



Solo training flights into Luxembourg airport

Related events

29/08/08 Loss of separation between an approaching PA28 and a departing AVROJET

20/05/09 Non adherence to ATC instructions by an approaching PA28 with potential for loss of separation with a departing CITATION JET

Root Causes

- 1 Short final lately noticed by ATCO
- 2 Departing aircraft not noticed by PA28 pilot
- 3 SOLO flight executed during heavy traffic conditions
- 4 Student pilot was confused by final approach instruction

Background

Luxembourg airport hosts three flying schools for small single engine piston aeroplane. This activity has to cope with commercial traffic generated by the frequent passenger and cargo flights on the platform. As Luxembourg has only one airport suitable for initial training flights with a single runway, student pilots have to use the platform for their first local solo flights.

Student pilots are lacking experience by definition, but still have to integrate commercial traffic.

On two occasions, the DAC was reported non adherence to ATC instructions by student pilots on solo flights arriving from the north. One of these events created a loss of separation, was classified as a serious incident and investigated by the DAC.

The present air safety bulletin gives feedback on the analysis of this incident and the retained recommendations, which also apply to the second event by similarity.

Assessment

During both events, the student pilot approached Luxembourg airport from the north and was instructed to proceed to final, with information on an aircraft on the runway departing ahead.

The student pilots however did not proceed to normal but to short final, having misheard the whole instruction and only read back "proceed final". In addition, due to the long runway (4 km), single engine piston aircraft normally touch-down late to avoid long taxiing.

Traffic having been medium to high on both events, the ATCO had to monitor separations carefully between departing and approaching commercial traffic. The student pilots were coming from the north, out of direct sight of the controller. As the controller has no information about the nature of that flight, no specific attention was given to the student pilot by ATC.

Figure 1 describes in form of a bowtie diagram the risk of failure to follow ATC clearances in relation with the primary hazard, the different threats and the potential consequences.

Further analysis of these threats lead to the identification of root causes as listed in the left column of this bulletin.

Failure to follow ATC clearance may lead to loss of separation and eventually to midair collisions



An Air Safety bulletin is a document widely distributed by the DAC, which aim is not to create any additional safety requirements but to inform all aviation stakeholders on a clearly identified risk and recommended actions, which are considered as reasonably practicable for all involved actors.

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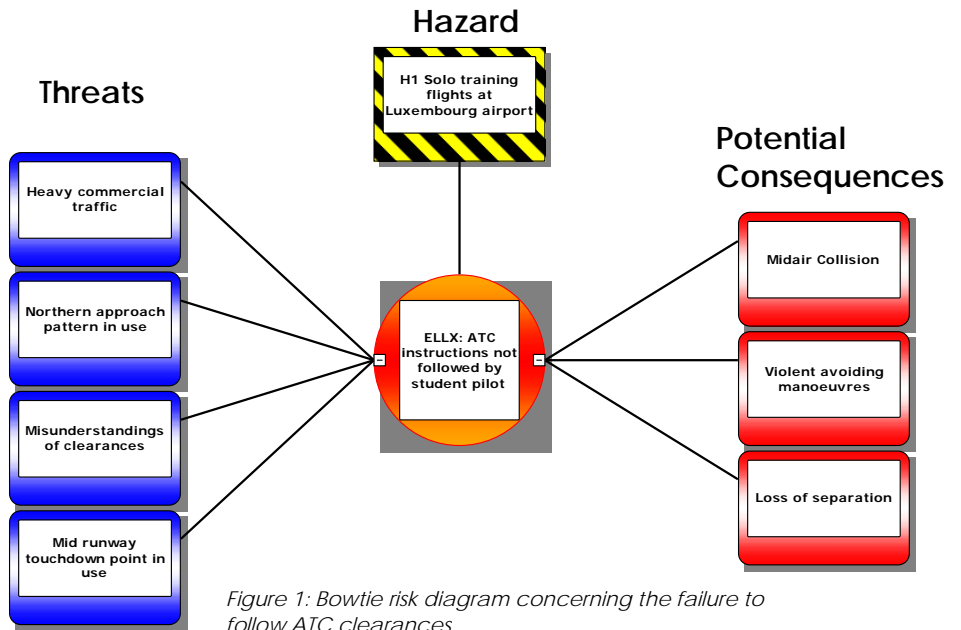


Figure 1: Bowtie risk diagram concerning the failure to follow ATC clearances

Safety recommendations

In order to enhance flight safety and strengthen existing safety barriers, the DAC recommends that:

1. Student pilots flying solo should add to their callsign "SOLO TRAINING FLIGHT". This information should also be put on the flight plan and given to AIS.
2. ATCOs should pay special attention to the read-back of their instructions.
3. Keeping in mind that the first task of a student pilot is to keep control over his aircraft, ATCOs should enlarge separation with other traffic and should not issue any shortening instructions to those pilots like for example "Can you make it short", or "Shorten your 360 please".
4. Student pilots flying solo into Luxembourg airport should always fly a regular runway circuit over the threshold and not shorten their approaches.
5. Solo student flights should not be executed during known periods of high commercial traffic.
6. Flight Training Schools and instructors should pay special attention to their responsibility to provide guidance and restraint with respect to the solo operations of their students.

Links and References

- SKYbrary – Loss of Separation
http://www.skybrary.aero/index.php/Loss_of_Separation
- SKYbrary – Separation Standards
http://www.skybrary.aero/index.php/Separation_Standards