



Safety Information Bulletin

Operations – ATM/ANS

SIB No.: 2018-06

Issued: 19 February 2018

Subject: Incorrect Airport Surface Approaches and Landings

Ref. Publications:

Federal Aviation Administration (FAA) Safety Advisory for Operators (SAFO) [17010](#), dated 18 August 2017.

Applicability:

Aeroplane operators, Approved Training Organisations (ATOs) providing relevant flight training, Air Navigation Service Providers (ANSPs), Air Traffic Controllers (ATCOs) and EASA Member States' competent authorities.

Description:

In February 2016, during night time, an aeroplane was stabilized for a straight-in very high frequency omni-directional radio range (VOR) approach for runway (RWY) 04L with a final approach course offset from the centreline. At approximately 7 nautical miles from the airport, in visual contact with the runway, the crew elected to join the extended centreline instead of continuing to the minima. The crew incorrectly aligned the aeroplane with runway 04R centreline. The crew landed on runway 04R, realizing the error only after landing.

In August 2016, during day time, an aeroplane was cleared for a standard terminal arrival route (STAR) transition for RWY 07L, expecting an Instrument Landing System (ILS) approach. However, the aeroplane was finally cleared for a VOR approach to RWY 07L. The crew wrongly tuned the VOR for the VOR approach to RWY 07R. The crew elected to continue the approach, without an appropriate briefing, intercepting the inbound radial for the VOR approach to RWY 07R. Air Traffic Controller (ATC) asked the crew if they were established on the radial inbound and received a positive answer. When visual contact with the field was established, the crew realized that the runway was the wrong one. ATC then cleared the aeroplane to a side-step to RWY 07L. Landing was uneventful.

In June 2017, an aeroplane was under radar vectors for an ILS approach to RWY 03L. When cleared to the approach, due to a wrong flight management system (FMS) configuration, the crew intercepted and followed the localiser of the ILS for RWY 03R. ATC realized the mistake and advised the crew, who promptly stabilized the aeroplane on the correct runway centreline. Landing was uneventful.

This is information only. Recommendations are not mandatory.



These are just few examples of the 82 events of incorrect airfield approaches and landings, as reported by European operators between 2007 and 2017. This issue is not only affecting Europe, as demonstrated by the recent event in San Francisco that prompted the FAA to issue the referenced SAFO 17010.

The intent of this SIB is to raise awareness about this safety issue and to highlight the following operational considerations.

In general, the following **threats** can be identified:

Visual illusions: Several factors affect the flight crew's ability to perceive the environment, resulting in visual illusions. Among these there are ground texture, off-airport light patterns, "black hole effect", approach lighting and runway lighting. Visual illusions affect the flight crew's situational awareness, particularly during final approach.

Wrong visual approaches clues: Conducting a visual approach, especially during night, could lead to the potential risk of using wrong visual clues. Therefore, it is important to make use of all available navigational aids to confirm the aircraft's position during the approach.

Fatigue: Fatigue reduces flight crew's alertness and impairs decision making processes. When a flight crew member feels fatigued during the approach, he or she should rely as much as possible on the available automation to reduce the workload. This is especially true during night duties and at the end of long flight duty periods.

Reduce situational awareness during go-around: If, when realising that the approach is being conducted to a wrong airport surface, the crew elects to go-around, it should be considered that the go-around procedure briefed and loaded in the aircraft navigation system may be the wrong one to fly (e.g. approach to a parallel runway with different go-around initial turn). In such a case, the "startle" effect may contribute to a further loss of situational awareness, increasing the probability of a mismanagement of the go-around.

Best practices:

Situational awareness: Situational awareness is defined as the continuous extraction of environmental information, the integration of this information with previous knowledge to form a coherent mental picture, and the use of this picture in directing further perception and anticipating future events. In order to maintain situational awareness, it is paramount that flight crew adhere to the standard phraseology, monitor communications between ATC controller and other traffic, conduct visual look-out and maximize the use of navigational systems (including FMS) aids.

Stabilised approach: Flying a stabilised approach is critical to ensure the safe completion of the approach and to reduce the flight crew's workload. Continuation of an un-stabilised approach may result in an increase workload with a likely reduction of situational awareness.

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Monitored approaches: Flight crew should adhere to Standard Operating Procedures (SOPs) and apply Crew Resource Management (CRM) to continuously monitor both visual and instrument references during the approach. The Pilot Monitoring (PM) should apply an effective cross-check by scanning flight path, navigational aids, visual clues and energy management. If something does not look right, the PM is responsible for raising the Pilot Flying's (PF) awareness and prepare for a possible go-around.

Use of automation: Optimum use of automation requires adherence to the aircraft design and operating philosophies. Design philosophy has evolved with new aircraft generations and require the development of new knowledge and skills regarding the usage of automated systems. Operating procedures and philosophies of each manufacturer provide the basis for operators to develop their standard automation policy. Operators are responsible to define clear policy and procedure and make the best use of CRM technique when talking about FMS preparation. Training shall ensure that pilots are competent to make the best use of automated systems and monitor automation, in particular mode transitions and reversions. Automation level should be appropriate to the situation, taking into account the task to be performed (strategic vs tactical), the flight phase, and the time available.

Planning strategy: A careful planning and preparation of the approach is a key factor to maintain situational awareness. No matter the type of the approach (instrument or visual), an approach briefing should be completed, including a review of:

- Notices to Airmen (NOTAMs);
- Airport layout;
- Airport and approach lighting system;
- Available navigational aids (NAVAIDS);
- Environment surrounding the airfield.

Contact(s):

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