

## Straight Up and Down



Two Ryan X-13 Vertijet research aircraft were built for the Air Force in the mid-1950s, expanding upon a 1947 Navy request to study a vertical takeoff and landing fighter that could operate from small ships. By the time Ryan test pilot Pete Girard demonstrated this pioneer VTOL aircraft (shown here) near the Pentagon in 1957, the small jet had made several successful flight tests. The X-13 had two small

bumper skids on the fuselage, along with a small retractable nose hook. The hook supported the entire aircraft from a short section of cable suspended between two mechanical arms on a flatbed trailer. The X-13 rose vertically a few inches, hovered away from the trailer, then accelerated vertically. As airspeed and altitude increased, it began a pitchover to horizontal flight. The pilot reversed the process to return to

the flatbed. Despite impressive demonstrations, the X-13's payload capacity was limited and USAF canceled the program.