

Aviation security issues related to the use of VTOLs

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Short bio

- 2021 Commander General of the Air Brigade for Permanent Security Posture (Air), Paris
- 2020 Deputy Commander of Operations, Op BARKHANE, Chad
- 2019 Auditor of the 69th session of the Centre for Advanced Military Studies and the 72nd session of the Institute of Higher National Defence Studies, Paris
- 2017 Chief of the Planning Office in the Air Force General Staff, Paris
- 2016 Deputy Head of the Planning Office in the Air Force General Staff, Paris
- 2014 Base Commander, Cognac Air Base 709
- 2011 Operational Coherence Officer at the Nuclear Forces Division of the General of the Armed Forces, Paris
- 2009 Chief of Employment and Plans in Strategic Air Force Command, BA 921 Taverny
- 2008 Squadron Commander 03.004 «Limousin» Mirage 2000N Fighter Squadron, BA 125 Istres

2006 Second-in-Command 03.004 «Limousin» Mirage 2000N Fighter Squadron, BA 125 Istres

2005 Student at the Joint Defence College, Paris

2003 Chief of Operations 01.007 «Provence» Jaguar Fighter Squadron, BA 113 Saint-Dizier

2001 Commander of the 3rd company of the Red Promotion of the École Polytechnique, Palaiseau

2000 Flight Commander on 01.007 «Provence» Jaguar Fighter Squadron, BA 113 Saint-Dizier

With more than 2500 flying hours including 50 combat missions, General Faury is an Officer of the Legion of Honour, Officer of the National Order of Merit, and a recipient of the Aeronautics Medal and Combattant Cross

Abstract

The use of VTOLs in urban areas is a revolution due to their speed, duration and altitude of flights as well as the overflight of populated areas. This revolution will require the adaptation of the air policing in its assistance, safety and sovereignty missions. We believe that even with the reinforcement of security measures on the ground, there will always be a need for air policing. Indeed, technical security will have its limits because no system is inviolable. The success of VTOLs will conversely push towards a liberalization similar to that of leisure and recreational aviation or heliports. The risk of misuse will be amplified by the ease of use of VTOLs without the technicality of piloting. New users not acculturated to aeronautics and its rules will therefore have access to VTOLs and will develop new and sometimes malicious uses. Consequently, the air policing will need capabilities adapted to VTOL for flight monitoring, radio interrogation of the pilot or remote pilot, interception, escort or boarding.

How can we pragmatically adapt to the new VTOL segment ? It is necessary to analyze the risks by phase and to take into account the parameters that have evolved:

- nomadic or planned take-off zones ?
- very slow speed and revolutionary endurance ?
- need for flight assistance ?
- freedom of trajectory and need for in-flight control ?
- how to enforce the coercive measures ?
- beyond the question of the presence or not of the pilot, who will have to embody and assume the responsibilities of the captain (as on board a ship or a plane) ?
- is it a change of air paradigm (like supermarkets without cash registers)?
- An open discussion with the designers and future users, but the answer maybe in the definition of the future VTOL-Police.