Launch and Recovery Procedure

The NOVA sUAS is hand launched from a standing position (no run-up required) and utilizes autonomous launch stabilization and navigation. The launch can be performed from land or from a watercraft. The second phase of the autonomous launch procedure consists of the aircraft then performing a spiral climb-out flight path until the desired navigation altitude is reached. At this point, the aircraft loiters about the preselected takeoff point until the operator selects the waypoint navigation flight mode, and the aircraft will proceed to its preprogrammed flight path.

Recovery is performed via an autonomous conventional landing procedure. The sUAS first navigates to a preselected landing rally point where it enters a gradual descent spiral to reach the desired approach height. Upon reaching this altitude, the sUAS continues to hold that altitude until it reaches the desired breakout heading along its loiter orbit. When the desired heading is achieved, the sUAS then proceeds along a preselected landing glide slope toward the touchdown point, flares before touchdown, and belly lands on either land (no runway required for land ops) or in an aquatic environment (wetlands or open water).