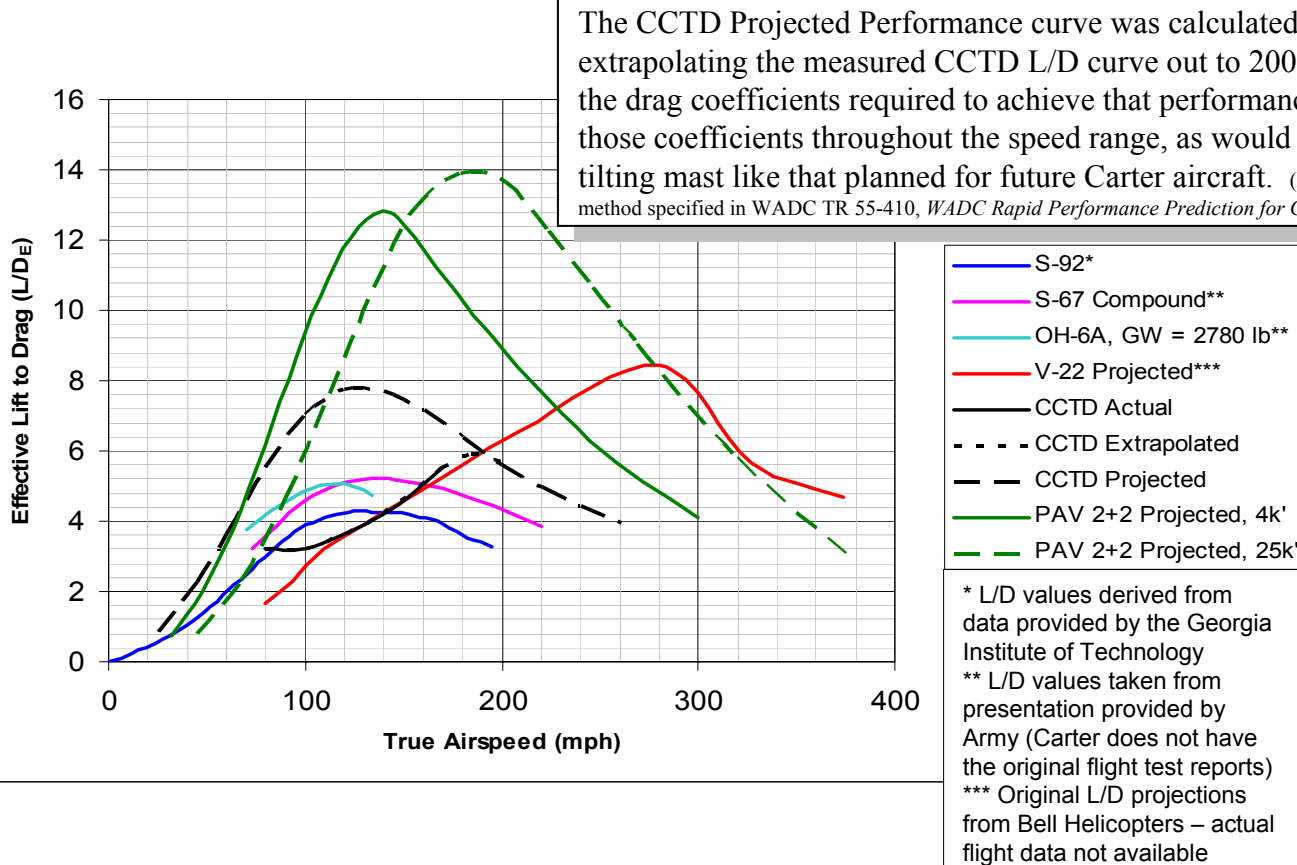


# L/D<sub>E</sub> of CCTD & PAV Compared to Various Rotorcraft

PAV's increased performance over CCTD Projected is due primarily to increased wing span & area. The same aerodynamic coefficients were used for calc's, other than improvements for the streamlined hub & improved cooling.

CCTD low-speed L/D adversely affected by the drag from wing stall & fuselage flow separation, which will be corrected in future aircraft with a tilting mast.

L/D<sub>E</sub> vs. Airspeed of CarterCopter & PAV Compared to Various Rotorcraft



The CCTD Projected Performance curve was calculated based on extrapolating the measured CCTD L/D curve out to 200 mph, determining the drag coefficients required to achieve that performance, and then using those coefficients throughout the speed range, as would be possible with a tilting mast like that planned for future Carter aircraft. (Analysis performed per method specified in WADC TR 55-410, WADC Rapid Performance Prediction for Compound Type Rotorcraft)

L/D<sub>E</sub> Calculated based on all horsepower going to countering drag

Airspeeds of Rotary-Wing Aircraft Corrected to 4000' Density Altitude, unless noted

\* L/D values derived from data provided by the Georgia Institute of Technology  
 \*\* L/D values taken from presentation provided by Army (Carter does not have the original flight test reports)  
 \*\*\* Original L/D projections from Bell Helicopters – actual flight data not available



Sikorsky S-92



Sikorsky S-67



Hughes OH-6A



Bell Boeing V-22



Carter CCTD



Carter PAV