

INTRODUCTION TO AVIATION INDUSTRY

Unit 8

Air safety and security





CARTOONSTOCK
.com
Search ID: nfk227

AVIATION SAFETY

Aviation safety is about everyone working together to assure flying is as safe as possible. It is a combined result of:

- Regulatory oversight
- How crews operate



SAFETY ON GROUND

1. The role of regulatory agencies

From Annex 8 “ FIT TO FLY ” of Chicago Convention.

Referred to the standards for aircraft airworthiness certification (a document that grants authorization to operate a civil aircraft in flight) that **the design , construction and operating characteristics of the aircraft meet required standards.**



2. MANUFACTURER RESPONSIBILITIES

2.1 Meeting Airworthiness Requirements

- The aircraft manufacturing engineers have to **focus on safety** ; An aircraft must be designed to avoid problems, and function at full capacity to meets the requirements of the CAA (Civil aviation Authority)



2.2 Safety Improvement

Improving aircraft design and performance to meet safety demands and show safety concerns

2.3 Design consideration

Major systems of airplanes are to be designed with backups to increase reliability and safety.



3. Maintenance Procedures

Airlines set up regular maintenance to help ***detect and prevent*** problems by using maintenance checks and specific timeframes in which they must be performed.



4. Airside safety

4.1 Threats to Airside safety – most complex area in the airport

- a) Condition of pavement, runways, taxiways**
- b) Obstacles around the airport**
- c) Broken ground facilities such as approach lights, signs**
- d) Debris on runways, taxiways, aprons**
- e) Bird or other wildlife**



APPROACHING LIGHTS



4.2 Safety Management Systems – any concern about safety

- **Conducting inspections and audits of aerodrome facilities and procedures.**
- **Airport operators need to ensure they have a Safety Management System (SMS) to keep the risk of airside accidents to a minimum.**
- **IATA Safety Audit for Ground Operations (ISAGO) aims to improve safety and cut airline costs by reducing ground accidents and injuries.**





Break 10 minutes

SAFETY IN THE AIR

1. Crew Responsibilities

1.1 Flight-deck Crew / Cockpit Crew

Captain performs pre-flight checks within the flight deck, receives the necessary ATC clearance and programs the on-board navigation systems.

Copilot or First officer checks cockpit, engines, airframe, landing gear



1.2 Cabin Crew,

The Pre-flight inspection includes all safety and emergency equipment located in the cabin (such as evacuation slides, fire fighting and first aid equipment).



Aircraft Emergency Equipment



Fire Extinguisher



Smoke Hood



Crash Axe



First Aid Kit



Oxygen Bottle



Life Vest



Flashlight



Megaphone



Radio Beacon



Escape Slide



Medical Kit



Restraint Kit

For daily aviation news, English tips and advice like our facebook page
www.facebook.com/absoluteaviation



2. Culture of Safety

Use The Aviation Safety Reporting System (ASRS) for air safety within the industry.

Pilots and other crew members report errors to improve air safety



3. Navigation Safety Aids

3.1 Airport Lighting

Assists pilots who are landing in poor weather or after dark



3.2 Instrument Landing Systems (ILS)

A landing navigation system that is used only within a short distance from the airport to enables aircraft to land ,incase the pilots are unable to see the runway. It does this by way of transmitted radio signals.



3.3 Global Positioning System (GPS)– using satellite

Allow airlines to navigate using satellites with little or no ground-based navigation.



AIR SAFETY ISSUES

1. Natural Hazards and weather conditions

1.1 Bird strike



AIR SAFETY ISSUES

1.2 Lightning



1.3 Ice and Snow ; on the runway or on the wings

1.4 Sand and Dust

1.5 Volcanic Dust Particles



2. Component and System Failures

Such as Fire on board especially the toxic smoke generated by burning materials



3. Human Factors

They may disregard the rules, or fail to comply with by mistakes, fatigue, confusion, or inattention. There can cause crucial errors to be made in aircraft operations, maintenance and servicing, leading to potential safety problems.



SECURITY

Aviation safety is to ensure airplanes are free from factors that may lead to injury or loss.

Governments, airport authorities and airlines has to implement an effective security controls and procedures to ensure the safety of passengers, crew, ground personnel and the general public at airport and in-flight.



REFERENCES

- <http://www.verybestquotes.com/wp-content/uploads/2012/11/Famous-Wisdom-quotes-Knowing-yourself-is-the-beginning-of-all-wisdom.jpg>
- <http://www.atgairports.com/pr/images/Approach-R32L.JPG>
- http://www.aroundthepattern.com/wp-content/uploads/2009/03/NRT_Approach_Lights.jpg
- <http://absoluteaviation.wordpress.com/2013/07/04/aircraft-emergency-equipment/>
- <http://cl.jroo.me/z3/J/t/E/d/a.aaa-Wild-bird-Strike-with-Airpla.jpg>
- <https://www.eurocockpit.be/sites/default/files/imagepicker/1/bird-strike.jpg>
- http://www.chilloutpoint.com/images/2009/march/riyad_sand_storm/riyad06.jpg





Break 10 minutes

ABI1201 INTRODUCTION TO AVIATION INDUSTRY

Unit 9 Future of the Airlines



At the Airport

vocabulary



airline



airport



arrivals



baggage



baggage claim



boarding pass



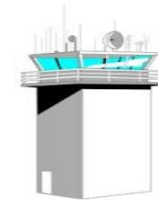
cart



check-in counter



cockpit



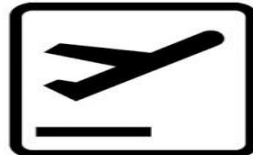
control tower



crew



customs



departures



duty free



emergency exit



flight attendant



gate



jet engine



life vest



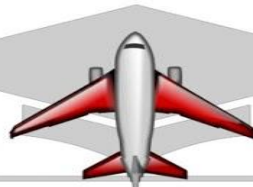
passenger



passport



pilot



Plane
(aircraft/airplane
/ aeroplane)



seat



seat belt

321LearnEnglish.com



FUTURE OF AIRLINE INDUSTRY

- **Industry Overview**
- **Changes in Industry**
- **Threats to the Airline Industry**



1.INDUSTRY OVERVIEW

Air travel will remain a large and growing industry. It is the globalization in many industries across the world.

1.1 The Leisure market

The availability of large aircraft such as the Boeing 747, the 787, and the A380 made it convenient to travel to new destination



1.2 The Business market

The result of the rapid growth of world trade increased the need for business travel as managers needed to oversee new customers

1.3 Market growth

Airbus predicts the main drivers for growth from 2011-2030 will be

- The replacement of aircraft already in service
- Dynamic growth in emerging markets,
- Continued growth of Low cost Carrier (LCC) in Asia
- Greater continued market liberalization.



1.4 Decade of disastrous growth

- After a few years of rising profits, profitability began to weaken with the Asian financial crisis in 1997-1998.
- Year 2000 faced with computer software issues, caused a great deal of activity in the airlines to avoid predicted IT problems.
- The events of September 11, 2001 in the USA
- The SARS in 2002-3, 2019





2.Changes in the industry

2.1 The drive towards efficiency

Sustainable **bio-fuels** help reduce dependence on fossil fuels in air transport and reduce the carbon emissions have been introduced. Major airlines have begun using biofuels on their long haul flight



2.2 Deregulation Intensified

Deregulation stimulated competition, especially from new, smaller, low-cost carriers (LCCs).

2.3 Airline Alliances

The international scheduled airline industry has proceeded towards globalization and consolidation through the establishment of global alliances and partnerships between airlines, linking their networks to expand access to their customers. The three largest passenger alliances are the Star Alliance, SkyTeam and One world.



2.4 New Services

The successful carriers will continue to reduce costs and improve their products and customer service.

- Increased transactions – from booking flights to checking-in.
- Innovative on board technology, smaller aircraft.
- High end customer service and product enhancements are introduced to retain and attract customers.
- The launch of new applications keep passengers informed of flight delays, cancellations, gate changes, bag missing in real-time on smartphones.



2.5 Arrival of the low Cost Carriers (LCCs)

Based on point-to-point market model, the budget travel airlines combine low fares and no meals or other product that could increase prices. Low cost carriers offered much lower fares.

2.6 Projected Growth of Low Cost Carriers

Since 2002, more low fare airlines joined the market, in Thailand, Singapore, the Philippines, Indonesia, India, China and Japan. Now, they are still growing.



2.7 Future Growth

Next 20 years the expecting global growth with Asia Pacific, Europe and North America leading the growth.

Passengers number are expected to be more and more as they are planning to travel by themselves.

Boeing predicts that new business models and emerging economies will support airplane demand.



3. THREATS TO THE AIRLINE

3.1 State of the INDUSTRY

The industry remains fragile with continued threats to airline profitability.

3.2 Fuel Prices

The high cost of fuel.

3.3 Fares

Competition from the low cost carriers.

3.4 Impact of Low Cost Carriers



3.5 Capacity Management

Managing the number of seats in an aircraft.

3.6 Taxes and Surcharges

High taxes and surcharges imposed by airports and service providers and air navigation service providers are a constant concern for the airlines impact aviation profitability



3.7 Health Issues

Influenza pandemics can spread and affect all countries by air travel

3.8 Freight Shipments

Today's airfreight market is showing signs of weakness. Declining trade volumes and business confidence had a impact on air freight.



3.9 Consolidation of Freight Forwarders

They create logistics centres at a chosen airport where they concentrate smaller shipments into much larger ones. This provides increased negotiating powers with the airlines to obtain more stable capacity economies of scale and improved terms.



▪ ICAO
ALPHABET

A Alpha	B Bravo	C Charlie	D Delta	E Echo
F Foxtrot	G Golf	H Hotel	I India	J Juliet
K Kilo	L Lima	M Mike	N November	O Oscar
P Papa	Q Quebec	R Romeo	S Sierra	T Tango
U Uniform	V Victor	W Whiskey	X X-ray	Y Yankee
Z Zulu				

- References

Ground service management, Colin E. Law et al.



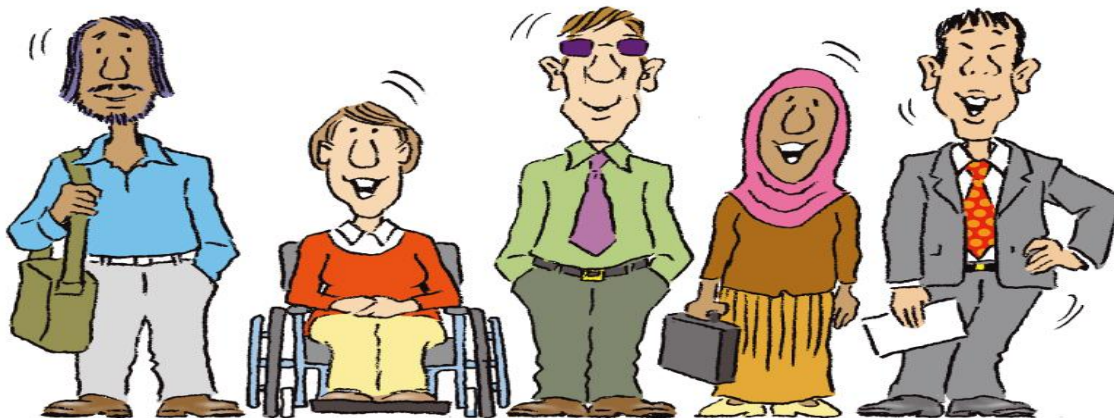


Break 10 minutes

ABI1201 Introduction to Aviation Industry

Unit 10 Travel planner and Cultural awareness

Diversity & Cultural Awareness



DON'T TRAVEL WITHOUT

©WWW.THEENGLISHSTUDENT.COM

Learning these First!



Passport



Boarding pass



Trolley



Transfer



Check-in



Metal detector



Pat down



X-ray



Suitcase



Immigration



Baggage claim



Pilot



Flight Attendant



DID YOU REMEMBER TO PACK EVERYTHING?

Hand-carry

Planning to travel

- Wiki how has good suggestions on 12 things you need



Passport and Visa



1. Passport

- To make a passport each country requires different papers
- Thailand requires ID Card with 13 digit
- If no ID bring along House Registration with other docs
- If you already have passport must be valid for 6 months before expiry date



3. Immunizations

- Start many months before travel
- Some certain parts of the world such as Africa
- Some no need



4. Languages

- Learn polite words 4 magic words; Hello, Thank you, Please, Sorry
- Gestures that you should not do in that country



5. Exchange Rate

- Become familiar with what the foreign currency equals in your home country

- 1 USD = **52.84** THB (**32.39**)
- 1 GBP = **86.42** THB (**43.56**)
- 1 EUR = **86.07** THB (**37.96**)
- 100 JPY = **41.52** THB (**22.00**)



REMARK

- *The red ones are highest*
- *The green ones are at the present (25JUL25)*





Break 10 minutes








6. Electrical Standards

- Plug adapter and converter
- Hair-dryer
- Computer batteries and handheld devices may also be affected by electrical conversion.



7. Local Atmosphere, Customs, Manners

- Read article about that country you are travelling
- Familiarize with sensitive issues
- How is the weather

Wed 04/22	Thu 04/23	Fri 04/24	Sat 04/25	Sun 04/26	Mon 04/27	Tue 04/28
39° 28°	33° 26°	33° 26°	33° 26°	32° 26°	33° 27°	34° 27°
						
Clear	Thunderstorm	Thunderstorm	Thunderstorm	Thunderstorm	Chance of a Thunderstorm	Chance of a Thunderstorm
0 mm	7 mm	4 mm	7 mm	7 mm	1 mm	1 mm



8. Local Dress and Customs

- Some country women wear modestly dress, do not wear tank-top
- Middle-east – women wear Abaya with veil



9. What appropriate touch

- **Some country not accept hugging**
- **But also be ready for Kissing**
- **Learn the rules of dress, touch, table manners, and speech before you go to a foreign country.**



10. Communication Plan

- **Contact with family**
- **Options to contact your family**



11. Pack Wisely

- Check the weather
- Lighter is better
- ‘Rolled’ Technique
- Take things you like to wear and plan on wearing several times. By making a checklist of every item you plan to take on the trip



12. Have a Good Attitude

- Keep mind open when seeing something shocking you or taboo
- *Be observer of culture, not a judge*



Cultural Awareness

- Different beliefs, values, customs



References

- http://24.media.tumblr.com/48c95039c9824d1d5dd46f833754c3aa/tumblr_mtqv6vb3i01s04hvd01_500.jpg
- <http://www.iced2015.com/uploads/image/Passport-and-Visa.jpg>
- <http://www.usd261.com/Images/Pictures/immunizations.jpg>
- http://img1.wikia.nocookie.net/__cb20130517002923/4chanint/images/9/9d/1368490957121-1-.png
- http://upload.wikimedia.org/wikipedia/commons/thumb/6/63/WikiProject_Numismatics_logo.svg/220px-WikiProject_Numismatics_logo.svg.png
- <http://4.bp.blogspot.com/-eukV3vbvKF0/T5rU0GrEHil/AAAAAAAAA4k/d5JzMLom6Pg/s1600/Travel-Adapters.jpg>
- <http://www.stpaulinuscps.org.uk/images/weather%201.gif>
- <http://maxcdn.fooyoh.com/files/attach/images/591/565/385/008/abaya.JPG>
- http://s3.amazonaws.com/readers/2008/11/12/packing_1.gif
- <http://blog.kevineikenberry.com/wp-content/uploads/2011/07/smile.jpg>
- http://st.depositphotos.com/1667027/1387/v/950/depositphotos_13870604-Cultural-diversity.jpg



พจนานุกรม

๑ ก้านบัวบอกกลิ่น
มารยาทสื่อสันดาน
โฉดฉลาดเพราะคำขาน
หย่อมหญ้าเขียวแห่งเรือ

ชลธาร
ชาติเชื้อ
ควรทราบ
บอกร้ายแสงดิน๑๓

๑ ความยาวของก้านบัวสามารถบอกความลึกตื้นของแหล่งน้ำที่มันอยู่ได้ มารยาทบอกให้ทราบถึงความเป็นไปของชาติตระกูล คำพูดของคนสามารถแสดงให้เห็นว่าบุคคลนั้น ฉลาด เขลา ชั่ว หรือเลว เหมือนกับที่หญ้าเขียวแห่งบอกถึงความไม่สมบูรณ์ของดิน ตามตรงกับสำนวนสำเนียงสื่อภาษา กิริยาสื่อสกุล๑๓



The End.

