The IKHANA aircraft is an airborne platform used to conduct long-duration Earth observation and atmospheric sampling science missions world-wide, develop and demonstrate technologies that improve the capability of unmanned aircraft to conduct science data collection, develop technologies that improve the capability, reliability, and safety of manned and unmanned aircraft.

IKHANA: (a Choctaw word for “intelligent, conscious or aware”).

IKHANA is a low-wing monoplane with narrow fuselage and high aspect-ratio wing, large V-shaped tail with ventral fin, rear-mounted turboprop engine. Enlarged fuselage nose to accommodate various payloads. Retractable tricycle landing gear. Redundant navigation and flight controls.
IKHANA Unmanned Aerial Vehicle

Aircraft Specifications

Wingspan: 66 feet
Length: 36 feet.
Gross weight: 10,500 lbs
Payload: Over 3000 lbs of radar, sensors, communications and imaging equipment
Altitude: greater than 40,000 ft
Propulsion: Honeywell TPE-331-10YGD turboprop with digital electronic engine control, driving a three-blade constant-speed propeller
Endurance: greater than 24 hrs
Primary materials: Molded lightweight uni- and bi-directional graphite composites with Nomex honeycomb stiffening panels.
Communication Links: Line-of-sight and Satellite command and control links