Legal and Regulatory Issues of Aviation

Safety & Security

Dr. Till Vogel

Fachbereich 3
Wirtschaft und Recht | Business and Law

Agenda for this Modul

Saturday, 2022/09/17

- Institutions and Authorities
- Traffic Rights
- Access to Airports
- Compliance

Sunday, 2022/09/25

- Safety & Security
- Liability & Consumer Protection
- Air Traffic Control - ATC
- Travel Agencies

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Done! Done! Done! Done!

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- ~~Traffic Rights~~ *Done!*
- ~~Access to Airports~~ *Done!*
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Sunday, 2022/09/25

- ~~Safety & Security~~ *Done!*
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Useful books

- *Diederiksen-Verschoor/Mendes de Leon,*
  An introduction to Air Law, 10th edition, 2017

- *Havel/Sanchez,*
  The Principles and Practice of International Aviation Law, 2014

- Paul Stephen Dempsey, Ram Jakhu
  Routledge Handbook of Public Aviation Law, 2017

- Milde, Michael,
  International Air Law and ICAO - Third edition - 2016

- *Schaefer, Christoph,*
  Recht des Luftverkehrs, 2017

Part V
Safety & Security

Safetey & Security

Safety

Security

Safetey & Security

Safety	Security
Ensure safe operation of aircraft, in all technical and operational aspects	Prevent deliberate attack from outside against aircraft

Safetey & Security: Tools

Safety

- Aircraft Type Certification
- EU-OPS ([Reg.965/2012](#))
- Pilot Licensing
- Licensing of other Personnel

Security

Two main pillars, i.e.

- Prevent any dangerous object (potentially threatening or explosive) onboard
- Screen personnel with access or insight into aviation procedures

Aviation Safety

The key aspects of aviation safety:

➢ Manage safety in an environment of constant growth

➢ Today: One fatal accident per 5 million commercial flights

➢ By 2050: One fatal accident per 10 million commercial flights

➢ <u>Reactionary:</u>
ICAO, European Aviation Safety Agency (EASA) and national civil aviation authorities (CAA) have standards in place based upon decades of experience with investigating accidents.

➢ <u>Pro-actively:</u>
Introduction of a Safety Management System (SMS) at the European level.

Aviation Safety

The international approach:

I. State Safety Policy & Objectives
- ➢ Aviation Safety Legislation
- ➢ Safety Enforcement Policy

II. State Safety Risk Management
- ➢ Execution of Safety Policy by National Government Bodies

III. State Safety Assurance
- ➢ Responsibility of individual CAAs
- ➢ Data Collection and exchange

IV. State Safety Promotion
- ➢ Training of stakeholders

Safety Management System

Adoption of SMS internationally or by individual countries is progressing:

➢ ICAO Approach:

   ➢ Annex 19 – Edition 1 and
     the Safety Management Manual (SMM) - Doc 9859

➢ European Approach:

   ➢ SMS - EASA Rules

Safety Management System

ICAO Definition: A Safety Management Manual (SMS) is a tool for the management of safety by an organization consisting of several aspects

Components of a Safety Management System (SMS)
- ➤ Pro-active in nature
- ➤ Identification of inherent hazards in any activity
- ➤ Understanding of the risk levels presented by hazards
- ➤ Define actions to mitigate the risk levels
- ➤ Monitor and check the effectiveness of those actions

Most major stakeholder (airlines, airports, MRO, etc) have already adopted such systems today

Safety Management System

Status in Europe:

- ➤ Regulation (EC) 216/2008
  - ➤ Foundation of EU Safety System
  - ➤ Introduction of common rules in Europe
  - ➤ Established EASA
- ➤ Regulation (EC) 549/2004
  - ➤ Framework regulation to form a Single European Sky for air traffic management
- ➤ Regulation (EC) 2111/2005
  - ➤ Establishment of a Community Black List of Banned Airlines
- ➤ Directive 2004/36/CE
  - ➤ Safety Assessment of Foreign Aircraft (SAFA)
- ➤ Now: New Basic Regulation (EC) 2018/1139

Safety: Investigations of incidents

To make a mistake once is human

To make it twice is a crime!

It is important to learn from accidents and incidents.

Safety: Investigations of incidents

"Art 26 CC

In the event of an accident to an aircraft of a contracting State occurring in the territory of another contracting State, and involving death or serious injury, or indicating serious technical defect in the aircraft or air navigation facilities, the State in which the accident occurs will institute an inquiry into the circumstances of the accident, …" -> *Annex 13*

Therefore all CAA are required to do investigations upon accidents and incidents in aviation.

Aim is to learn from any incident to prevent similar situations in the future.
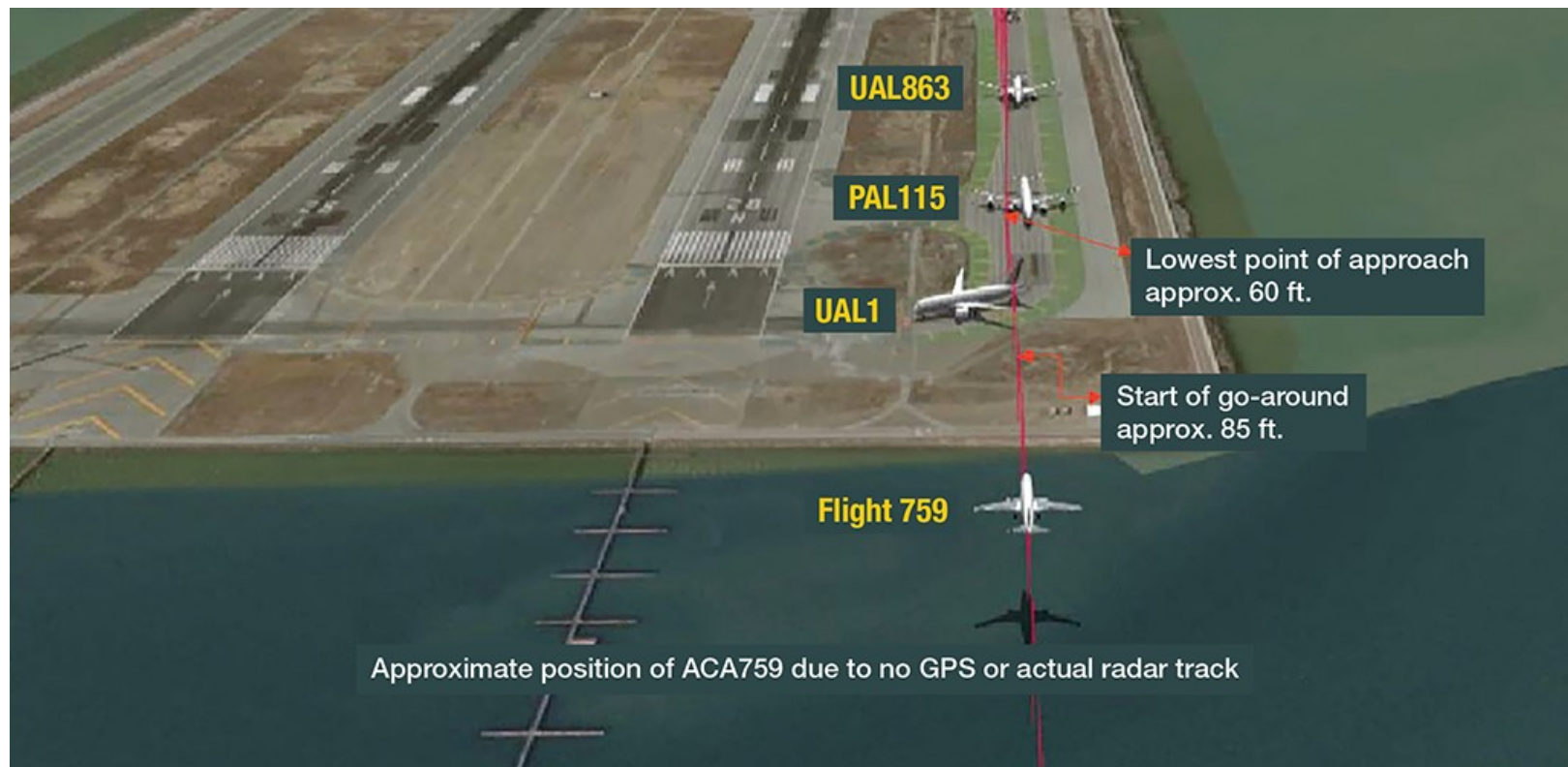
Safety: Investigations of incidents

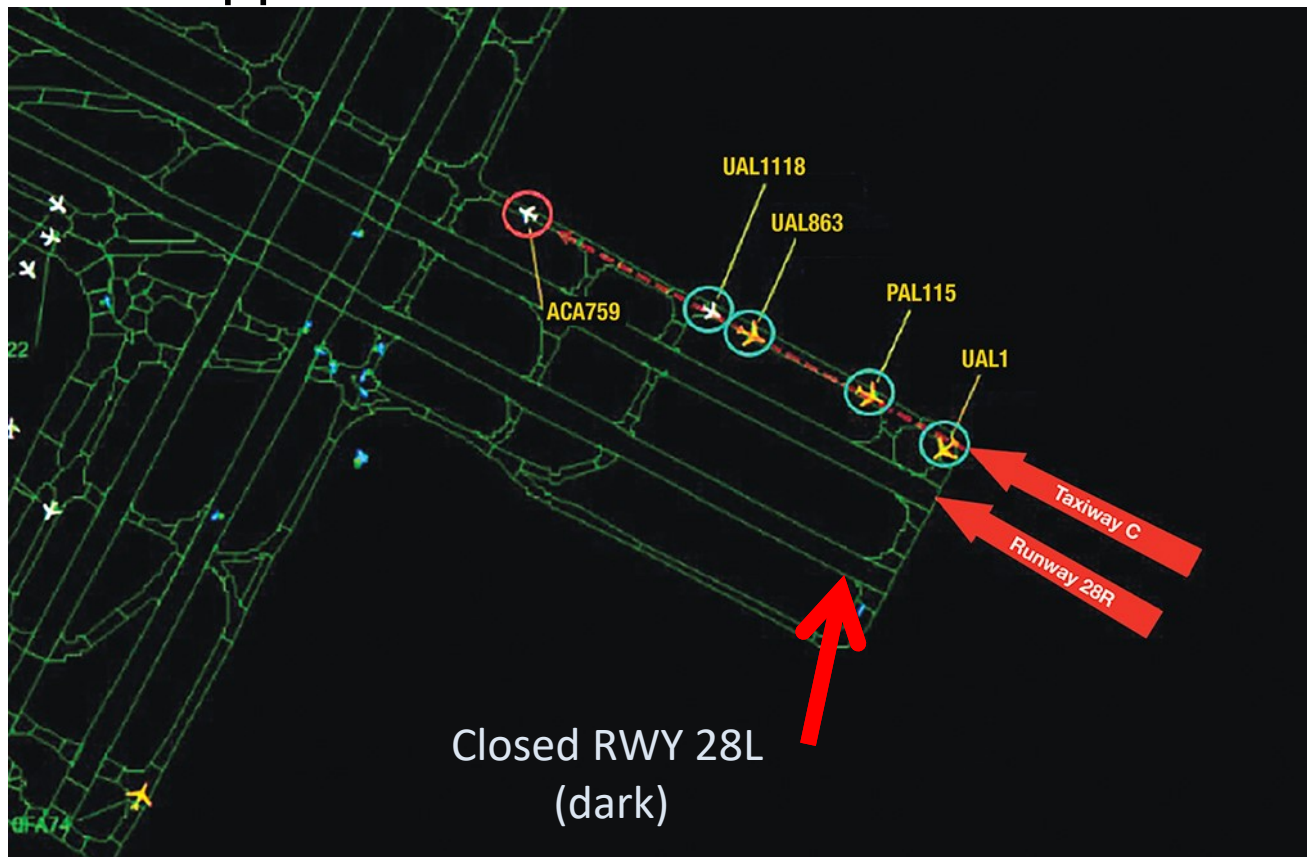SFO Jul 7th, 2017: Air Canada taxiway overflight

https://www.youtube.com/watch?v=bdDp0Rj9RVM

Safety: Investigations of incidents

What happened?

Safety: Investigations of incidents

Why did it happened?

Closed RWY 28L
(dark)

Safety: Investigations of incidents

Why did it happened?

➢ The NTSB determined the pilots of Flight 759 failed to recall that 28 Left (28L), one of two parallel runways on their assigned heading, was closed as they flew their late-night visual approach on July 7, 2017.

➢ Expecting to see two lighted runways, they instead saw their assigned runway, 28 Right (28R), and taxiway C (Charlie), a parallel taxiway visually off to the right of the active runway.

➢ Identifying taxiway Charlie as 28R, the pilots continued their approach and overflew two of four aircraft awaiting departure.

Safety: Investigations of incidents

Why did it happened?

- ➤ The pilots were notified about the runway's status in two ways:
  - ➤ via the preflight packet and
  - ➤ during the flight, in an automatic terminal information systems (ATIS) message delivered via ACARS.
- ➤ In both cases, however, the runway-closure information was mixed in with other, less critical information.
- ➤ The preflight packet contained <u>27 pages</u> of information, including <u>9 pages</u> of NOTAMs.
- ➤ The runway-closure information was on page 8!!!
- ➤ <u>Executive summery</u>

Aviation Security - History

Pan Am 103 (Lockerbie bombing)

➢ December 21, 1988

➢ Historically, aviation security was a national issue

➢ Incorporated in the criminal codes of the states

9-11

➢ Shift to international standards

➢ Regulation (EC) 2320/2002 (first initiative)

➢ Regulation (EC) 300/2008 (second initiative)

➢ Establishment of common rules for civil aviation security

➢ Harmonization of security rules within the EU

Aviation Security – A Joint Effort
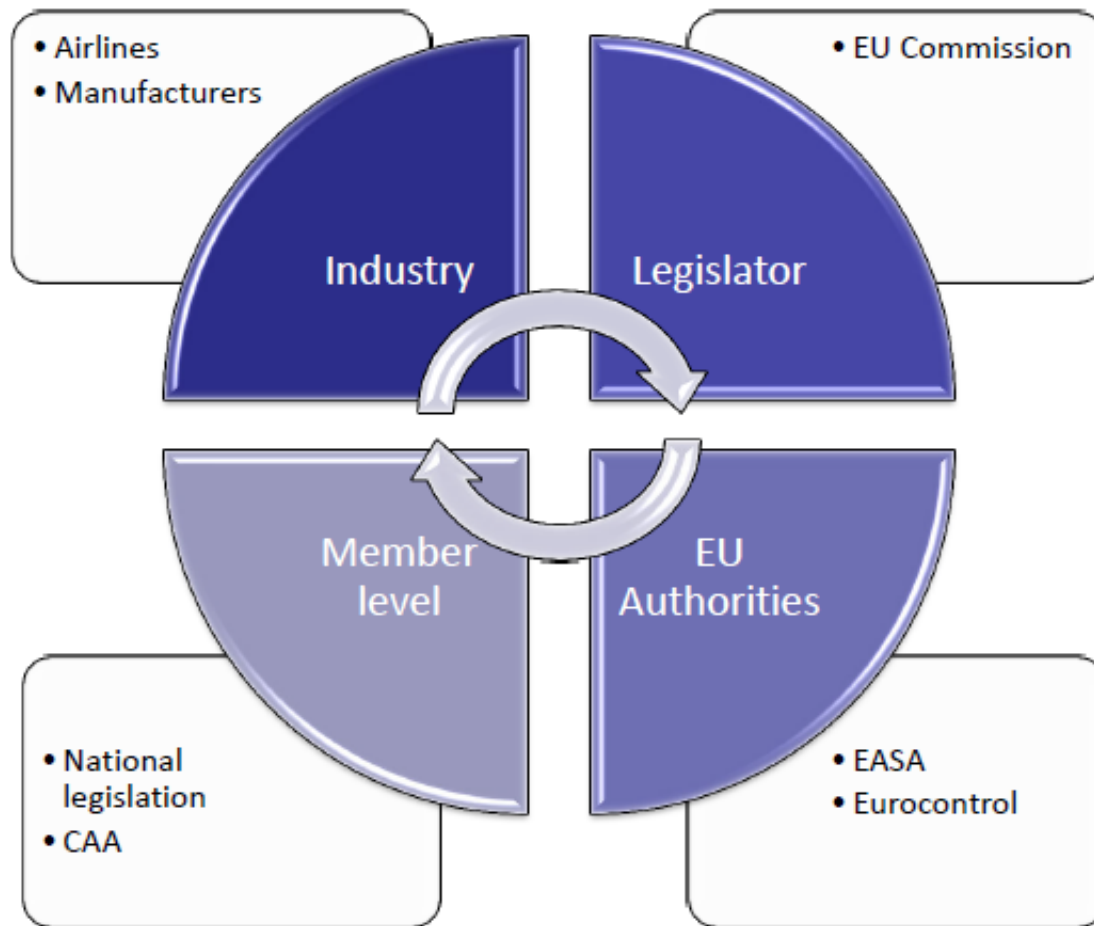
Regulation (EC) 300/2008

- ➢ Airport Security
- ➢ Aircraft Security
- ➢ Passengers and Cabin Baggage
- ➢ Cargo Hold Baggage
- ➢ Cargo and Mail
- ➢ Air Carrier Mail and Air Carrier Materials
- ➢ In-flight Supplies
- ➢ Airport Supplies
- ➢ In-flight Security Measures
- ➢ Staff Recruitment and Training
- ➢ Security Equipment

Aviation Security

ICAO Annex 17

➢ Revision 10 as of July 2017 deals with

  ➢ Airport Security Checks and Clearances

  ➢ Sky Marshalls

  ➢ Enhanced Security for Cockpit Access

  ➢ Air Freight Security

United States

➢ 11-2001: Aviation and Transportation Security Act

➢ Transport Security Administration (TSA)

➢ Department of Homeland Security

Airline Security

➤ Airlines have to address security by means of two major programs:

    ➤ Air Security and Safety Plan

    ➤ Incident & Accident Response Plan

Security: Sources of Law

Level	Instrument	Content
International	Annex 17 to CC	Basis international standards
EU Law	European Civil Aviation Conference (ECAC)	ECAC Handbook Doc 30
	Reg (EU) 300/2008	Basic standards required of Member States
	Reg (EU) 272/2009	Additional standards
	Reg (EU) 2015/1998	Details of standards
	Resolution of the Commission K(2010) 774	Confidential measures
German Law		Implementing Measures

Example: Passenger Security Screening

➢ Detailed standards in COM Regulation 2015/1998

➢ Member State has discretion in how to organize screening

➢ Germany: Federal Police is responsible, may use private service provider

➢ Issues of substantive Law: Body Scanners? Profiling?