

Modern Warfare use of EMP Bomb and Bio-weapon in UAV

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Abstract— The modern warfare lead to optimization and autoschediasm in the field of weaponry by electronization. New age prognosticates this as electronic and biological warfare. Modern weapons in hands of chaotic organizations is one of the major reasons of unethical deaths of military infantry. Terror invasions have gone worse in recent times. The traditional methods have not yield expected results. To control and restrain the situation, use of EMPs (Electromagnetic Pulse) bomb and Bioweapon would be a big breakthrough. These weapons can be mount on high altitude and artificially intelligent drone which will yield beneficial results. These drones can be remotely or automatically controlled. Thus, use of Bioweapon and EMPs in Indian defense system could save a large number of military infantry casualties, with provision of good head start and slowing down the enemy unit by killing their electronic and electrical units. This will lead to escalation in Indian Defense system.

Key words: Electronic Warfare; Biological Warfare; Bioweapon; Electromagnetic Pulse; Infantry

I. INTRODUCTION

The Cultural perception of technology is on move, as drones are progressively being used for humanitarian activities. The use of drones is actively seen in surveillance, security, interrogation and as a modern weapon. In today's world, where we see modernization of weapon industry as boon, it has also created, facilitated and circulated the chaos through terrorism. All over the world the defense system of developed countries is fascinatingly overgrowing. This is also leading the terrorism with advance weaponry in their hands. Country like USA, when dealing with war situations, incendiaries and terrorists attacks, make most optimum use of drones as a weapon, reducing their military casualties as well as accomplishing their missions successfully. Whereas in India, most missions are being successfully accomplished with a great loss of vital military infantry units. Thus, if we use unmanned drone equipped with weapons, it will make a successful elimination of incendiaries without casualties of military infantry and addition to this, it will slow down the enemy units by killing their electronic and electrical units as well. EMP being non-lethal, still is highly destructive. An EMP-bomb attack would leave buildings standing and spare lives, but it could destroy a sizeable military. Whereas, a biological weapon made of human DNA would temporarily paralyze or kill the human beings without affecting the local environment. The use of Bio-weapon and EMP bomb, combined or separately used in drone will definitely prove a leap in Indian defense system.

II. PROPOSE SYSTEM

^{4,5}An Unmanned Arial Vehicle (UAV) and Dynamically Remotely Operated Navigation System (DRONE), commonly known as drone and referred to a Remotely Piloted

Aircraft (RPA) by the International Civil Aviation Organization (ICAO), is an aircraft without a human pilot aboard. Its flight is controlled either anonymously by onboard computers or by the remote control of a pilot on the ground or in another vehicle. Motor vehicles, rotorcrafts with more than one rotors e.g. octocopters, have lately gained a lot of attention in both the scientific and commercial sphere. Apart from this use of drone as a weapon is becoming a great deal of interest in many countries. High altitude drones with or without artificial intelligence, can be mounted with EMPs bomb and or Bio-weapon. The EMPs bomb is non-nuclear destructive bomb, which only disrupts the electrical circuits and electronic system without any loss of lives. Use of this bomb in a warfare will bollix the electronic system of enemy, slackening their movement speed and leaving them perplex. These bombs when mounted on high altitude drones, will not be visible to enemy due to DRONE's hovering height (around 2000m) and its compact size. These DRONE's, due to small size and Anti-radar technology, will not be recognized by enemy RADAR. Moreover, if these DRONE's are also mounted with Bio-weapon, or separately, will prove propitious in terrorist invasion situation, mostly near LOC. This will be beneficial in hilly areas too, as the DRONE will be equipped with thermal camera as well as sensors to detect human life, additionally in dense vegetation also it will be functional and serviceable. These Bio-weapon are capable of paralyzing and or killing the incendiaries. The virus used in Bio-weapon will be made up of human DNA, thus it will affect only to human race, but those animals, who have similar DNA as human race like rats, chimpanzees, and etc. may get affected. Rest species and vegetation will be unaffected. The virus will deactivate after some duration, thus making the affected zone safe again.

A. Recent Developments in DRONE

Recent octorotors or octocopters which are being manufactured and used in aerospace industry are listed below: Aermatica Spa's Anteos is the first rotary wing RPA (remotely piloted aircraft) to have obtained official permission to fly (Permit to Fly) issued in the civil airspace, by the Italian Civil Aviation Authority (ENAC), and will be the first able to work in non-segregated airspace. AeroQuad is an open-source hardware and software project which utilizes Arduino boards and freely provides hardware designs and software for the DIY construction of Octocopters. ArduCopter is an open-source multicopter UAV. Based on Arduino, it supports from four to eight motors, as well as traditional helicopters, and allows fully autonomous missions as well as RC control. Open Pilot is a model aircraft open-source software project. Parrot AR. Drone is a small radio-controlled octocopter with cameras attached to it built by Parrot SA, designed to be controllable with iOS or Android devices. Parrot AR. Drone 2.0 carries a HD 720P camera and more sensors, such as altimeter and magnetometer.

B. Recent Development in Military Drones

The Defense Research and Development Organization carried out a successful test flight of 'Rustom-2' in February 2018. It is capable of carrying payloads like synthetic aperture radar and electronic intelligence systems. The US and Romanian forces conducted a training exercise of 'RQ-11 raven UAS' developed for reconnaissance and aerial surveillance on March 22 2017. The United States Air Force started training pilots of F-16 to remotely use the 'General Atomics MQ-9' Reaper for unmanned combat missions in 2011. China developed 'Wing Loong II' that had the provisions of up to 12 air-to-surface missiles in 2017.

1) Bio-weapons.

a) DNA Virus

This technique involves inserting plasmids, small bacterial DNA fragments, into the DNA of other bacteria in order to increase virulence or other pathogenic properties within the host bacteria

b) Aflatoxin

Aflatoxins, a number of structurally associated harmful metabolites developed by certain strains of fungi, lead to cell or organ death, Cirrhosis liver disease resulting in liver failure and cancer.

c) Transmucosal Fentanyl

Can cause severe breathing problems (breathing may even stop), unconsciousness and death. Serious signs of an overdose include very slow breathing (fewer than 8 breaths a minute) and drowsiness that is so severe that you are not able to answer when spoken to or, if asleep, cannot be awakened. Other signs may include cold, clammy skin; low skin pressure; pinpoint pupils of eyes; and slow heartbeat.

d) Sleeping Gas

Modern volatile anesthetics (sleeping gas) that may be considered sleeping gases are BZ, halothane vapor (Fluothane), methyl propyl ether (Neothyl), methoxyflurane (Penthrane), and the undisclosed fenatyle derivative delivery system.

e) Butorphanol

Rarely used in people but is commonly used in all species. Ketamine, used in children for anesthesia, is used extensively in many species to induce anesthesia or cause heavy sedation. Expensive agents, such as etomidate and desflurane are rarely used outside of university hospitals.

f) α -Methylfentanyl

α -Methylfentanyl dissolved in a halothane base has similar effects to fentanyl. It is less potent by weight due to reduced binding affinity to its target site, yet longer acting as the α -methyl group interferes with binding to metabolic enzymes which break the drug down. The independent discovery of the effect of the α -methyl group on fentanyl also marked the first time clandestine recreational-drug research had an effect on practical scientific research.

g) Tranquilizerdiazepam (Valium)

The anticholinergic BZ, the highly potent oripavine-derived Bentley-series opioid etorphine, another highly potent opioid, such as a fentanyl or an analogue thereof, such as 3-methylfentanyl, and the anesthetic halothane were proposed.

C. Octocopter

The octocopter has eight functioning propellers. The result of this is that the drone has a better flying capability than all the

previous drones mentioned. The octocopter combines the flying speed, maneuverability and uplift power of octocopters and hexacopters. The flying motions and stability in the air are also big factors that the octocopter brings into consideration, and as a result, they are capable of recording stable, high quality footage from any altitude. It is without a doubt the more complicated and advanced drone compared to the tricopter, octocopter, and hexacopter.

D. EMPs

In modern world, many countries are drawn to EMP bomb technology, as it's potentially non-lethal, but still highly destructive. EMP bomb emits electromagnetic pulse and it affects the electronic and electrical appliances or systems. Briefly, it is considered as short burst of electromagnetic radiation or pulse of rapidly changing electric and magnetic field, resulting in coupling with electrical and electronic systems to produce damaging current and voltage surges. EMP is also sometimes called as transient electromagnetic disturbance, is a short burst of electromagnetic energy. Low level electromagnetic pulse would temporarily jam electronics systems, more intense pulse would corrupt important computer data and very powerful burst would completely destroy the circuit system of electronic equipment. Recently few countries do have this technique and now they are working to reduce the size of bomb, still capable to destroy a sizeable area. Their research is leading them to Electro-pulse grenade technology, so that their ground military units may carry the grenade with them, same as usual hand grenades.⁸ this weapon could also be used clandestinely to take out important targets during peace time, if it is used as conventional weapons would be considered outrageous, as it will be difficult to prove. This EMP weapons could be used in military.

E. Bio-Weapon

It is the use of biological toxins or infectious agents such as viruses, rickettsia, fungi, bacteria or other biological agents. With an intent to paralyze or kill living beings. As mentioned in propose system above, the biological toxin can be released in desired area to paralyze or kill human lives. Some of the devastating biological toxins have been mentioned in development of Biological weapons. An addition to this even chloroform can be used for temporary unconsciousness to the invaders, thus incarcerating them for their interrogation, reveling vital secret information from them. Bio-weapon can be easily mounted on DRONE and can be released vertically in suspicious area that may also be densely vegetated. Then the area can be surveyed easily.

III. EPILOGUE

This epilogue offers a status quo report on use of Electromagnetic Pulse bomb and Bio weapon in Indian defense system. Moving towards achieving agility in strategic action against enemy. Data was collected through large number of journal papers and reports. Second, entry level and move forward practices that can support migration towards agile development in EMP bomb and Bio-weapon techniques with real life examples.

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