

#### **Special Implementation Project**

#### Risk Management

(Presented by Chaouki Mustapha Economist, ICAO)

Workshop on the development of business case for the implementation of CNS/ATM systems

Cairo, 6–9 September 2004

#### Outline

- Risk management
  - **✓** Definition
  - ✓ Objectives
- ► Risk analysis
- ► Risk evaluation
- > Development of mitigation plans

### Risk Management

#### What is risk?

Risk can be defined as the likelihood of occurrence of an undesirable event combined to the magnitude of its impact

### What is risk management?

- >Risk analysis
  - ✓ Identification of risks
  - ✓ Estimation of their likelihood of occurrence
  - ✓ Estimation of their causes and the magnitude of their potential impact
- ► Risk evaluation
- Development of risk mitigation plans

### Objectives of risk management

- > Not to eliminate risks
- But, to identify them and minimize their effects through:
  - ✓ improved awareness of their likelihood of occurrence and potential impact and;
  - development and implementation of appropriate mitigation plans

### Risk Analysis

# Risks for the implementation of CNS/ATM systems

- > Technical
- operational
- political
- **>** economic
- > financial
- managerial

# Risks for the implementation of CNS/ATM systems

- > Exchange rates
- > Schedule, extended transition
- > Traffic growth
- > Rate of return
- > Efficiency rates
- > Systems integration failure
- > Resistance to change

### Estimation of the likelihood of occurrence

- >Expert interview
- Analogy
- > Review of implementation plans
- > Delphi technique

# Estimation of the potential impact

- >Expert interview
- Analogy
- > Review of implementation plans
- > Delphi technique

### Risk Evaluation

#### Risk evaluation

- Assign a risk score to each risk
- >Assign a weight to each risk
- Determine a risk score for each implementation option

# Development of mitigation plans

### Development of mitigation plans

- > Identification of potential causes
- > Development of mitigation plans

