

# Review of: "Numerical Simulation and Computational Fluid Dynamics Analysis of Two-Dimensional Lid-Driven Cavity Flow Within the Weapon Bay of an Autonomous Fighter Drone"

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**Potential competing interests:** No potential competing interests to declare.

The work appears innovative, interesting, very well written. The numerical methodology is illustrated with completeness. The boundary conditions and procedure are well defined and detailed. Nonetheless, in its overall the manuscript appears non-totally connected to a real application.

Below some observations to possibly increase the connection to lifelike application of this interesting manuscript and avoid the risk to be a mere mathematical exercise.

In the introduction and in the conclusions, within the possible activities and field of application of UAV, please add some other example and references of possible uses of drones in the military field, such as defense from non-conventional weapon and detection, identification and monitoring of Chemical, Biological, Radiological and Nuclear (CBRN) agents in case of an asymmetric attack.

Which is the flying mode of the drone used as weapon vehicle? Is a fixed wing or a rotative engine? Which could be the interference between the motor type and the weapon bay and how it could influence its design? By the work of the authors is not clear if the turbulences around the weapon bay influences only its structural stability or if the fluid dynamics in the missile chamber also affects the weapon's behavior in launch. It should be appreciable to better specify the characteristics above.

Some more references regarding international legal framework that regulates drones use should be useful.