

NON-MILITARY UAS APPLICATIONS - POTENTIAL FUTURE APPLICATIONS

A - Security-Related Applications		MTOM (kg)		Mission		Location	
		<150	>150	VLOS	BLOS	EU	Other
Anti-looting control (post riot)	A1	X	X	X		X	X
Anti-piracy operations	A2		X		X	X	X
Anti-poaching control	A3	X	X		X	X	X
Anti-terrorist operations	A4	X	X		X	X	X
Border surveillance	A5	X	X		X	X	X
Coastal surveillance	A6	X	X		X	X	X
Crime scene :							
● Surveillance	A7	X		X		X	X
● Recording	A8	X		X		X	X
● Situational awareness	A9	X	X	X		X	X
Criminal car tracking	A10	X	X		X	X	X
Critical infrastructure surveillance	A11	X		X		X	X
Crowd surveillance	A12	X	X	X	X	X	X
Fight against drugs	A13	X	X	X	X	X	X
Hostile protest control	A14	X	X	X	X	X	X
Illegal immigrant & human trafficking control :							
● Local	A15	X	X	X	X	X	X
● Regional	A16	X	X		X	X	X
● National	A17		X		X	X	X
Illegal activity control :							
● Illegal dumping & waste burning	A18	X		X		X	X
● Historic site & heritage looting	A19	X		X		X	X
● Illegal drug cultivation	A20	X	X	X	X	X	X
● Illegal excavation	A21	X		X		X	X
● Illegal logging	A22	X	X	X	X	X	X
● Illegal mining	A23	X	X	X	X	X	X
● Illegal ship bilge venting	A24	X	X		X	X	X
International summit surveillance	A25	X	X	X	X	X	X
Maritime surveillance :							
● Regional area	A26	X	X	X	X	X	X
● Sea lane surveillance	A27	X	X		X	X	X
● Wide area	A28		X		X	X	X
Perimeter surveillance	A29	X		X	X	X	X
Police applications (various)	A30	X	X	X	X	X	X
Regional surveillance	A31	X	X		X	X	X
Riot control	A32	X		X		X	X
Road traffic surveillance	A33	X	X		X	X	X
Smuggling control	A34	X	X		X	X	X
Surveillance of public gatherings	A35	X	X	X	X	X	X
● Pop concerts	A36	X		X		X	X
● Sporting events	A37	X		X		X	X
Urban law enforcement	A38	X		X		X	X
Wildlife crime control	A39	X			X	X	X
Other	A40						

  

B - Safety-Related Applications		MTOM (kg)		Mission		Location	
		<150	>150	VLOS	BLOS	EU	Other
Avalanche survivor search	B1	X		X		X	X
Dike monitoring	B2	X		X	X	X	X
Emergency comms network (incl. relay) :							
● Local	B3	X	X	X		X	X
● Regional	B4	X	X	X	X	X	X
● National	B5		X		X	X	X
● European Union	B6		X		X	X	X
Fire scene inspection :							
● Pre-fire	B7	X		X		X	X
● During fire	B8	X		X		X	X
● Post fire	B9	X		X		X	X
Fishery control	B10	X	X		X	X	X
Forest Fire fighting :							
● Detection	B11	X	X	X	X	X	X
● Monitoring	B12	X	X		X	X	X
● Support	B13	X	X	X	X	X	X
Iceberg monitoring	B14	X	X		X	X	X
Maritime search & rescue	B15	X	X		X	X	X
Disaster site monitoring & mapping :							
● Earthquake	B16	X	X	X	X	X	X
● Floods	B17	X	X	X	X	X	X
● Icing rain storms	B18	X	X	X	X	X	X
● Landslide	B19	X	X	X	X	X	X
● Mud slide	B20	X	X	X	X	X	X
● Plane crashes	B21	X	X	X	X	X	X
● Ship collisions	B22	X	X	X	X	X	X
● Storm & hurricane	B23	X	X	X	X	X	X
● Train crashes	B24	X	X	X	X	X	X
● Tsunami & Tidal surge	B25	X	X	X	X	X	X
● Volcano eruption	B26	X	X	X	X	X	X
Nuclear accident monitoring :							
● Contamination measurement	B27	X			X	X	X
● Contamination tracking & monitoring	B28	X	X		X	X	X
Post-disaster relief operations	B29	X	X	X	X	X	X
Road & highway traffic monitoring	B30	X	X		X	X	X
Search for missing persons	B31	X			X	X	X
Volcanic ash cloud :							
● Analysis	B32		X		X	X	X
● Measurement	B33		X		X	X	X
● Tracking & monitoring	B34		X		X	X	X
Other	B35						

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C - Scientific & Research Applications		MTOM (kg)		Mission		Location	
		<150	>150	VLOS	BLOS	EU	Other
Aerial photogrammetry	C1	X		X	X	X	X
Agricultural :							
● Crop monitoring & management	C2	X		X	X	X	X
● Plant growth vigour mapping	C3	X		X	X	X	X
Algae proliferation detection	C4	X		X		X	X
Archaeological site mapping	C5	X		X		X	X
Arctic research	C6	X	X		X	X	X
ATM Research	C7		X	X	X	X	X
Atmospheric monitoring	C8	X	X		X	X	X
Climate monitoring	C9	X	X		X	X	X
Coastal mapping	C10	X		X	X	X	X
Coastal zone studies	C11	X		X		X	X
Environmental monitoring	C12	X	X	X	X	X	X
Forestry management/research	C13	X		X	X	X	X
Geophysical survey	C14	X		X	X	X	X
Glacier & ice cap monitoring	C15	X	X		X	X	X
Hurricane tracking	C16	X			X	X	X
Iceberg monitoring	C17	X	X		X	X	X
Invasive species identification/analysis	C18	X		X		X	X
Marine mammal monitoring	C19	X		X		X	X
Meteorological research	C20	X	X		X	X	X
Ocean & sea research support	C21	X	X		X	X	X
Ozone measurements	C22	X	X		X	X	X
Salt water infiltration detection	C23	X		X		X	X
Sand bank shift measurements/mapping	C24	X		X		X	X
Sea ice monitoring	C25	X	X		X	X	X
Tidal zone mapping	C26	X		X		X	X
Vegetation identification	C27	X		X		X	X
Volcano monitoring	C28	X		X	X	X	X
UAS sensor research	C29	X	X	X	X	X	X
Wildlife census	C30	X	X	X	X	X	X
Other	C31						

D - Contractor Supplied Flight Services		MTOM (kg)		Mission		Location	
		<150	>150	VLOS	BLOS	EU	Other
Advertising (light-than-air UAS) :							
● Indoor	D1	X				X	X
● Outdoor	D2	X				X	X
Aerial photography	D3	X				X	X
Aerial news broadcasting	D4	X				X	X
Agricultural :							
● Common Agricultural Policy control	D5	X	X	X	X	X	X
● Crop monitoring & management	D6	X		X		X	X
● Fertilizer dispensing	D7	X		X		X	X
● Hydrometric mapping	D8	X		X		X	X
● Insecticide spraying	D9	X		X		X	X
● Monitoring for selective harvesting	D10	X		X		X	X
● Plant growth vigour mapping	D11	X		X		X	X
Bird (strike) control	D12	X		X		X	X
Cargo transport	D13	X	X		X	X	X
Cinema (aerial shots & special effects)	D14	X		X		X	X
Forestry :							
● Tree growth monitoring	D16	X	X	X	X	X	X
● Tree illness monitoring	D17	X	X	X	X	X	X
Inspection, monitoring, surveying, mapping :							
● Aerial terrain mapping							
Urban environment	D18	X		X		X	X
Non-urban environment	D19	X		X		X	X
Industrial site	D20	X		X		X	X
● Critical infrastructure inspection	D21	X		X		X	X
● Dike inspection	D22	X		X		X	X
● Forest fire operations support	D23	X	X	X	X	X	X
● Gas burn-off flare stack tip inspection	D24	X		X		X	X
● Geophysical survey	D25	X	X	X	X	X	X
● Historical monument inspection	D26	X		X		X	X
● Illegal crop cultivation detection	D27	X	X	X	X	X	X
● Magnetic field survey (mineral search)	D28	X		X	X	X	X
● Magnetic mapping (search & rescue)	D29	X		X	X	X	X
● Oil & gas pipeline inspection	D30	X	X		X	X	X
● Perimeter surveillance	D31	X	X	X	X	X	X
● Photogrammetry	D32	X		X	X	X	X
● Power cable inspection	D33	X		X	X	X	X
● Radiation measurement & monitoring	D34	X	X	X	X	X	X
● Railway track bed inspection	D35	X		X	X	X	X
● Thermal isolation analysis (buildings)	D36	X		X		X	X
● Wind turbine blade inspection	D37	X		X		X	X
Testbed (testing, validation, qualification of sensors, avionics, S&A, ATM, etc)	D38	X	X	X	X	X	X
Other	D39						

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E - Military/Civil Cooperation		MTOM (kg)		Mission		Location	
		<150	>150	VLOS	BLOS	EU	Other
Anti-piracy operations	E1	X	X		X	X	X
Border surveillance	E2	X	X		X	X	X
Coastal surveillance	E3	X	X		X	X	X
Critical infrastructure surveillance	E4		X		X	X	X
Emergency communications network (incl. relay) :							
● Local	E5	X	X		X	X	X
● Regional	E6		X		X	X	X
● National	E7		X		X	X	X
Fishery control	E8		X		X	X	X
Forest fire fighting :							
● Detection	E9	X	X		X	X	X
● Monitoring	E10		X		X	X	X
● Support	E11		X		X	X	X
Illegal drug cultivation detection	E12		X		X	X	X
Illegal ship bilge venting detection	E13		X		X	X	X
Illegal immigrant control :							
● Local	E14	X	X		X	X	X
● Regional	E15	X	X		X	X	X
● National	E16		X		X	X	X
International summit surveillance	E17	X	X		X	X	X
Maritime search & rescue	E18	X	X		X	X	X
Maritime surveillance	E19	X	X		X	X	X
Natural disaster site monitoring :							
● Earthquake	E20	X	X		X	X	X
● Floods	E21	X	X	X	X	X	X
● Icing rain storms	E22	X	X		X	X	X
● Landslide	E23	X	X		X	X	X
● Mud slide	E24	X	X		X	X	X
● Plane crashes	E25	X	X		X	X	X
● Ship collisions	E26	X	X		X	X	X
● Storm & hurricane	E27	X	X		X	X	X
● Train crashes	E28	X	X		X	X	X
● Tsunami & Tidal surge	E29		X		X	X	X
● Volcano eruption	E30	X	X		X	X	X
Sea lane surveillance	E31	X	X		X	X	X
Surveillance of public gatherings	E32	X	X		X	X	X
Surveillance of international sporting events	E33	X	X		X	X	X
Other	E34						

**Mutualisation = The operation of military UAS assets by the military for non-military governmental applications.**

**Basic advantages of mutualisation:**

- offers the military additional UAS flight training opportunities;
- supplies added value to military flight training exercises;
- permits to increase the return on investment for military UAS by using them for non-military governmental missions with societal benefits (incl. improved European external border surveillance);
- gives non-military governmental authorities access to capabilities they may not be able to afford otherwise and thereby increases national security & safety;
- allows to spread the cost of such UAS missions over various government organisations;
- would permit to familiarize non-military governmental organisations with the use and advantages of UAS.