

NON-MILITARY UAS APPLICATIONS - CURRENT STATUS

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

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

Exp	Experiment use
RO	Routine operations

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

Exp	Experiment use
RO	Routine operations

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

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

Exp = Experimental use
RO = Routine operations