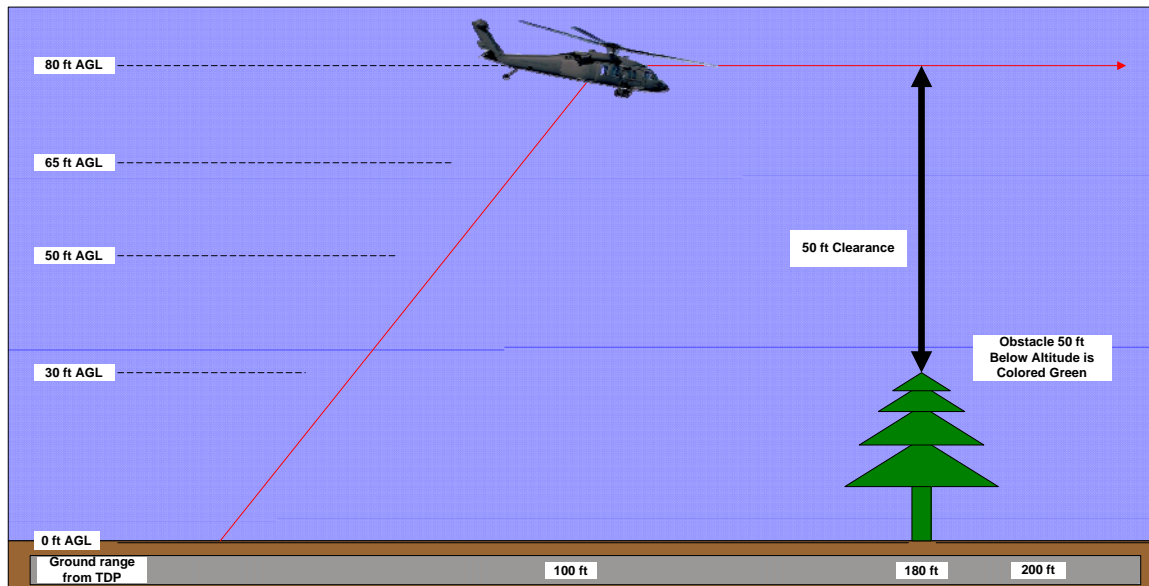


## Exhibit A: Antenna Sketch



### Antenna Mounted on Aircraft



### Flight Profile

## Exhibit B: Statement in Response to Question 7

The objective of the Helicopter Autonomous Landing System (HALS) program is to demonstrate in flight a radar system that allows a helicopter pilot to safely execute approach, hover, and landing maneuvers in degraded visual environment (DVE) conditions such as that caused by blowing dust (“brownout”).

The HALS is a millimeter wave (MMW) pulsed radar with a narrow  $1^\circ$  beamwidth that is scanned over a  $30^\circ$  by  $30^\circ$  field of view twice per second. During the scan pulses are transmitted at a 70 kHz rate, and the return from each is processed by computer to extract

the amplitude and the range to the ground. The computer accumulates all of the range and amplitude data over the field of view and displays a three-dimensional representation of the ground to the pilot on a cockpit display.

The HALS is being developed in at the facilities of Sierra Nevada Corporation in Reno, NV. The HALS will be installed on a military helicopter at Ft. Eustis, VA for a series of ground and flight evaluations at Ft. Eustis, Redstone Arsenal, and the Pentagon over a period of approximately 6 months.

The HALS is a significant advancement to existing radar imaging systems. The HALS is capable of displaying a three-dimensional image for use by a pilot landing a helicopter in unimproved areas in zero visibility. Furthermore, an innovative antenna design reduces the size and weight of the HALS to be suitable for installation on a manned helicopter.