

Introduction to Aviation

Aero 1022

Lesson Number 1

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University of
South Australia

Welcome!

This course will develop your understanding of the air transportation system from both a worldwide and regional aspect. This includes:

- air carriers**
- airports**
- air traffic service providers**
- numerous direct and indirect industries associated with the aviation industry.**

Let's take some time to go through the course outline, and a few minutes to look at our learnonline site!



Administration – A few extra points:

- **Facilities and emergency exits**
- **Attendance – required for success, arrive on time so we can keep on schedule**
- **Mobile phones/iPads – please limit to class activities**
- **Behavior – be courteous to your neighbours**
- **Lectures and tutorials – these are interactive!**



The text is only one resource

ICAO – www.icao.int

CASA – www.casa.gov.au

ATSB – www.atsb.gov.au

IATA – www.iata.org

FAA – www.faa.gov

NTSB – www.nts.gov

Also the local A3SO and RAeS meetings.



Introduction

- Global air travel and tourism is a \$7 billion USD annual industry with about $\frac{1}{4}$ billion jobs.
- The International Civil Aviation Organization (ICAO) estimates that:
 - every \$100 of air transportation revenue generates an additional \$325 income in collateral industries
 - every 100 aviation industry jobs generate about 600 collateral industry jobs.



Direct and indirect aviation industries

- What are some direct and indirect aviation industry contributions to the Australian economy?
- Direct
 - airlines, airports, air traffic services
- Indirect (support the direct industries)
 - fueling, manufacturing, catering, weather, ticketing
- Induced (also support the workers and families)
 - hotels, schools, restaurants, hospitals, conferences



Within Australia

- 1910 – first controlled flight in Australia, just outside Adelaide
- 1920s – Civil Aviation Authority was under Department of Defense
- 1935 – Civil Aviation Branch and Qantas took on air mail
- 1938 – Department of Civil Aviation outside DOD following accident
- 1939-1945 – Numerous Australian pilots and technicians joined the Canadian and British forces and then RAAF.



Australia continued

- 1944 – One of the founders of ICAO
- 1946 – Accident Investigation Branch established
- 1959 – more than 10,000 pilots and 1,000 aircraft
 - New B-707 by Qantas for long-haul flights
- 1973 - Department of Transport with Air and Surface Branches
- 1982 – Back to independent Department of Aviation like before 1973
- 1988 – Civil Aviation Regulations (CAR) was foundation for current CASA



Chapter 1 - The Airline Industry: Trends, Challenges and Strategies

- Generally there are four stages of development for the aviation industry. Some organizations may skip a stage which can have a positive or negative result:
 - Stage 1: Regulation
 - Stage 2: Liberalization
 - Stage 3: Deregulation
 - Stage 4: Re-regulation
- What stage do you think Australia is currently located?



Evolution of the Aviation Industry

- Following WWII the aviation industry was primarily dominated by North America and Europe. Why?
- The other regions were focused on rebuilding and development of local and sub-regional infrastructure.
- With the introduction of jet commercial transportation in the 1960s and the general global development, the aviation industry grew in capacity and safety.



Further global development

- Following the end of the Vietnam war in the 1970s, there was extensive aviation industry capacity and large numbers of pilots and aircraft maintainers.
- At the same time there was a large number of business and pleasure travelers.
- This drove a demand for rapid expansion and competition for the global aviation marketplace.



Stage 1: Regulations

- Until the 1970s, most of the global airline industry was regulated
- Governments controlled air fares, routes and market entry of new airlines



Regulation is characterized by:

- Strict ownership control of airlines
- Limited to no competition on selected routes
- Limited markets served
- Limited city-pair frequency
- Generally higher air fares
- Government bail-outs for financially troubled airlines, especially flag carriers
- *One analyst suggested that eventually there would be only 3 major airlines!*



Stage 2: Liberalization

- Liberalization is characterized by less government control compared to a regulated environment
- Most countries appear to be recognizing the need for liberalization in the airline industry with increased bilateral negotiations between countries
- There was also significant challenges for regulators to keep pace with the blossom of new airlines, air routes, airports and the demand from the flying public for higher quality and efficiency along with competitive prices.



Liberalization continued

- According to the International Air Transport Association (IATA), liberalization allows for:
 - Expansion into new markets
 - Diversification of new products
 - Specialization in niche products
 - Market exit for carriers not able to success in a competitive environment



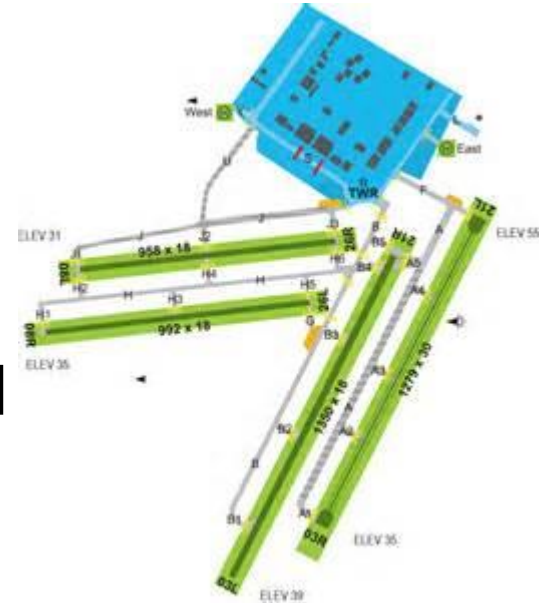
Stage 3: Deregulation

- In the late 1970s, Government controlled entry and price restrictions for air carriers regain to be removed
- Airlines are allowed to serve (or not) any given route



Deregulation continued

- Deregulation is characterized by:
 - Reduction of air fares
 - Improvement in safety
 - Sometimes service quality improvement
- Caveat: Small and some medium-sized airports usually do not benefit from a deregulated environment due to loss of services and local financial limitations



Stage 4: Re-regulation

- As a result of increased merger activity in recent years, the airline industry entered formal discussions regarding the possibility of re-regulation
- Role of government would be to prohibit predatory pricing below actual cost
- Although the majority of the global airline industry is considered to be deregulated, some experts argue that there are emerging trends toward re-regulation



Re-regulation continued

- Government is continually challenged by pressures from the industry to be more flexible and from the public to be more stringent
- After the last 30 years of expansions, contractions, mergers and alliances – the aviation industry is beginning to essentially draw-down toward that early estimate of three major airlines or aviation alliances

