

# Unmanned Aerial Vehicle (UAV) System Fact Sheet

## TERN (Tactically Expendable Remote Navigator)

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### System Description:

The TERN is a versatile UAV capable of a variety of missions, recoverable in peacetime training missions, yet of sufficiently low cost to be discarded after actual battle if necessary. A variant of the vehicle, Fiber Optic Guided-Remote (FOG-R), has been flown non-line-of-sight (NLOS) "over and beyond the hill", using Optelecom's Fiber Optic Data Link (FODL) for command uplink and video downlink. This FOG-R version is jam-proof. Another variant, TERN-C, has carried a remote sensor for detecting chemical warfare agents from the airborne platform. The TERN is designed to carry up to 22 lbs (10kg) of payload for periods of up to four hours. The wing is fitted with flaps which can be trimmed to provide slow flight speed for surveillance and extended to facilitate tight landings. TERN's optional equipment includes programmable autopilot, GPS navigation, video system, and other electronic sensors.

### System Capabilities:

Wingspan:	10.2 ft
Length:	8.2 ft
Weight (w/payload):	95 lbs
Endurance:	4 hrs
Cruise Speed:	55-60 mph
Mission Altitude (MSL):	5,000 - 6,000
Propulsion:	Two-stroke, twin cylinder 12 HP gasoline
Navigation:	GPS / programmable auto pilot
Payloads:	Color video system, thermal imagery systems, hazardous agent sensors, fiber optic data link

### Program Summary:

The TERN UAV is a simple low cost system. The Project Office demonstrates UAV capabilities to a wide variety of military and non-DOD potential customers.