Risk Management

CHAOUKI MUSTAPHA, Economist,
International Civil Aviation Organization

Workshop on the Development of Business Case for the Implementation of CNS/ATM Systems (Antigua and Barbuda, 28 September – 2 October 2009)

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

1/2

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

2/2

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

ICAO • OACI • ИКАО

国际民航组织 • ايكاو