



Training and security in the aviation industry

Bachelor Thesis for Obtaining the Degree
Bachelor of Business Administration in
Tourism, Hotel Management and Operations

Submitted to Eva Aileen Jungwirth-Edelmann, MA

Prinz Ines

1411031

Vienna, 31 May 2017

Affidavit

I hereby affirm that this Bachelor's Thesis represents my own written work and that I have used no sources and aids other than those indicated. All passages quoted from publications or paraphrased from these sources are properly cited and attributed.

The thesis was not submitted in the same or in a substantially similar version, not even partially, to another examination board and was not published elsewhere.

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Abstract

Topic: Training and security in the aviation industry

Name of Author: Prinz Ines

Course/ Year: BBA Tourism, Hotel Management and Operations 2017

Pages: 59

Content: The role of cabin crew has not received a lot of attention in the literature so far. However, the importance of cabin crew in case of an emergency is incontrovertible. Training crew members is therefore of utmost importance and can assure the security of passengers and the crew.

The purpose of this thesis was to investigate the topic of training and security in the aviation industry. The main aim was to identify difficulties the aviation industry has to overcome with regard to cabin crew training. This includes impacts on training as well as training implementation itself. Another part of the research was the Special Assistance Team. Overall the importance of safety training within the aviation industry should be explored.

Qualitative research has been conducted, more precisely three semi-structured, in-depth expert interviews. Moreover, a comprehensive literature review was carried out.

The findings of this research highlight several difficulties the aviation industry has to cope with in regard to cabin crew training and the Special Assistance Team. The results support the importance of safety training, identifying it as *THE* essential part of passenger airlines. This indicates that neither the negligence of training nor economizations on training expenditures are possible. However, it is possible to conduct only the minimum training required by law.

Supervisor: Eva Aileen Jungwirth-Edelmann, MA

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List of Abbreviations

CRM	Crew resource management
DAPB	Disruptive airline passenger behavior
EASA	European Aviation Safety Agency
FAA	Federal Aviation Authority
FSC	Full service carrier
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IOSA	IATA Operational Safety Audit
JAA	Joint Aviation Authority
LCC	Low cost carrier
N/A	Not available
SAT	Special assistance team
SEP	Safety and emergency procedure
SMS	Safety management system

1 Introduction

1.1 Motivation and cognitive interest

The aviation industry is confronted with plenty of challenges concerning on-board security. Minor incidences with passengers, bomb threats and medical help – crew members have to deal with every occurring situation. Training crew members is therefore of utmost importance and assures the security of passengers and the crew itself.

Steven Rhoden, Rita Ralston and Elizabeth M. Ineson (2008) stated that safety is the primary concern of the aviation industry. However, the authors also complained that “the safety role of cabin crew receives no attention in the literature”, although passenger and cabin crew safety depends on the behavior and actions taken by crew members in case of an emergency (Rhoden et al., 2008, p.538). Furthermore they argue that safety and emergency procedures (SEPs) are issued by the Joint Aviation Authority (JAA), however airlines are free to decide on the method of training. The argument was supported by Mahony et al. (2008) who stated that airlines have the possibility to determine the variation and capacity of medical training, as no international standards exist. They further criticized the capabilities of flight crews regarding first aid and illustrated that more emphasis is put on other parts of the emergency training. Due to economic crisis first aid training was often outsourced, causing a decline in first aid competence. Regarding the provision of training, Rhoden et al. (2008) explained that not even low cost carriers (LCCs) can save on safety and training expenditures.

As outlined in the beginning, little emphasis is put on crew safety in the literature although it plays a crucial role in the aviation industry. John Bent and Kwok Chan (2010) assessed that proper training measures can serve as means for preventing accidents. The authors indicated that crew training and safety must be connected interactively, resulting in enhanced quality of training and hence increased safety in daily operations.

There is a necessity for further research in the field of training and security in the airline industry as a close relationship between these two topics can be seen. Former

research mainly focused on pilot training however cabin crew is in charge of reacting to safety hazards and resolving them. Thus, teamwork is essential for smooth airline operations and part of crew resource management (CRM) training, which should, according to Youngmi Kim and Hyejung Park (2014), increase flight safety and efficiency.

In these days the industry has to face rising threats such as terrorism, but also changes in travel behavior have to be taken into consideration when it comes to crew and passenger safety. As already stated by Bent and Chan (2010) training and security are related and should influence each other. On the one hand, the desired level of safety will determine training efforts and on the other hand, proper crew training will result in increased safety standards.

The thesis will deal with the challenges the aviation industry has to overcome regarding crew training. It will be examined if recent occurrences have an impact on the modes of crew training and if differences exist between different airlines. The implications of changes in travel behavior and language barriers will be discussed and moreover it should be examined if LCCs provide the same training standards as FSCs. Furthermore the importance and duties of the Special Assistance Team (SAT) should be elaborated.

1.2 Outline of the aim, hypothesis, research questions and its limitations

As outlined in the previous section, training and safety are closely interlinked. One of the main competencies of flight crew is to control on-board incidences and keep passengers and crew members safe (Kim & Park, 2014). The importance of cabin crew training is uncontroversial, but was often neglected in the literature.

The aim of the thesis is to examine difficulties the aviation industry has to overcome with regard to cabin crew training.

Secondary aims are formulated to investigate individual parts of training and safety:

- Analysis of impacts recent occurrences and challenges have on crew training
- Discussion of effects changes in travel behavior and possible language barriers have
- Elaboration of differences in training

- Comparison of training standards of LCCs and FSCs
- Investigation of characteristics of the SAT

Based on the above stated aims, the following research questions are formulated:

- Do recent events and challenges have an impact on crew training?
- Are there differences considering training among different airlines?
- Do LCCs provide the same training standards as FSCs?
- Do changes in travel behavior and possible language barriers have an effect on training in the industry?
- What challenges does the SAT have to overcome when operating internationally?

The research questions aim to answer the hypothesis of this thesis which reads as follows:

“Safety and security training is the essential of passenger airlines which cannot be economized on.”

Several limitations are inherent to this thesis. Qualitative research methods are time and research intensive and considering the short timeframe, and limited research opportunities of the thesis, this implies that only a small sample of experts can be interviewed. This might result in a lack of generalizability. Further, the researcher is no expert in the field of research and results can solely be based on the data generated from in-depth expert interviews. Biased results, due to a lack of objectivity of experts, as well as the possibility of not getting answers, as insider information is required, are additional limitations.

1.3 Overview of the thesis

The thesis is divided into five main parts.

In the first part the topic is introduced to the reader, outlining the cognitive interest and motivation of the author as well as the aim, hypothesis and limitations of the thesis.

The second chapter is dedicated to the literature research. Theoretical concepts about training are provided and also background information about the aviation industry. Moreover, this chapter features information about the SAT.

Chapter three outlines the methodology of the thesis, including the aim, research design, unit of analysis and participants. Further the selection criteria of participants, construction of interviews and reflections concerning the questionnaire are highlighted.

The fourth part deals with the evaluation and interpretation of interviews. This involves a description of interview partners as well as the summary and interpretation of interviews.

The last chapter presents the conclusion of the thesis.

2 Literature Review

To create a basic understanding, the literature review will start with an overview of the aviation industry, including different parts of the industry, operating airlines, statistics on flights and employees. Definitions of FSCs and LCCs will be provided as well as statistics on on-board flight incidences.

The second part of the literature review will deal with the training aspect of the industry, starting with a general definition of the term training. Afterwards cabin crew training practices in the aviation industry will be elaborated, including initial and recurrent training as well as CRM and Line Oriented Flight Training (LOFT).

Furthermore the formation, relevance and importance of the SAT will be discussed in the last section.

2.1 Aviation Industry

The first part of the literature review is dedicated to the aviation industry. In the beginning, terms used in the airline industry will be defined. It will continue with an overview of the aviation industry, including the formation of the industry as we know it today. Statistics on safety will be provided as well as the main authorities of the branch. Business models common in the industry will be explained, with a focus on FSCs and low LCCs.

2.1.1 Aviation Terminology

The aviation industry has, as well as other industries, its own jargon. As complex vocabulary will be used in the thesis, the most important and frequently used terms will be explained to begin with.

Term	Definition	Source
Passenger	“In relation to an aircraft, means any person carried by the aircraft, other than a crew member.”	Civil Aviation Authority of New Zealand (2009, p. 2)
Safety	“The state in which the possibility of harm to persons or of property damage is reduced and maintained	IATA Cabin operations safety (2017, p. 12)

	at or below an acceptable level. This is achieved through a continuous process of hazard identification and safety risk management.”	
Crew member	“Either a flight crew member or cabin crew member; when used in the plural (i.e., crew members) refers to flight and cabin crew collectively.”	IATA Cabin operations safety (2017, p. 11)
Cabin crew	“Crew members designated to perform safety duties in the passenger cabin in accordance with the requirements of the operator and the authority; qualified to perform cabin functions in emergency situations and enact procedures to ensure a safe and orderly evacuation of passengers when necessary. Equivalent terms: Flight attendant, cabin attendant.”	IATA Cabin operations safety (2017, p. 11)
Flight crew	“Crew members essential to the operation of the aircraft. For each flight, flight crew members shall include the pilot-in-command and may include, as appropriate, one or more copilots.”	IATA Cabin operations safety (2017, p. 11)

Table 1 Cabin operations safety definitions

The table above demonstrates that although some of the terms sound similar, they mean something completely different. Being able to differentiate the terms is therefore of importance as otherwise they might be confused. A crew member could be either a cabin crew member, who solely operates in the cabin, or a flight crew member, who is in charge of operating the aircraft.

2.1.2 Overview of the aviation industry

The history of commercial aviation industry is comparably young, yet it has undergone tremendous changes and novelties. In 1938 the airline industry was being regulated by the Congress of the United States. Through the regulation, monopolies and hence high prices were prevented (Thomas, 2011). The Chicago Convention in 1944 generated new reforms and agreements to regulate the “capacity and frequency, airfares, freight levels, and air traffic freedoms” (Cento, 2009, p. 14) of 52 states. Bilateral agreements between the states were signed to operate aircrafts across borders (Pels, 2008). Furthermore the International Civil Aviation Organization (ICAO) was founded. The liberalization of the US market started in 1978, also known as deregulation, leading to a transformation of the industry. Passenger numbers increased, while ticket prices decreased, mainly because LCCs started to enter the market (Cento, 2009). The emergence of LCCs also increased competition in the aviation industry (Gillen & Lall, 2004). Approximately ten years later the deregulation of European skies started, fully coming into force 1997. By then, airlines were able to “compete freely on routes, frequencies, prices and service levels” (Cento, 2009, p. 15). The repercussions were similar to those in the US, but appeared a bit slower. In 2008 the open-skies agreement between the European Union and the United States was achieved. With this declaration it was possible for airlines to operate without any restrictions between the European Union and the United States. Nonetheless, Eric Pels (2008) highlights that other international markets are still operated under regulation.

The aviation industry as we know it today is according to Andrew Thomas (2011) “the only truly worldwide transportation system” (p. 10) and has massive influence on the world economy.

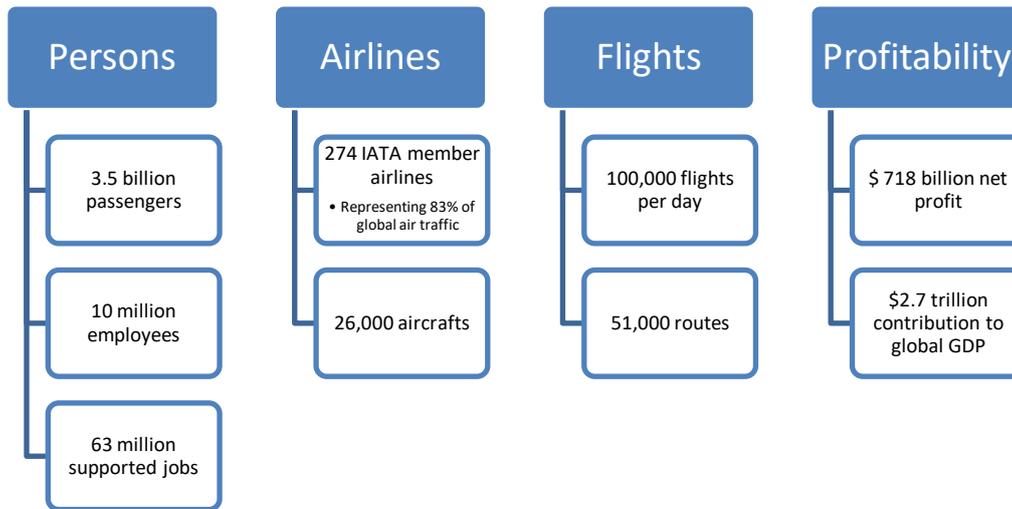


Figure 1 Aviation industry in figures

Source: IATA Annual Review 2016, 2016

Impressive numbers of operation as well as financial contribution have been generated in 2016, which can be seen in figure 1. Over 60 million supported jobs worldwide and 3.5 billion carried passengers on over 50,000 routes contribute to the world economy. More than 100,000 flights are operated each day with the help of over 26,000 aircrafts.

2.1.2.1 Business models in the aviation industry

According to Leick & Wensveen (2014) four different business models exist in the airline industry:

Business model	Definition	Source
Full service carrier	Operates via a hub-and-spoke network and employs differentiation strategy. Bundled services are offered. Frequent flyer programs, yield management, customer relationship management and participation in alliances are common characteristics.	Bitzan & Peoples (2016), Cento (2009), Gillen & Morrison (2003), Harvey & Turnbull (2006), Hunter (2006), O'Connell & Williams (2005)

Low cost carrier	Simplicity and unbundling of product are key features. Low cost operation and employee strategies as well as outsourcing are applied to reduce costs. Secondary airports and a point-to-point network are used. No frills are provided and revenues are generated through selling ancillary services.	Bitzan & Peoples (2016), Cento (2009), Gillen & Morrison (2003), Harvey & Turnbull (2006), Harvey & Turnbull (2010), Hunter (2006), Pels (2008)
Regional carrier	Operates small airports and often acts as so called feeder carrier to FSCs.	Leick & Wensveen (2014)
Charter carrier	Traditional vacation airline, which operates between destinations without a fixed schedule.	Leick & Wensveen (2014)

Table 2 Business models in the aviation industry

FSCs offer a bundle of services, including for example in-flight services and airport lounges (Gillen & Morrison, 2003). Furthermore products are distributed via global distribution systems and the internet (Cento, 2009). According to Bitzan and Peoples (2016) FSCs use a hub-and-spoke network for their operations. As illustrated in figure 2, this network can be defined by many small airports serving a hub, which is according to the Online Cambridge Dictionary (n.d.) defined as “central or main part of something where there is most activity”.

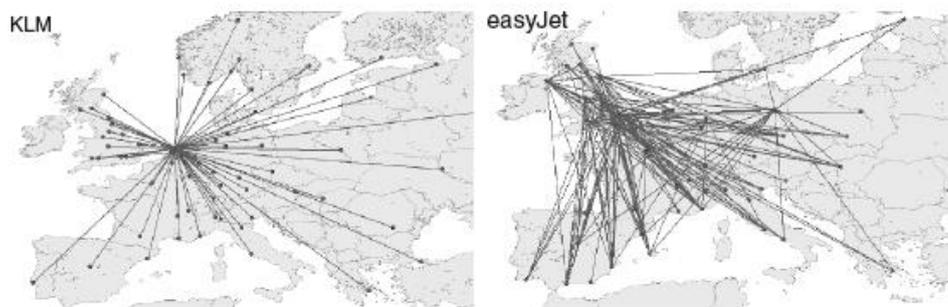


Figure 2 Hub-and-spoke network of KLM versus point-to-point network of easyJet

Source: Cento, 2009

In contrast, which can be seen on the right side of figure 2, LCCs operate within a point-to-point network, characterized by mainly secondary airports (Gillen & Morrison, 2003). In a point-to-point network airports are connected with independent routes, not serving one major airport. Further characteristics of LCCs include the absence of frequent flyer programs, multiple seating classes and in-flight services. Moreover they operate a uniformed fleet and offer less employee rewards (Cento, 2009). Not all LCCs provide the same services, they rather began to distinguish themselves (Bitzan & Peoples, 2016). Regarding safety, Andrew Cento (2009) mentioned the employment of minimum amount of cabin crew during flights. Rhoden et al. (2008) argue that LCCs limit their service to a minimum, but cannot save on safety expenditure.

2.1.2.2 Safety statistics

The airline industry strives to continually improve its safety as it is its main priority. Nevertheless, accidents and incidences, due to different reasons, do occur.

Accident Overview

	2011	2012	2013	2014	2015	2016	Trend	Average 2011 - 2015
Yearly Flights (Millions)*	34.4	35.1	35.9	36.9	38.0	40.4		36.0
Total Accidents	96	78	87	77	68	65		81.2
Fatal Accidents	22	15	14	12	4	10		13.4
Fatalities**	490	414	175	641	136	268		371.2

Figure 3 Accident Overview

Source: IATA Safety Fact Sheet, 2016

The IATA accident overview shown above lists the numbers of annual flights as well as accidents in the period from 2011 to 2016. For better visualization trend lines have been created, red dots marking the highest and the blue ones the lowest values. The amount of flights per year is increasing continuously, whereas the number of total accidents develops in the opposite direction. The comparison between 2016 and 2015 shows an increase in fatal accidents as well fatalities, however compared with the five year average the values declined, indicating an overall upwards trend in aviation safety.

The ICAO Safety Report (2016) features the global accident rates on scheduled commercial operations, which are a primary indicator of safety in the aviation industry. 2015 recorded the lowest accident rate compared to the previous years, which is illustrated in figure 4.

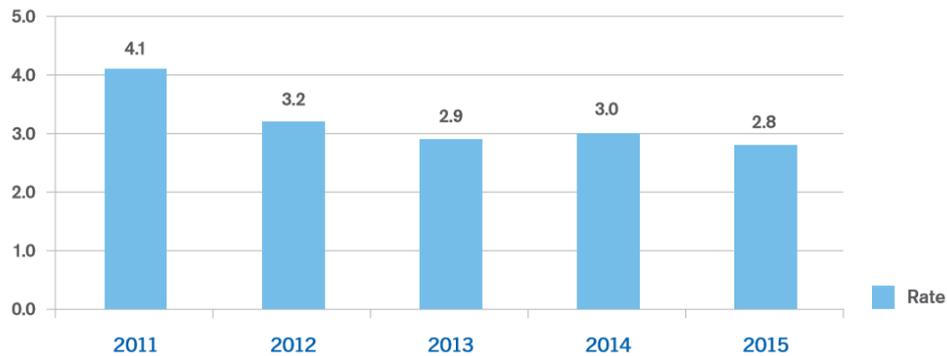


Figure 4 Global accident rates (accidents per million departures)

Source: ICAO Safety Report, 2016

Although the amount of accidents is declining, an increase in the number of incidences involving DAPB is recorded. From 2007 to 2015 over 49,000 unruly passenger events were registered. In 2015 almost 11,000 incidences were reported, resulting in one occurrence every 1,205 flights (IATA Fact Sheet, 2016).

2.1.2.3 Aviation Authorities

2.1.2.3.1 IATA

The International Air Transport Association (IATA) is the global trade association for airlines. It was founded in 1945 and its main tasks include the representation and guidance of the airline industry. The authority promotes economic benefits of the aviation industry and supports all its members and stakeholders. Simplification of processes, enhancement of passenger convenience, cost reduction and efficiency improvements are additional aims ("About us", n.d.). The reduction of cabin safety incidences is one of the top priorities of IATA. Up to date guidelines are issued, which should help airlines with the implementation of cabin safety procedures and policies. However they should not replace applicable regulations of a state.

The Cabin Operations Safety Task Force is a task force initiated by IATA, formed by member airlines representatives. Those are experts in fields such as cabin crew

training, cabin safety, human factors, accident/incident investigation and quality assurance. It monitors cabin operations with the aim of improving efficiency and safety (“Cabin safety”, n.d.).

Another important audit is the IATA Operational Safety Audit (IOSA). The IOSA program is a system established to evaluate control systems and operational management of airlines. Participation in IOSA is one prerequisite for becoming an IATA member airline (“IATA Operational Safety Audit (IOSA)”, n.d.).

2.1.2.3.2 ICAO

The International Civil Aviation Organization (ICAO) is a specialized agency of the United Nations and was established in 1944 during the Chicago Convention to administrate and govern the convention on international civil aviation. Conformity of the 191 member states on standards, practices and policies should be reached to secure the safety of the industry. Further tasks of the ICAO are the monitoring and reporting on air transportation performance metrics.

Safety is one of the main objectives of ICAO, including its steady improvement. This should be achieved through (Safety, n.d.)

- the development of global strategies
- the development of standards, procedures and recommended practices applicable to global civil aviation activities
- the monitoring of safety indicators and trends
- effectively responding to disruptions of the aviation industry (including for example conflicts or natural disasters).

Source: Safety (n.d.)

2.1.3 Travel behavior

The aviation industry experienced one of the biggest upturns in its history since the mid 1990s. Globalization led to an increase in travel demand and resulted in annual industry growth of four to six percent (Cento, 2009).

Figure 5 shows a World Bank statistics, illustrating the rapid growth of the aviation industry from the 1980s onwards and in particular its dramatic increase from 2009 to 2015. Over 3.4 billion passengers were recorded in 2015, compared to 2.25 billion in 2009.

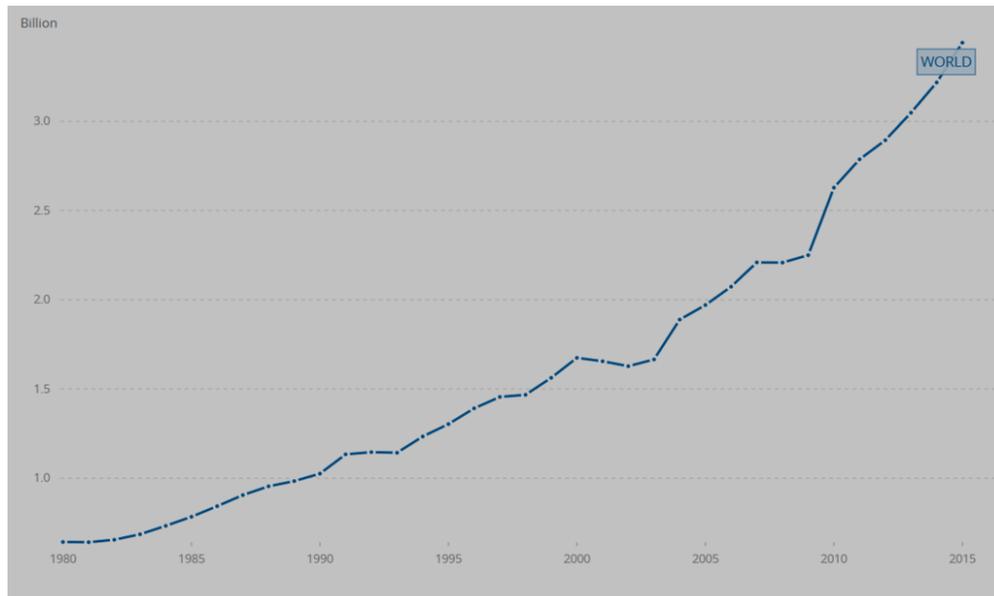


Figure 5 Number of airline passengers 1980-2015

Source: "Air transport, passengers carried", 2016

7.2 billion passengers are forecasted by IATA to travel in 2035, which represents almost a doubling of the 3.8 billion people traveling in 2016 ("IATA forecasts", 2016). The IATA 20 year passenger forecast is based on the identification of main drivers of air travel demand and the detection of significant traffic trends. Various factors have been taken into account such as ("20 year passenger forecast", n.d.):

- divergent demographic outlooks
- emergence of the middle class in developing countries
- climate changes
- further liberalization of the aviation market

Source: "20 year passenger forecast" (n.d.)

2.2 Training

The following section of the thesis will be dedicated to training, starting with an overview and the basic definition of the term training. The development of training

as well as its evaluation and effects will be discussed. Moreover, the concept of team training is elaborated and linked to training practices in the aviation industry, including CRM and LOFT. The two major types of training – initial and recurrent – will be explained.

2.2.1 Definition of training

“Training is not an expense, but instead is an investment in the human capital of employees.” (Baron & Kreps, 1999, p. 390).

Angelo DeNisi and Ricky Griffin (2008) describe training and development as “very basic type of performance enhancement intervention” (p. 451). This statement is advanced by several authors, for example Herman Aguinis and Kurt Kraiger (2009), who define training as “systematic approach to affecting individuals’ knowledge, skills, and attitudes in order to improve individual, team, and organizational effectiveness” (p. 452). Another definition is given by Michael Armstrong (2006) who describes training as “the use of systematic and planned instruction activities to promote learning” (p. 575).

As stated above, training should be carried out systematically, which means that its design, planning and implementation meet predefined needs. The provision of training takes place through specialist trainers and is evaluated afterwards. Systematic training, in its simplest way, can be described in four stages (Armstrong, 2006):

1. Identification of training needs
2. Determination of training method
3. Implementation of training, carried out by specialist trainers
4. Training evaluation



Figure 6 Systematic training model

Source: Armstrong, 2006

The author further explains why formal training methods are popular and often preferred over others, by identifying five points that justify the administration of formal training:

- Skills are needed that are best taught by formal guidance
- Reliance on experience as training method is not possible
- Requirement of a variety of skills
- Impossibility of autonomous training due to complexity and specialization of tasks
- Communication skills need to be taught

Source: Armstrong (2006)

Eduardo Salas and Janis Cannon-Bowers (2001) explain, like the systematic training model showed before, that training development starts with carrying out a needs analysis. It assesses the required extent of training based on skills and knowledge needed for a particular job (Moore & Dutton, 1978, cited in Tharenou, 2010; Thomas & Lazarova, 2014). David Thomas and Mila Lazarova (2014) further argue that goals, training methods and design are established according to the needs analysis. Determining training goals is of utmost importance as otherwise an evaluation of training outcomes will not be possible (DeNisi & Griffin, 2008). After the setting of training goals, the training method comes into focus. Training could either be carried out in-house or it could be outsourced. On the one hand, in-house training transfers exactly those contents needed by the firm, but on the other hand, outsourcing may lead to an enhancement of expertise, as external experts are consulted. In general

however, outsourcing often leads to a more generic teaching style resulting in a loss of appropriability. The last step is to decide on training design or technique.

Figure 7 shows the basic training cycle and the importance of continually evaluating each stage of the cycle. Aguinis & Kraiger (2009) define the determination of skill and knowledge enhancements as a result of training as training evaluation. Important is the degree of training transfer, so the scope of application of knowledge gained in training to the job (Aguinis & Kraiger, 2009; Briscoe et al., 2012). However, training evaluation is difficult as it is time consuming and involves high costs (Salas & Cannon-Bowers, 2001).

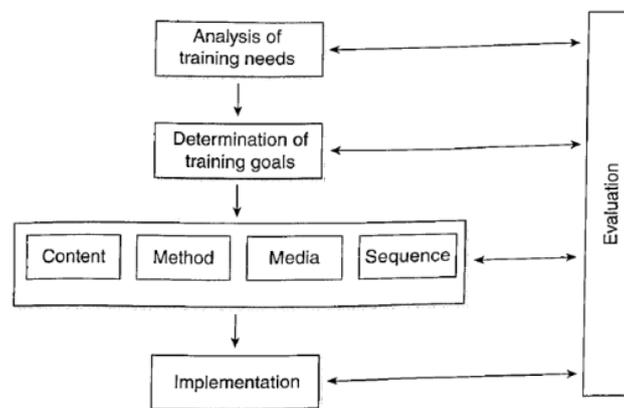


Figure 7 Basic training cycle

Source: Baumgarten, 1995, cited in Thomas & Lazarova, 2014

The effect of training is determined by several factors, including pre-training motivation. Pre-training motivation includes personal expectations and attitudes which might be influencers for the readiness to learn and be trained (Aguinis & Kraiger, 2009). Colquitt et al. (2000, cited in Tharenou, 2010) and Noe (1986, cited in Tharenou, 2010) expand this statement and relate the extent of motivation before training to learning transfer. Training design also plays a crucial role in the outcome of transfer of training, as relevant content is a prerequisite for effectiveness. If the content of training is in line with tasks on the job, the possibility of training success will be enhanced.

Noe (1986, cited in Tharenou, 2010) divides training into three phases – pre-training, during training and post-training stage. The relevance of pre-training motivation has

been discussed already, but the other stages must not be neglected. The delivery of training is crucial for its potential success. Goals should be set in accordance to the topic and time for practice enabled during the training. In the post-training stage employees should be encouraged to transfer the content of training on the job.

Conducting training should result in benefits and positive outcomes, such as enhanced effectiveness and efficiency of individuals and the company (DeNisi & Griffin, 2008). Aguinis & Kraiger (2009) report positive consequences of training with regard to team, as well as individual performance. This refers to a great extent to work attitude and motivation. The authors further explain that the right choice of training methods and design can lead to an increase of training benefits.

2.2.1.1 Team training

Teams require special forms of training, as other competencies are needed than when working individually. However, as Salas et al. (2015) criticize, many companies neglect the training of teamwork skills and just provide team-building activities.

A team consists of at least two people, each having a specific role to perform to reach a shared goal (Salas et al., 1992, cited in Hamman & Beaumont, 2010). The acquisition of skills in a group, constituted of team members, is termed team training. It is of importance that teams are used to function as a group and work together (Tharenou, 2010). Decisions are made as team and communication is necessary to succeed (Salas et al., 1992, cited in Hamman & Beaumont, 2010). Team members must be willing to work together and have to be aware of each other's role to succeed (Hamman & Beaumont, 2010). Team competencies have to be developed including (Cannon-Bowers, 1997, cited in Hamman & Beaumont, 2010):

- Skills related to teamwork
- Attitudes related to teamwork
- Knowledge related to teamwork

Source: Cannon-Bowers (1997, cited in Hamman & Beaumont, 2010)

Team knowledge improves coordination and performance within a team. Required skills and behaviors as well as goals should be clear for team members to be

successful. Positive attitudes towards teamwork and trust affect the degree of team success.

Various types of team training exist, like cross training and team coordination training (Tharenou, 2010). Cross training, like positional rotation, can foster consciousness for positions held by other team members and associated reliabilities and enhance team success (Sonnentag et al., 2004, cited in Tharenou, 2010). Communication as well as coordination within a team should be improved (Blickensderfer et al. 1998, cited in Marks et al., 2002). One type of team coordination training is CRM training (Salas et al., 2006, cited in Tharenou, 2010).

2.2.2 Cabin crew training

John Bent and Kwok Chan (2010) state “crew training and safety have a strong cause and effect relationship” (p. 307). This statement refers to the fact that human factors are often the root of incidences, but can be greatly influenced and enhanced by training.

2.2.2.1 Safety in the aviation industry

Chang and Yeh (2004) indicate that the commercial airline industry can only be successful if safety is a crucial element of the business. Liou et al. (2008) further argue that the enhancement of air safety is of importance for the industry and its success. The authors argue that proper training can prevent accidents in the aviation industry.

The authors Qing Cui and Ye Li (2015) explain that safety in the airline industry depends on various input sources to daily operations. Those inputs include labor, funds and technology. The amount of staff working on a safe flight during the flight, but also in the pre- and post-flight phase forms the labor input. Fund input is determined by the amount of money spent on safety software, technology and staff training. Investments in safety technology as well as research and development are termed technology inputs.

Although machines have become safer and more reliable over years, the reliability of humans has not advanced to the same extent. In most of the cases human error is

the reason for accidents (Liou et al., 2008). According to Bent and Chan (2010) the main problems comprise a lack of experienced personnel and insufficiencies in training. The authors argue that human errors could be reduced and influenced by appropriate training measures. Therefore safety management systems (SMS) have been implemented, drawing the focus on proactivity in contrast to reactivity. However, no global SMS model is in practice (Liou et al., 2008).

The authors created an impact relation map for an effective SMS, in the shape of a “safety triangle”. Strategy and policy can be found on the top, including safety committee, safety policy and rules and regulations. Strategy and policy has effects on all parts of the safety triangle, including implementation, human factor as well as monitoring and feedback. The left corner of the triangle comprises implementation. Components of implementation are documentations, equipments and work practice. In the right corner human factor is situated. Training and competency, safety culture and communication play a role in the part of human factor. At the heart of the triangle monitoring and feedback is located, including safety risk management and incidents investigation and analysis. Implementation, human factor and monitoring as well as feedback are closely interlinked and have an influence on each other.

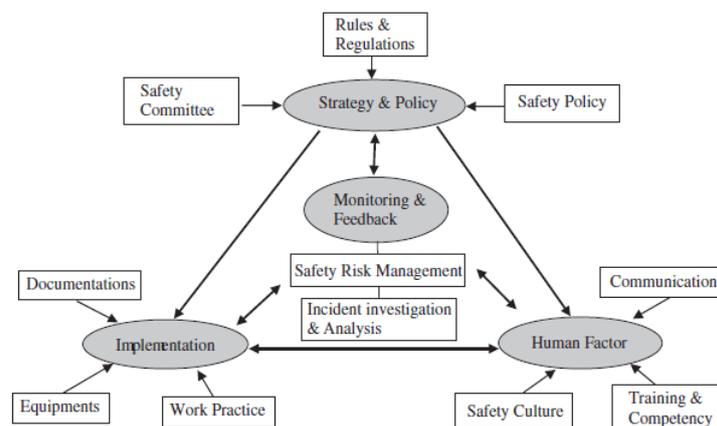


Figure 8 Impact relation map for an effective SMS

Source: Liou et al., 2008

George Kozanidis (2017) criticizes that only a few researches have dedicated their work towards aircrew training, which is supported by Kim and Park (2014), who complain that the identification of required cabin crew competencies was discussed

in only a few studies. According to the authors five competency domains are important for cabin crew:

- Interpersonal skills
- Knowledge of foreign languages and cultures
- Sophisticated task handling and skills
- Company loyalty and customer oriented skills
- Physical attributes

Source: Kim & Park (2014)

Required competencies are supposed to vary in accordance to the position held by cabin crew members.

Prew (1997, cited in Rhoden et al., 2008) criticizes that training of cabin crew is often neglected in favor of flight crew training. However, Rhoden et al. (2008) stress the importance of cabin crew training as their own safety and the safety of passengers depends on skills and knowledge learned. Others further argue that “airline security focuses on protecting the aircraft, its passengers, and crew” (Price & Forrest, 2016, p. 289). Training is seen as means to prevent accidents and although the amount of accidents in the aviation industry is comparably low, airlines have to continually strive for the highest safety standards to decrease the rate (Bent & Chan, 2010). Mary Edwards (1990) points out that the way crew members react in an emergency situation is critical for its denouement. Cabin crew training is important as competence in skills and knowledge, as well as stress resistance might be life-saving. Inappropriate training may lead to panic or freezing, endangering crew and passengers. The author argues that with adequate training, skills develop over time and tasks become routine.

Problems regarding training include “no agreed international standards for cabin crew training and there is wide variation in its duration and content” (Mahoney et al., 2008, p. 414), which leads to the fact that many airlines only meet the minimum requirements set by the Federal Aviation Authority (FAA) (Learmount, 2011). Bent and Chan (2010) further argue that some airlines save on investments in training as benefits are difficult to measure.

2.2.2.1.1 Disruptive airline passenger behavior

Rhoden et al. (2008) complain that little research about training in the aviation industry has been conducted, and if, its focus was on the service aspect of training. Although the importance of cabin crew in coherence with flight safety is undeniable, its role is not documented academically. The authors report on disruptive airline passenger behavior (DAPB) as safety issue. This is undermined by IATA data, listing DAPB as one of the top three safety issues that concern cabin crew (IATA Fact Sheet, 2016). DAPB is often termed air rage however air rage is one extreme of DAPB which also includes violent behavior (Vivian, 2000, cited in Rhoden et al., 2008; Price & Forrest, 2016). Disruptive behavior might range from verbal threats to physical assault. Disobedience of crew instructions is also a form of DAPB (Bor, 2007). In theory, the intervention in DAPB situation falls within the responsibility of airline cabin crew, flight crew and ground staff. However, in-flight DAPB events usually occur during the presence of cabin crew and thus they have to be able to solve the issue. "The effectiveness of their intervention has implications for their personal safety, as well as the safety of the unruly passenger, other passengers and the flight." (Bor, 2007, p. 539). Various factors could be reasons for DAPB, including (Rhoden et al., 2008; Price & Forrest, 2016; Bor, 2007):

- Feeling of losing control over one's life
- Inability of leaving the aircraft
- Personality of a passenger
- Intoxication due to alcohol or drugs
- Smoking
- Intrusion of personal space
- Seating arrangement
- Poor on-board service
- Mistreatment by employees
- Luggage disputes

Source: Rhoden et al. (2008), Price & Forrest (2016), (Bor) 2007

Robert Bor (2007) states that in most of the cases a combination of all of these factors leads to disruptive passenger behavior. Necessary skills to control DAPB need

to be trained in order to reduce the risk until help is available (Rhoden et al., 2008). Moreover, flight attendants must be able to distinguish between passengers just being upset and those who pose a threat to air safety (Price & Forrest, 2016).

The authors state the best way to learn how to handle DAPB is experience. However, it is argued that “random learning is somewhat unpredictable, slow in performance and may even be counterproductive” (Reid & Barrington, 1999, cited in Rhoden et al., 2008, p. 540). Training cabin crew to resolve occurring incidences is recommended as otherwise dangerous situations might be the outcome. It is critical for cabin crew to understand why DAPB arises and to have knowledge of:

- Conflict management skills
- De-escalation skills
- Restraint procedures & self-defense
- Procedures of reporting

Source: Rhoden et al. (2008)

After the terrorist attacks of 9/11 ICAO issued security measures, including among other things the advice on expansion of cabin crew training to deal with DAPB. ICAO Annex 6 includes a list of components which have to be included in flight crew training (ICAO Annex 6, cited in Rhoden et al., 2008):

- Self-defense skills
- Right use of protective devices
- Crew communication & coordination
- Determination of seriousness of an incidence
- Knowledge of terrorist psychology to cope with hijackers and passengers
- Live situational exercises with regard to different threat conditions
- Flight deck procedures or aircraft maneuvers for defense of the aircraft
- Other subject matters considered appropriate by administrator

Source: ICAO Annex 6 (cited in Rhoden et al., 2008)

2.2.2.2 Content of cabin crew training

The JAA issues the requirements for cabin crew SEP training (remark: in 2003 the European Aviation Safety Agency (EASA) took over activities of JAA, in 2008 all

responsibilities have been transferred; “Background”, n.d.). Those contain the demands for initial as well recurrent trainings and details about (JAA, Appendix 1, 2004, cited in Rhoden et al., 2008):

- CRM
- Crew communication
- Responsibilities and discipline
- Survival training
- Smoke and fire training
- Water survival
- First aid and other medical aspects
- Handling of passengers

Source: JAA, Appendix 1 (2004, cited in Rhoden et al., 2008)

However, the implementation and design of the training course is left to the airline as no official requirements are set.

In the context of first aid training, economic crisis have put financial pressure on airlines. As a result, first aid training has been outsourced by some airlines. Third party trainers, however, may have little knowledge about the aviation industry and conditions during a flight. Some cabin crews even reported on inadequate first aid training when the training was outsourced. Even if in-house training is preferred over outsourcing, first aid training often receives little attention as other parts of the emergency training are emphasized (Mahoney et al., 2008). Furthermore the authors criticize that first aid training is often conducted under time pressure, leading to inadequacy.

2.2.2.2.1 Crew resource management

CRM evolved through the acknowledgement of successful teamwork. CRM training is a form of team training, focusing on team coordination and decision making (Littlepage et al., 2016). Non-technical skills, which can be defined as “cognitive, social and personal resource skills that complement technical skills”, should be enhanced to foster performance efficiency (Flin & Maran, 2015, p. 28).

Edkins (2002, cited in Aguinis & Kraiger, 2009) reported on the importance of team and safety training in aviation as errors are often human based. A decrease in incidences and associated time loss, as well as improvements in teamwork is the result. Edkins' statement is supported by Morey et al. (2002, cited in Aguinis & Kraiger, 2009) who state that errors often occur because of team coordination issues, which can be overcome by team training. Communication failures between cabin and flight crew are another problem that could lead to accidents. Thus, joint CRM training is important (Ford et al., 2013; Ford et al., 2014). Improved problem solving skills, coordination, planning and communication within a team are results of team training (Ellis et al., 2005, cited in Aguinis & Kraiger, 2009).

CRM training is the best training method to achieve improvements in team effectiveness and communication. The ultimate goal is to increase aviation safety. Randy Mains (2015) holds the opinion that CRM is more forceful than any technical tool in preventing the aviation industry from accidents. "This type of training is usually conducted using sophisticated flight simulators, and it addresses communication, teamwork, decision-making, and awareness with respect to accidents, incidents and the role played by human error" (Aguinis & Kraiger, 2009, p. 456). Improvements in teambuilding skills (Goeters, 2002, cited in Aguinis & Kraiger, 2009) as well as overall performance of aircrews (O'Connor et al., 2002, cited in Aguinis & Kraiger, 2009) are consequences of the implementation of CRM training.

2.2.2.2.2 Line oriented flight training

Simulation-based training methods are popular in the aviation industry, as a complexity of skills is needed to perform the job (Salas & Cannon-Bowers, 2001). Manfred Müller (2004) explains that real-life scenarios, like virtual reality simulation, should be included in the training syllabus as skills can be trained in an environment close to reality.

Line oriented flight training (LOFT) is one of the most effective modes of training in the aviation industry. With the assistance of simulated scenarios crew performance should be tested (Carvalho et al., 2016). Flights from A to B are simulated, creating realistic flight scenarios, in which crew members can train their skills and knowledge (Bent & Chan, 2010; Wagener & Ison, 2014). Hamman and Beaumont (2010) further

explain that crew coordination, decision making and leadership are trained during LOFT. As no single individuals, but a complete crew is trained, participants have the opportunity to experience the importance of team decisions and communication.

2.2.2.3 Initial training

Initial training is conducted for persons who have no prior experience as cabin crew member. It includes specific position and aircraft type training and should clarify basic concepts, standards and procedures (“Training programs and airman qualification”, 2016).

Airline	Type	Definition of initial training			Source
		Duration	First Aid	CRM	
Etihad Airways	FSC	6 weeks <ul style="list-style-type: none"> • 18 days safety training • 10 days service training 	Yes	Yes	Survey
SWISS	FSC	6 weeks <ul style="list-style-type: none"> • 15 days safety training • 15 days service training 	Yes	Yes	Survey
Austrian Airlines	FSC	6 weeks <ul style="list-style-type: none"> • 15 days safety training 	Yes	Yes	Interview Wolfgang Kerndler
easyJet	LCC	3 weeks	Yes	N/A	“Cabin crew training” (n.d.)
Ryanair	LCC	6 weeks	N/A	N/A	“Ryanair cabin crew” (n.d.)
SAS	FSC	3.5 weeks <ul style="list-style-type: none"> • 10 days safety/emergency training • 3 days service training 	Yes	N/A	“About the education” (n.d.), Email

Airberlin	FSC	7.5 weeks	Yes	Yes	„Inhalte der Schulung“ (n.d.)
Alitalia	FSC	7 weeks	Yes	Yes	“Cabin crew course” (n.d.)
Finnair	FSC	8 weeks	Yes	N/A	“Train hard – fly smart” (n.d.)
flybe	LCC	4 weeks	Yes	N/A	“Training” (n.d.)
Emirates	FSC	7 weeks	Yes	N/A	“Emirates cabin crew training” (n.d.)
Cathay Pacific	FSC	7 weeks	Yes	Yes	“Cabin crew” (n.d.)

Table 3 Initial training

Each cabin crew member has to undergo an extensive initial training course before starting operations. Table 3 highlights the duration of initial training of several airlines. Training courses last three to eight weeks resulting in a rather high difference in time span. However, it cannot be said that LCCs offer less training than FSCs as the length varies within each business model. More days are dedicated towards emergency training than service training. First aid is a fixed component of initial training, whereas information about the inclusion of CRM was not available for half of the airlines.

2.2.2.4 Recurrent training

Recurrent training is a periodic training which takes place for cabin crew members who have already received initial training and worked in their position for a certain time period (“Training programs and airman qualification”, 2016).

Rhoden et al. (2008) state that the ability and efficiency to react in emergency situations needs to be taught and constantly trained. The authors outline that recurrent trainings are the most efficient form of training. Qualitative and relevant contents, frequently trained, are the main components of recurrent trainings (Bent & Chan, 2010), which are according to Müller (2004) a must. According to Ritzmann et al. (2011) CRM and safety training are compulsory components of recurrent

trainings in Europe. Theoretical as well as practical training aspects should be covered, but the duration is left to the airlines. Mahoney et al. (2008) advance the opinion of conducting recurrent trainings more than once a year as aviation safety depends on cabin crew.

Airline	Type	Definition of recurrent training				Source
		Frequency	Duration	First Aid	CRM	
Etihad Airways	FSC	Twice/year	1 day	Yes	Yes	Survey
SWISS	FSC	Once/year	3 days	Yes	Yes	Survey
Austrian Airlines	FSC	Once/year	2 days	Yes	Yes	Interview Wolfgang Kerndler
SAS	FSC	Once/year	N/A	Yes	N/A	“About the education” (n.d.)
Alitalia	FSC	N/A	1 day	N/A	N/A	“Recurrent training for aircraft type” (n.d.)
Finnair	FSC	Once/year	2 days	Yes	N/A	“Training during career” (n.d.)
flybe	LCC	Once/year	N/A	N/A	N/A	“Training” (n.d.)

Table 4 Recurrent training

Recurrent trainings are a vital part of airline operations. Concluding the data provided in table 4 most of the airlines conduct recurrent trainings once a year, which last one to three days. First aid is included in the curriculum, however information about the inclusion of CRM was available to a limited extent thus no conclusion can be drawn for sure.

2.3 Special Assistance Team

Safety as the overall objective of the industry has been discussed by several authors and aviation authorities. Yet, accidents do occur and the reaction and management in crisis situations is of great importance.

Dirk Glaeßer (2005) published a handbook with regard to crisis management in the tourism industry and gave an example of crisis management at Lufthansa airlines. He explains that the aviation industry in general is well-prepared for possible accidents. Concepts for crisis management have been developed and special teams trained. In case of Lufthansa an emergency response and action plan has been defined, which is continually updated.

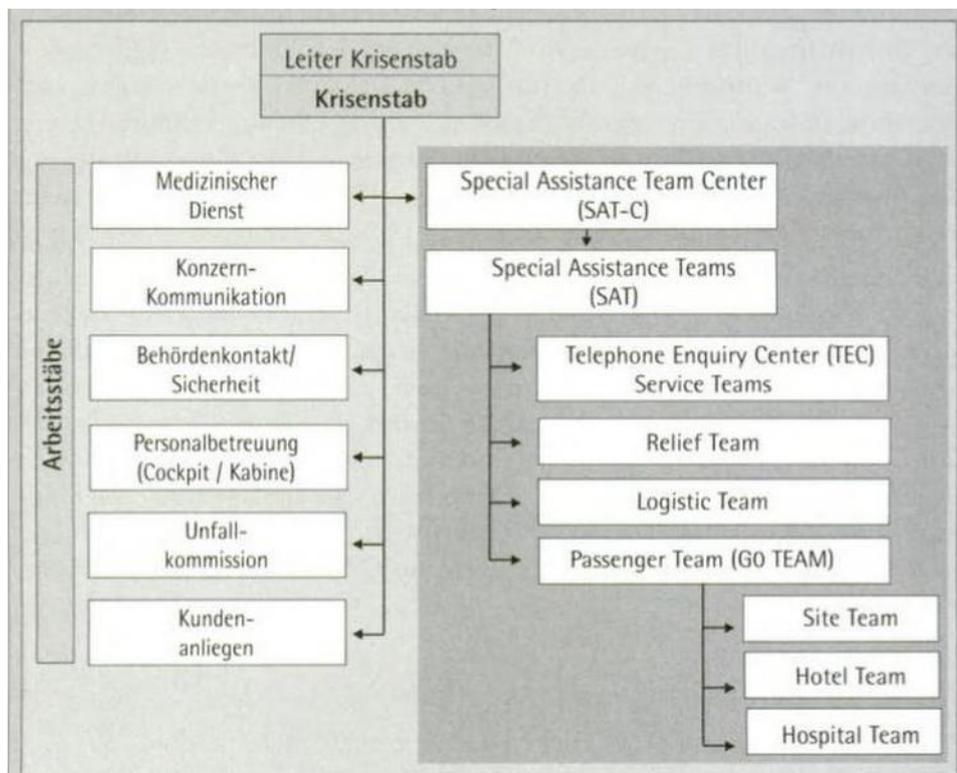


Figure 9 Organizational structure in crisis management at Lufthansa

Source: Glaeßer, 2005

Various departments, such as medical services, corporate communications and human resources, cooperate in case of an emergency, led by the manager of crisis management. Information and the situation are analyzed before decisions are taken.

Employees are then requested as required. The SAT of Lufthansa consists of four teams which reflect the typical activities of an airline in case of a crisis:

- Telephone enquiry center service team: communication of true information
- Passenger team: support of passengers, relatives, persons involved
- Relief team: support of concerned stations
- Logistic team: execution of administrative activities

Source: Glaeßer (2005)

SATs exist all over the world and are mobilized in crisis situations. They are sent to the point of incident and also support other airlines. Teams are formed by volunteers of different departments of an airline who have received special training.

Airline	Definition of Special Assistance Team	Source
SAS	<ul style="list-style-type: none"> • providing emotional support and practical assistance • training: <ul style="list-style-type: none"> ○ psychological crisis management and first aid ○ regular practical training exercises ○ learn how to deal with passengers, family members and colleagues ○ importance of recognizing own limitations in crisis situation ○ accepting help themselves when needed ○ annual refresher courses 	SAS Special Assistance Team (2002)
Qantas	<ul style="list-style-type: none"> • link between passengers, families and airline • providing information, conducting visits to hotels/hospitals, doing all possible to assist • training: <ul style="list-style-type: none"> ○ two days initial training course backed up by exercises ○ full day refresher course each year 	Qantas family support plan (2000)

Table 5 Special Assistance Team

Many airlines have a SAT and employees voluntarily contributing. Defined characteristics of the SATs of two airlines, SAS and Qantas, are listed in table 5. They comprise the emotional support of involved persons, passengers as well as crew,

and practical assistance. Comprehensive training is a prerequisite for members of the SAT, also for their own safety. Training involves among other things first aid and psychological crisis management. Both airlines conduct yearly refresher courses to strengthen the knowledge of their employees.

3 Methodology

The following section will outline the methodology used, explaining the structuring of the thesis. Figure 10 presents the steps in the process of developing the thesis.

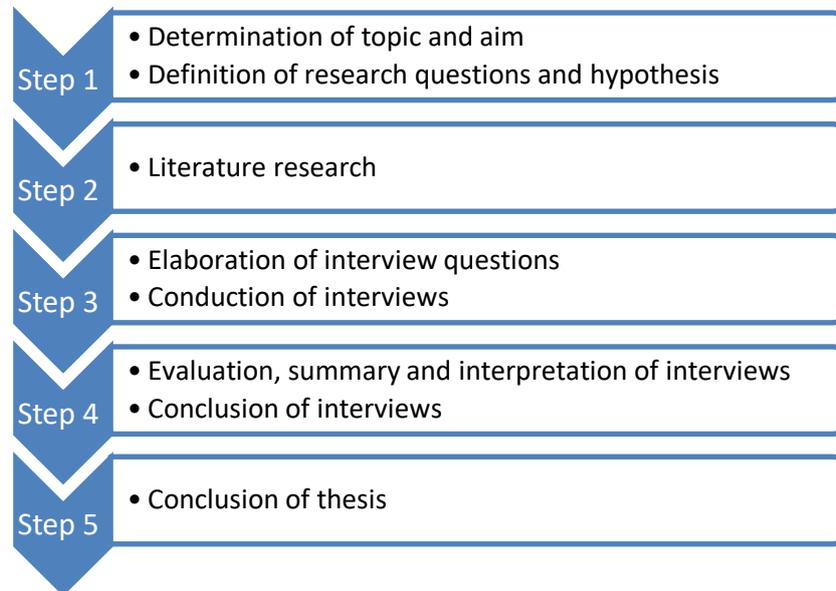


Figure 10 Structure of thesis

The first step in the construction of the thesis comprises the definition of the topic as well as aims according to it. After the determination of those, research questions have been elaborated and a hypothesis formulated. An extensive literature research forms the second step. As part of the literature research short surveys have been sent to 42 airlines to gain accurate information about training. The literature review acts as basis for step number three in which interview questions are prepared. After conducting semi-structured expert interviews, the fourth step includes the evaluation, summary and interpretation of interviews. A conclusion will complete this step, before in the last step an overall conclusion will be drawn and linked to the hypothesis stated in step one.

3.1 Aim

The thesis deals with the topic of training and security in the airline industry. Therefore one primary as well as several secondary aims have been formulated in the beginning to outline the purpose of the thesis. The main aim of the thesis is the exploration of challenges the aviation industry has to cope with when it comes to

cabin crew training. Due to the fact that challenges can be of different nature, various secondary aims have been elaborated. Those include the impact of increased passenger volume and related difficulties such as communication problems as well as effects of safety hazards on training. Furthermore it should be discussed if airlines provide training to the same extent or if variations can be observed, especially between FSCs and LCCs. The SAT as crucial part of the aviation industry and possible difficulties is another object of research.

3.2 Research Design

The aims outlined in the previous section should be achieved through the conduction of in-depth, semi-structured expert interviews. For the purpose of creating a better structure and overview the aims could be separated into different categories which the interviews will focus on. Secondary aims could be summarized in three main topics which should be investigated during the interviews.

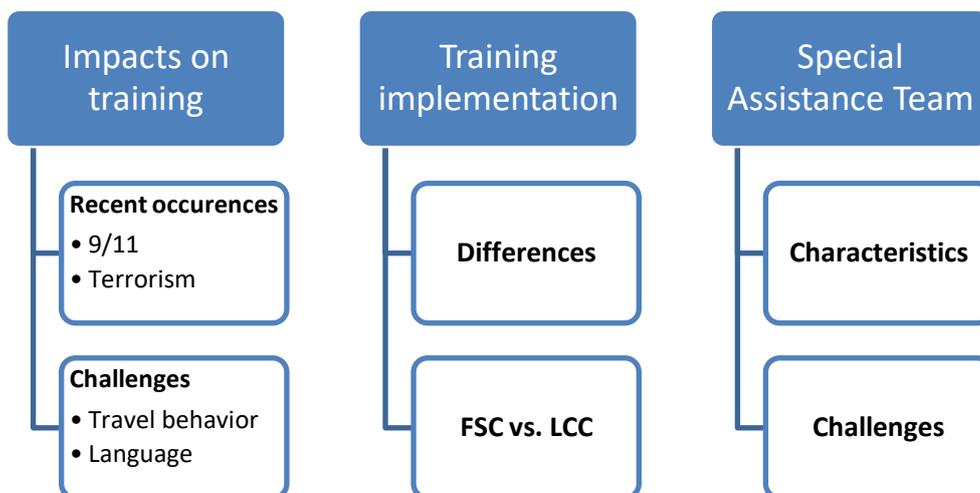


Figure 11 Key aspects of aims

The first category of interest consists of different impacts which might influence training design and content. The effects of occurrences such as 9/11 and more recent events like terrorism and other safety hazards on training should be discussed. In particular the questions of how airlines react to such happenings in training and what possible changes are integrated in the training curriculum are of interest. Furthermore should possible consequences on recurrent training, such as

its frequency, be reviewed. Changes in travel behavior, such as increased passenger volumes, and possible language barriers pose a challenge to airlines. It should be investigated if the rapid development of demand in recent years and predicted doubling in the amount of passengers has an impact on training. Moreover possible challenges that arise with the demand of multilingual cabin crew to prevent communication problems are of interest.

Training itself forms the second important category of research aims. Differences in the execution of training, like duration, and the meaningfulness of such variations should be discussed during expert interviews. Furthermore it should be elaborated if LCCs provide the same cabin crew training standards as FSCs, or if specific differences exist between the different types of airlines.

The third important objective of research is the SAT. The characteristics of the SAT are of interest to the researcher, rising questions such as what special training is needed to join the team and how the team functions when a crisis occurs. Moreover the importance for the whole industry and operations should be discussed as well as possible challenges that might arise if SATs from all over the world have to work together at the scene of accident.

3.3 Unit of analysis

The conduction of in-depth, semi-structured expert interviews has been chosen as research method as it can be applied “when there is some knowledge about the topics or issues under investigation, but further details are still needed” (Wilson, 2014, p. 24). Semi-structured interviews belong to qualitative research, which aims to capture the meaning and feelings of persons and “investigate the why and how of decision making” (Rajasekar et al., 2006, p.9).



Figure 12 Semi-structured interviews

According to Robyn Longhurst (2009) the first step in conducting in-depth, semi-structured interviews involves comprehensive preparation such as background

literature research. When this task has been completed, it is crucial to identify important topics to be discussed within the broad range of research.

The next step comprises the development of the interview. Longhurst (2009) defines in-depth, semi-structured interviews as intercommunication between the interviewer and a respondent. The purpose is the acquisition of information about the research topic. Various types of interviews do exist, whereby the method of semi-structured, in-depth interviews can be found between structured and unstructured interviews. The creation of interview questions is a crucial step. The order in which the questions are stated can influence the outcome of interviews, therefore simple introductory questions should be asked in the beginning and more complex or sensitive ones left to the second half. Predetermined questions are elaborated, but also the usage of open-ended questions, which have not been specified prior to the interview to further explore particular parts of the topic which might arise during the conversation, is characteristic.

The third step involves the selection of respondents. Participants are most commonly people who have been chosen due to their experience in the field of interest. After the recruitment of respondents, the location of the interview needs to be determined. It should be a neutral setting in which interviewer and interviewee feel comfortable. On average in-depth, semi-structured interviews last one hour, but the length is supposed to vary. Although audio recording the conversation is common, taking notes is also an option. Recordings should be transcribed as soon as possible as the interviewer still has the conversation on his/her mind.

The last step involves the analysis of interviews. The value and meaning of information collected is processed and furthermore similarities and differences in data should be considered.

3.4 Participants

Three in-depth, semi-structured interviews were conducted. One interview was done in person, while the other two were carried out via email and telephone due to time constraints.

3.4.1 Selection criteria

Experts were selected due to their occupation or more specifically according to the field they are working in. Age, gender or origin have not been among the eligibility criteria in the selection process. Individuals from different occupational fields have been chosen as experts to gain insights from various perspectives:

1. Airline
2. Aviation authority
3. SAT

The perspective of an airline is of interest as cabin crew training falls within their responsibility and influences daily operations. A close examination of training execution and difficulties is possible. Aviation authorities are the regulatory body within the industry and in charge of issuing regulations. A different point of view on cabin crew training and the process of setting regulations can be provided. The SAT as special unit within the aviation industry is investigated separately, requiring insider information.

3.4.2 Construction of interviews

Interviews have been constructed according to the guidelines of semi-structured, in-depth expert interviews. A catalogue of questions has been developed as directory, giving the interviewer the opportunity to ask further questions during the interview if more in-depth information is required. Three interview catalogues have been created, comprising nine to twelve questions. As the interviews are conducted with experts from the aviation industry airline jargon is used in the questions. The interview questions have been stated in a generic-to-specific approach, starting with general questions, followed by more specific ones. Personal and telephone interviews have been recorded and transcribed afterwards. Due to time constraints and high work load of the participant one interview was conducted via email. Interview questions were filled out by the interviewee and returned to the researcher.

3.4.3 Reflections concerning the questionnaire

Three different questionnaires have been developed for the interviews, as different perspectives and information were required from the participants. The questionnaires were used as a guideline for the semi-structured interviews, allowing further questions to be asked during the interview.

The first part of the questionnaire included questions which served as introduction into the conversation. General information such as the name of the interviewee, his/her current occupation and experiences within the aviation industry was asked for:

- **Please briefly introduce yourself.**
- **What position are you currently holding?**
- **What experiences do you have in the aviation industry?**

The second part of the questionnaire dealt with more in-depth questions, aiming to answer the research questions. The questions differed according to the occupation of the interviewee to gather more detailed insider information. The interview questions were based on the three main topics, which have been defined in the research design, namely impacts on training, training implementation and the SAT.

Impacts on training and training implementation were asked for in two interviews – with an airline and an aviation authority. The SAT was topic of the third interview.

Interview questions: Airline

Airline specific:

- **How long does the initial training of cabin crew members last and what does it involve?**
 - **How many days are dedicated to safety training and service training?**
- **How long does the recurrent training of cabin crew members last and what does it involve?**

In the beginning the interview partner was asked about the execution and duration of cabin crew training at the respective airline. The researcher intended to get an understanding of the components of cabin crew safety training. Moreover the duration and frequency of initial and recurrent training was asked for, giving the researcher the opportunity to compare various airlines.

Impacts on training:

- | |
|---|
| <ul style="list-style-type: none"> • Do occurrences, as for example 9/11 and rising threats like terrorism, have an impact on the training of cabin crew? (Do you react? How do you react? What changes are implemented?) <ul style="list-style-type: none"> ○ What are the effects on initial training? ○ What are the effects on recurrent training (eg. frequency)? |
| <ul style="list-style-type: none"> • The number of annual passengers has increased dramatically in past years and is expected to almost double by 2035. Does this have an influence on cabin crew training? |
| <ul style="list-style-type: none"> • How do airlines deal with possible in-flight language barriers? |
| <ul style="list-style-type: none"> • Can you think of any other difficulties cabin crew training has to deal with? |

The questions regarding possible influence factors on cabin crew training were asked to get to know how an airline is dealing with impacts from outside and if changes in the organization are implemented. The first question refers to terrorism and attacks like 9/11 and effects on the airline industry, such as changes in training. The second question deals with growing passenger numbers and future consequences on cabin crew training of this trend. How airlines cope with possible language barriers on board and if airlines consider this problem are asked for in the third question. With the last question the researcher intended to gather information about other factors perceived as influential on cabin crew training apart from those mentioned in the questions.

Training implementation:

- | |
|--|
| <ul style="list-style-type: none"> • Do you think it is useful that airlines execute training in different ways? For example the duration of training can vary widely. |
|--|

- | |
|--|
| <ul style="list-style-type: none"> ○ Should there be stricter regulations regarding the provision of training? |
| <ul style="list-style-type: none"> ● Is there any difference between low-cost carrier and full-service carrier training? |

The implementation of training and possible differences was discussed in the third set of questions. The first question targets the reason for variations in training among airlines, specifically the duration of training. It was asked if current regulations are perceived as strict enough or if there should be more unified regulations regarding cabin crew training. The second question was asked to clarify if FSCs and LCCs have the same training standards or if there are any fundamental differences. With this question the researcher wanted to explore if LLCs train less than FSCs.

- | |
|---|
| <ul style="list-style-type: none"> ● How would you define the status of training within the aviation industry in terms of importance? |
|---|

With this last question the researcher wanted to know how training is seen in the aviation industry. The researcher wanted to know if expert are aware of the importance of training.

Interview questions: Aviation authority

Authority specific:

- | |
|--|
| <ul style="list-style-type: none"> ● What are the key activities of your organization? |
| <ul style="list-style-type: none"> ● Who issues regulations on cabin crew training? |

To begin with the researcher asked about the duties of the authority to gain an understanding of its functions and importance. The aim of the second question was to clarify who is responsible for the issuing of cabin crew training regulations in order to understand the process of how those regulations are set. This question is of particular interest as the literature is not clear about the responsibilities of different players within the airline industry.

Training implementation:

- **Is there any difference between low-cost carrier and full-service carrier cabin crew training?**
- **Do you think it is useful that airlines execute training in different ways? For example the duration of cabin crew training can vary widely.**
 - **Should there be stricter regulations regarding the provision of training?**

With the first question the researcher wanted to explore if there are unified standards for FSC and LCC cabin crew training. The second question scrutinizes the meaningfulness of different interpretations of training, for example the duration, as huge gaps can be noticed among airlines. Furthermore the need for stricter regulations is questioned.

Impacts on training:

- **Do occurrences, as for example 9/11 and rising threats like terrorism, have an impact on the structure of cabin crew training? (How do you react? Are there any changes in regulations implemented?)**
- **The number of annual passengers has increased dramatically in past years and is expected to almost double by 2035. Does this have an influence on cabin crew training?**

The perception of influential factors on cabin crew training was questioned in the following section. The first question addressed the impact events like 9/11 have on cabin crew training regulations. It should be examined if such occurrences have an effect and lead to changes in regulations or not. With the second question the researcher intended to investigate the consequences steadily increasing passenger numbers have on cabin crew training, if there are any. Effects on training contents and methods should be explored.

- **How would you define the status of training within the aviation industry in terms of importance?**

Lastly, the importance of training in the aviation industry was questioned. It should be clarified if training of cabin crew is perceived as an essential part of the industry.

Interview questions: SAT

<ul style="list-style-type: none"> • What is the Special Assistance Team? (When does it operate? What are the duties of the SAT?)
<ul style="list-style-type: none"> • Are there any prerequisites an airline has to fulfill to be a member of the Special Assistance Team? <ul style="list-style-type: none"> ○ Are LCCs part of the Special Assistance Team?
<ul style="list-style-type: none"> • What happens when a crisis/an accident occurs? (What are the steps? Who is sent to the place of incidence?)
<ul style="list-style-type: none"> • Do members of the Special Assistance Team receive special training? <ul style="list-style-type: none"> ○ Is this training equal worldwide? ○ Is there recurrent training for SAT members?
<ul style="list-style-type: none"> • What challenges does the Special Assistance Team have to overcome when operating internationally? (For example language barriers)
<ul style="list-style-type: none"> • How important is the Special Assistance Team for the aviation industry?

The first question was stated to gain basic knowledge about the SAT – what is it, what does it do? With the second question the researcher wanted to know whether an airline has to fulfill special requirements to become part of the SAT. Moreover it was of interest if LCCs can also be part of the SAT, or only FSCs. The procedure in case of an incident was asked for in the following question to get to know the process, from the activation of the members to the completion of the operation. The fourth question asked about training. It should be explored if members of SAT receive special training and if training requirements are standardized worldwide. Furthermore it is of interest if recurrent trainings are conducted to continuously train members of the SAT. The fifth question dealt with challenges that might arise when operating internationally, which might also give an indication of training requirements. With the last question the researcher aimed to identify the importance of the SAT for the aviation industry.

4 Evaluation and interpretation of the interviews

4.1 Interview partners

Name	Occupation
Wolfgang Kerndler	Emergency trainer, Austrian Airlines
Martin Maurino	Safety efficiency and operations officer, ICAO
Roland Schwendeler	Senior Consultant Emergency Management, Lufthansa Aviation Training Switzerland AG

Table 6 Interview partners

Table 6 gives an overview of interview partners, which were chosen according to the selection criteria. As no focus was laid on the origin of participants, a mix of people from different parts of the world was interviewed.

4.2 Summary and interpretation of the interviews

In the following section the interviews are summarized and interpreted. Furthermore conclusions of interviews questions are provided.

Authority specific:

What are the key activities of your organization?

Maurino	We publish standards and for cabin they cover things like the training that the cabin crew must do. What we say is sort of the minimum to promote safety at the international level.
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Mr. Maurino explains that ICAO is a UN agency responsible for international civil aviation. International standards are produced, which are called SARPs – standards and recommended practices – and have to be followed by member airlines. Standards include for example training cabin crew must do and basics like having seat belts.

Who issues regulations on cabin crew training?

Maurino	It's a bit of a three-tier drop. ICAO, international/regional authorities, national regulator
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Standards are produced by ICAO, which are then transformed into national regulations by international or regional authorities, for example in Europe by EASA. Within the European Union each country will have to include the regulations set by EASA into their national regulations. Airlines then have to act in compliance with the regulations of the country. Countries are able to extend the training requirements as ICAO publishes only the minimum. In some cases even airlines extend them further.

Conclusion

ICAO is an important regulatory body of the aviation industry, being in charge of issuing the baseline of cabin crew training requirements. The involvement of three authorities in the legislation makes it difficult for outsiders to understand the process of how aviation regulations are set. The possibility for national regulators and airlines itself to further extend the training requirements might explain the prevailing differences in training.

Airline specific:

How long does the initial training of cabin crew members last and what does it involve?

- **How many days are dedicated to emergency training and service training?**

Kerndler	Approximately six weeks. Emergency training comprises one month, about 15 days. Different topics are included such as aircraft, normal procedures, emergency procedures, equipment, CRM, security as well as first aid.
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The initial training of Austrian Airlines lasts six weeks, of which two thirds are dedicated to emergency training. This indicates that more emphasis is put on emergency training than on service training. A broad range of topics is included,

imparting the aspiring cabin crew member comprehensive knowledge. Not only on-board procedures and processes in case of an emergency are trained, but also first aid. The importance of first aid is emphasized with the conduction of an annual refresher course. CRM is another important aspect of cabin crew training, being already included in emergency training, and additionally trained with a separate team.

How long does recurrent training of cabin crew members last and what does it involve?

Kerndler	Every flight attendant has to undergo an annual two-day recurrent training. Half a day first aid, half a day CRM and half a day where procedures are put into practice, as well as the conduction of a door drill training.
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The aim of recurrent trainings is to update the cabin crew member’s knowledge about altered procedures. Crew members are drilled to carry out their tasks under adverse circumstances, like in the case of an emergency. First aid and CRM are fixed components of recurrent training. Especially CRM is a crucial part as communication errors are one of the three factors that can lead to an accident among technical deficiencies and acts of nature. Therefore cabin crew and pilots are nowadays trained together in CRM. Communication between flight and cabin crew is of utmost importance, particularly in case of an incident.

Conclusion

Initial training is the baseline for cabin crew members. Procedures and day to day tasks have to be trained to be well prepared. An emphasis is put on emergency training compared to service training. Emergency procedures might not be used and needed as frequently as service duties, but in case of an emergency cabin crew has to know how to react. First aid is another important part and constantly trained, as subsequent medical help might not be available immediately. Furthermore the importance of CRM training must not be neglected. As pointed out by Mr. Kerndler, human failure, in more detail communication errors, can lead to an airline incident.

Impacts on training:

Do occurrences, as for example 9/11 and rising threats like terrorism, have an impact on training of cabin crew? (How do you react? Are there any changes implemented?)

- **What are the effects on initial training?**
- **What are the effects on recurrent training (eg. frequency)?**

Kerndler	Of course this has an impact on training. Basically, every accident is valuable for training. Simply, because we can learn a lot from that.
Maurino	Procedures at airline level and training change very regularly and sometimes this is depending on events.

Both experts confirm that events like 9/11 have an impact on cabin crew training. Initial as well as recurrent training standards are altered and new training measures included. After 9/11 regulations and procedures have been changed, which still has an impact on the aviation industry. Not only security measures, but also the role of cabin crew in case of an emergency came into focus. Immediate actions have also been taken after the Germanwings incident. It can be said that incidences have an impact and change the way cabin crew training is conducted. However, Mr. Kerndler also indicates that 9/11 and Germanwings in particular are incidences that could not have been prevented by training, as they were unforeseeable. Nevertheless lessons can be learned and preemptive training measures implemented.

The number of annual passengers has increased dramatically in past years and is expected to almost double by 2035. Does this have an influence on cabin crew training?

Kerndler	The influence this will have is that it will be trained more, more flight attendants will be required and the recruitment of flight attendants will get more complicated.
Maurino	It won't change so much the content I think, but the delivery of how you actually deliver the training will be a challenge at the amount of increases.

The opinion on the influence of increasing passenger numbers is bidirectional. Both experts confirm that more training will have to be conducted as more cabin crew will be required. On the one hand a shortage in flight attendants might be the result, forcing the airlines to relax entry requirements, as qualifications are not met by enough candidates. On the other hand it is believed that new ways of conducting training need to be developed to deal with the amount of cabin crew that has to be trained. Virtual and distance learning as well as digital learning are considered the key to future cabin crew training success. In general not the content of training, but how it is delivered will be affected.

How do airlines deal with possible in-flight language barriers?

Kerndler	Basically this is not a big problem. At the moment only two languages are required – German and English.
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In-flight language barriers are not perceived as problem and thus have no impact on cabin crew training. At Austrian Airlines two languages – German and English – are required. Language skills of cabin crew are not considered when assigning flight attendants on a route.

Can you think of any other difficulties cabin crew training has to deal with?

Kerndler	The attitude. The “new” generation has a different self confidence and a dangerous exaggerated opinion of itself.
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The emergency trainer detects another difficulty in cabin crew training, namely the attitude of individuals and towards the job. People often think of cabin crew as “trolley dolly”, and ignore the discipline and knowledge that is required for the job. In particular the “new” generation is perceived as being sophomoric and having difficulties accepting hierarchies. In case of an emergency, solo actions can have fatal implications and thus obedience towards the superior is required.

Conclusion

In conclusion it can be said that cabin crew training is shaped by occurrences and changes in the aviation industry. Every incident serves as a means to improve initial

and recurrent training. Furthermore the continuous growth of the industry, in particular noticeable in increased passenger volume, will lead to further alteration of training. More cabin crew will be needed and thus priorities will be set on online and distance learning to cope with the demand of training. Although language barriers are not perceived as a challenge by Mr. Kerndler, there are airlines which take into account language skills of cabin crew when flying to a certain destination. For example Emirates operates the route Vienna – Dubai with at least one German speaking cabin crew member to avoid problems on board. Another difficulty that was highlighted is a lack in acceptance of hierarchies and the willingness to learn something for the profession flight attendant.

Training implementation:

Do you think it is useful that airlines execute training in different ways? For example the duration of training can vary widely.

- **Should there be stricter regulations regarding the provision of training?**

Kerndler	The law requires just the minimum. Training facilities are expensive, therefore training time is reduced.
Maurino	We encourage the regulator or the authority to let the airlines figure out how to do training, rather than dictating. The airline should have flexibility to use that time in a way that they address whatever safety issues they have, rather than every year doing the same thing because it's in the regulation.

Mr. Maurino explains differences in training by the new approach used by ICAO to move away from in detailed prescribed hours, to competency based training. This should enhance the flexibility of airlines in conducting training, as training requirements might differ between airlines. There are minimum requirements and standards what a competent cabin crew member must look like, but in the end the interpretation and conduction of training is left to the airlines to satisfy their individual needs. On the contrary Mr. Kerndler states that variations in duration are possible as some airlines conduct computer based training and shorten practical training time. This is done because the usage of external training facilities is expensive. Another reason is that some airlines train according to the minimum

required by law due to cost and time constraints, and others extend it and do more than necessary.

Is there any difference between low-cost carrier and full-service carrier training?

Kerndler	A low-cost carrier has probably less time and budget, therefore has to rush through it and will only conduct what is required by law.
Maurino	From a safety perspective all airlines are treated the same. They all have to meet the same requirements at a minimum

Respondents’ opinions about equal standards for FSCs and LCCs regarding cabin crew training coincide. Minimum requirements are set and have to be fulfilled regardless of the type of business model. However, one expert indicates that restrictions in budget and time may force LCCs to conduct only minimum training.

Conclusion

Differences in the implementation of training among airlines are possible. Variations in duration occur due to the flexibility that is awarded to airlines to structure training in a way that is most suitable for them. All airlines have to meet the minimum training requirements however different variables can be explanatory for distinctions in the length of training. On the one hand computer based training is implemented by some airlines as it is time and cost saving. On the other hand there are airlines which train above what is required by law. Nevertheless it was mentioned that LCCs might face higher pressure in meeting budgetary matters and therefore train the minimum required by law.

A statement of Martin Maurino best sums up the discussion of cabin crew training duration: “What matters is that at the end of the training the person is competent to the job. So maybe it takes a week, maybe it takes two weeks...”.

How would you define the status of training within the aviation industry in terms of its importance?

Kerndler	For the airline safety is the top priority. Safety first.
Maurino	I think it’s very critical, very, very important.

Experts share the opinion of safety as the top priority within the aviation industry. It is argued that not service, but safety of passengers is the most important duty of cabin crew. Mr. Kerndler reinforces his view by the fact that two thirds of training are dedicated to emergency training, and only one third to service training. The importance of safety and emergency as well as recurrent trainings is overemphasized. Procedures conducted in case of an emergency are not used on a day to day basis, as accidents happen rarely. However, if an incident occurs, each cabin crew member has to know how to react. Concluding, Mr. Kerndler states that no airline can neglect training, but savings on training are possible by doing only the minimum. However, he clearly makes his point by saying „If you think safety is expensive – so try an accident“.

Conclusion

The importance of safety in the aviation industry is uncontroversial. The only means to safe operations is safety and emergency training. Only if cabin crew members are trained properly, they will know how to react in case of an emergency. The airlines' focus on safety and emergency training, rather than on service training, is another indication of its importance. It can be said that no airline can neglect training.

Summary interview Roland Schwendeler

Due to high workload of the participant, the interview with Roland Schwendeler was conducted via email, which allowed no further questions to be asked. Nevertheless, an assessment of the importance of the SAT was possible. A summary and interpretation of the interview is provided below:

The SAT operates worldwide in case of a civil aviation accident. It mainly consists of volunteers of an airline and has to follow the guidelines of IATA, ICAO and the states involved. The main function of the SAT is the support of incident victims and their families. It is pointed out that there is no special prerequisite an airline has to fulfill to be part of the SAT, but “All airlines must be in compliance with the national regulatory framework to deal with passenger and family assistance following an air accident.”. In case of an aviation accident the emergency response organizations of airlines are activated. All airlines should then deploy SATs wherever required in

order to accomplish the organization, coordination, support and execution of tasks related to the duties of the SAT. Members of the SAT usually receive best practice initial and recurrent training in accordance to the recommendations of ICAO and IATA. Various challenges are inherent to the tasks of the internationally operating SAT, such as language, religion, culture, gender, environment, health, local laws and expertise of do's and don'ts. Overall the expert considers the SAT as "one of the most essential elements of an airline's emergency response, if not THE essential element".

Conclusion

According to the expert the SAT is an essential element within the aviation industry. The importance is becoming visible in case of an accident. A fast and professional response in an emergency situation is crucial, making predefined processes a necessity. Several challenges came to the mind of the respondent with regard to the SAT, highlighting the sometimes adverse conditions under which the team has to operate. Therefore basic and recurrent training is required of all members of the SAT. The importance of the SAT was emphasized leading the researcher to the conclusion that the SAT is an indispensable component of the aviation industry.

5 Conclusion

The aim of this research was to explore difficulties the aviation industry has to overcome with regard to cabin crew training. Impacts on training and the execution of training were the central research elements. Further, the SAT was investigated.

The following findings could be elaborated:

- Recent events and challenges, like terror attacks and accidents, have an impact on cabin crew training and lead to alterations in structure and procedures.
- Differences in training among airlines can be observed, mainly in the duration of cabin crew training. Reasons for this can be detected in the flexibility airlines have regarding the implementation of training.
- LCCs have to provide the same training standards as FSCs, at least with regard to the minimum requirements issued by the legislator. However, budget and time constraints may force LCCs to conduct only minimum training.
- Changing travel behavior, in particular increasing passenger volumes, will affect cabin crew training. As more cabin crew will be required new forms of training, such as online and distance training, will have to be developed to cope with the increase in demand of training. Effects on content of cabin crew training are unlikely.
- Language barriers are not perceived as an influencing factor on cabin crew training.
- The SAT is of utmost importance for the aviation industry in case of a civil aviation accident. Several difficulties have to be dealt with, such as language, culture and adherence to national and international laws.

The results imply a verification of the first part of the hypothesis, stating safety and security training is *THE* essential part of passenger airlines. As already indicated by the literature, safety is the primary concern of the aviation industry and can only be achieved through the conduction of comprehensive training. The importance of training is overemphasized by experts and thus it can be said that no airline can neglect cabin crew training.

The second part of the hypothesis has to be interpreted a bit more carefully. As already stated above, emergency training is one of the most important parts of the aviation industry and airlines are aware of its significance. Minimum requirements set by authorities have to be fulfilled by all airlines. Concerning this minimum, no airline can economize on training as it is required by law.

If training to the minimum is compared to airlines which extend training and do more than required, it can be said that economizing on training is possible to a certain extent.

In general it has to be mentioned that the degree of transparency in the aviation industry regarding training and in particular cabin crew safety training is very low.

The survey was sent to 42 airlines, generating only two responses. It was also not possible to gather additional information by email or telephone. Difficulties in acquiring information might be a result of high workload of respondents. Another possibility is that airlines do not want to make their procedures public due to the current state of safety and security within the industry.

The findings of the study allow some recommendations to be made. The impact of language barriers must not be underestimated by airlines. Although English is perceived as global language, there are people who are not capable of speaking it, which can lead to communication problems. Moreover, it might be necessary to reinforce passenger education as people are often not aware of procedures and behavior in case of an incident.

Finally, further research needs to be conducted with regard to cabin crew training as it receives little attention in the literature. However, this would only be possible if the aviation industry admits the issuing of information for research purposes and applies a more transparent approach.

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Appendices

Survey

Cabin Crew Training

1. Please state the name of the airline.

2. How long does the initial training for cabin crew last?

3. How many days of the initial training are dedicated to emergency/safety training?

Other

4. How many days of the initial training are dedicated to service training?

Other

5. How often do recurrent trainings for cabin crew take place?

Other

6. How many days do recurrent trainings last?

Other

Interview Wolfgang Kerndler

1. Bitte stellen Sie sich kurz selbst vor. – In welcher Position arbeiten Sie im Moment und was sind Ihre Erfahrungen in der Flugindustrie?

Mein Name ist Wolfgang Kerndler, ich bin seit 1991 Flugbegleiter, wurde nach drei Jahren in das Emergency Training gerufen, als Filmer und Fotograf um Lehrfotos und Videos zu drehen. 1995 übernahm ich die ersten Basiskurse als einer der ersten Flugbegleiter und löste damit die Tradition von Techniker in ihrer Lehrfunktion ab. Einerseits sind Flugbegleiter billiger und Kollegen, die unterrichten was sie in der Praxis leben. So wurden Interpretationen von Procedures und deren Auslegung von Flugbegleitern künftig vermieden. Procedures wurden somit exakter eingehalten. Wenn jemand technisches system knowledge hat ist es sehr gut, jedoch wenn man selbst Praxis lebt ist es besser.

2. Wie lange dauert das Initial Training für Cabin Crew bei Austrian Airlines und was beinhaltet es? Wie viele Tage werden für Emergency Training und wie viele für Servicetraining aufgewendet?

Circa sechs Wochen. Emergency umspannt in ein Monat, circa 15 Einheiten. Das sind 15 Tage reine Unterrichtszeit ... Ich sage Einheiten, weil die Module verschiedene Themen beinhalten, wie Aircraft, Normal Procedures, Emergency Prodecures, Equipment, CRM, Security sowie Lern- und Übungstage. Zum Beispiel Normal Procedures, das ist unser tägliches Brot als Flugbeleiter. Vom Briefing bis zur Verabschiedung der Paxe. Ein Infant (Kleinkind) ist zum Beispiel ein Trigger für einen Flugbegleiter. Ein Trigger ist ein Schalter der beim Flugbegleiter Reaktionen auslöst – extra Gurt, eventuell extra Schwimmweste für Überwasserflüge und ein Kind braucht spezielle Betreuung. Ebenso sogenannte PRMs, persons with reduced mobility. Jeder Pax der aus der Norm fällt muss individuell behandelt werden, zum Beispiel mit einem individuellen Briefing. Wenn Paxe sogenannte CRDs, child restraint devices, mitbringen, sogenannte car type seats, muss ein Flugbegleiter wissen, ob dieser für Start und Landung verwendet werden darf oder nur für den Reiseflug. Eltern ist oft nicht bewusst, dass es für die Airline spezielle gesetzliche und versicherungstechnische Vorschriften gibt, über die wir uns nicht hinwegsetzen

dürfen. Diese Vorschriften können zwischen den verschiedenen Airlines unterschiedlich sein, daher kommt oft der Satz: „...das war aber bei der anderen Airline kein Problem ...“.

3. Beinhaltet Initial Training auch Erste Hilfe Training?

Ja, im Basiskurs absolvieren die Kursteilnehmer einen 16 Stunden Kurs mit speziellem Augenmerk auf fliegerspezifischen Erkrankungen, die während eines Fluges auftreten können. Das First Aid Training ist im Gesetz verankert. Außerdem, dass die Flugbegleiter jährlich ein Erste Hilfe Training machen müssen um weiterfliegen zu dürfen und damit sind wir die einzige Berufsgruppe die das gesetzlich machen muss. Selbst Krankenschwestern und Sanitäter müssen nur alle zwei Jahre diesen Nachweis erbringen, sofern es nicht von der eigenen Organisation oder Dienstgeber anders verschärft und vorgeschrieben wird.

4. Ist Crew Resource Management auch dabei?

Crew Resource Management ist ein Teil von unserer Ausbildung und eine eigene Trainingsabteilung. Wenngleich jedes Emergency-Thema ein CRM Thema beinhaltet, macht dieses spezielle Training ein eigenes CRM Team – Piloten/Pilotinnen und Flugbegleiter/Flugbegleiterinnen – mit einer zusätzlichen Ausbildung.

5. Wie lange dauert das Recurrent Training und wie oft wird es abgehalten?

Nach dem Basiskurs muss jeder Flugbegleiter/jede Flugbegleiterin jährlich zu einem derzeit zweitägigen Recurrent Training. Das heißt, jährlich wird das Wissen über die maximal 3 Flugzeugtypen die er/sie fliegen darf überprüft, neue Procedures in Übungen verpackt und Equipment in einem sogenannten hands-on Training ausprobiert. Ziel ist es, das Wissen das man nur im seltenen Notfall braucht, wieder auf den letzten Stand zu bringen. An einem Tag führen Piloten und Flugbegleiter gemeinsam verschiedene Übungsszenarien durch. Das Training an den einzelnen Flugzeuggtüren klingt für einen Außenstehenden oft wie ein Bootcamp. Durch den militärischen und lauten Drill wird das Nachdenken ausgeschaltet und ein automatisches Handeln abgerufen, so wie es im Notfall

vorkommen kann. Durch Übungen wird das Wissen wieder aufgefrischt. Training heißt bei uns nicht nur Theorie, sondern hauptsächlich Umsetzen der Theorie in die Praxis.

6. Beinhaltet Recurrent Training auch Erste Hilfe Training?

Ja, auch hier ist wieder Erste Hilfe Training dabei. Das Recurrent Training dauert derzeit zwei Tage. Ein halber Tag First Aid, ein halber Tag CRM und ein halber Tag, wo Procedures in die Praxis umgelegt werden, sowie Durchführung eines door drill Trainings. CRM und Übungen bestreiten Piloten und Flugbegleiter gemeinsam.

7. Haben Ereignisse wie 9/11 oder aktuell Terroranschläge einen Einfluss auf Cabin Crew Training? Verändert man etwas?

Grundsätzlich ist jeder Unfall ein wertvoller für die Schulung. Ganz einfach, weil man da sehr viel lernen kann. 9/11 und Germanwings sind Unfälle oder Attentate die man mit einem Training nicht verhindern kann. Aufgrund dieses Ereignisses kann man sich nur präventiv vorbereiten, indem man Maßnahmen setzt, wie zum Beispiel die Installation einer Cockpittüre, oder ein Vieraugensystem, das heißt, wenn ein Pilot das Cockpit verlässt, muss ein Flugbegleiter einstweilen im Cockpit verweilen. Das sind aber Maßnahmen, die hauptsächlich die Bevölkerung beruhigen sollen. Die Abnahme von Nagelscheren nach dem elften September ist nach meiner Meinung eine sinnbefreite Bevölkerungsberuhigungsaktion. Abnahme von Flüssigkeiten macht auch wenig Sinn für die Airlines, das sind aber Auflagen die von der Airportsecurity ausgehen. Das heißt, das was Airlines durchführen, ist nicht unbedingt das was sie gerne machen wollen, sondern wo sie gezwungen sind es durchzuführen. Die Airlines spielen hier mit, um nicht wirtschaftlichen Schaden zu haben, wenn sie aufgrund fehlender Einhaltung von Vorschriften vielleicht ein Start- und Landeverbot bekommen.

8. Und von wem kommen die gesetzlichen Vorgaben?

Das ist politisch gesteuert. Die Politik macht die Gesetze und dadurch gibt es Verordnungen und die werden dann umzusetzen sein.

9. Kommen diese von den einzelnen Ländern oder von Organisationen wie IATA und EASA?

IATA und EASA sind für die grundsätzlichen Vorgaben zuständig, die dann von den Ländern und Airlines interpretiert und auf nationaler Ebene angepasst werden. Wenn lange nichts mehr passiert ist, dann weicht man schon wieder Gesetze auf, oder verbessert sie, oder kann sie anders umsetzen, oder durch andere Procedures ersetzen, die dann auch wieder als sicher angesehen werden.

10. Kann man sagen, dass wenn etwas passiert, Änderungen bei Initial beziehungsweise Recurrent Trainings vorgenommen werden?

Natürlich hat das Einfluss auf diese Sachen. Wie zum Beispiel nach dem Hudson River Vorfall, probierten Piloten aus, im Simulator eine Landung auf dem Wasser durchzuführen. Natürlich flutet man jetzt nicht die Simulatorhalle, aber man versucht das Verfahren für eine computergesteuerte Notwasserung durchzuführen. Bei gegebenem Anlass, why not. Diese Accidents steigern das Bewusstsein der Flugbegleiter und Piloten, wie das auch für die Bevölkerung solange im Bewusstsein ist bis die Zeitungen nicht mehr davon schreiben. Weil grundsätzlich passiert ja nichts. Der letzte Unfall mit einigen Todesopfern bei Austrian Airlines war 1961 mit einer geleasten Vickers Viscount in Moskau-Scheremetjewo. Es ist bis heute noch nicht klar warum das passiert ist, eine Investigation war damals hinter dem Eisernen Vorhang nicht möglich. Es gab den Absturz der „Mozart“ von Lauda Air, die dann später zur AUA gekommen ist. Grundsätzlich muss jede Airline mit einem Totalverlust rechnen, nur den Zeitraum versuchen wir mit Training und Präventionsmaßnahmen auszudehnen. Wie ich begonnen habe, hat man gesagt nach elf Jahren wird eine Airline einen Totalverlust erleiden. So gesehen könnte man sagen Austrian Airlines wären längst überfällig. Aber, Statistiken sind nur so gut wie man sie selber fälschen kann. Daher ist das Training eigentlich so gestaltet, dass man eher präventiv arbeitet.

11. Wenn wirklich einmal etwas passiert, ist das dann eher aufgrund von einem technischen Gebrechen oder menschliches Versagen?

Das ist ein Zusammenspiel vieler Faktoren. Ein kleiner Incident führt zu keinem Unfall. Das sind immer mindestens drei Faktoren die zusammenspielen – das ist meistens eine technische Ursache, höhere Gewalt die man nicht beeinflussen kann und dann eigentlich hauptsächlich Kommunikationsfehler. Daher ist das CRM Training ein fixer Bestandteil aller Trainings geworden. Nicht- oder Falschverstehen führt dazu, dass Verfahren nicht eingehalten werden, obwohl sie zum Beispiel auf einer Checkliste stehen. Jeder kennt die Situation, wenn man aus dem Haus geht und im Verkehrsmittel seiner Wahl sitzt und dann schlägt man sich auf den Kopf und denkt sich „Sch....“, ich habe schon wieder etwas vergessen. Jeder kennt die Situation. Und das ist warum passiert? – Weil man Stress gehabt hat und keine Checkliste. Daher sind Piloten verpflichtet Checklisten durchzuführen, egal ob sie diese schon tausend Mal durchgenommen haben, denn sie haben die Verantwortung für 200 Leute und vor allem wenn es stressig wird, müssen sie genauso die selbe Checkliste verwenden, auch wenn sie diese auswendig können.

12. Ist das auch der Grund warum es gemeinsames Recurrent Training für Cabin Crew und Piloten gibt?

Früher war das Recurrent Training getrennt. Piloten und Flugbeleiter haben getrennt voneinander trainiert und dann ist man drauf gekommen, eigentlich hört das Flugzeug nicht beim Cockpit auf. Da muss man miteinander reden, was bedeutet ein Kommando für die Flugbeleiter und wie ist es umzusetzen, oder was erwarten sich die Piloten, dass die Flugbegleiter tun. Hier sind wir wieder bei den Triggern, die richtig erkannt und umgesetzt sind von den Flugbegleitern.

13. Die Airline Industrie hat sich schnell entwickelt, die Anzahl der Passagiere ist in den letzten Jahren stark angestiegen und soll sich bis 2035 verdoppeln. Hat das einen Einfluss auf Cabin Crew Training?

Die Zahlen kenne ich nicht, dass sich das verdoppeln soll, aber das kann ich mir gut vorstellen. Welchen Einfluss hat das auf die Schulung? – Das hat insofern den Einfluss, dass mehr geschult wird, dass mehr Flugbegleiter gebraucht werden, dass die Rekrutierung von Flugbegleitern immer schwerer wird. Wenn es an Qualifikationen scheitert, wird man diese wohl aufweichen müssen. Das heißt

jetzt nicht, dass man sagt wir nehmen jetzt jeden, aber es wird immer schwerer das Auswahlverfahren durchzuführen und wir sehen auch, dass bei uns im Training immer mehr Flugbegleiter als nicht geeignet empfunden werden, die dann auch das Unternehmen verlassen müssen.

14. Wie gehen Airlines mit möglichen Sprachbarrieren während eines Fluges um?

Bei Austrian Airlines ist es im Moment so, dass jeder Flugbegleiter Deutsch und Englisch beherrschen muss. Migranten, die mit Deutsch aufgewachsen sind, haben den Vorteil, dass sie zusätzlich ihre eigene Muttersprache mitbringen. Früher waren es nur Österreicher, die mussten Deutsch, Englisch und eine zusätzliche lebende Fremdsprache können, und das war meistens Französisch. Also die Migranten können meistens relativ gut Deutsch, Fliegersprache Englisch, und ihre eigene Sprache die sie nützen können.

15. Wird bei der Einteilung der Cabin Crew berücksichtigt welche Sprachen die Mitarbeiter sprechen?

Nein. Ich habe auch einmal Französisch gelernt, ich habe besser Französisch gekonnt als Englisch. Ich habe geglaubt, dass ich mehr nach Paris fliege, aber in Wirklichkeit wenn du nach Paris fliegst, fliegst du nicht mit Franzosen, sondern mit Österreichern die nach Paris wollen, oder ein paar Franzosen die nach Wien wollen. Die paar Worte machen den Wortschatz nicht wirklich fett.

16. Also ist das kein großes Problem?

Nein, grundsätzlich ist das kein großes Problem. Derzeit sind nur zwei Sprachen gefordert. Deutsch und Englisch.

17. Gibt es andere Faktoren die Cabin Crew Training schwierig machen?

Was macht es schwierig? – Die Einstellung, die Notwendigkeit zu sehen, etwas für den Beruf Flugbegleiter zu lernen. Erst im Training wird die Einstellung zur Fliegerei verändert und der Flugbegleiter nicht mehr als Saftschubse oder trolley dolly angesehen. Man hat es immer gern auf Generationswechsel und die neue Generation ist anders, ist verwöhnter, und die kennen keine Härte und keine Disziplin zurückgeführt. Was in dem Sinn nicht wirklich stimmt. Was ich

beobachte, die derzeitige Generation hat ein anderes Selbstbewusstsein und damit eine gefährliche Selbstüberschätzung aufgrund fehlender Lebenserfahrung. Das kann man den jungen Leuten nicht vorwerfen, denn in den Schulen wird alles sehr gut geübt. Ich habe den Eindruck, dass unsere Kinder sich nichts mehr erkämpfen dürfen, können und müssen, daher vieles als Selbstverständlich angesehen wird. Das wird zum Problem, wenn es eine Notsituation gibt wo Disziplin gefordert ist. In case of emergency gibt es keine Demokratie mehr, sondern nur noch eine „Demokratie“, wo gewisse Autoritäten anzuerkennen sind und Hierarchien Sinn machen. Ich beobachte, Menschen mit antiautoritärer Erziehung haben im Notfall eher Probleme gewisse Hierarchie anzuerkennen, aufgrund ihrer Grundeinstellung. Das Training geht vom worst-case aus und zielt auf korrekte Einhaltung von Procedures ab. Einzelaktionen in einer Crew/in einem Team können fatal enden.

18. Ist es sinnvoll das Airlines Training unterschiedlich ausführen? Vor allem die Dauer variiert stark zwischen verschiedenen Airlines.

Sie sind vermutlich alle gesetzeskonform, weil sie von den Behörden auch kontrolliert werden können. Es gibt die Tendenz zu CBT, computer based training. Airlines lagern Lerninhalte in diese CBT aus das auch von zu Hause geübt werden kann. Jeder werdende Flugbegleiter startet ein solches CBT und legt vor Beginn des Basiskurses einen Test über das erlernte Wissen ab. Als Trainer kann ich nur hoffen, dass sie das auch verstanden haben, was sie da am Computer gelernt haben. Es gibt auch Ansätze das gesamte Theoriewissen über das CBT anzulernen und dieses dann in einem zweitägigen praktischen Training umzusetzen. Warum machen sie das nur zwei Tage? – Weil die Trainingseinrichtungen von einer gesetzten Airline gerne genutzt werden, aber die sind teuer. Daher minimiert man diese Übungszeiten. Man schaut also, dass die Leute die Theorie können, und dann überfordert man sie fast beim praktischen Training. Als Panel Operator konnte ich diese Beobachtungen machen. Solange eine Airline sich die qualitative Ausbildung leisten kann und will, wird sie mehr auf praktische Vorbereitung und Classroomtraining setzen. Unsere Devise ist es zu fordern und nicht zu überfordern, jedoch auf seine Grenzen stoßen dürfen. Und wenn sie ihre Grenzen sehen, dann können sie

diese weiterentwickeln. Das setzt voraus, dass es die zeitliche Möglichkeit gibt Fehler machen zu dürfen, die dann im Ernstfall vermieden werden können. In Wirklichkeit können wir den künftigen Notfall eines Flugbegleiters nicht trainieren, jedoch können wir ihn zu einem Überlebenstalent ausbilden, wo er im Notfall auf ähnliche Erfahrungen im Training zurückgreifen kann.

19. Sollte es strengere Vorschriften geben bezüglich Training, bezüglich der Dauer von Training? Die Auslegung von Training ist teilweise sehr unterschiedlich.

Es halten alle vermutlich ihre gesetzlichen Vorgaben ein. Es gibt ein gewisses Minimum und das wird vermutlich von allen Airlines eingehalten. Das sogenannte „Wet Ditching“ Training kann unterschiedlich ausgelegt werden. Man kann ein Minimum durchführen und nur das Anlegen einer Schwimmweste im Wasser probieren oder ein ausgedehntes Survivaltraining im Wasser durchführen, je nach Gesetzesauslegung und technischem Aufwand. Das ist ein Kosten- und Zeitfaktor. Das Gesetz fordert nur das Minimum. Das Wissen der Flugbegleiter ist nicht schlecht und richtig, doch was sie eventuell nicht haben ist die Hintergrundinformation. Da fehlt die Zeit. Wir wissen eine Procedure, aber wissen nicht warum. Was mir im Notfall eigentlich egal ist, solange sie es anwenden. Nur wenn ich weiß warum ich etwas mache, und das ist unser Zugang, dann brauche ich es nicht lernen, sondern es ist der logische Schluss aus der Sache.

20. Gibt es einen Unterschied zwischen Low-Cost Airlines und Full-Service Airlines in Bezug auf Cabin Crew Training?

Auch Full-Service Airlines unterscheiden sich. Hier spielt die Größe einer Airline eine Rolle. Wenn man sehr viele Flugbegleiter und Piloten hat, muss man ein anderes Programm fahren, als wenn man eine familiäre Airline ist. Früher war ja Austrian Airlines auch eine sehr familiäre Airline, und wir haben Gott sei Dank immer noch die Tendenz, dass wir von diesem Niveau nicht runter wollen, obwohl der Lehrbetrieb größer geworden ist. Große Airlines behelfen sich mit einem strukturiertem Schema, einem Konzept, das sie abhandeln, und da wird genau getimt wann, welche Minute, was unterrichtet wird. Also die sind geklont. Was nicht schlecht ist, was gut ist, weil man dann davon ausgehen kann, die

haben einen gewissen Standard. Und die müssen halt ein bisschen von dem Standard runter gehen, weil sie alle über einen Kamm scheren. Wir versuchen doch die individuellen Bedürfnisse abzudecken, um die Leute besser zu fördern. Das ist bei kleineren Airlines besser.

21. Aber an sich bietet eine Low-Cost Airline dasselbe Training?

Eine Low-Cost Airline hat vermutlich weniger Zeit und Budget, muss das mehr durchdrücken und wird auch nur das durchführen, was gesetzlich notwendig ist.

22. Also trainieren Low-Cost Airlines nur die gesetzlichen Minimum-Trainingsvorgaben?

Das will ich den Low-Cost Airlines nicht unterstellen. Doch wenn weniger Geld vorhanden ist, wird wohl dort gespart, wo es nicht notwendig ist zu investieren. Wenn man hernimmt, es gibt auch die Bordausrüstung, die ein gewisses gesetzliches Minimum haben muss, ein doctors kit, das war früher eine Blechkiste, die war 25x25x10 cm hoch, da war alles drinnen, was der Doktor verwenden sollte. Und wenn man diese kleine Kiste, im Gegensatz zu den Materialien nimmt, die ein mitteleuropäischer Carrier hat, dann ist das vergleichbar mit dem Notfallmaterial, das eine Rettungsmannschaft zu einem Patienten mitnehmen würde. Also von der Wiege bis zur Bahre haben wir alles mit. Bessere Ausrüstung kann auch eine Zwischenlandung aufgrund eines medizinischen Notfalls vermeiden.

23. Wie beurteilen Sie den Status von Training in der Airline Industrie hinsichtlich der Wichtigkeit?

Die Airline selbst schreibt sich auf die Fahne, dass sie sehr safety minded ist. Das ist aber nicht das, was sie nach außen trägt. Das heißt, man will die Passagiere nicht verängstigen und hat deshalb die safety Seite nie so sehr nach außen gekehrt. Das heißt, es wird immer eher verschwiegen, läuft im Hintergrund. Zwei Drittel von der Ausbildung ist flight safety und dann kommt erst das Service. Wobei man nach außen hin das Service bewirbt, weil die Passagiere sich wohl fühlen sollen. Aber das man jetzt sagt okay, wir werben für Sicherheit, das schreckt eher Passagiere ab. Aber für die Airline ist safety an oberster Stelle.

Safety first. Natürlich wird man dort sparen wo es dann teuer wird. Da wird man dann sagen ist es unbedingt notwendig oder ist es gesetzlich vorgeschrieben? Aber nachdem das Gesetz, Gott sei Dank, sagt du musst zum Beispiel das Training auf einem Mock-up abhalten, das realistisch gebaut ist und das gewisse features hat, muss die Airline das auch so anbieten und deswegen wird es auch angeschafft. Andere Airlines müssen sich dann dort einmieten.

24. Kann man sagen, dass keine Airline an Training sparen kann, dass sie es nicht vernachlässigen können?

Sparen schon, indem sie das gesetzliche Minimum macht. Sie dürfen es nicht vernachlässigen, genau. Aus meiner Sicht. Abschließend sollten sich die Airlines überlegen: „If you think safety is expensive – so try an accident“.

Translation

1. Please briefly introduce yourself. – Which position are you currently holding and what experiences do you have in the aviation industry?

My name is Wolfgang Kerndler, I am a flight attendant since 1991 and I was called in the emergency training as film maker and photographer to shoot photos and films. 1995 I took over the initial courses as one of the first flight attendants and displaced technicians in their traditional training function. On the one hand flights attendants are cheaper and on the other hand they are colleagues who teach what they experience in practice. Interpretations of procedures and misinterpretation by flight attends could be prevented in the future. Thus the adherence to procedures became more exact. It is good if somebody has technical system knowledge, but it's better if you have practical experience on your own.

2. How long does the initial training of cabin crew training last and what does it involve? How many days are dedicated towards safety training and service training?

Approximately six weeks. Emergency training comprises one month, about fifteen units. That are fifteen days of pure training time... I say units, because the modules include different topics, such as aircraft, normal procedures, emergency procedures, equipment, CRM, security as well as practice days. For

example normal procedures, are our daily bread. Starting with the briefing right up to the farewell of passengers. An infant for example is a trigger for a flight attendant. A trigger is switch which causes certain reactions – additional seat belt, maybe an extra lifejacket in case of flights over water and a child needs special care. Likewise so called PRMs, persons with reduced mobility. Every passenger that diverges from the norm needs to be treated individually, for example with an individual briefing. If passenger bring along so called CRDs, child restraint devices, so called car type seats, a flight attendant has to know if it could be used while takeoff and landing or just during the flight. Parents do often not take into account that legal and actuarial regulations are in place, which cannot be override by airlines. Those regulations can be different between airlines, therefore people often say “... but that was no problem with the other airline...”.

3. Does the initial training also include first aid training?

Yes, participants of the initial course complete a sixteen hours course with a special focus on flightspecific illnesses, which can occur during a flight. First aid training is required by law. Furthermore, flight attendants have to undertake an annual first aid training in order to be able to operate. We are the only occupation group that is required by law to do that. Even nurses and paramedics have to provide evidence only every two years, unless not required otherwise by the organization.

4. Is crew resource management also included?

Crew resource management is part of our training and an individual training department. Though every emergency topic involves a CRM topic, this training is conducted by a CRM team – pilots and flight attendants – with a special qualification.

5. How long does recurrent training last and how often is it conducted?

After the initial training every flight attendant has to participate in an annual two-day recurrent training. That means, the knowledge about the three types of aircraft a flight attendant is allowed to operate is checked, new procedures

are included in exercises and equipment is tested in a so called hands-on training. The aim is to update the knowledge which is rarely required in case of an emergency. On one day pilots and flight attendant are jointly trained and practice various scenarios. The door drill training is often perceived as boot camp by outsiders. The usage of a military like, loud drills disables contemplation and an automatic action is recalled, like in case of an emergency. Knowledge is refreshed through exercises. Training does not only mean theory, but mainly the implementation of theory into practice.

6. Does recurrent training involve first aid training?

Yes, first aid training is also included here. Recurrent training currently lasts for two days. Half a day first aid, half a day CRM and half a day where procedures are put into practice, as well as the conduction of a door drill training. CRM and exercises are conducted jointly by pilots and flight attendants.

7. Do occurrences such as 9/11 and current rising threats like terrorism have an influence on cabin crew training? Are there any changes implemented?

Basically, every accident is valuable for training. Simply, because we can learn a lot. 9/11 and Germanwings are incidents or attacks that cannot be prevented by training. Based on these occurrences it is only possible to preemptively prepare one self, by taking measures, as for example the installation of a cockpit door, or a four-eye-system. That means, if a pilot leaves the cockpit, a flight attendant has to take his place in the cockpit. But these are measures that should soothe the population. The capture of manicure scissors after 9/11 is in my opinion a pointless population soothing action. The capture of liquids makes little sense for airlines. Those are restrictions posed by the airport security. That means, what airlines are doing, is not always what they want to do, but what they are forced to do. The airlines play along in order to avoid economic damage, as a result of missing compliance with restrictions which can lead to takeoff and landing restraints.

8. Who issues the guidelines required by law?

That is politically driven. Politics pass legislation and as a consequence regulations do exist which have to be implemented.

9. Are these regulations issued by the individual countries or by organizations such as IATA and EASA?

IATA and EASA are responsible for basic standards, which are interpreted by countries and airlines and adapted on a national level. If nothing has happened in a long time, laws are softened or improved, implemented differently or replaced by other procedures, which are perceived as safe.

10. Is it safe to say that if something happens, changes in initial and recurrent trainings are implemented?

Of course this has an impact on training. For example after the Hudson River incident, pilots tried to do a simulated emergency water landing. Of course you do not flood the simulator hall, but it is tried to conduct a computer-controlled emergency water landing. If the occasion is appropriate – why not. Accidents like this increase the awareness of flight attendants and pilots, like it's in the public's mind until the newspaper stop writing about it. Principally nothing happens. The last accident with fatalities at Austrian Airlines was in 1961 with a leased Vickers Viscount in Moscow- Sheremetyevo. To the present day it is unclear why this has happened as an investigation was not possible back then behind the Iron Curtain. Then there was the crash of the "Mozart" of Lauda Air, which was added to Austrian Airlines later on. Basically, every airline has to expect a total loss, but we try to extend the time frame with the help of training and preemptive measures. When I started it was said an airline has to expect a total loss after eleven years. Seen from this angle, Austrian Airlines would already be overdue. But, statistics are just as good as they have been tampered by one self. Therefore training is created as preemptive measure.

11. If an incident occurs, is this due to a technical defect or human error?

It's an interplay of various factors. A minor incident does not lead to an accident. At least three factors interact – that's usually a technical cause, an act of nature that you cannot influence and last but not least mainly

communication errors. Therefore CRM training is a fixed component of all trainings. Not understanding or misunderstandings lead to violations of regulations, although they are on a check list. Everybody knows the situation when you get out of the house and sit in the means of transport of your choice and think “sh...”, I have again forgotten something. Everybody knows this situation. And why has this happened? – Because you were stressed and had no check list. Therefore pilots are obliged to go through a check list, regardless if they have done it already a thousand times, because they have the responsibility for 200 people. And especially if it gets stressful, the check list needs to be administered, even if they know it inside out.

12. Is this also the reason why recurrent training is conducted for cabin crew and pilots jointly?

In the past recurrent training was separated. Pilots and flight attendants trained separately from each other, but then it was recognized that an aircraft does not end after the cockpit. You have to communicate with each other. What does a command mean for flight attendants and how does it have to be effectuated? Or what do pilots expect flight attendants to do? At this point we talk again about triggers, which have to be identified correctly and put into action by flight attendants.

13. The number of annual passengers has increased dramatically in past years and is expected to almost double by 2035. Does this have an influence on cabin crew training?

I don't know these numbers, that it should double, but I can very well imagine that. Which influence this have on training? – The influence this will have is that it will be trained more, more flight attendants will be required, and the recruitment of flight attendants will get more complicated. If they fail because of the qualifications required, it will be necessary to soften those. That does not mean, that everybody will be admitted, but it gets more difficult to conduct the selection procedure and we see in our trainings that more flight attendants are perceived as not suitable. They will then have to leave the company.

14. How do airlines deal with possible in-flight barriers?

At the moment Austrian Airlines requires each flight attendant to be proficient in German and English. Migrants, who have grown up with German have an advantage, as they are capable of speaking another language, their mother tongue. In the past there were only Austrians, who had to have command of German, English and an additional foreign language, which was usually French. Migrants do usually have good command of German, the “airline language” English, and their own mother tongue.

15. Are languages taken into account when cabin crew is scheduled on a flight?

No. I have learned French once, I had a better command of French than English. I thought, that I would fly more often to Paris, but in reality if you are flying to Paris, you are not flying with French people, but with Austrians how want to go to Paris, or a few French people who want to go to Vienna. Those few words do not really make a difference.

16. So this is not a big problem?

No, basically this is not a big problem. At the moment only two languages are required. German and English.

17. Can you think of any other difficulties cabin crew training has to deal with?

What makes it difficult? – The attitude, the necessity to see, that something must be learned for the occupation flight attendant. In training the attitude towards aviation changes and the flight attendant is not seen anymore as trolley dolly. It was often referred to the generation change and the “new” generation is different, more spoiled and they don’t know any toughness or discipline. But that’s not correct. What I observe is that the current generation has a different self confidence and a dangerous exaggerated opinion of itself due to missing life experience. Young people can’t be blamed, because in school the way is carved for them. I have the impression that our children are not allowed, able or don’t have to carve out something. A lot of things are seen as self-evident. That turns into a problem in case of an emergency when discipline is required. In case of an emergency there exists no democracy, but only

“Demokratuur” (remark: portmanteau of "democracy" and "dictatorship", used to describe authoritarian tendencies in a democracy), where certain authorities have to be acknowledged and hierarchies make sense. I observe people with antiauthoritarian parenting have in case of an emergency more likely problems to acknowledge certain hierarchies due to their basic attitude. Training assumes the worst-case scenario and aims at the correct compliance with regulations. Solo acts within a crew or a team can end fatally.

18. Do you think it is useful that airlines execute training in different ways? For example the duration of training can vary widely.

They are probably all within the law, as they can get controlled by authorities. There is a tendency to conduct CBT, computer based training. Airlines outsource learning contents into CBT, which can also be practiced from home. Every aspiring flight attendant starts with a CBT and has to take an exam before the beginning of initial training. As a trainer I can only hope, that they have really understood what they have learned at the computer. There are approaches to learn the complete theoretical knowledge with the help of CBT and to then put it into practice in a two-days training course. Why do they do that just for two days? – Because training facilities of an established airline are expensive. Therefore practice time is minimized. People should learn the theory and are then almost too much is demanded of them in the practical training. I could make this observation as a panel operator. As long as an airline could and is willing to afford qualitative education, it will rely on practical preparation and classroom training. Our motto is to challenge, but not to ask too much, but participants should be able to stretch to their limits. And if they see their limits, they can expand them. That assumes that enough time is provided to make mistakes, which can then be prevented in case of an emergency. In reality the future emergency of a flight attendant can't be trained, but we can educate him to become a survival talent, so that he can use the experiences made in training.

19. Should there be stricter regulations regarding the provision of training? The interpretation of training can vary widely.

Probably they are all satisfying the regulations required by law. There is a certain minimum and that is likely to be satisfied by all airlines. The so called wet ditching training can be interpreted differently. It is possible to conduct the minimum and just practice the strap on of a life vest or comprehensive survival training in the water can be carried out, depending on the interpretation of the law and technical effort. That is a budget and time factor. The law requires just the minimum. The knowledge of flight attendant is not bad and correct, but what they do not have possibly is the background information. There isn't enough time. We know a procedure, but we don't know why. In case of an emergency that doesn't matter to me, as long as they are applying it. Only if I know why I do something, and that is our approach, then I don't have to learn something, but it is the logical conclusion.

20. Is there any difference between low-cost carrier and full-service carrier with regard to training?

There are also differences between full-service airlines. The size of an airline matters in this case. If you have a lot of flight attendants and pilots, you have to carry out a different program, as if you are a familiar airline. In the past Austrian Airlines was a familiar airline, and thankfully we still have the tendency, to stay on that level, although the teaching operations have grown. Big airlines manage with a structured scheme, a concept, which is carried out. There is exactly timed what is trained when, in which minute. They are cloned. That's not bad, it's good – because it can be assumed that they have a certain standard. But they have to step down from their standards, because everybody is treated equally. We try to cover individual needs to be able to better promote people. That is the advantage of small airlines.

21. But in principle a low-cost airline offers the same training?

A low-cost carrier has probably less time and budget, therefore has to rush through it and will only conduct what is required by law.

22. So low-cost airlines train only to the minimum required by law?

I don't want to ascribe that to low-cost airlines. But if less money is available it will be economized on things that not necessarily need to be invested in. For example there is also the on-board equipment, which has to have a minimum required by law. A doctor's kit was a flivver in the past with the measures of 25x25x10 centimeters. Everything was included in there what should be used by the doctor. If you compare this small flivver to the materials used by a Central European carrier, then you can compare it with the emergency material a rescue team would take along to a patient. We have everything on board from a cradle to a stretcher. Better equipment can also prevent a stopover due to a medical emergency.

23. How would you define the status of training within the aviation industry in terms of importance?

The airline industry says that it is very safety minded. But that is not what they extravert. That means, they don't want to frighten passengers and therefore the safety side is not presented to the outside. It is kept secret and a background activity. Two thirds of the training are dedicated to flight safety, and then comes service. Outwardly only the service is presented, because the passengers should feel comfortable. But for the airline safety is the top priority. Safety first. Of course you will save where it gets expensive. You will say "Is this really necessary or required by law?". But, for example, according to the law you have to conduct training with the help of a realistic mock-up which includes certain features. And then the airline has to offer it and then it is acquired. Other airlines have to lodge with an airline and use their facilities.

24. Is it safe to say that no airline can save on training, that they can not neglect it?

Saving yes, by doing the minimum required by law. They must not neglect it, right. From my point of view. Finally airlines should consider something: "If you think safety is expensive – so try an accident".

Interview Martin Maurino

1. Please briefly introduce yourself. What position are you currently holding?

My name is Martin Maurino. I am safety efficiency and operations officer here at the International Civil Aviation Organization (ICAO), so I work in the operational safety section, so I deal with aircraft operations, so particularly from a pilot, cabin crew and maintenance side, so that is what I am mostly responsible for.

2. What experiences do you have in the aviation industry?

In terms of my experience in the aviation industry, I am an engineer by training and in terms of my experience I have been a cabin crew member, I flew with the cabin crew of Air Canada which is our flag carrier here in Canada. From there I went to the International Air Transport Association (IATA) where I had several roles including being responsible for cabin safety and all the aspects including cabin crew training for IATA and dealing with all the member airlines, so I dealt with Austrian Airlines quite a bit actually here on the cabin side. From there I went to Transport Canada which is the Civil Aviation Authority of Canada where I was responsible for safety management systems and I have been at ICAO for about seven years now. Among my responsibilities are all our standards for cabin safety, cabin crew training, cabin operations, so all the different aspects relating to passenger safety – as much in terms of standards and also all the guidance material we develop.

3. What are the key activities of your organization?

The way it works, ICAO is a UN Agency, so a part of the United Nations, and it's the UN Agency that is dedicated to international civil aviation, so we don't deal with the military, that's something separate, but at least for everything that has to do with civil aviation ICAO has what you call a convention, so it's the document created by ICAO and all the states that are signatory to the convention, and we have a 191 states that are part of ICAO, they have to abide by the international standards that ICAO produces, so what we call SARP – standards and recommended practices. We have 19 Annexes which are annexed to the convention and so we call them Annexes, but they are actually documents that are standalone and we update them regularly and in there you have all the

international standards including some for cabin crew and cabin crew training and they are actually cited in the manual I sent you, in the first chapter, and the way it works is every international authority or if it's regional, like EASA does in Europe, will take our standards and transform them into national regulations and then the air operators, that have the whole certificate to operate a passenger flight, will have to then comply with the national regulations of the country that are in fact in line with ICAO. So it's a bit of a three-tier drop. We don't directly tell an airline what to do, but the regulatory authority does it, so it's done at the country level, but in compliance with ICAO. We publish standards and for cabin they cover things like the training that the cabin crew must do, how many cabin crew must be on board of an aircraft and then also from the passenger side things like all the placards and the signs that are in the cabin, the briefings with the video you see before take-off and the briefings the cabin crew gives away, information you have to have as a passenger, things that seem basic, but like having seat belts on board of the plane, so that you can be fastened in turbulence or take-off and landing. So all that is spelled out, and then, at the European level, you know it's a bit different, because you have the European Aviation Safety Agency which is essential for the EU, so they will take what we do and will transform it into EASA regulations and then each country within the EU will then take that and put it into their national regulations and then airlines have to comply in order to be able to fly.

4. So ICAO issues the minimum training requirements and then airlines are able to extent them to the level they desire?

Yes, so what we do at ICAO is really a baseline. And in a lot of times there will be more prescriptive or more restrictive, or in other countries also in terms of what they require. So what we say is sort of the minimum to promote safety at the international level. States are very much free to go always above that. And even the airlines themselves sometimes, they will do things that are not necessarily required by regulation, whether they are concerned to be a best practice that works for them so they can also exceed what's required by the national authority.

5. And the baseline is equal for all airlines, so for low-cost carriers as well as full-service carriers?

Yes, as far as we are concerned, or the regulator is concerned, the real only difference is, for you as a passenger, whether you have to pay for food or not, or pay for carry-on bags, those kind of things that make the whole cost difference, but from a safety perspective all airlines are treated the same. They all have to meet the same standards, the cabin crew has to be trained to the same way. I don't know if you know, but in Europe cabin crew has license, so they have what you call attestation, so in that sense whether they are flying with Air France or easyJet, it doesn't matter, they all have to meet the same requirements at a minimum.

6. Do you think it is useful that airlines execute training in different ways? For example the duration of cabin crew training can vary widely.

a. Should there be stricter regulations regarding the provision of training?

Yes, what we do now, you noticed, and I have seen that in Europe and countries like Spain, the regulations are very prescriptive with regards to how many hours have to be covered, even like topics as firefighting, evacuation, they really go into this in two and a half hours, this is three hours, this is five hours... The approach we have at ICAO now, and not just for the cabin crew, but for all aviation professionals, including for pilots, air traffic controls and maintenance, is we are moving away from prescribed hours, so in the manual that I sent you for example, you won't find any hours, it won't say you have to do this four hours, five hours, five days or a week... We are now working towards what we call competency based training and it's something that is already done in places like in Australia and the US, so in terms of your questions, yes, it's good that there is flexibility, some states still want the minimum to make sure that the airlines are not cutting training too much, but we promote competency based, because the way we look at training is, what matters is that at the end of the training the person is competent to the job. So maybe it takes a week, maybe it takes two weeks, you know some people prefer interactive, some people prefer online or lectures. So in the work that we do and in the manual that I sent you,

we say here is what the competent cabin crew member looks like, this is what they must do, you'll see a lot of tables in there which tell you what cabin crew members should do. And what we encourage the regulator or the authority is to let the airlines figure out how to do that, rather than dictating, you know, because an airline might have a problem with unruly passengers, you saw a lot on the news, so maybe they want to put five hours instead of three on that and maybe they don't have a lot of turbulence incidents, so they can cut a little bit of time. So within the same eight weeks or five weeks they may be able to move a bit how they use the topics. So this is what we have done to encourage necessarily hours and we do tell the states from ICAO's perspective, give them some flexibility, especially when, you know cabin crew also has to have annual recurrent training to keep current and usually that can be one day, two days, three days, so it's very limited time, so then the airline should have flexibility to use that time in a way that they address whatever safety issues they have, rather than every year doing the same thing because it's in the regulation.

7. Do occurrences, as for example 9/11 and rising threats like terrorism, have an impact on the structure of cabin crew training? Are there any changes in regulations implemented? Do you react at all?

Yes we do. Procedures at airline level and training changes very regularly and sometimes this is depending on events. So after 9/11 the cockpit doors have to be locked, so this also meant not just changes in security, but how we communicate let's say cabin crew to the pilots, because you can't just walk in like you used to. We also changed a lot affecting 9/11 from security, we changed a lot how we train for hijacking, because pre 9/11 if you think about hijacking in the eighties or seventies, the philosophy back then was you let the hijacker, you know you didn't want people to get hurt, we played along with the hijacker. The plane was hijacked and if the hijackers wanted to go to Cuba from the US, the pilots would fly them to Cuba and negotiate and everybody gets out. 9/11 changed that because the airplane was used as a weapon of destruction, so now the focus is to prevent them from entering the cockpit at any cost, so you don't negotiate with them, you don't let them in. So that means the role of cabin crew now changed because it's not just the safety of those on board, but of those on

the ground as well. So that means we also have to change how we do the training, because of course cabin crew has to be trained to that mentality and the way of doing things. Then in other cases like Germanwings, now there is an issue of putting a cabin crew in the flight deck when one of the pilots goes out. All of these kind of changes have to be trained, also things with lithium batteries, I don't know if you have seen for example I-phones or laptops that catch on fire now on plane, and the fire fighting procedure for that is different than if it's a fire in an oven, so we also have to change how we do the fire fighting and the procedures at the airline because to put out a laptop fire is different because it's submerged in water and kept under water until the plane lands. So yes, those are things that the training programs are reviewed every year and sometimes if it is a situation like Germanwings, right away they have to be changed and then the airline will have to do others on online training or something until they can bring back to everybody they need to do it hands-on to make sure that the changes are implemented right away. Particularly if it is something of big concern.

8. The number of annual passengers has increased dramatically in past years and is expected to almost double by 2035. Does this have an influence on cabin crew training?

I think from the cabin crew perspective the growth in passengers doesn't have such an impact in the sense that as cabin crew you are a unit on one aircraft, so if the aircraft holds fifty people you always hold fifty people or maybe less, but whether the traffic doubles in twenty years or not, I think the challenge for the airlines in terms of growth isn't the content of the training because they will always have the same kind of evacuation or things like that. I know for some airlines that they experience, like in the Gulf countries, they experience a lot of growth. The challenge is how to cope with the fact that they need so many more cabin crew. For example Emirates runs trainings, I think they are open almost 24 hours a day, seven days a week. Which is different, like when I did training in Canada you do it, then you stop and maybe in two months when you hire people you do another training. They go all year long because they need so many, they have so many A380 coming in, and they require so many cabin crew. So for them

and for some airlines this means they have to find new ways of doing the training now. So they are looking at things like virtual training, a lot more distance because they specifically cannot start building more buildings. They can't cope with the amount of cabin crew they'll need. So it won't change so much the content I think, but the delivery of how you actually deliver the training will be a challenge at the amount of increases. Unless the airline can get more infrastructure, but it's hard to get another building, so a lot of airlines look at using avatars and doing digital learning to complement and try to minimize the training physically in a building.

9. How would you define the status of training within the aviation industry in terms of importance?

I think it's very critical, very, very important. I think as much as for the pilots, I think if you look at any airline, I think it's one of the key areas that the airlines have to look at and I think what's particular important of our the training in the cabin environment, you have to think, statistically accidents happen very little, so you can as a cabin crew fly twenty, thirty years, maybe not so much now, but as people used to do, and never have any evacuation. So the most important part of the cabin crew, which of course is not really the service, that's what the passengers see, but it is the safety of the passengers. It's those skills and those tasks you don't really get to practice every day. So I mean it's all to a certain level true for the pilots, because pilots land the plane and take-off every day, so that's practiced. But cabin crew doesn't evacuate an airplane every day. That's why we have also standards for annual training, because logically if you don't practice something you forget how to do it. And on an everyday flight you are more likely to serve drinks than open a door during a flight. So training is very important to keep people current in the event that they are actually involved in an emergency, which is one in a million, but they must still be able to do it, even if they haven't actually physically done it in twenty years. That's why for us safety and emergency training is so critical. Because it doesn't happen very often, but when it happens the crew have to know how to do it. And the only way of getting in contact with that is to do it in training.

Interview Roland Schwendeler

2. Please briefly introduce yourself.

Roland Schwendeler

3. What position are you currently holding?

Senior consultant emergency management Lufthansa Aviation Training
Switzerland AG

4. What experiences do you have in the aviation industry?

Former emergency response planning manager Swissair/SWISS International
Air Lines

5. What is the Special Assistance Team? (When does it operate? What are the duties of the SAT?)

SAT teams support civil aviation accident victims and their families; based on guidelines of ICAO, IATA and of the states involved. They are mostly composed of volunteers of the airlines.

6. Are there any prerequisites an airline has to fulfill to be a member of the Special Assistance Team?

a. Are LCCs part of the Special Assistance Team?

All airlines must be in compliance with national regulatory framework to deal with passenger and family assistance following an air accident.

7. What happens when a crisis/an accident occurs? (What are the steps? Who is sent to the place of incidence?)

Airlines activate their corporate emergency response organization.

All airlines should deploy Special Assistance Teams wherever required to organize, coordinate, support and execute tasks related to Special Assistance Team duties.

8. Do members of the Special Assistance Team receive special training?

a. Is this training equal worldwide?

b. Is there recurrent training for SAT members?

SAT members mostly receive “best practice” basic training and recurrent training, based on recommendations of ICAO and of IATA.

9. What challenges does the Special Assistance Team have to overcome when operating internationally? (For example language barriers)

Language, culture, religion, gender, environment, health, local laws, know-how of do’s and don’ts

10. How important is the Special Assistance Team for the aviation industry?

It is one of the most essential elements of an airline’s emergency response, if not THE essential element!