

LASER ILLUMINATIONS OF AIRCRAFT - A GROWING THREAT

International Federation of Air Line Pilots (IFALPA)

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IFALPA Security Committee



AIR TRANSPORT ASSOCIATION



IFALPA

- ▶ Non-political body, non-profit organization
- ▶ Represents more than 100,000 airline pilots represented by more than 100 Member Associations from around the world
- ▶ ALPA-I is a founding member of IFALPA
- ▶ Federation seeks to achieve goals through its component groups
- ▶ Located in ICAO HQ building, Montreal



Lasers are a Global Concern

I·F·A·L·P·A

The Global Voice of Pilots

*Medical
Briefing Leaflet*

09MEDBL07

February 2009

The effects of laser illumination of aircraft



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IFALPA Policy and Guidance



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IFALPA Guidance on Communications

“In the interest of flight safety, it is vital that effective and expeditious communication between aircrews, ATC facilities, and law enforcement officials occurs in the event of a laser attack on an aircraft. Member Associations should promote such communications in order to ensure that the correct procedures and protocols exist and are followed if and when a laser attack on an aircraft occurs.”



Reporting and Education

- ▶ Appropriate reporting protocols should be instigated and encouraged
- ▶ Member Associations are encouraged to promote public relations campaigns to educate public on danger of a laser illumination of aircraft
- ▶ This conference fits perfectly!



Laser Attacks Worldwide

- ▶ Attacks by hand-held laser pointers have been reported worldwide: Australia, Europe, Mid East, Canada, and U.S. in particular
- ▶ 96% of laser attacks around globe occur during final approach phase of flight
- ▶ Primary challenge: Lack of enforcement standardization (civil fines vs. criminal sanctions)



Laser Attacks Worldwide

- ▶ Pilot incapacitation time following laser attack*
 - Temporary/momentary 62%
 - Up to one minute 19%
 - One to forty minutes 15%
 - Several hours 4%

*Source: STEADES Analysis/IATA/AEA



Top Ten Cities with Laser Attacks Outside U.S.

- ▶ LHR London Heathrow
- ▶ DXB Dubai, UAE
- ▶ YYZ Pearson Int'l, Toronto
- ▶ MEL Tullamarine, Melbourne
- ▶ GLA Glasgow Int'l, Glasgow
- ▶ NAP Capodichino, Naples
- ▶ LCY London City, London
- ▶ SYD Kingsford Smith, Sydney
- ▶ LGW London Gatwick, London
- ▶ YUL Trudeau Int'l, Montreal

*Source: STEADES Analysis/IATA/AEA



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Legislation

- ▶ IFALPA believes that current legislation in many, if not most, States is insufficient to provide an effective deterrence to laser attacks on civil aircraft
- ▶ Laws applicable to such attacks should be available to State prosecutorial authorities



Enforcement

- ▶ Although a worldwide problem, various legal approaches are used in addressing laser attacks
- ▶ Some States rely upon civil actions
- ▶ Others have developed stringent criminal penalties in addition to civil fines



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IFALPA Member Examples



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Canada

- ▶ Number of incidents continues to rise
- ▶ Toronto in top ten non-U.S. airports
- ▶ Incidents per year:
 - 2005: 5
 - 2006: 5
 - 2007: 23
 - 2008: 80
 - 2009: 111
 - 2010: 182



Netherlands

- ▶ Number of incidents continues to rise
- ▶ Events peak in July and August
- ▶ Incidents per year:
 - 2009: 229
 - 2010: 341 through September



Netherlands

► Enforcement:

- Preference is for a general penalization for endangering or hindering an aircraft
- Adaptation of criminal code under Dutch Penal Code articles 164 and 165 by Ministry of Safety and Justice began in late 2010 and is expected to be implemented in late 2011
- “Someone who behaves on the ground in such a way that aircraft will be or might be endangered, or air traffic will or might be hindered”



United Kingdom



In 2010 pilots of airliners and emergency services helicopters were dazzled by lasers 1,494 times. Any one of these incidents could have caused a major incident. Help us to tackle laser crime. Request an information pack on the issue and the legislation in place to tackle it from richard.taylor@caa.co.uk or by calling 020 7453 6025



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*Poster used by U.K. CAA

United Kingdom

▶ Incidents per year:

■ 2004:	3
■ 2005:	11
■ 2006:	8
■ 2007:	29
■ 2008:	206
■ 2009:	739
■ 2010:	1,494

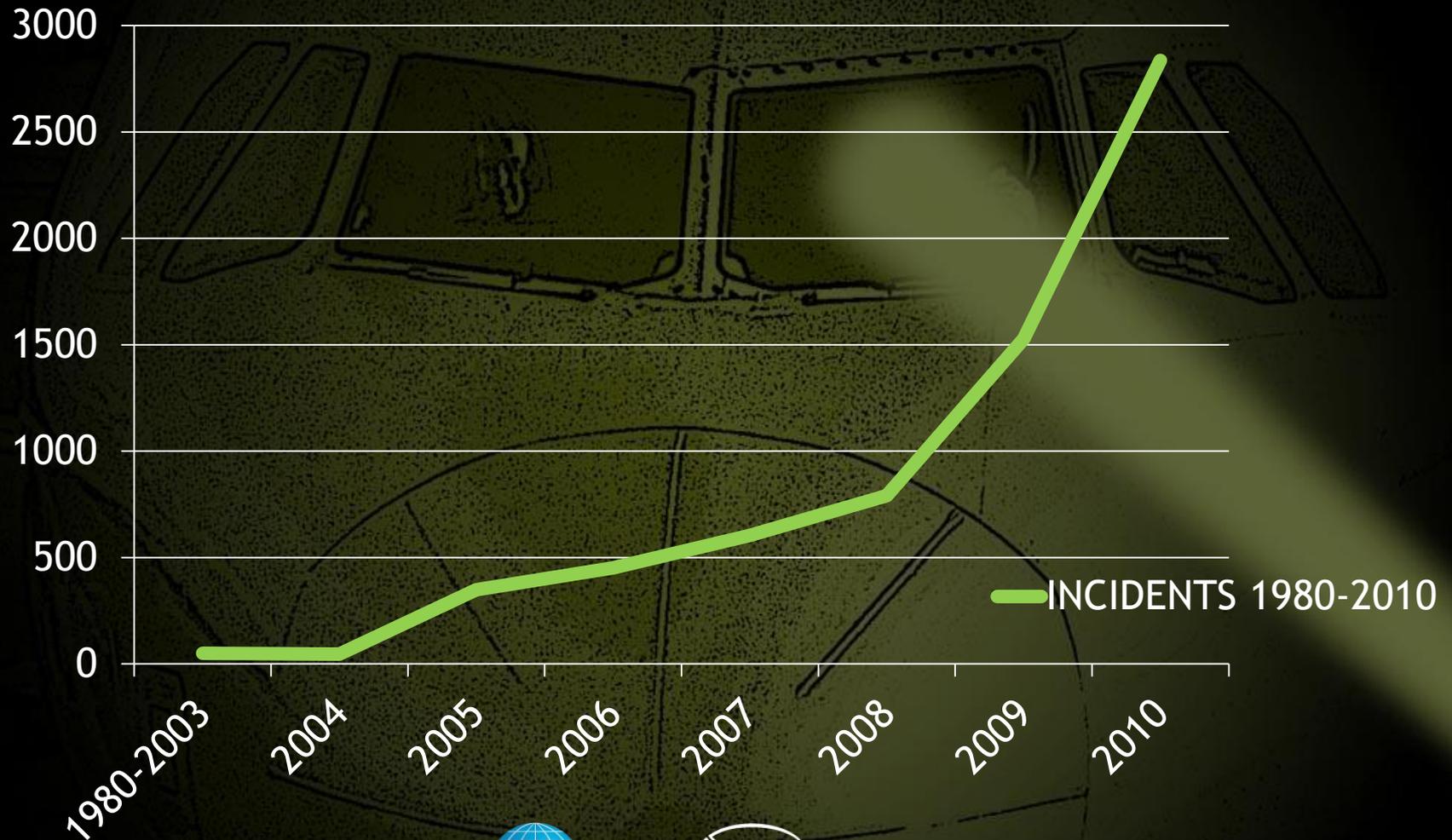


United Kingdom

- ▶ Article 222, Air Navigation Order:
 - A person must not in the United Kingdom direct or shine any light at any aircraft in flight so as to dazzle or distract the pilot of an aircraft
- ▶ Article 137, Air Navigation Order:
 - Recklessly endangering an aircraft



Rise in U.S. Laser Incidents - 1980-2010



U.S. Laser Attacks

<u>Year</u>	<u>Incidents Reported</u>
▶ Apr 1980 - Sep 2003:	<50
▶ 2004:	46
▶ 2005:	348
▶ 2006:	451
▶ 2007:	604
▶ 2008:	790
▶ 2009:	1,527
▶ 2010:	2,836



Conclusions

- ▶ Problem is global in scope
- ▶ Countries should enact strong penalties for perpetrators, deterrence
- ▶ International collaboration on best practices to combat problem
- ▶ Informing public of dangers and penalties for unlawful laser use



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Thank you!



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