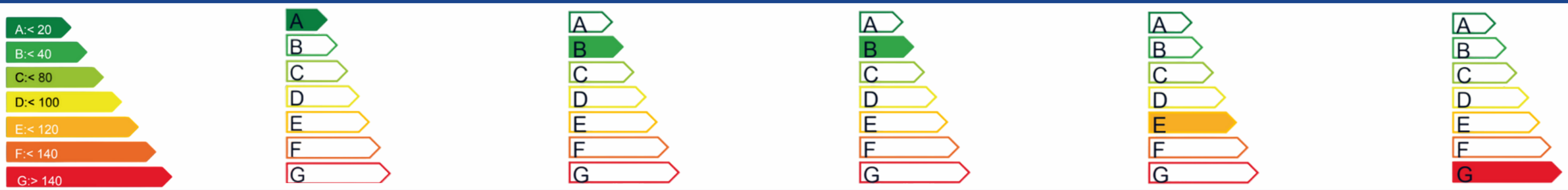
Surveillance mission

Fixed-wing drone with electric motor	Ultra-light rotary-wing drone with piston engine	Very light aircraft with piston engine	Very light helicopter with piston engine	Light helicopter with gas turbine
				
1 kg CO2	*82 kg CO2*	*84 kg CO2*	*327 kg CO2*	*1217 kg CO2*



In kg of CO2 / flight hour

CO2 emissions multiplied by 1000

Under equal flight conditions * :

3H | **1000 ft** | **Low speed** | **3 kg payload**

*** Each aircraft is capable of carrying the necessary sensors and performing the expected trajectories to record the data with the required accuracy.**

Freight transport mission

Mission: 300 km to cover | Load capacity: 1 tonne or 6 tonne

	Very light, flexible-wing drone with piston engine	Medium-sized aircraft with 2 turboprops	Twin-engine heavy aircraft	Light helicopter with gas turbine	Twin-engine heavy helicopter
					
6 T	*2072 kg CO2 in 16 rotations*	*2604 kg CO2 in 3 rotations*	*3019 kg CO2 in 1 rotations*	*6500 kg CO2 in 10 rotations*	*7266 kg CO2 in 2rotations*
	CO2 emissions multiplied by 3				
1 T	388 kg CO2 in 3 rotations	868 kg CO2 in 1 rotations	*3019 kg CO2 in 1 rotations*	1300 kg CO2 in 2 rotations	*3633 kg CO2 in 1 rotations*
	CO2 emissions multiplied by 10				

In kg of CO2 / ton transported / 100km

Airplanes or drones with vertical or short take-off and landing capability are often less energy-efficient than conventional aircraft, but enable freight to be transported as close as possible to the destination when the destination is not an airport, which must be taken into account in the overall calculation of CO2 emissions.

Association du Drone de l'Industrie Française