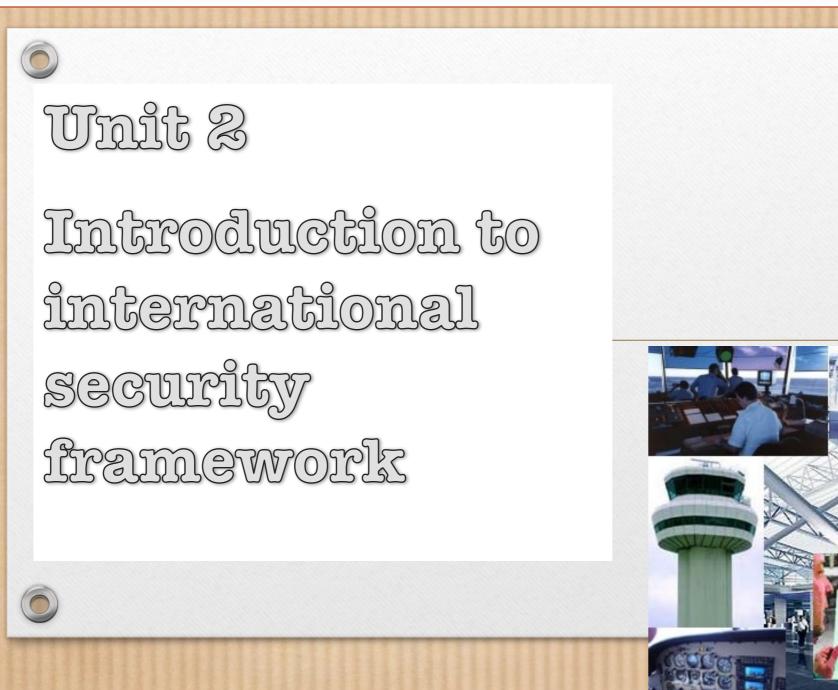
IAC2403 Introduction to Security Risk and Crisis Management



KEY TERMS 1





- Afford, affordable, affordability = able to pay
- Intervention= happening between two times or between other events or activities
- Inflict = to force someone to experience something very unpleasant
- Hostage =a person who is caught and kept prisoner





 Jeopardize= to do something that may damage something or put it at risk



 Sabotage= damage that is done on purpose and secretly in order to prevent an enemy.

Trafficking = arms/drugs trafficking

 Vulnerable = weak and easy to hurt physically or emotionally









- Smuggling = to take something quickly for yourself,
- Assassination = the murder / Killing
- Suicide = death caused by injuring oneself with the intent to die; attempt/commit suicide
- Extortion = forceful methods / blackmail
- Act of unlawful interference =

Acts or attempted acts such as to jeopardize the safety of civil aviation and air transport





International Security Framework

OCHA's (United Nations Office for the Coordination of Humanitarian Affairs) expanded definition of international security framework in 7areas and measures against:

- 1) Economic: employment, poverty.
- 2) Food: unsafe food, malnutrition and lack of access to basic health care.
- 3) Health: disease, unsafe food, malnutrition and lack of access to basic health care.
- 4) Environmental: resource depletion, natural disasters and pollution.







United Nations Office for the Coordination of Humanitarian Affairs

- 5) Personal: physical violence, crime, terrorism, domestic violence and child labour.
- 6) Community: inter-ethnic, religious and other identity tensions.
- 7) Political: political repression and human rights abuses









Act on Certain Offences Against Air Navigation B.E. 2558

พระราชบัญญัติว่าด้วยความผิดบางประการ ต่อการเดินอากาศ พ.ศ. ๒๕๕๘





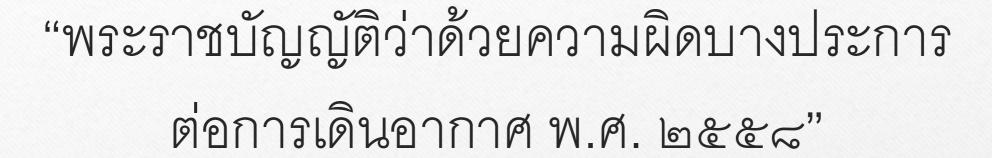




- Section 8 Any person who on board an aircraft in flight commits any of the following acts, shall be liable to a fine of not exceeding twenty thousand baht:
- (1) smoking in a lavatory or smoking elsewhere not specifically arranged for smoking;
- (2) operating a portable electronic device when such act is prohibited; or
- (3) possessing any item prohibited from being brought onto an aircraft.

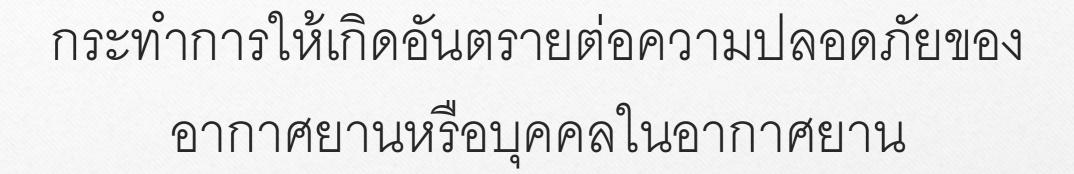






ผู้กระทำต้องระวางโทษจำคุกไม่เกินห้าปี หรือปรับไม่เกินสองแสนบาท หรือทั้งจำ ทั้งปรับ มาตรา ๘ ผู้อยู่ในอากาศยานในระหว่างการบินผู้ใดกระทำการหรือมีสิ่ง อย่างหนึ่งอย่างใด ดังต่อไปนี้ ต้องระวางโทษปรับไม่เกิน 20,000 บาท

- (๑) สูบบุหรี่ในห้องน้ำหรือที่อื่นใดที่มิใช่สถานที่ที่จัดไว้ให้สูบบุหรี่เป็นการ เฉพาะ
- (๒) ใช้อุปกรณ์อิเล็กทรอนิกส์ในเวลาที่ห้ามใช้ หรือ
- (๓) มีสิ่งที่มีประกาศห้ามมิให้นำขึ้นไปในอากาศยานไว้ในการครอบครอง



- ถ้าการกระทำนั้นน่าจะเป็นเหตุให้หรือเป็นการฝ่าฝืนต่อกฎ ระเบียบ และความ เรียบร้อยในอากาศยาน ต้องระวางโทษจำคุกไม่เกิน 5 ปีหรือปรับไม่เกิน 200,000 บาท หรือทั้งจำทั้งปรับ
- (๑) ใช้กำลังทำร้ายผู้อื่น
- (๒) ทำให้เสียทรัพย์
- (๓) คื่มเครื่องคื่มที่มีแอลกอฮอล์หรือใช้สารที่มีฤทธิ์ต่อจิตประสาท หรือ
- (๔) กระทำด้วยประการใด ๆ ที่ก่อให้เกิดความวุ่นวายในอากาศยาน



- Section 12 Any person who commits on board an aircraft any of the following acts, if such act is likely to endanger the safety of the aircraft or of any person on board or if such act jeopardizes the good order and discipline on board the aircraft, shall be liable to imprisonment for a term of not exceeding five years, or to a fine of not exceeding two hundred thousand baht, or both:
 - (1) committing an assault, intimidation or threat, whether physical or verbal, against a person;
 - (2) causing damage to, or destruction of, property;
 (3) consuming alcoholic beverages or drugs resulting in intoxication; or (4) performing any act in any way to cause chaotic incident on board.

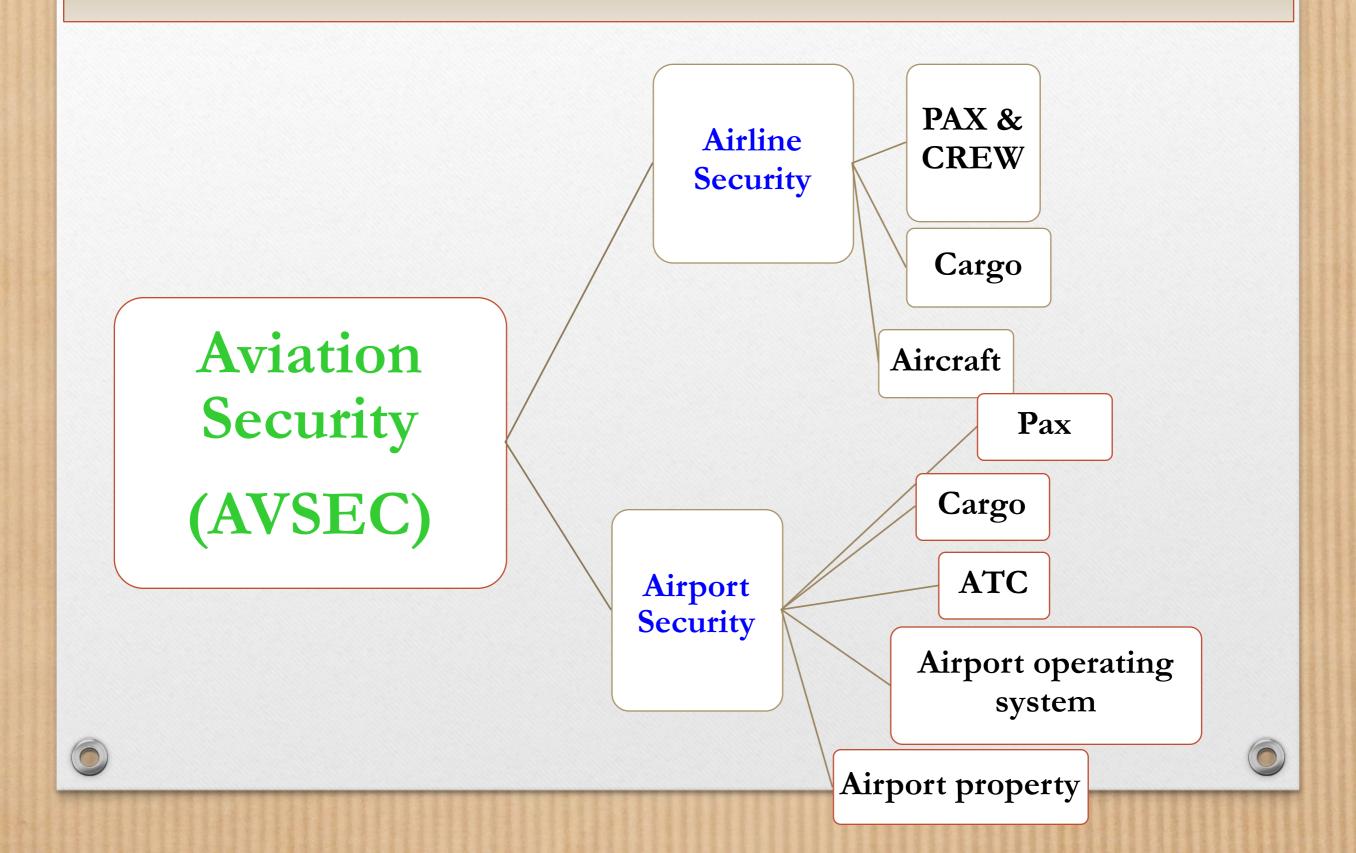


- **Section 18** Any person who commits any of the following acts shall be liable to death penalty or to imprisonment for life or for a term of fifteen to twenty years and a fine of six hundred thousand to eight hundred thousand baht:
- (1) destroying an aircraft in service;
- (2) causing damage to an aircraft in service which renders it incapable of flight, or which endangers or is likely to endanger its safety in flight; or
- (3) placing or causing to be placed on an aircraft in service, by any means whatsoever, a device or substance which is likely to destroy that aircraft, or to cause damage to it which renders it incapable of flight, or to cause damage to it which is likely to endanger its safety in
- flight.





Areas for International Security in Aviation







AVSEC

 Aviation Security is a critical area of concern for ICAO, governments and all international civil aviation stakeholder.

 Much effort has been made to enhance the standards and levels of aviation security around the world.









AVSEC (Cont.)

- Avsec is a combination of human and material resources to safeguard civil aviation against unlawful interference.
- Unlawful interference could be acts of terrorism sabotage threat to life and property, communication of false threat, bombing, etc.







Concepts of Aviation Security (AVSEC)



"The goal of aviation security is to prevent harm to aircraft, passengers, and crew, as well as support national security and counter-terrorism policy."

(Ref: Monte R. Belger of the U.S. Federal Aviation Administration)









Airport Security



Meaning: any methods to protect PAX. Employee and aircrafts which use the airports from harm, crime or other threats.

- Hijacking
- Suicide Bomb
- Cargo security
- Sabotage
- Cyber attacks











Threat



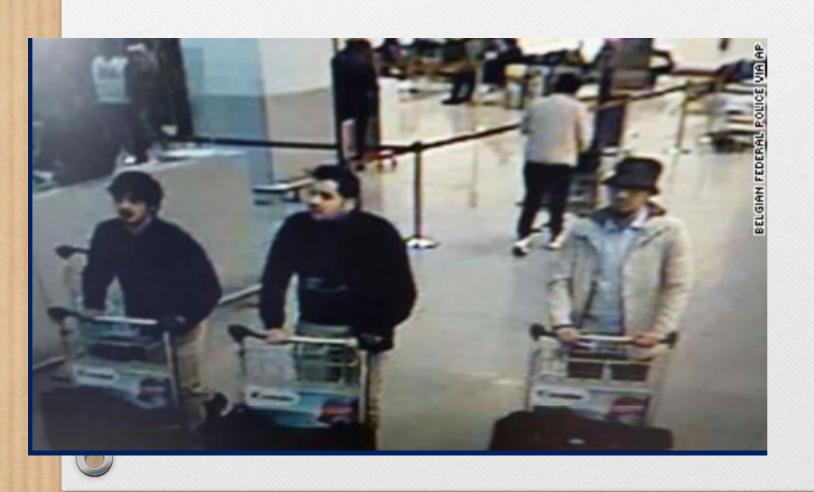
 Something or a situation that poses a risk or a likelihood of danger or jeopardy to the safety of Civil Aviation







ChangingNature ofThreats









Threats can be direct and indirect

Types of **Direct** Threats

- Bomb/Improvised Explosive Devices (IED)
- Hijacks
- Seizure of Hostages
- Armed Attacks
- Sabotage
- Insider Threat
- Extortion











- Violent Protest (affecting aviation facility)
- Missile Attacks
- Lone Wolf Attacks (Brussels Airport Attacks)
- Suicide Attacks
- Large Scale Attacks (Karachi Airport Attack in 2014)
- Cyber Attacks











Threats can be direct and indirect

Types of Indirect Threats

- Drugs, Flora and Fauna trafficking
- Smuggling (currency)
- In-flight violence
- Workplace violence











Definition of Insider Threat

- A malicious threat to civil aviation that comes from within the industry, airport or airline etc.
- Stakeholders, employees, former employees, contractors or business associates, who have inside information concerning the organization's security practices, data and ICT systems.









Example acts of unlawful

- 27th June 1976 Hijacked Air France Airbus A300 flight AF139 from Athens with 248 passengers flown to Entebbe.
- 13th Oct 1977 Hijacked Lufthansa Boeing B737- 200
 Adv flight LH181 flown to Mogadishu
- 28th Feb 1982 Hijacked Air Tanzania plane with 90 pax flown to Stansted, UK
- 3rd Dec 1984 Hijacked Kuwait Airways B747 Flt KU221 to Karachi diverted to Teheran









- 5th April 1988 Hijacked Kuwait Airways B747 Flt KU422 from Bangkok to Kuwait
- 28th November 2002 Mombasa 2 simultaneous MANPADS (SA-7 missile) attack on an Israeli Arkia Airlines B757 jet during take-off
- Malaysia Airline MH380 from Kuala Lumpur (Still missing)









Cargo Security

Basic Principles

- All cargo cannot be screened
- Cargo is easier to screen before consolidation and delivery to aircraft operator











Why is Cargo Vulnerable?

- Volume carried increasing
- Cargo system well known
- Able to target specific flights
- Difficult to screen
- Low risk to terrorist











ET702 Hijacking to Geneva (17.02.14)





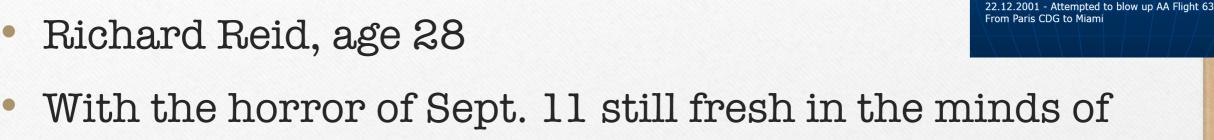
- Ethiopian Airlines flight 702 on scheduled service departing from Addis Ababa at 00:30 (local time) scheduled to arrive in Rome at 04:40 (local time) was forced to proceed to Geneva Airport.
- Hailemedhin, second-in-command, flight to Rome, took control of the aircraft when the capt. left the cockpit for a toilet.
- He sought asylum because he did not feel safe in Ethiopia. All passengers and crew are safe at Geneva Airport





Suicide Bomber (22.1.01)

Dec. 22, 2001: Shoe bomber



- With the horror of Sept. 11 still fresh in the minds of the American public, the self-confessed al Qaeda member created another scare from the sky.
- On Dec. 22, 2001, Reid boarded AA 63 from Paris to Miami with a homemade bomb concealed in his shoe. He tried to blow up the jet but failed to light the fuse before being subdued by passengers and the flight crew.
- Reid was <u>convicted of all charges</u> and is currently serving a life sentence at a Colorado prison



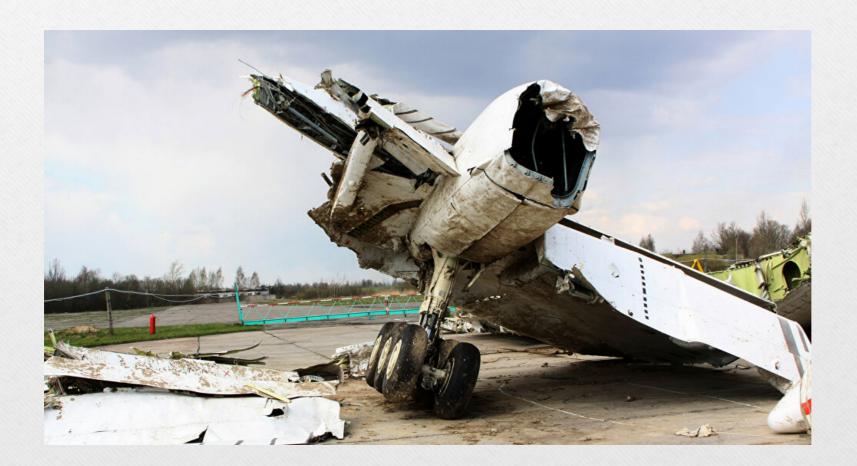






Sabotage Means:

• Destructive or obstructive action carried on by a civilian or an enemy agent to hinder a nations war effect.







Cyber Attack

- Related to air navigation system,
 ATC hacking. Hackers could gain access to
 communication between aircraft and ATC centers and
 send false information to mislead pilots or overwhelm
 controllers with fake aircraft signals.
- On-board attack through wifi given to Pax. Gaining access of Pax information.
- -Security threat to Airport Operating Systems, check in system fail or passport control systems at the departure terminals in both of these airports were shutdown by a cyber-attack.



Aviation Cyber Attacks @ Airports



- Passport control system affected, potential result of malware, departures delayed significantly
- Islamic State message on hacked Airport website
 Website defaced with statement supporting Islamic
 State; websites shut-down Airport private network
 baggage system
- An airport baggage system experienced an intrusion by a malware, zombie army introduced by the contractor managing the system





