



International Civil Aviation Organization

A41-WP/123
TE/38
2/8/22

WORKING PAPER

ASSEMBLY — 41ST SESSION

TECHNICAL COMMISSION

Agenda Item 31: Aviation Safety and Air Navigation Standardization

CREATION OF A STANDARD PHRASE RESPECTING UNSTABILIZED APPROACHES

(Presented by Iran (Islamic Republic of))

EXECUTIVE SUMMARY

The study of air accidents and incidents underscores that a lack of uniformity exists in communication amongst the Pilots-Air Traffic Controllers when there is a possibility of an “Unstabilized Approach”. As a minimum, the creation of a standard phrase may lead to the best course of action that could ultimately save the lives.

Action: The Assembly is invited to create a Standard phrase to aid the air traffic controllers to warn the pilots purposefully or to take best course of action when they are doubtful about the approach.

| | |
|--------------------------------|---|
| <i>Strategic Objectives:</i> | This working paper relates to the Safety Strategic Objective. |
| <i>Financial implications:</i> | |
| <i>References:</i> | Doc 4444, <i>Procedures for Air Navigation Services — Air Traffic Management</i> ICAO (2011) IATA (2016) Skybrary (2018) IFALPA (2020) ASN Aircraft accident Boeing 737-8HG (WL) VT-AXV Mangalore-Bajpe Airport (IXE) (aviation-safety.net) ASN Aircraft accident Airbus A320-214 AP-BLD Karachi-Jinnah International Airport (KHI) (aviation-safety.net) https://www.onderzoeksraad.nl/nl/media/attachment/2018/7/10/2008014_2005159_ec_hzh_r_otterdam.pdf https://www.liveatc.net/recordings.php |

1. INTRODUCTION

1.1 The Flight Safety Foundation (FSF) stated that unstabilized approaches were a leading factor in 66 per cent of 76 approaches and landing accidents worldwide between 1984 and 1997 (Skybrary, 2018). Of the total amount of 407 commercial aircraft accidents recorded in the International Air Transport Association (IATA) Global Aviation Data Management (GADM) accident database during the period of 2011 to 2015, 267 accidents or 65 per cent of the accidents occurred during the approach and landing phase, 31 of which involved fatalities. Moreover, IATA Flight Data Exchange (FDX) shows an increase in the number of unstabilized approaches per 1 000 operations comparing to the past two years, over the first half of 2020 (IFALPA, 2020).

1.2 The FSF accentuates that pilots/air traffic controllers and regulators should take it into account that the only acceptable approach would be a stabilized one and acknowledged industry practice is to suggest that nonfulfillment to conduct a stabilized approach by the pilots should end in a go-around.

2. DISCUSSION

2.1 Ambiguous or non-standard phraseology has been frequently reported as a causal or contributory factor in air accidents and incidents (Skybrary, 2020). IATA underlines that stabilized approaches are more likely to happen when effective “collaboration, cooperation and communication” between all related participants including pilots and air traffic controllers come into play.

2.2 It is well settled that “The flight crew has a requirement to fly a stabilized approach (airspeed and configuration) typically by 5 KM (3NM) from the threshold (*Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM, Doc 4444)). Even if a flight has established instrument landing system (ILS), it does not necessarily mean that the flight is stabilized. However, the responsibility for the achievement and execution of a safe final approach lies with the flight crew, but air traffic controllers play a key role in exacerbating or mitigating the situation. They may contribute to unstabilized approaches through their involvement and understanding of the following basic factors:

- a) distance (time) provision (vertical/lateral instructions); and
- b) speed control instructions.

2.3 ICAO stipulates that “Whenever an abnormal configuration or condition of an aircraft, including conditions such as landing gear not extended or only partly extended, or unusual smoke emissions from any part of the aircraft is observed by or reported to the aerodrome controller, the aircraft concerned shall be advised without delay” (PANS-ATM, 7.4.1.7.1).

2.4 “Aerodrome controllers shall maintain a continuous watch on all flight operations on and in the vicinity of an aerodrome as well as vehicles and personnel on the manoeuvring area. Watch shall be maintained by visual observation, augmented when available by an ATS surveillance system” (PANS-ATM, 7.1.1.2).

2.5 Respecting unstabilized approaches in some circumstances it would not be sufficient to just advise the flight. In fact, if there had been some more effective aids and rules than suggestion to a pilot, some of the accidents and incidents titled unstabilized approaches could have been possibly prevented. In this regard it is well established in the UK CAP 493, Section 2, Chapter 1, 19.5: “A landing

aircraft, which is considered by a controller to be dangerously positioned on final approach, shall be instructed to carry out a missed approach. An aircraft can be considered as dangerously positioned when it is poorly placed either laterally or vertically for the landing runway”.

2.6 The followings are the instances of unstabilized approaches. In accordance with the formal report of the first accident “As per the ATC controller, the aircraft was high on approach and touched down on the runway, much faster than normal” (p. 4/175).

2.7 In the second accident the pilot reported to ATC: “we are comfortable, we can make it inshallah”.

2.8 In the third instance classified as runway excursion in the aftermath of an unstabilized approach according to the formal report of the incident ATC advised the pilot as follows:

“You are four miles from touchdown, altitude should be around 1200, can you manage this approach? Confirm.”

2.9 The last example is a regular kind of communication used by some controllers:

ATC-pilot: “It seems you are so high according to the surveillance system confirm making holding or continuing approach?”

3. CONCLUSION

3.1 It is evident that air traffic controllers act differently in dealing with unstabilized approaches based on the respective regulations. As aforementioned and several other examples indicate, lack of standard phraseology to be used between pilot-first officer and pilot-ATC is a prominent feature of unstabilized approaches. Therefore, as a minimum it would be sensible to create a Standard phrase to aid the air traffic controllers to warn the pilots purposefully or to take best course of action when they are doubtful about the approach. In this regard the following phrase is suggested to be considered by ICAO for inclusion in the PANS-ATM:

ATC-pilot: Confirm stabilized approach [supplementary information].

Respecting Pilot- First officer communication the following phrase is also suggested:

“X feet stabilized” and if the aircraft is not stabilized call “Go around”. Below the minimum stabilization height if it is not still stabilized call “Go around”.

— END —