



Gökhan Demirdöken,  
Researcher & English  
Language Instructor

## English as the Lingua Franca in Aviation: **The Effects of Globalization and the Challenges Faced by Aviation Professionals**

One-hundred and twenty-seven countries, three-hundred and twenty-two destinations, yet just one commonality: the English language. Turkish Airlines, the national flag-carrier and the shining star of aviation in the world, flies to more destinations than any other airline in the world. Globalization, as defined in the Cambridge Dictionary, is the process by which particular goods and services, or social and cultural influences, gradually become similar in all parts of the world. Providing a high-quality

air transport service requires the continuous teamwork of more than five thousand pilots, twelve thousand cabin crew, two hundred technicians, six-hundred and twenty-seven executives and another ten thousand employees all around the globe. Yet, globalization poses a big threat for the whole aviation industry for the sustainability of its well-being if it turns a deaf ear to the impact of English in various components of aviation.

Aviation English can be defined as a language

specifically used by pilots and air traffic controllers (ATCOs) for the purpose of air traffic communication. It functions as the cement that keeps all aviation professionals united and helps them to meet on common ground. In that sense, it would be accurate to regard it as the lingua franca in aviation. The speakers of this lingua franca mostly include pilots and air traffic controllers. Hence, it may seem that Aviation English strikes these people's fancy. However, the use of Aviation English

is beyond the borders of standardized use of the phraseology by pilots and air traffic controllers because it also embraces the non-standard communication among other components of aviation: technicians and ground handling staff who rely on Aviation English for mutual understanding of verbal and written messages. What's more the most striking role of non-standard use of Aviation English can be seen in abnormal situations when the communication among pilots, the communication

between pilots and air traffic controllers, and even sometimes the communication between the flight crew and operations control centers need to go beyond what is already stated in the handbooks, manuals, and/or checklists. In such situations, each component should be capable of maintaining effective communication between each other. As a consequence, it is of great importance for the aviation industry to better analyze and understand these aviation professionals regarding their proficiency in both standard and non-standard use of Aviation English.

The only possible way to comprehend the challenges of these aviation industry professionals when using Aviation English as lingua franca is to associate the challenges brought forth by globalization. The ever-expanding web of flight destinations means that we are reaching more and more destinations and widening our horizons which have increased the demand on professionals for various roles ranging from the ground handling staff to pilots, safety inspectors to air traffic controllers, line maintenance staff to educators. In the end, it is as if people from all parts of the world with



various background gather in the same giant hot air balloon basket, venturing upward into the great expanse, gazing towards the sky and our future. In this regard, the changes in the needs of the aviation industry is very much like the melting pot of American culture. The concept of the melting pot refers to the integration of the various cultures of US residents, as they combined and melted into a mix that welcomed people of different background with open arms. Over the years the same process has been seen in aviation as well. The completion of this process has shed light upon two realities. On the one hand, this giant hot air balloon now hosts aviation professionals from many different nationalities. On the other hand, the only thing that

keeps it roaring in the air is their cooperation thanks to Aviation English. Even so, it was presented by Dr. Hinnerk Eißfeldt that the number of native speakers in aviation is below 30 percent which means that understanding a non-native speaker of Aviation English and maintaining effective communication with that person is now more crucial than ever.

Pilots are one of the most significant components of non-native speakers of Aviation English. The latest report published by GOOSE Recruitment and Flight Global supports this statement with clear statistical representations. With almost one-thousand and four-hundred pilots taking part in the survey, Lufthansa, Air France, Virgin Atlantic, Delta, KLM, Emirates, Qantas, British Airways, Air New

Zealand, and Singapore Airlines were perceived the best 10 airlines to work for. What is interesting with these airlines is that Emirates, for instance, has pilots from 52 different nationalities, Singapore Airlines has 28.5 percent of non-Singaporean origin workforce with a total of more than 2,300 pilots. The annual report published in February 2020 by the Turkish Directorate General of Civil Aviation (DGCA) states that there are 669 pilots of foreign origin which makes up 7 percent of all pilots in Turkey. More interestingly, out of its almost 5,500 pilots, Turkish Airlines employs pilots from more than twenty-two different nationalities. These facts clearly show that pilots who are non-native speakers of Aviation English make



up a bigger proportion of English-speaking employees in aviation when compared to native speakers. Consequently, their proficiency and challenges in Aviation English have, so far, had various consequences, and there will more challenges in the future as well.

Pilots' challenges regarding the use of Aviation English have already been brought to the attention of aviation authorities. One of the most significant steps was taken by the Federal Aviation Administration (FAA) of the USA and a series of reports have been published bringing these challenges to light in no uncertain terms. As stated above the main issue aviation professionals face is the mutual understanding and intelligibility of native

English speakers and non-native English speakers which is the focus of the sixth report of the FAA. Although the responses of pilots indicated several issues that need to be analyzed in-depth, it should be noted that pilots all met on common ground when it came to the communication between native English-speaking controllers and non-native English-speaking pilots which is a very common phenomena in US airspace. The most significant findings were centered around such issues as failure to communicate, English language proficiency, slower speech rate, and taxi clearances.

The failure to communicate seems to be the biggest concern among others. Because of the busy air traffic, the controllers are under a

heavy workload requiring higher-management skills regarding the control of both ground traffic and air traffic. That's why they tend to speak really fast which negatively affects the comprehension of the message by the non-native English-speaking pilots. This also puts a lot of pressure on the pilots. On the other hand, just the opposite scenario takes place in a non-native English-speaking airspace between a native English-speaking pilot and non-native English-speaking air traffic controller. In such cases, the non-standard use of the language by air traffic controllers or even the use of a mother tongue affects pilots negatively as well. Unfortunately, these examples have had recent vivid incidents. The Pegasus incident on February 5, 2020 is one

of them. When the safety of all passengers and the crew were in the hands of the Turkish non-native English-speaking captain pilot and the Dutch non-native English-speaking first officer, their communication with each other and with the Turkish non-native English-speaking air traffic controller were reported to be one of the factors leading to 3 casualties and 180 injuries. It might have been a totally different case if the informative message by the ATC had been given in English. In such instances, English turns out to be a lifesaver as it was in US Airways flight 1549 which later was found to be the invaluable teamwork of two native English-speaking pilots. If it was not for their mutual understanding of each other, they might have ended up wasting their precious time to try to comprehend what they were saying to each other and they might have also become aviation martyrs rather than real heroes.

Another reported challenge of pilots was the rate of speech in English. The underlying reason behind this issue is clearly the nature of language itself. While the native-speaking pilots or air traffic controllers tend to use English in a faster speech rate naturally, the other group, non-native

English-speaking pilots or air traffic controllers tend to transmit the same message more slowly. The report of the FAA exhibits this case clearly. When the speech rate becomes faster, it becomes more difficult to understand which leads to misunderstandings or requests of clarifications and repetitions. No matter how easy it may seem, this actually causes a waste in a significant amount of time. As a consequence, the FAA has suggested that further in-depth analysis should be conducted on the optimal speech rate for the delivery of ATC messages. Furthermore, as a researcher of Aviation English, it is of my hypothesis that the breakdown in the comprehension process of ATC messages also affect the pilots' readback performance which is an important component of safety in the air and on the ground. All in all, challenges in the use of Aviation English need to be analyzed more and corrective actions should be put forward for the authorities in the aviation industry.

Aviation English as lingua franca is in the heart of another group of aviation professionals: the air traffic controllers. Similarly, Atlanta Airport, Beijing Airport, Los Angeles Airport, Tokyo



Haneda Airport, Dubai International Airport, O'Hare Airport, Heathrow Airport, Shanghai Pudong Airport, Hong Kong International Airport, and Charles de Gaulle Airport are in the heart of air traffic as of the latest statistical reports. Out of these top ten busiest airports, more than half of them, 6 airports are located in countries where English is not the mother-tongue of its residents. This highlights the fact that the safety of air traffic in the busiest airports across the world are ensured by non-native English-speaking air traffic controllers. These professionals need to overcome an important problem each and every second of their work shifts: intelligibility. Resulting from the nature of radiotelephony which is used as the major means of communication

between ATC and pilots, it sometimes turns into a real challenge to make yourself as clear as possible and to comprehend the messages. The background noise, communication breakdowns, interruptions of other traffic on the channel, and the heavy managerial workload all add up to significant challenges faced by air traffic controllers in terms of using Aviation English. Although globalization seems to offer new job opportunities and better salary in these crowded airspaces, it needs to be taken into account that there is always a continuous threat to air traffic safety with regards to Aviation English. For instance, deputy CEO of Dubai Air Navigation Services Ibrahim Ahli, the head of Air Traffic Control Al Thani, and

Duty Manager of DXB Tower Hassan Shaheen, they all have non-native English-speaker origins and they work with a group of both non-native English-speaking air traffic controllers of UAE origin and native English-speaking air traffic controllers of various nationalities within the same team. Consequently, they all rely on Aviation English to maintain effective communication with each other and air traffic.

The case of Dubai International Airport with a total of around 1,100 flights per day is just one side of the coin. The other side includes busy airspaces with air traffic controllers who all have non-native English origins. Turkey, with its 1,759 air traffic controllers according to the statistics published by the Turkish

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DGCA, offers safe and secure ATC service 24/7. Yet, the second case here is liable to be threatened by another linguistic factor: the use of mother-tongue. Although, it is mandated by ICAO that English is the official language for air traffic communications, the problem of switching to the mother-tongue is one of the biggest challenges of air traffic controllers all around the world. These exchanges in mother-tongue between pilots and air traffic controllers make it difficult for other air traffic to catch up with the radio messages. What's more it can be listed as a distraction for both sides in maintaining operations especially under non-normal scenarios. However, there are some instances in which things may easily spin out of control. "We are at take-off" was one of the last statements recorded in the cockpit of KLM's Boeing 747 on March 27, 1977. Although, the role of Aviation English in the Tenerife disaster will be discussed thoroughly in the upcoming issues of Aviation Turkey magazine, it should be noted that no matter how proficient the air traffic controllers or pilots are, it is for sure that they can never be the same and they can never foresee how a slight difference in the understanding of a statement may cause one



of the biggest disasters in the history of aviation.

Last but not least the backbone of aviation: line maintenance technicians... As suggested by the American educational theorist David Allen Kolb, the experiential learning cycle all starts with hands-on experience, it goes on with perception and cognition respectively, and finally ends up with behavior. By analyzing the professional learning cycle of technicians with Kolb's experiential learning theory, it can be concluded that the invaluable service these people provide for the safety of aircraft has two inseparable components: manuals and implementations of those manuals. While the latter requires a good understanding of the former, in fact, everything relies on a deep linguistic resource.

Without full control of Aviation English jargon, including the technical terms, line maintenance technicians cannot be expected to best serve their companies. Yet, apart from the challenges of pilots and air traffic controllers, these professionals have a bigger gap to fill in. Aviation English as lingua franca once again dominates the aviation industry with its two main aircraft manufacturers Boeing and Airbus which meet on common ground when it comes to publishing maintenance manuals. Consequently, technicians feel the necessity to be proficient not only in speaking and comprehending English but also in understanding the written manuals detailing every inch of an aircraft. No matter what their nationalities are, line maintenance technicians have and will always rely on English in our

increasingly globalized world.

To come to an end reaching more and more passengers and flight destinations as a result of globalization has unignorable consequences for all aspects of aviation both on the individual level, the corporate level and on regulatory levels. Challenges regarding the use of Aviation English by aviation professionals are most definitely of high priority as they have the potential to result in irreversible outcomes. As a result, the sustainability of the industry's well-being is all in the hands of Aviation English with its various components. In our widening world it is essential that we continue identifying communication challenges, both technical and linguistic, as these challenges will continue to emerge as the aviation industry evolves 🌐