

ACI: Committed to Aviation Safety

SAFETY FIRST

David Gamper & Thomas Romig
November 9, 2005

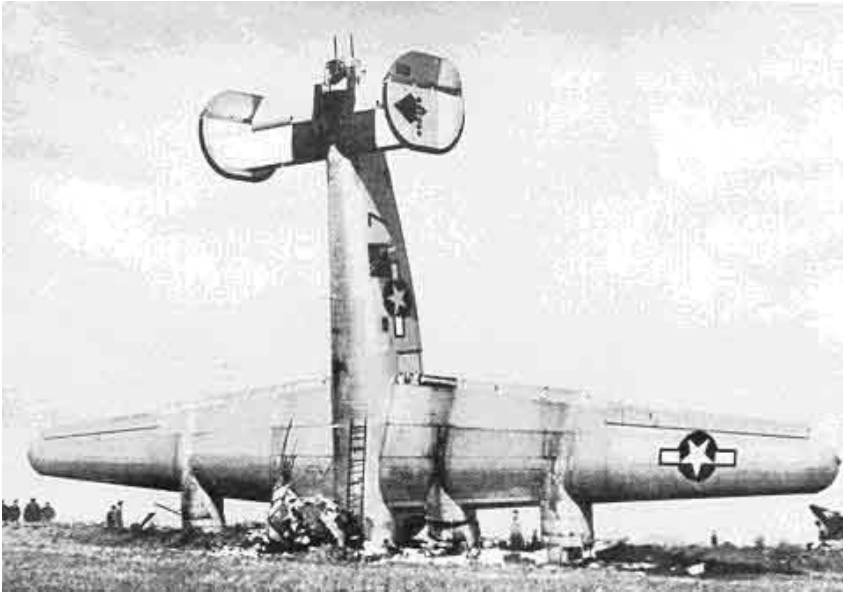


Today's Discussion

- **ACI: Safety First**
- **ACI: New Safety Initiatives**
- **ACI: ICAO and Safety**
- **ACI: Apron Safety Survey**
- **ACI: Safety Materials**
- **ACI: Airport Safety Issues - New Large Aircraft**



Safety: a cornerstone of the aviation industry



“It takes more than standards and regulations to prevent accidents.”

Dr. Assad Kotaite – President of the council, ICAO

Safety Issues

Some important areas partly or wholly under the control of airport operators:

- *Runway incursions*
- *Wildlife and bird hazard*
- *Airside vehicle control*
- *Apron safety / ground handling*
- *Handling of hazardous materials*
- *Rescue and fire fighting*
- *Low visibility operations*
- *Adverse weather conditions*
- *Runway condition (FOD, friction)*
- *Runway end safety area*



Safety Issues: Runway Incursions

Runway incursions: what ACI is doing

- Re-drafting of the policy statement
- Inclusion of new language in the Airside Safety Handbook



Safety Issues: Rescue and fire fighting

Areas of concern for airports:

- Quantities of extinguishing agents for RFF Categories up to 10
- Is Cat 10 adequate for A380 (full-length double-deck NLA's)?
- Communications between fire crews and flight deck in an emergency
- Reduction in category for alternate airports / cargo flights



Safety Recommendations: Guidance and training

The Global Training Hub (GTH) – www.gth.aero

- Airport Operations
- Aerodrome Certification
- Safety Management
- Airport Crisis Management
- Aerodrome Development and Maintenance
- Bird Hazard Management
- Handling Agent Licensing
- Runway Incursion Awareness

The ACI Fund for Developing Nations – www.aci.aero

- Assistance and training for developing nations in many areas including safety

Current and Ongoing Safety Activities



ACI activities include:

- Annual Apron Safety Survey
- ACI Operational Safety events (Budapest 2005)
- Publication of safety handbooks and policies
- Contribution to ICAO activities
- Liaison with international organisations
- Provision of safety training for airports



ACI Operational Safety Events



ACI AIRPORTS COUNCIL INTERNATIONAL WORLD - EUROPE

Airport Safety

Budapest2005

The 2nd ACI Global Airport Operations Summit

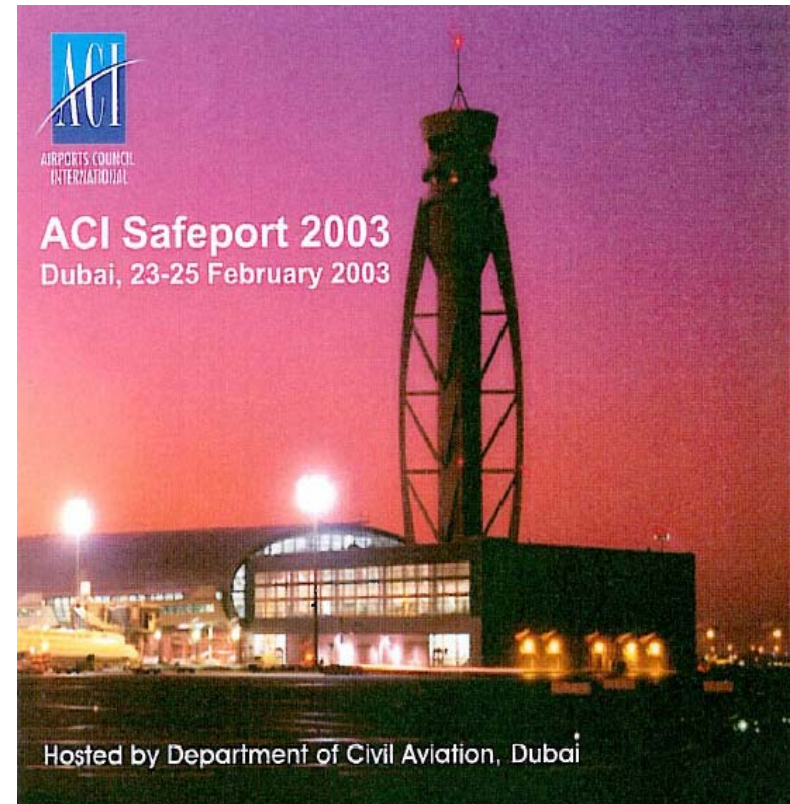
- 'Delivering the highest safety standards in a high-growth environment'
- InterContinental Hotel, Budapest, 5-7 December 2005

Hosted by: **BUDAPEST Airport**

Official Air Carrier: **MALEV Hungarian Airlines**

Budapest2005

05 – 07 December **2005**



ACI AIRPORTS COUNCIL INTERNATIONAL

ACI Safeport 2003

Dubai, 23-25 February 2003

Hosted by Department of Civil Aviation, Dubai

23 – 25 February **2003**

2005 Global Airport Operations Summit

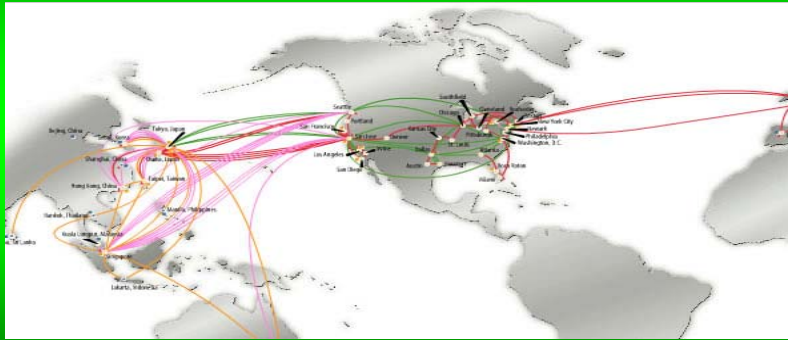
The programme includes sessions on:

- Developing a “Safety Culture” in the Aviation Industry
- Safety Management Systems and Airport Certification
- Airside and Runway Safety Issues
- Safety nets, Risk Assessments and dealing with Disasters
- Air Traffic Management, Capacity, Environment and Safety
- Winter Services Workshop on Chemical Use



New ACI Safety Activities

ACI Global Safety Network



Implementation in 2006

ACI Safety Management Systems Audit for Airports



Proposal

Risk Assessment and Hazard Analysis



Proposal

ACI Global Safety Network

Embracing New Technologies

A web-based safety information sharing network for all airports.

Some of the contents:

- Best practices, guidelines and recommendations submitted by airports with a strong “safety culture”
- A Q&A discussion forum to be used by airports for specific incidents or general information
- Video, images, articles on safety
- Training and expert contact information
- Information on new and evolving technologies (e.g. A-SMGCS or FOD Radar)



Safety Management Systems Audits for Airports

Raising the Bar for All Airports



An audit service to help airports to:

- Comply with ICAO requirements
- Certify their safety systems, facilities and procedures with an ACI “label of quality”

The programme benefits include:

- External verification of the airport’s safety level.
- Reduction of costs for airports
- Common, agreed audit standards, with a structured methodology
- Avoidance of multiple audits.
- Auditor training courses



Risk Assessment and Hazard Analysis

Mitigating Risk at Airports and Implementing New Technologies

A simple risk assessment and hazard analysis service for airports.

Assist airports in the development and implementation of Safety Management Systems

Apply a standard approach to significant risk situations



Available Risk Assessment and Hazard Analysis Tools

A risk assessment and hazard analysis matrix.

SEVERITY	PROBABILITY				
	Very High	High	Moderate	Low	Very Low
Very High	Red	Red	Red	Red	Red
High	Red	Amber	Amber	Amber	Amber
Moderate	Red	Amber	Amber	Green	Green
Low	Amber	Amber	Green	Green	Green
Very Low	Green	Green	Green	Green	Green

Red: The current residual risk requires further action to reduce it

Amber: The current residual risk requires a review of options and possible action to reduce it

Green: No further action required beyond measures already in place

Pros & Cons of Safety Audits and Hazard Analysis

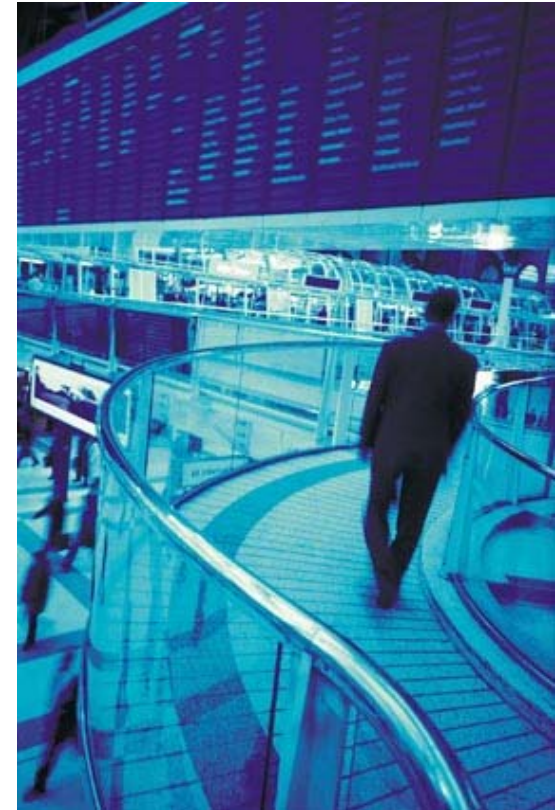


Pros	Cons
<ul style="list-style-type: none">- Added value service for the air transportation community- Responds to the needs of ACI members, especially developing nations' airports- A proactive role for ACI	<ul style="list-style-type: none">- ACI staff and financial resources- Liability regarding certification- Lack of internal expertise

Mitigating the Cons

The Cons can be overcome by:

- Financial constraints can be offset by additional income
- Liability insurance can likely be purchased
- Use of an “ACI Label of Quality” (based on specific ACI standards) could reduce liability
- Usage of external companies, expertise and skills in the field to carry out audit programme



Work Structure of the ICAO AP

Air Navigation Commission

Aerodromes Panel

Aerodromes Panel Working Group of the Whole

AOSWG

ADWG

RFFWG

HDWG

VAWG

Aerodrome Operations and Services Working Group

Aerodrome Design Working Group

Rescue & Fire-fighting Services Working Group

Heliport Design Working Group

Visual Aid Working Group

- SG1- Wildlife and Bird Hazard Management
- SG2- Pavement design, Friction and Maintenance ACN/PCN
- SG3 - Apron Service
- SG4 – New task

- SG1
- SG2
- SG3

- SG1
- SG2
- SG3

- SG1
- SG2

- SG1
- SG2
- SG3

ACI: Representation at ICAO

Panel/ WG	ACI	ACI Advisor	Other ACI Members in national delegation
AP + APWGoW	Andrew Badham (BAA)	David Gamper (ACI)	
AOSWG	Andrew Badham (BAA)	David Gamper (ACI)	Pierre Thery (ADP)
ADWG	Andrew Badham (BAA)	Philippe Laborie(ADP) David Gamper (ACI)	Ibrahim Zantout (Fraport) Rob ten Hove (AMS)
RFFWG	Pam Phillips (RANY & NJ)		Klaus Albrecht (Fraport)
VAWG	Jean Noel Massot (ADP)		
HDWG	None at present		

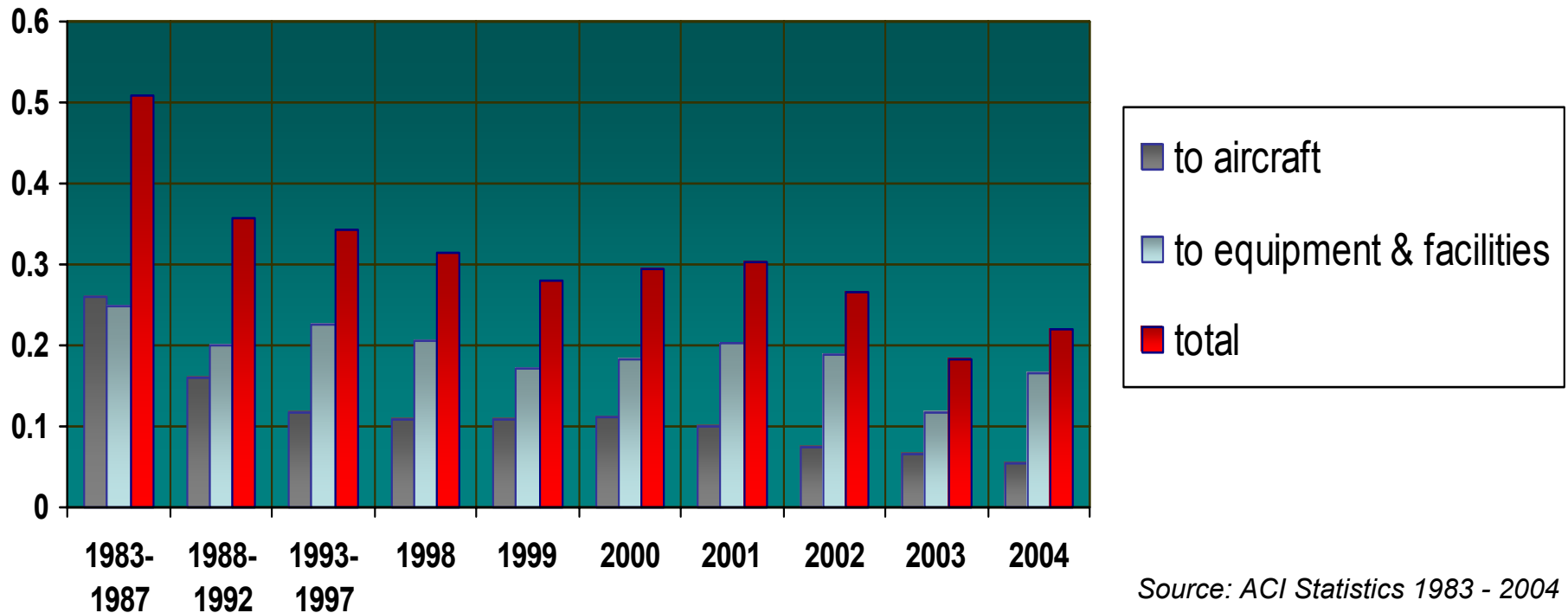


New and existing ICAO Safety Initiatives

- Council President calls for increased transparency in sharing safety information (August 2005) – related to 5 major accidents in the month of August
- Expanded USOAP audits started in 2005 (also including ATC and airport safety oversight measures)
- Unified strategy to resolve safety-related deficiencies
- Safety Management Manual to be published
- Industry Safety Strategy Group set up (to produce “Roadmap” by 15 Dec 2005)
- DGCA meeting to be held (March 2006)

Airport Safety Record

Apron Incidents and Accidents per 1,000 movements



2004 Apron Safety Survey

*Response Breakdown:
November data*

ACI Region	Number of responses	
	2003	2004
Africa	53	12
Asia	32	8
Europe	145	78
Latin America / Caribbean	74	63
North America	71	21
Pacific	7	5
Total	388	187

Percentage change 2003 – 2004: - 51.8%

2003 Apron Safety Survey

Change 2003 – 2004

Percentage change for 2004 figures:

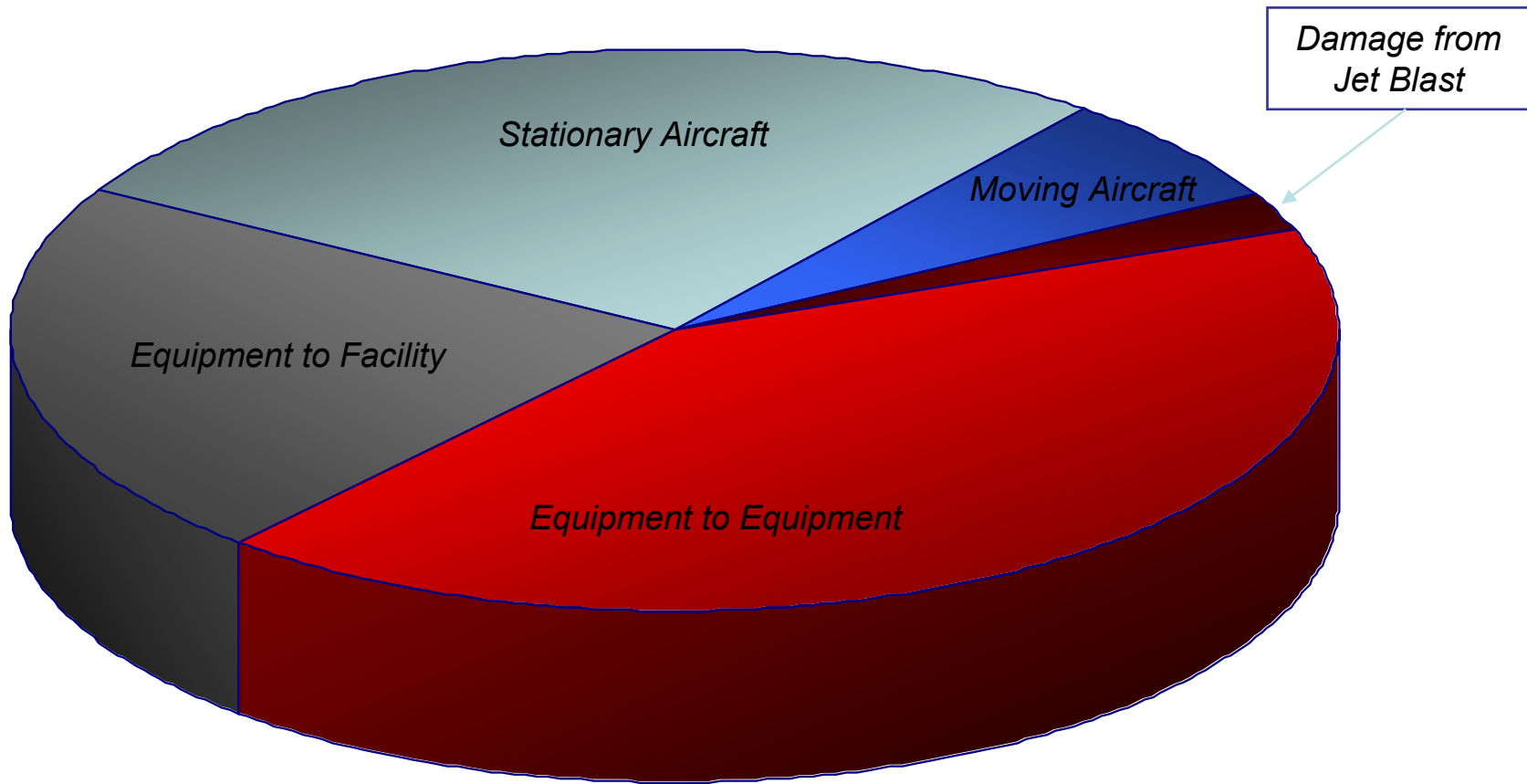
	2003	2004
- Number of airports responding:	-8.46%	- 51.8%
- Number of incidents/accidents:		
- November 2003 rate:	-6.9%	-34.4%
- Full year 2003 rate:	-30.6%	+16.3%

Variation of the annual rates could be due to:

- Low response rate
- Variation in reporting
- Variation in airports reporting
- Implementation of SMS at airports

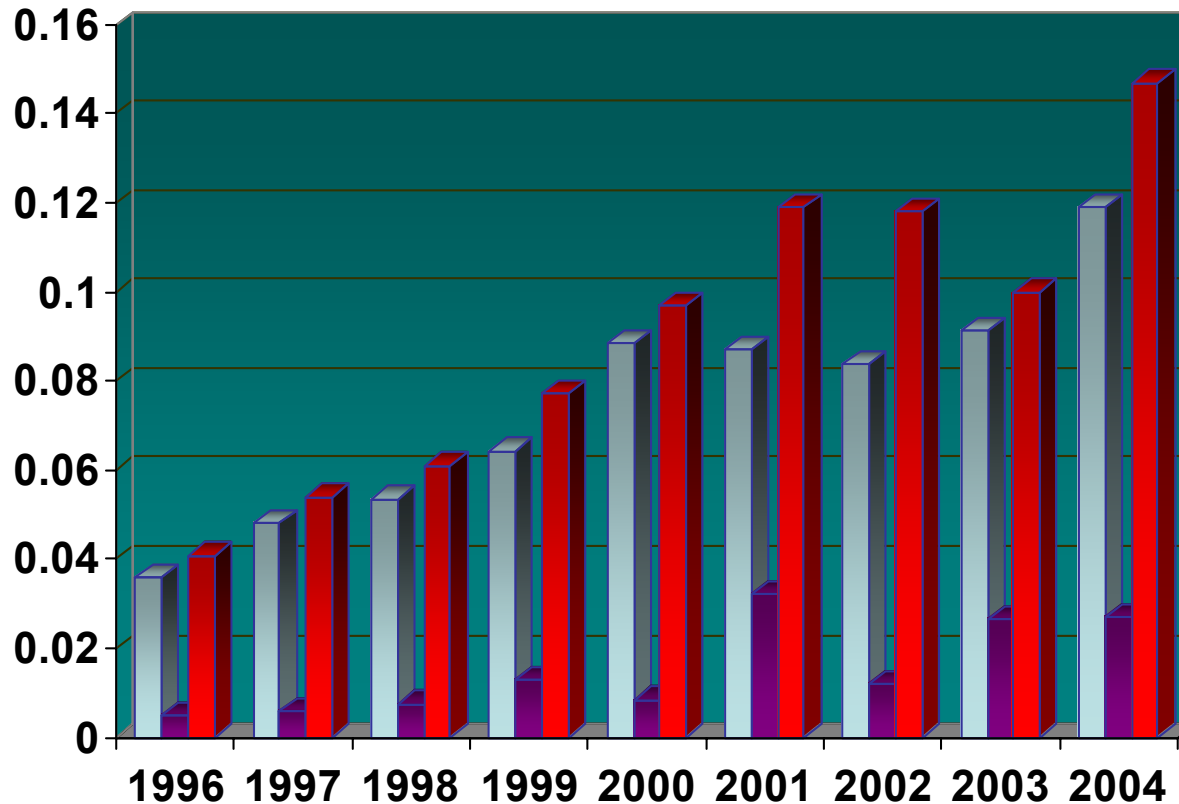
Apron Incidents and Accidents by type of incident

ACI Statistics Nov. 1999 - 2004



Injuries per 1000 movements to staff and passengers

ACI Statistics Nov. 1996 - 2004



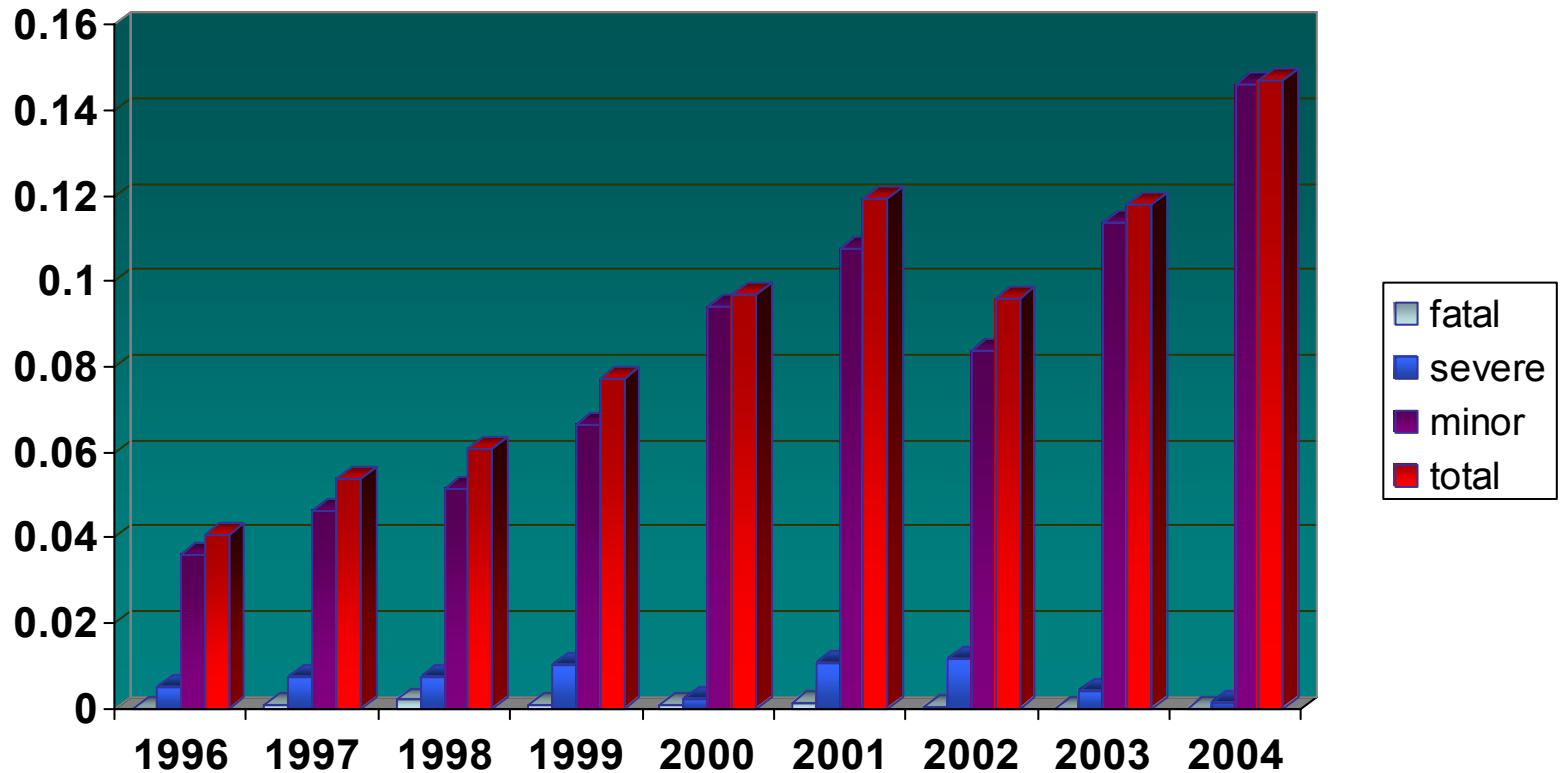
■ injuries to staff
■ injuries to pax
■ total injuries





Injuries per 1000 movements, by severity

ACI Statistics Nov. 1996 - 2004



2004 Apron Safety Survey

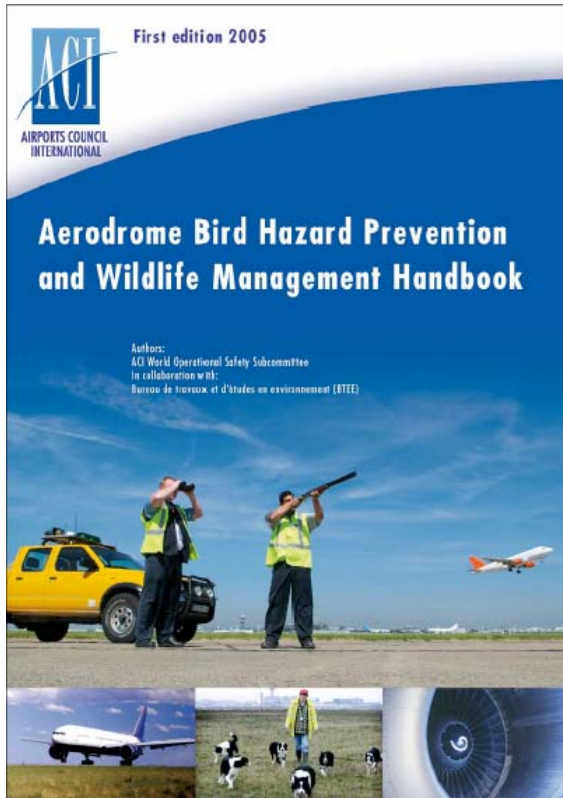
Safety initiatives

Main safety initiatives:

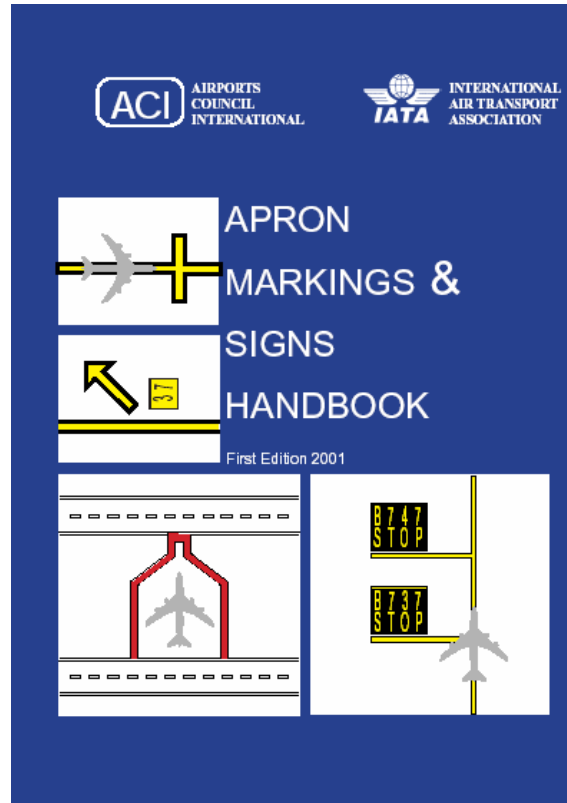
- Management to take leading role on safety matters
- Apron Safety Committees
- Operators to provide safety training for staff
- Yearly seminar for all users, specific seminar, lectures
- Implementation of apron markings, signs and lighting
- Safety campaigns (safety day, safety week or one full month) – Trophy “I care” and compensation
- Safety publications (bulletin, circular, news letter, ...)
- Driver training, licensing, enforcement of specific traffic rules
- FOD: campaigns – annual FOD walk with all operators;
- Proper identification on the apron - security badge
- Use of apron safety gear – high visibility reflecting jackets



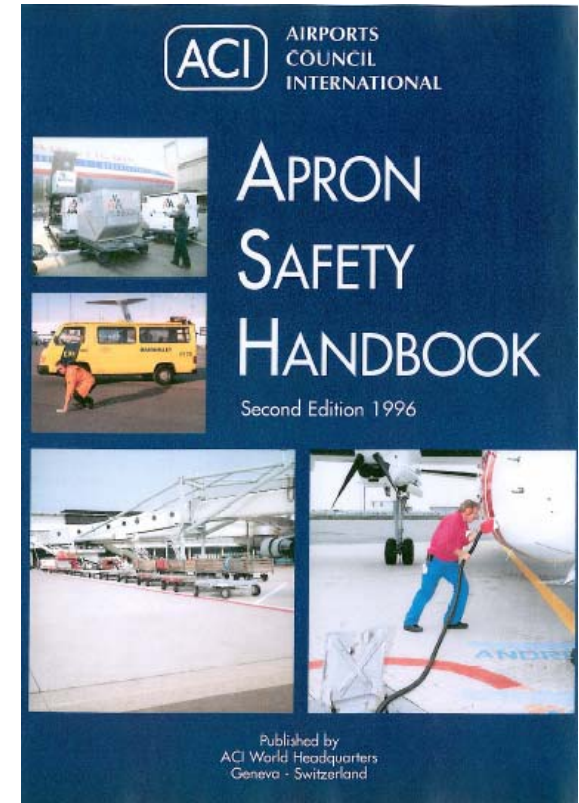
ACI Safety Publications



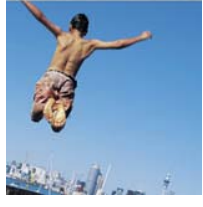
First edition **2005**



First edition **2001**



Second edition **1996**

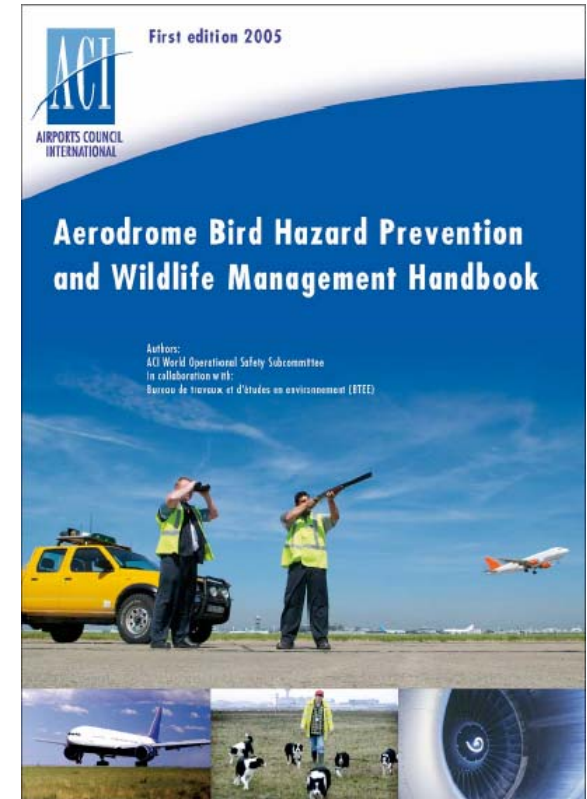


ACI Safety Publications

Aerodrome Bird Hazard Prevention and Wildlife Management Handbook

Main areas covered:

- General introduction to Wildlife Hazards
- The attraction of the aerodrome environment
- Aerodrome habitat management
- Bird hazard and wildlife management in the vicinity of the aerodrome
- Methods of wildlife control
- Development and organization of the wildlife management team
- Control of mammals
- Reporting and record keeping



ACI Safety Publications

Airside Safety Handbook

Airside Safety Handbook – update of the Apron Safety Handbook (1996)

Three main areas covered:

- Safety Management:
 - SMS
 - Risk Assessments
 - Workplace health and safety
 - Airside driving and driver training
 - Adverse weather operations
- Apron Safety:
 - Apron markings and signs
 - FOD
 - Apron incident and accident reporting
 - Hazardous materials
- Airside Safety
 - Protection of navigation aids
 - Helicopter operations
 - Setup of an airside committee



New Large Aircraft: airport related issues

Aerodrome Design Working Group (ADWG) tasked with reviewing Code F standards

ADWG has held two meetings – discussions have included

1.
 - Parallel taxiway separation to be reduced from 97.5 m to 92 m.
 - Taxiway to Object separation to be reduced from 57.5 m to 52 m
2. Upgrading of the present Recommended Practice for Runway End Safety Areas to 240 m - arrestor beds could also be used as a form of compliance
3. Runway Width, noting the large increase between the Code E specification (45 m) and Code F (60 m), whilst MLG span was only increased by 2 m.



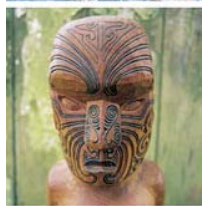
Airport Compatibility Testing: Frankfurt



Airport Compatibility Testing: Frankfurt



Airport Compatibility Testing: Frankfurt





AIRPORTS COUNCIL
INTERNATIONAL



The voice of the world's airports

SAFETY FIRST


ACI WorldPacific

2005 Aci World Annual General Assembly
& Exhibition And ACI Pacific Conference
Auckland, New Zealand, 6-9 November 2005



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