

The Evolution of Warfare:

It has been a few decades now, but I still remember the comment of the crusty admiral in charge of naval aviation. After listening to my presentation, he said “Son, Pilot’s Shoot”. He, of course, was coming from the generation where naval aviation ruled supreme and the battleship had been replaced as the main weapon of naval warfare. What was I presenting? ---- Today, you might call it drones of all kinds. Air, sea, and land based drones working together in what was then called autonomous systems.

Drone warfare really creates major problems for any high value targets as the Russians recently found out with the Ukrainian strike on their strategic air bases. (The Ukrainian use of drones launched out of over the road containers is really genius particularly since many of the containers were being pulled by Russian truck drivers. Reminds me of the clever use of exploding pagers by the Israelis.) Many experts are calling drone warfare a new generation of warfare and I would agree for now.

However, there is another generation of warfare on the horizon and President Trump is attempting to deal with it using a futuristic shield called the “Golden Dome”. Inherently, the golden dome is space based because it must be available to interdict any incoming or pre-positioned weapon of war. (This is a nightmare because the “Golden Dome” must cover the entire land mass of the United States.) Even if funded today, it is unlikely that the Golden Dome would be available until late in the next decade. Essentially, the Golden Dome is Star Wars 2.)

I have, thus far, described two generations of warfare, but there is a third generation (?) and far more insidious. It is the generation of genetic warfare. Using genetic engineering, biological weapons with unique and unexpected properties can injure and kill in an infinite variety of ways.

If, for example, COVID and its presumptive cure, the COVID vaxx, are genetically engineered biological weapons, how would we know for certain. The debate still rages almost five years after the COVID pandemic was first identified. At best, we strongly conjecture that the COVID virus was released from a laboratory in China and appears to be genetically manipulated. What we don’t know is whether the release was accidental or deliberate. There is, however, an interesting situation developing that shifts the argument away from pure accident.

A Chinese couple associated with the University of Michigan has been arrested for smuggling the crop killing fungus, *Fusarium graminearum*, into the United States. Both of these Chinese nationals are known to have close ties with the Chinese communist Party. (*Fusarium graminearum* is a disease affecting wheat, barley, maize and rice crops.)

Do we actually have three generations of warfare? It appears that we can confirm the first two noted above as distinct generations of warfare. However, the genetic warfare “generation” is a conundrum. Is it a new generation or ongoing? Notably, biological warfare of one kind or another has been used for thousands of years. What is unique is the tie to genetic engineering and gain or manipulation of function. (The Chinese government has been collecting massive amounts of genetic data from around the world. They view such data as of national strategic and economic importance. It is likely that your and my genetic information is somewhere in a Chinese healthcare data base.)

By Bob Warren – CARMA Member emeritus