

MBA in Aviation Management

Part 4:

Airport Functional Network

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Air Traffic Politics



Air Traffic Politics

Chapters



- 1. Warsaw Agreement**
- 2. Montreal Agreement**
- 3. Chicago Convention**
- 4. Bilateral Agreements**
- 5. European Air Traffic Policy**

Air Traffic Politics

Warsaw Agreement

- ✈ Signed in 1929
- ✈ WA is the first multilateral agreement (between nations) on traffic rights !
- ✈ Valid for all international transport of **passengers**, **baggage** and **cargo** (**except mail!**) transported for a fee as well as for transport with air foil (hovercraft since 1924)



Air Traffic Politics

Warsaw Agreement

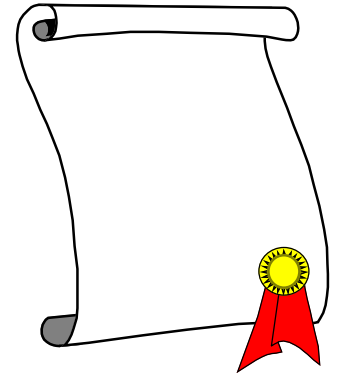
✈ WA focuses on:

- ✓ **Liability** of the operator for accidents
- ✓ Institutionalisation of compensation for accidents regarding **passengers**
- ✓ Standardisation of **traffic rights** for undersigned states
- ✓ Standardisation of transport documents (tickets, airway bill, baggage tag etc.)

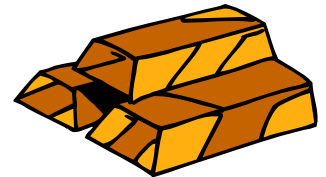


Air Traffic Politics

Warsaw Agreement



- ➔ For the application of the WA
a „contract made by the parties“
is necessary (e.g. **Ticket**).
For crew members on duty the WA is not applicable.
- ➔ The **liability** of the operator is limited to 125.000 Poincaré
Francs (1 PCF equivalent to 65,5 milligrams gold 900/1000).
Liability covers:
 - ✓ injuries, death or damage to health of traveller
 - ✓ damage or loss of baggage and contents
 - ✓ „damage“ to the traveller / cargo due to delay



Air Traffic Politics

Warsaw Agreement

✈ The Hague Protocol

Extension of WA, 110 states ratified the protocol in 1955

- doubling the liability to a limited sum:

for traveller of 250.000 P. Francs

for baggage or goods to 250 P. Francs/kg

for goods carried on body to 5.000 P. Francs



- transferring the burden of proof from injured party to party that caused the damage

Air Traffic Politics

Warsaw Agreement

- ✈ **Liability** of operator is only given if accident occurs on board of aircraft or during embarkation or disembarkation.
- ✈ **No liability** of operator if he can prove that he undertook all necessary measures to avoid an accident or that measures couldn't apply.
- ✈ **Unlimited liability** if operator is proved to have acted intentionally or was negligent



Air Traffic Politics

Warsaw Agreement

✈ Guadalajara Agreement (1961)

Liability of operator is extended to the carrying out operator (e.g. Travel Agent -> Airline).

✈ Guatemala-City Protocol (1971)

- ➡ **Liability** for travellers increased to 1,5 Mio P. Francs
- ➡ **Liability** for baggage and goods set at 15.000 P. Francs
- ➡ **No unlimited liability** of operator even if to blame
- ➡ The burden of the operator is no longer a prerequisite for compensation

Air Traffic Politics

Montreal Agreement

- ✈ Agreement between the former U.S. Civil Aeronautics Board (CAB) and the IATA operators (Civil Law Agreement)



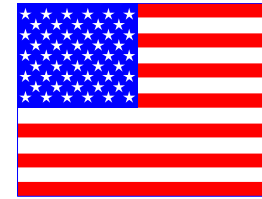
- ✈ **The USA never ratified *The Hague Protocol*.** In fact in 1965 the US terminated the WA for a short period of time.

In principle The Hague Protocol was then accepted, with the following variation ->MA:

Air Traffic Politics

Montreal Agreement

Valid for USA and Canada:



- ✈ The liability for death, injury or damage to health of travellers for transportation to/from USA and Canada is limited to

75.000 US\$ with legal cost
58.000 US\$ without legal cost



- ✈ The burden of the operator is no longer a prerequisite for compensation

Air Traffic Politics

Chicago Convention

- ✈ International Air Traffic begun in the 1920's
- ✈ During Word War II an international air traffic net had evolved and regulatory deficiencies were identified:

- ☞ What are the prerequisites needed for border crossing air traffic?

- ☞ Which technical standards have to be followed?

- ☞ Which measures may avoid legal and economical conflicts for air transportation?



Air Traffic Politics

Chicago Convention

- ✈ Consequently, upon invitation of the USA a conference took place in Chicago in December 1944 in order to set the basis for international air transportation.



Air Traffic Politics

Chicago Convention

- ✈ The Chicago Convention on international air traffic is the most important source for international air traffic rights and public air traffic laws.



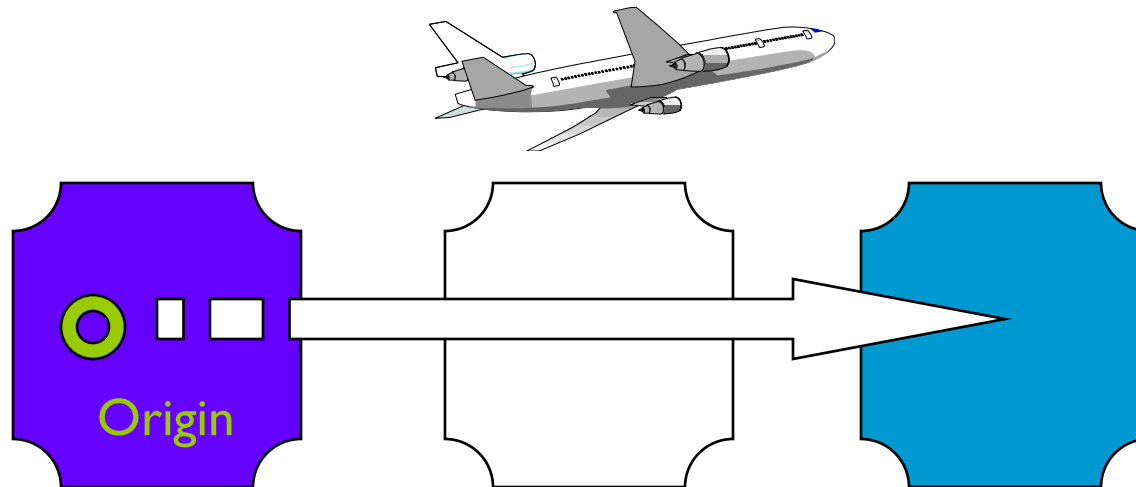
- ✈ The first 5 Freedoms of the air were defined by the US Transit Rights (Freedoms 1-2), Transport Rights (3-8)

Air Traffic Politics

Chicago Convention

1. Freedom “Right of innocent passage”

A civil aircraft of a treaty partner has the right to overfly a treaty partner’s territory en route to a third country, without landing, providing the over flown country is notified in advance and approval is given (approval is usually pro forma).



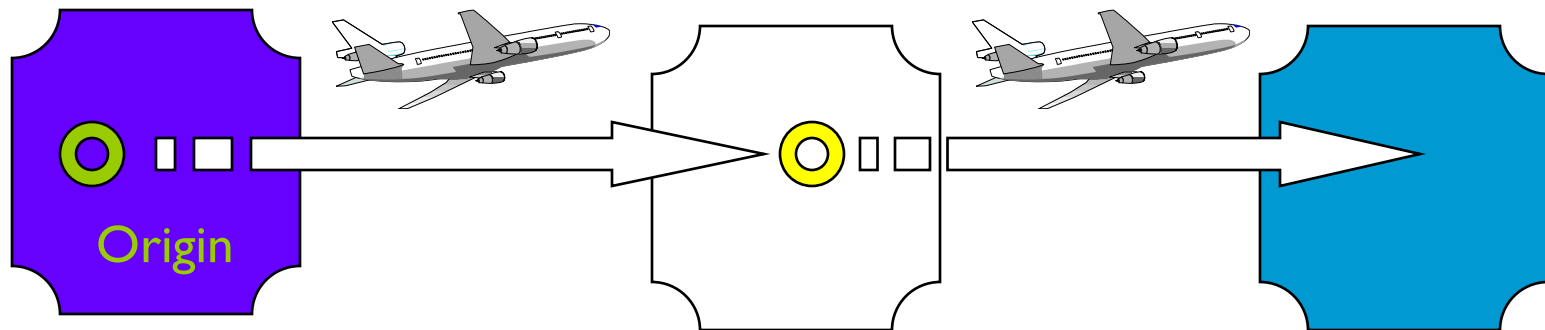
Example: Flights between Canada and Mexico overfly the USA

Air Traffic Politics

Chicago Convention

2. Freedom “Technical Stop”

A civil aircraft of a treaty partner has the privilege to make a technical landing (refueling or maintenance) in a treaty partner’s territory, without picking up or letting off revenue traffic.



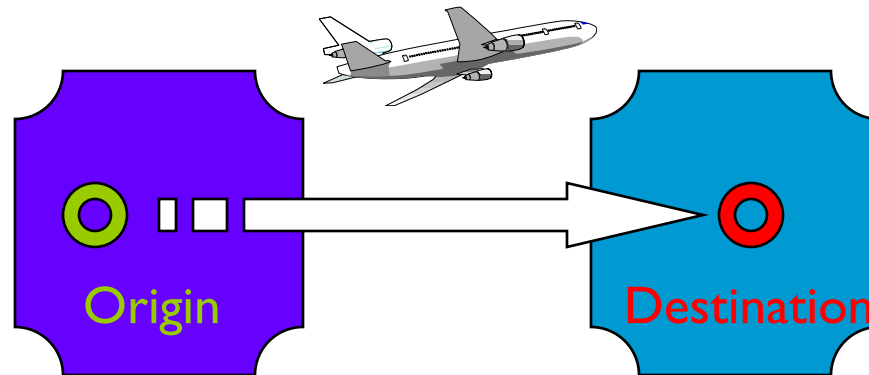
Example: Before the availability of long-range aircraft, Shanon and the Azores were often used as technical stops on transatlantic routes

Air Traffic Politics

Chicago Convention

3. Freedom

A civil aircraft of a treaty partner has the privilege to carry revenue traffic from the carrier's national territory to a treaty partner's territory.



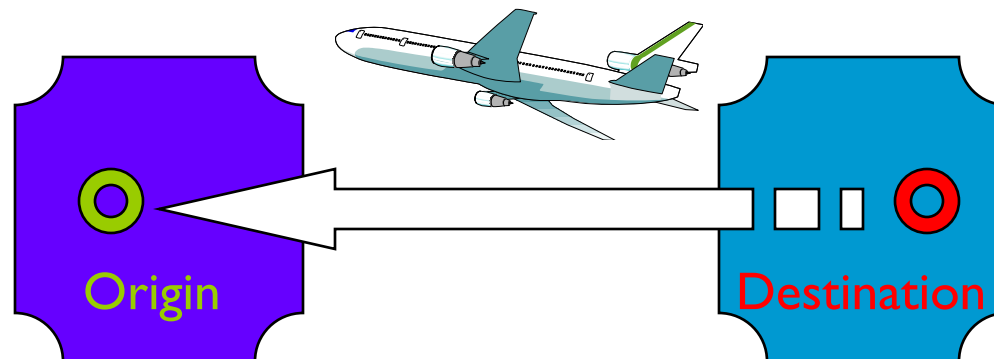
Example: Olympic Airways Flight from Athens to Frankfurt

Air Traffic Politics

Chicago Convention

4. Freedom

A civil aircraft of a treaty partner has the privilege to carry revenue traffic from a treaty partner's territory to a carrier's national territory.



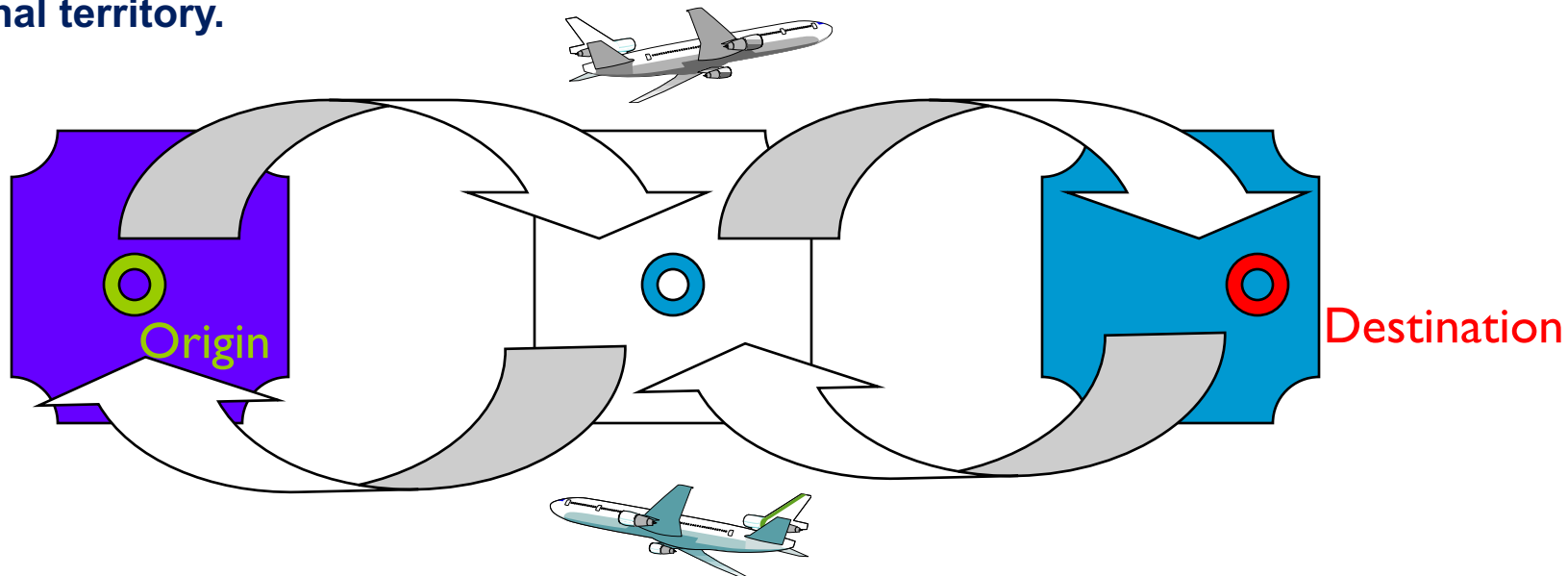
Example: Olympic Airways Flight from Frankfurt to Athens

Air Traffic Politics

Chicago Convention

5. Freedom

A civil aircraft of a treaty partner has the privilege to carry revenue traffic between two or more treaty partner nations on flights operating out of or into a carrier's national territory.



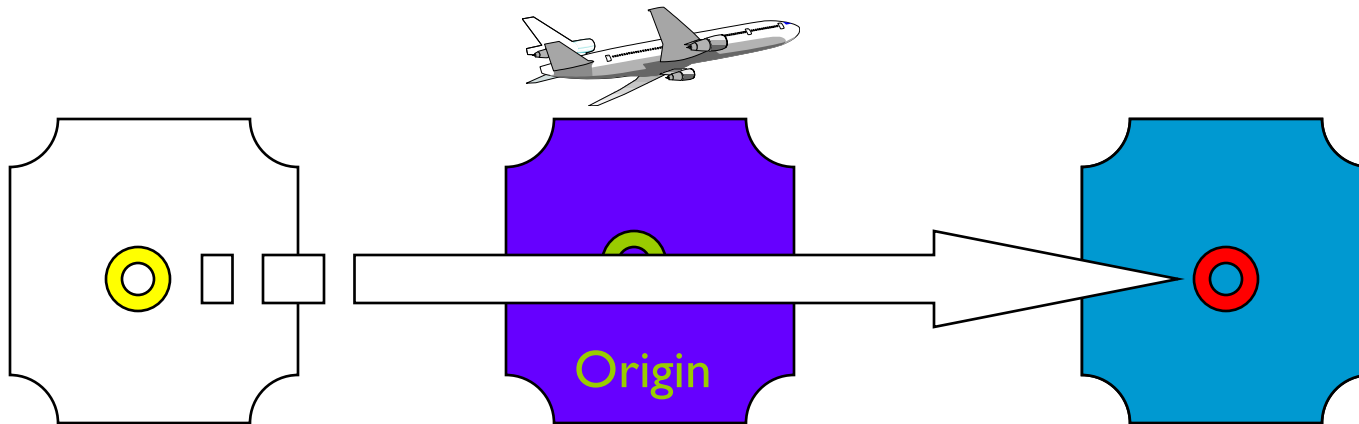
Example: Qantas Flight from Sidney via Bangkok to Frankfurt and vice versa

Air Traffic Politics

Chicago Convention

6. Freedom (Not Chicago Convention)

A civil aircraft of a treaty partner has the privilege to carry revenue traffic flown between two treaty partners operating through a carrier's territory.



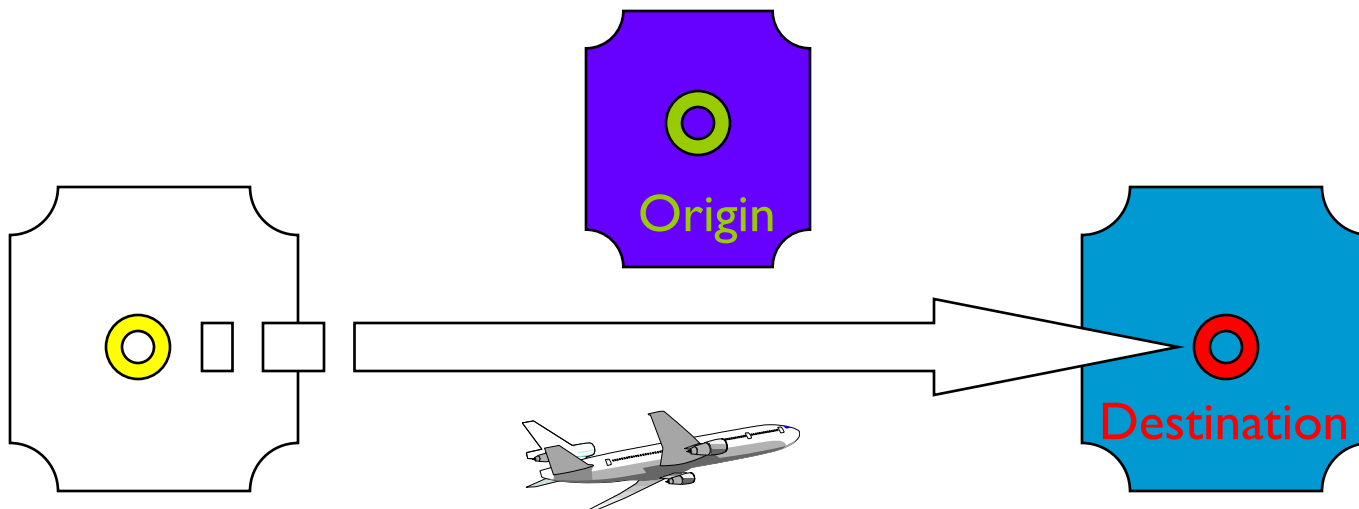
Example: Lufthansa Flight from France to Poland

Air Traffic Politics

Chicago Convention

7. Freedom (Not Chicago Convention)

A civil aircraft of one country has the right to offer any commercial service between two contracting countries.



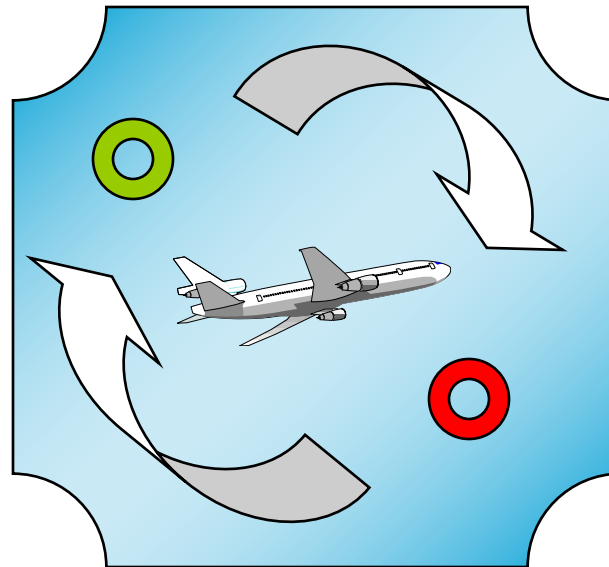
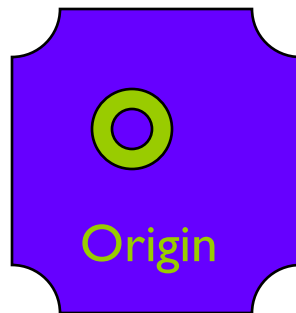
Example: Lufthansa Flight from Munich-Bologna-Neaple

Air Traffic Politics

Chicago Convention

8. Freedom “Cabotage” (Not Chicago Convention)

A civil aircraft of a treaty partner has the privilege to carry a treaty partner’s domestic revenue traffic.



Example: PAN AM Flight from Frankfurt to Berlin

Air Traffic Politics

Chicago Convention - Rules



1. Sovereignty

Each contract state has full sovereignty within his airspace



2. Fair and equal opportunity

Each contract state has the right to participate in international air traffic



3. No Discrimination

Each contract state must accept the national regulations of the other contract states



4. Autonomy

Each contract state is free to choose the airlines, which are going to provide international air traffic

Air Traffic Politics

Chicago Convention - Validity



The Chicago Convention refers only to scheduled air traffic:

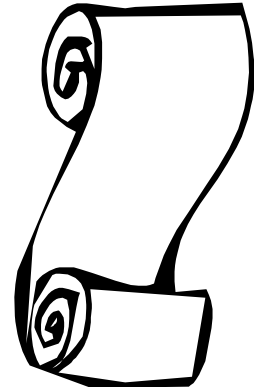
- ✓ Relates to more than one state
- ✓ Is accessible to the public
- ✓ Is performed on a regular base along fixed routes
- ✓ Fixed destinations are defined



Meanwhile the character of non-scheduled air traffic aligns more and more to scheduled traffic

Air Traffic Politics

Chicago Convention - Results



- ✈ Most important results are:
 - ⇒ Founding of ICAO
 - ⇒ Harmonisation of navigation rules and procedures
 - ⇒ ICAO as a forum for international know-transfer and framework for international air traffic
 - ⇒ Forms the frame for bilateral agreements based on general principles

- ✈ However:
 - ⇒ Weakness in the formulation of the economical standards

Air Traffic Politics

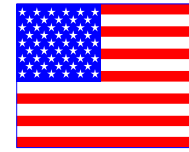
Bilateral Agreement



- ✈ Based on the acceptance of the sovereignty of each individual state (§ 1 CC) a bilateral agreement has to be **signed** in order to provide the prerequisites for air traffic between these states.
- ✈ Bilateral agreements formulate the (traffic) rights and responsibilities of the individual partners, detail tariffs, taxes, fees, statistics, frequencies of services, type and amount of services offered as well as contractual items.

Air Traffic Politics

Bilateral Agreement



✈ Bermuda Agreement

✈ The best known bilateral agreement was signed between the USA and United Kingdom in 1946. It represents an example for all following bilateral agreements. The parties agreed:

- ⇒ No general capacity restriction for traffic concerning 3rd and 4th Freedom (CC)
- ⇒ Principle concept of fair and equal opportunity
- ⇒ 5th Freedom is handled very generously
- ⇒ Tariff structure formulation handed over to IATA
- ⇒ Approval of tariff structure by governments involved

Air Traffic Politics

Bilateral Agreement

✈ Bermuda 2 Agreement

- ✈ The Bermuda agreement was terminated in 1976 by the UK. In 1977 the Bermuda 2 Agreement was negotiated and signed.
- ✈ Even though Bermuda 2 caused disagreement during the negotiations the agreement was finally signed. Most important results:
 - ↑ UK: Safeguard of reciprocity on non-stop-flights and monopoly for flights to /from Manchester
 - ↓ US: Restricted on 5th Freedom and capacity controlled;

Air Traffic Politics

European Air Traffic Policy

- ✈ In the beginning European Air Traffic was regulated and based on bilateral agreements
- ✈ Until the mid 80's there was near to no common European Air Traffic Policy. Especially the requirement of the European Community Contract to provide free market in air traffic was not efficiently realised
- ✈ However the results of the US-Deregulation Act of 1978 were carefully observed and evaluated

Air Traffic Politics

European Air Traffic Policy

✈ Especially the negative impacts of

- ⇒ the loss of 50.000 jobs in airlines
- ⇒ the loss of air traffic links to 50 towns within 6 months
- ⇒ the increase of fares on second level traffic links
- ⇒ the high number of bankruptcies
- ⇒ the total decrease of yields

led EU to the conclusion that simple adoption of the US model would have been a disaster for European Air Traffic.

Air Traffic Politics

European Air Traffic Policy

- ✈ Based on the US-experience the EU-Commission published guidelines and ideas in two memorandums (July 1979, March 1982) for the further development of European Air Traffic.

Objectives:

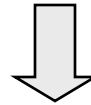
Avoid the deficiencies of the US - Deregulation
Benefit from deregulation in principle
Market opening

LIBERALISATION of European Air Traffic

Air Traffic Politics

European Air Traffic Policy

LIBERALISATION of European Air Traffic



01.01.1988 - First Phase of Liberalisation

01.01.1991 - Second Phase of Liberalisation

01.01.1993 - Third Phase of Liberalisation

Air Traffic Politics

European Air Traffic Policy

01.01.1988 - First Phase of Liberalisation

- ✈ In December 1987, the EU Ministers council decided the following measures:
- ✈ Capacity Split on European Routes
 - max. 55% / 45% (Since 01.01.89: 50% / 40%)
- ✈ Access to air traffic market
 - multiple designations concerning traffic rights with more than 250.000 Pax/a (1988), 180.000 Pax/a (1990);
 - simplified access to market for regional air traffic between category I airports and regional airports in neighbouring countries

Air Traffic Politics

European Air Traffic Policy

01.01.1988 - First Phase of Liberalisation

- ✈️ **Tariff Structures**
 - More flexible for reductions and discounts

However, tariffs need special approval and are linked to a number of restrictions and conditions
- ✈️ **Arrangements and agreed actions**
 - between airlines were accepted to a certain degree, despite the tendency to deregulate
 - Existing airline co-operations should continue to exist

Air Traffic Politics

European Air Traffic Policy

01.01.1991 - Second Phase of Liberalisation

- ✈ In July 1990, the EU Ministers council decided the following measures:
- ✈ Capacity Split on European Routes
 - max. 67,5% / 32,5%
- ✈ Access to air traffic market
 - lower limits for multiple designations concerning traffic rights with 100.000 Pax/a respectively 600 flights;
 - simplified access to market: new line services between all category I airports allowed. For regional air traffic capacity split was not applied to aircraft under 80 Pax

Air Traffic Politics

European Air Traffic Policy

01.01.1991 - Second Phase of Liberalisation

- ✈ Tariff Structures
 - still subject to approval
 - 3 flexible tariff zones defined: economy (95-105%), discount (6-21%) and deep discount (21-70%)
- ✈ For the Arrangements and agreed actions
 - between airlines the acceptance time was extended until December 31, 1992

Air Traffic Politics

European Air Traffic Policy

01.01.1993 - Third Phase of Liberalisation

- ✈ In July 1992, the EU Ministers council decided the following measures:
- ✈ Compulsory Operations License for each operator, issued only if defined requirements are fulfilled
- ✈ Access to air traffic market
 - is in general open to all airlines, provided that the individual route is subjected only to limited restriction

Air Traffic Politics

European Air Traffic Policy

01.01.1993 - Third Phase of Liberalisation

- ✈ Tariffs and cargo rates may be agreed independently between the contract partners. Intervention on pricing only to be expected if extreme “disadvantages for PAX” or “losses to operators” are to be expected.
- ✈ For the Arrangements and agreed actions further extension of validity was decided except for certain components (e.g. capacity related agreements or pool-agreements)

Air Traffic Politics

European Air Traffic Policy

✈ Liberalisation of Ground Handling

In the course of the EU-Liberalisation Policy, the liberalisation of Ground Handling at EU-Airports was implemented. **The aim was to remove the monopoly of airport operators.** On October 15, 1996 the EU release the directive 96/67 to allow

- ⇒ self handling at airports with more than 1 million Pax or 25.000 t of cargo (starting 01.01.1998)
- ⇒ third party handling at airports with more than 3 million Pax or 75.000 t of cargo (starting 01.01.1999)
- ⇒ third party handling at airports with more than 2 million Pax or 50.000 t of cargo (starting 01.01.2001)

Air Traffic Politics

Open Skies Agreement

Open skies is an international policy concept that calls for the liberalization of the rules and regulations of the international aviation industry - especially commercial aviation - in order to create a free-market environment for the airline industry. Its primary objectives are:

- liberalize the rules for international aviation markets and minimize government intervention as it applies to passenger, all-cargo, and combination air transportation as well as scheduled and charter services; and
- to adjust the regime under which military and other state-based flights may be permitted.

For **open skies** to become effective, a bilateral (and sometimes multilateral) Air Transport Agreement must be concluded between two or more nations.

Air Traffic Politics

Open Skies Agreement

The **EU–US Open Skies Agreement** is an open skies air transport agreement between the European Union and the United States. The agreement allows any airline of the European Union and any airline of the United States to fly between any point in the European Union and any point in the United States. Airlines of the United States are also allowed to fly between points in the European Union. Airlines of the European Union are also allowed to fly between the United States and non-EU countries like Switzerland. The treaty disappointed European airlines as it was tilted in favor of United States airlines: while they are allowed to operate intra-EU flights, European airlines are not permitted to operate intra-US flights nor are they allowed to purchase a controlling stake in a US operator. The Agreement replaced and superseded previous open skies agreements between the US and individual European countries.

The initial agreement was signed in Washington D.C., on April 30, 2007.

The agreement became effective March 30, 2008. Phase two was signed in June 2010

Air Traffic Politics *Traffic Organisations*

ICAO & IATA (Planning Basics)



Air Traffic Politics

ICAO

International Civil Aviation Organisation – ICAO

ICAO Annex 14 - AERODROMES Contents & Examples

Air Traffic Politics

ICAO

Founded on December 7, 1944 in Chicago

By Invitation of the Government of the United States of America, 52 States met in order to establish a basic legal framework for the operation of international civil air services.

Specialised agency of the United Nations

185 countries are members of ICAO in 1998

Headquarters in Montreal

Governing Bodies:

Assembly, Council, Secretariat /Commissions



Air Traffic Politics

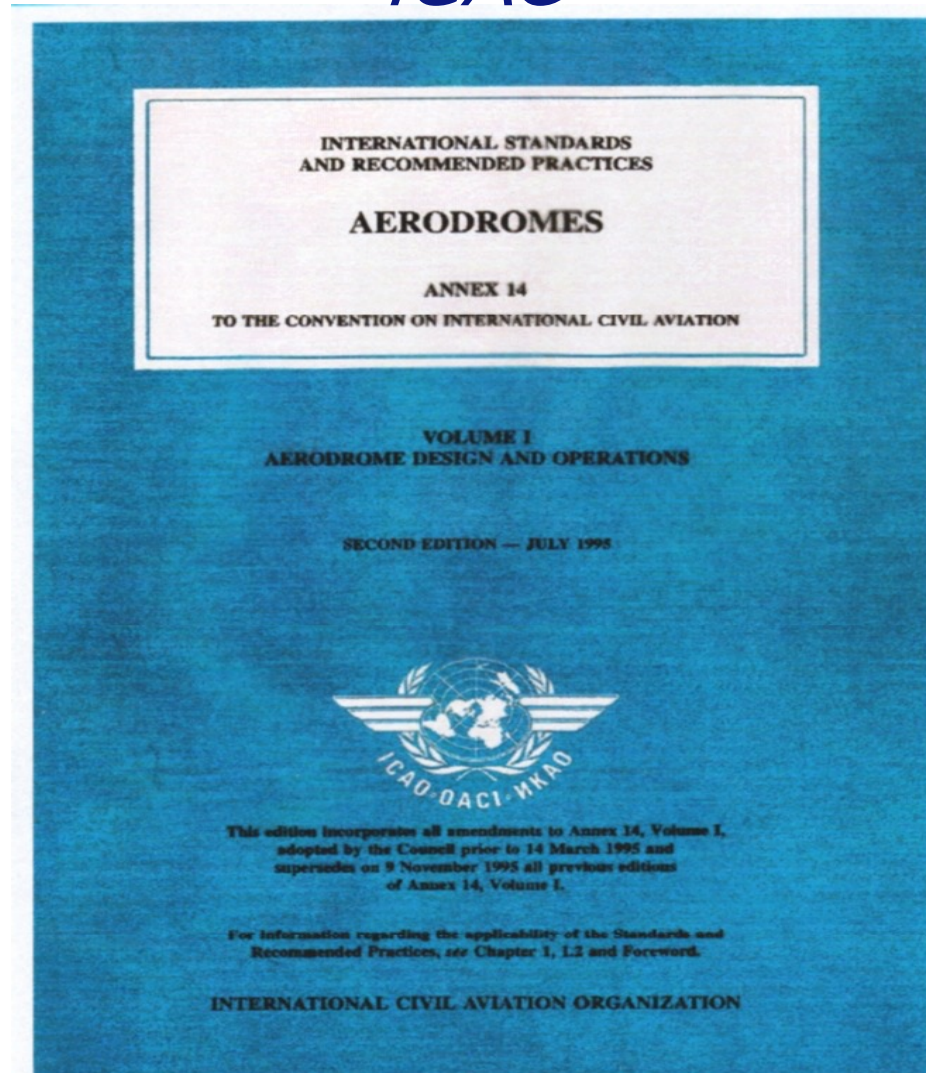
ICAO

Annexes

Annex 1	Personnel Licensing	Annex 10	Aeronautical Telecommunication
Annex 2	Rules of the Air	Annex 11	Air Traffic Services
Annex 3	Meteorology	Annex 12	Search and Rescue
Annex 4	Aeronautical Charts	Annex 13	Aircraft Accident Inquiry
Annex 5	Units of Measurement to be used in Air-Ground Communication	Annex 14	Aerodromes
Annex 6	Operation of Aircraft	Annex 15	Aeronautical Information Service
Annex 7	Aircraft Nationality and Registration Marks	Annex 16	Aircraft Noise
Annex 8	Airworthiness of Aircraft	Annex 17	Security
Annex 9	Facilitation	Annex 18	Safe Transport of Dangerous Goods by Air
		Annex 19:	Safety Management

Air Traffic Politics

ICAO



Air Traffic Politics

ICAO

Example: Aerodrome Reference Code

Code number (1)	Aeroplane reference field length (2)	Code letter (3)	Wing span (4)	Outer main gear wheel span (5)
1	Less than 800 m	A	Up to but not including 15 m	Up to but not including 4,5 m
2	800 m up to but not including 1.200 m	B	15 m up to but not including 24 m	4,5 m up to but not including 6 m
3	1.200 m up to but not including 1.800 m	C	24 m up to but not including 36 m	6 m up to but not including 9 m
4	1.800 m up to and over	D	36 m up to but not including 52 m	9 m up to but not including 14 m
		E	52 m up to but not including 65 m	9 m up to but not including 14 m

Air Traffic Politics

ICAO

Example: ICAO All-Weather Categories I-III

Category	Minimum Visual Range				Decision Height	
	Visibility		RVR		H (Cloud Ceiling)	
CAT I	≥ 800 m	≥ 2.500 ft	≥ 550 m	≥ 1830 ft	≥ 60 m	≥ 200 ft
CAT II			≥ 350 m	≥ 1.170ft	≥ 30 m and < 60 m	≥ 100 ft and < 200 ft
CAT III A			≥ 200 m	≥ 665 ft	< 30 m or none	< 100 ft or none
CAT III B			≥ 50 m and < 200 m	≥ 166 ft and < 665 ft	< 15 m or none	< 50 ft or none
CAT III C			none	none	none	none

Air Traffic Politics

ICAO

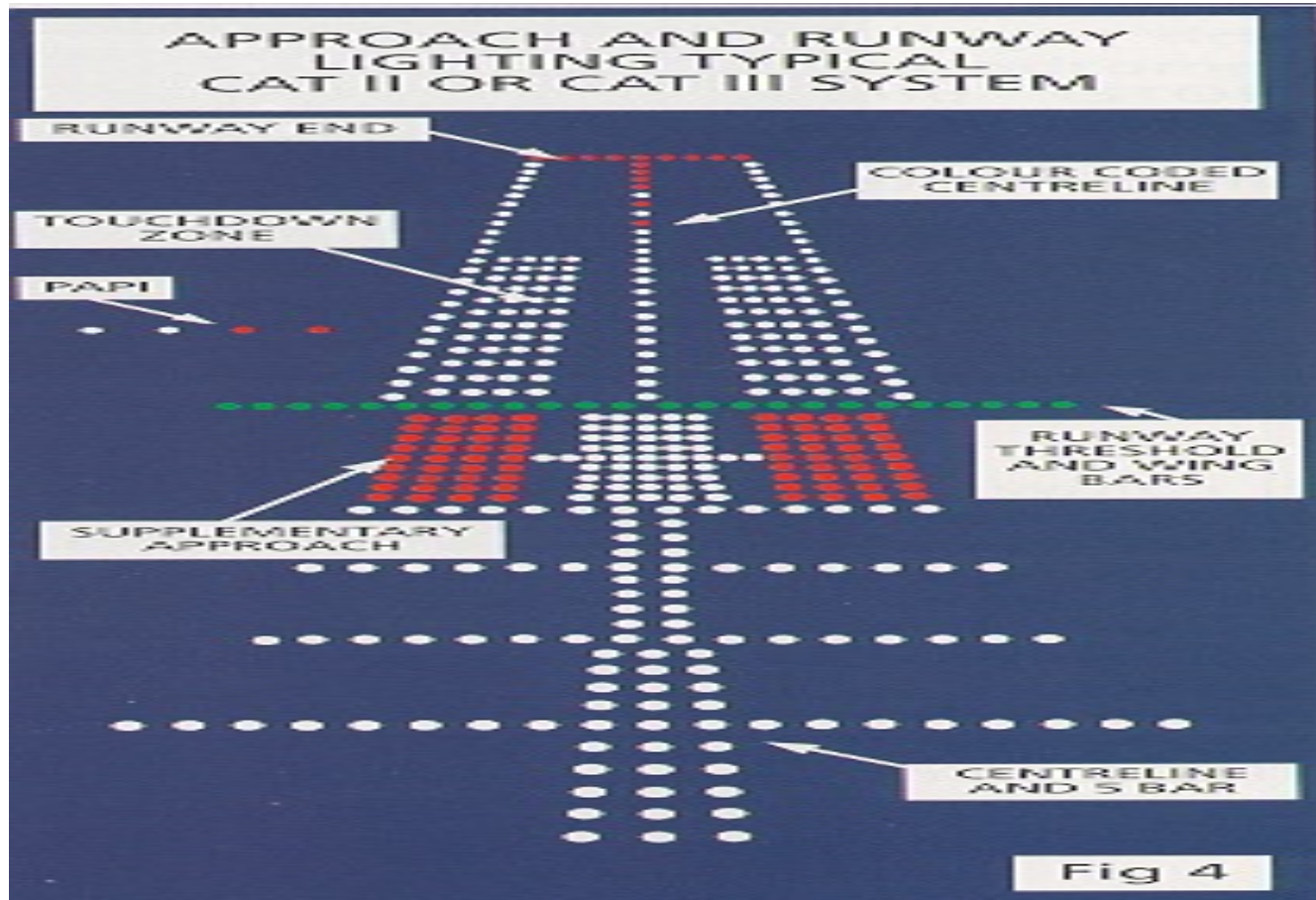
Example: Approach Lighting System



Air Traffic Politics

ICAO

Example: Approach Lighting System



Air Traffic Politics

ICAO

Annex 14 related material

Related to the specification of Annex 14

✈ Aerodrome Design Manual	Doc 9157
✈ Airport Planning Manual	Doc 9184
✈ Airport Service Manual	Doc 9137
✈ Heliport Manual	Doc 9261
✈ Stolport Manual	Doc 9150
✈ Bird Strike Manual	Doc 9332
✈ Surface Movements Guidance and Control Systems (SMGCS)	Doc 9476

Air Traffic Politics

IATA

International Air Transport Organisation – IATA

IATA Terminal Reference Manual Contents & Examples

Air Traffic Politics

IATA

IATA DRAFTING COMMITTEE, WASHINGTON D.C., December 1944



Air Traffic Politics

IATA

Founded on 19 April, 1945 in Havana (*old* IATA 1919)

61 airlines adopted, with some amendments, the Articles of Association at the international Air Transport Operator's Conference proposed by the IATA Drafting Committee

Private, voluntary, non-political and democratic body of commercial airline companies

Headquarters in Montreal

Governing Bodies:

General Assembly, Executive Committees, Conferences, Clearing House



Air Traffic Politics

IATA

Airport Terminal Reference Manual

Purpose:

Assist Airport and Government Authorities, Architects, Designers, Consultants and Airlines in planning the international airport terminal complex

Terminal complex:

Assumed to include both passenger and cargo terminal buildings, as well as adjacent airside and landside areas with their associated facilities

Air Traffic Politics

IATA

Airport Development Reference Manual

Level of Service LOS:

A verbal description of Quality of Service in terms of Ease of Flow and Delays

6 categories (IATA Airport Development Manual):

LOS	Flows	Delays	Comfort
A - Excellent	Free	None	Excellent
B - High	Stable	Very Few High	
C - Good	Stable	Acceptable	Good
D - Adequate	Unstable	Passable	Adequate
E - Inadequate	Unstable	Unacceptable	Inadequate
F - Unacceptable	- - - System Breakdown - - -		Unacceptable

System Managers should Specify LOS,

e.g: Level C = standard minimum ; Level D = for crush periods

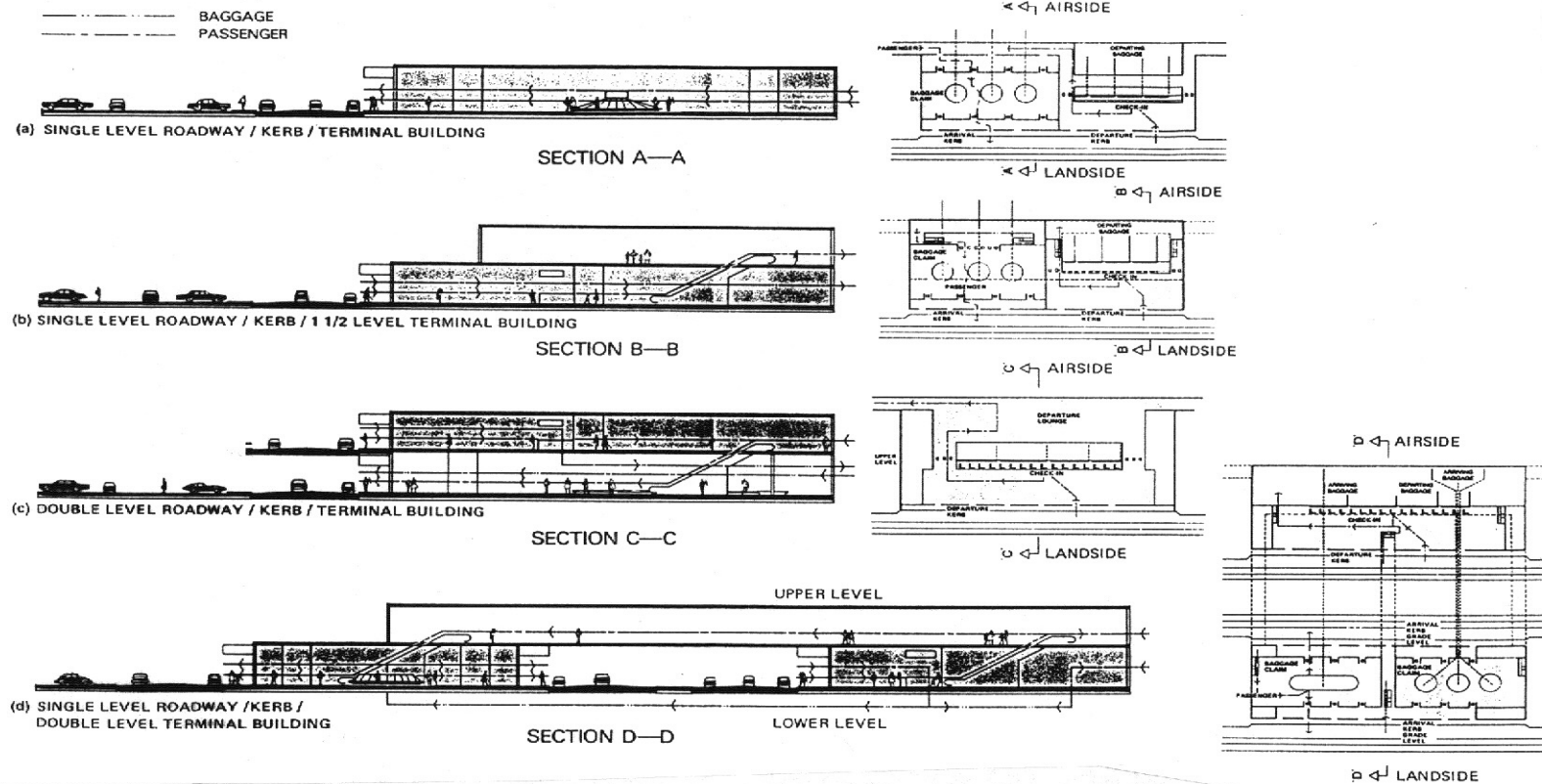
Source: De Neufville, : http://ardent.mit.edu/airports/ASP_current_lectures/ASP%2004/Defining_Capacity04.pdf

Air Traffic Politics

IATA

Example: Passenger Terminal Building

FIGURE 3-19 — ILLUSTRATION OF TYPICAL PROCESSING LEVELS IN PASSENGER TERMINAL BUILDING



Thanks for your attention!

Any more questions?