# The Rise of Military Drones in Modern Warfare



#### The Development and Deployment of Military Drones

Military drones, both aerial and underwater, are increasingly gaining importance among the world's armed forces, with the United States being a key player in this technological evolution. The U.S. Navy recently took delivery of Boeing's Orca Extra Large Uncrewed Undersea Vehicle (XLUUV) in December last year for testing. This drone, almost 85 feet long with its payload, surpasses the size of the USS Holland (SS-1), the first modern U.S. Navy submarine, in both size and capabilities. The Orca is designed to autonomously handle long-endurance missions, including mine countermeasures and anti-submarine warfare.

Meanwhile, Ukraine has successfully integrated unmanned systems into its naval operations to counter Russian naval dominance in the Black Sea. Ukraine's domestically produced naval drones, such as the Magura V5 and Sea Baby, have proven effective in disabling a significant portion of Russia's Black Sea Fleet. These drones, equipped with explosives and capable of hitting targets at high speeds, have enhanced Ukraine's ability to conduct precision attacks without risking personnel.

Moreover, at the Black Sea Security Forum held in Odesa from June 14 to 16, 2023, Ukraine unveiled the Stalker 5.0 unmanned surface vessel (USV). This versatile drone can transport cargo or be converted into a kamikaze drone using Starlink for guidance and control. It is cost-effective compared to other USVs, further augmenting Ukraine's ability to deploy unmanned systems in maritime warfare.

U.S. military strategy also recognizes the shifting landscape of warfare towards unmanned systems. Despite this, most resources are still allocated to manned legacy platforms. Efforts like the Replicator initiative aim to expedite the integration of drones into military operations, although funding remains limited compared to investments in traditional warships. Some critics argue that greater emphasis should be placed on unmanned system development to meet contemporary combat needs effectively.