- Personal Workload Factors
- Organisation Workload Factors
- Arousal and Work Performance: Yerkes-Dodson
- Managing Workload

Motivation

- Motivation
- Our Motivation
- Forces
- Motivation is Vital
- De-Motivation
- High Motivation

Repetitive Tasks and Complacency

Our Environment

Workplace and Colleagues

Hangar

- The Workplace Environment
- Hangars
- Fumes
- Motion
- Lighting
- Equipment/Tools
- Vibration
- Noise
- Temperature

Organisational Environment

- Complex Systems

The Team Around Us

Me and the Team

- Individuals vs Teams
- Hazards in the Workplace



- Inadequate Manpower
- Group/Team Responsibility
- Team Working
- Individual Responsibility
- Complex Systems
- Visual Inspection
- Assertiveness

Management

- Managers and Supervisors
- Managers
- Supervisors
- Team Leaders
- Integrity
- Professionalism
- Adaptability
- Management and Leadership Styles
- Assertiveness

Understaffing / Lack of 'Manpower'

Communication

Body Language

Effective Communicating

Feedback

Handovers, Sign Off & Work Logging

- Handovers
- Sign-Offs
- Work Logging

Peer Pressure and Cultural Differences

Organisational Culture

Negative Cultures

- Blame Culture

Positive Cultures

- Learning Culture
- Just Culture / Trust
- Safety Culture

Safety Culture

- A Good Safety Culture
- Safety and Quality Policy
- The Safety Culture
- The Key Element

The Safety Policy

Team Norms

Procedures, Information, Tools and Practices

Access to Quality Information and Documentation

Documentation

- Introduction
- Job Card
- Specificity
- Template
- Validation
- Verification
- Task Analysis

Hierarchical Task Analysis – Visual Inspection

Procedures

- Types of Procedures
- Why Aren't Procedures Followed
- Designing Procedures



Good/Bad Professional Behaviour
Competency, Knowledge and Recency

Reporting and The Human Factors Programme

The Human Factors Programme

- Implementation of a Human Factors Programme
- Top-Down Commitment
- Reporting and Audits
- Manpower and Mechanisms
- Fixes

Error Reporting – Just Culture

Auditing

Pro-Active Error Management

- Introduction
- Understanding
- Root Cause Investigation
- Following Procedures
- Best Practice
- Pro-Active Error Management

Reporting Systems

- Voluntary Reporting
- Mandatory Reporting

UK CAA / CHIRP

EASA Safety Reporting

Human Factors Initiatives

Incident Investigation

- Introduction
- Preparation
- Evidence
- Analysis
- Finding
- Recommendation
- Report

Error Management

- Introduction to Error Management
- Occurrence Management System
- Error Capturing
- Error Provoking Conditions
- Open Reporting Systems
- Guidelines and Substantial Disregard

Safety Risk Management

Safety Risk Management

Human Factors in SMS

Hazard Identification

- Identification sources

Safety Risk Assessment

Risk Mitigation and Management

Effective SMS

Components of Safety Management

Successful SMS Implementation

Culture and Company Integration

Positive Safety Culture

Final Exam

Estimated Duration: Approximately 3.5 hours

END

