

Gatesville Municipal Airport (KGOP) Launch/Recovery

Viking 400

All operations will launch and recover via Gatesville Municipal Airport (GOP) located approximately 1 NM North of Restricted area R-6302D.

The Viking 400 Unmanned Aircraft System (UAS) is integrated with Autonomous Take-Off and Landing (ATOL) technology that uses a series of GPS waypoints along the runway centerline. Missions are flown using GPS waypoint navigation which requires no stick-control input and can be reassigned during flight. Departure and arrival routes are programmed in the mission planning phase and are flown much like a Standard Instrument Departure or a Standard Terminal Arrival Route, flying point-to-point via GPS. Mission tracking is accomplished on FalconView, which can display various airspace volumes, route overlays, icons and waypoints, providing situational awareness to flight crews. The Route Elevation Profile analyzes the route and provides a visual representation over the terrain utilizing DTED. It also manages the vertical velocity of the UA to meet minimum/maximum crossing altitude assignments at the waypoints.

Launch:

Before taxiing to or on the runway, the PIC will contact the visual observer and Ft. Hood approach to ensure no airborne traffic is within 5NM of GOP. The PIC will then use the CTAF frequency to announce the UAS operation. Once the area has been deemed clear, the pilot will taxi the UA onto the runway via the midfield taxiway and taxi to the approach end of the runway. The PIC has the option to either turn 180 degrees and depart or utilize the turnaround taxiways at both ends. The turnaround areas will allow the UA to exit the runway for additional preflight checks and allot time for the PIC to again ensure a sterile environment suitable for launch.

When departing Runway 17, the UA will proceed on a southerly route to the entrance waypoint approximately 1 NM south of GOP (N 31° 23' 56.00" W 097° 47' 48.51").

When departing Runway 35, the UA will proceed with a left turn-out pattern that follow three waypoints and proceed south to the entrance waypoint at R-6302D. All launch/recovery operations shall remain below 1000' AGL/2000' MSL.

Recovery:

The UA will not exit R-6302D until it is assured that no (visually or radar) observed traffic is within 5 NM of the airfield, and no general aviation traffic has reported inbound on GOP CTAF. This will be accomplished by communicating with the visual observer located at GOP as well as checking in with Ft. Hood Radar Approach Control. The PIC shall also monitor and issue advisories on GOP's CTAF before departing R-6302D. Once determined that there is no conflicting traffic, the pilot will select the "commit to land" option prior to exiting R-6302D. The UA will then follow the pre-programmed recovery, utilizing preset waypoints, even in the event of a loss of link. The pilot will recover the UA on a straight-in approach or continue with a right hand pattern on the western side of the runway for a southern landing, depending on wind conditions. The PIC may also choose to take manual control of the UA at anytime during the automated recovery.

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Waypoint Locations:

Waypoint 1: N 31° 25' 51.26" W 097° 47' 45.89"

Waypoint 2: N 31° 25' 51.84" W 097° 48' 08.43"

Waypoint 3: N 31° 24' 59.31" W 097° 48' 06.36"

Waypoint 4: N 31° 23' 56.00" W 097° 47' 48.51" (R-6302 entry point)