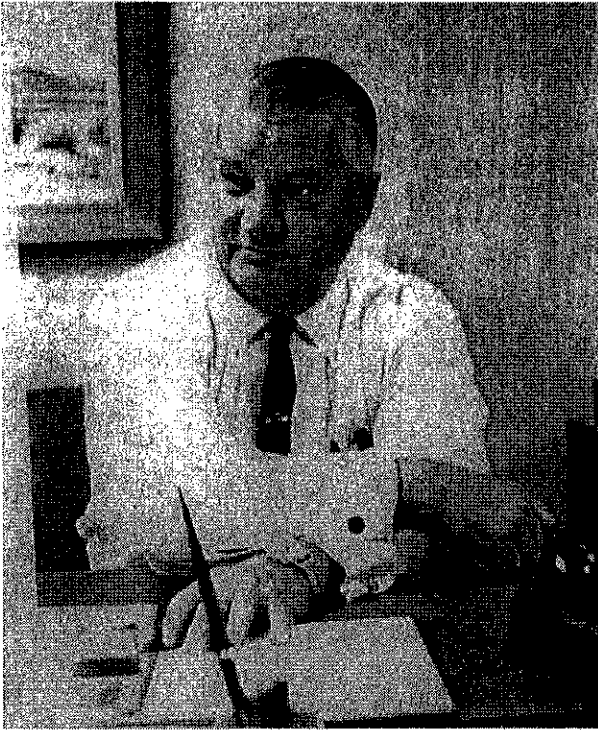


# AVIATION WALL OF HONOR



## Clarence L. "Kelly" Johnson

Clarence "Kelly" Johnson was born in Ishpeming, Michigan on February 27, 1910. Seventh of nine children, he learned respect for hard work and for education from his parents, both Swedish immigrants. From his father, a bricklayer and carpenter, he acquired the love of tools and the knowledge of how to use them. From the age of 12, he knew he wanted to build airplanes.

From Ishpeming, he moved to Flint where he graduated from Flint Junior College. From there, it was the University of Michigan where he received his Bachelor of Science degree in 1932 and his Master of Science degree in aeronautical engineering in 1933. The same year, Kelly launched his career in aviation as an 83 dollar a month tool designer at Lockheed's Burbank Plant in California. In succession, he worked as a flight test engineer, stress analyst, aerodynamicist, weight engineer, and wind tunnel engineer. He became chief research engineer in 1938. For thirty years, he headed Lockheed's Advanced Development Projects better known as the Skunk Works.

He played a leading role in the design of more than 40 of the world's most advanced aircraft. Among them were the world's fastest and highest flying airplanes - the 2,000 plus mile per hour YF-12 and SR-71 Blackbird, capable of long-duration flights above 85,000 feet, the earlier U-2, first aircraft capable of sustained flight above 60,000 feet, and the F-104 Starfighter, first production aircraft to fly at twice the speed of sound.

# AVIATION WALL OF HONOR

Friends of those years include such noted aviators as Jimmy Doolittle, Amelia Earhart, Wiley Post, Roscoe Turner, and Sir Charles Kingford-Smith.

In recognition of his major contributions to aerospace and the defense of the free world, Kelly received more than 40 aircraft design and achievement awards and honors. Included are two Collier Trophies, two Theodore von Karman Awards, The Wright Brothers Memorial Trophy, two Sylvanus Albert Reed Awards, and the Daniel Guggenheim Medal.

In 1964, President Lyndon B. Johnson presented him with the nation's highest civilian honor, the Medal of Freedom. In 1966, he was again recognized by President Johnson and conferred the National Medal of Science. In 1974, he was enshrined in the National Aviation Hall of Fame. President Ronald Reagan honored Kelly with the National Security Medal in 1983 and the National Medal of Technology in 1988.

Kelly Johnson retired from Lockheed in 1975 as a corporate senior vice president. He resigned from the corporation's board of directors in 1980, but continued to serve as a senior advisor.

He died on December 21, 1990.

TJ Mudge, Jan. 2004

# LOCKHEED'S P-38 DESIGN TEAM

## MARQUETTE COUNTY'S CONNECTION

NEGAUNEE  
PAUL THERIAULT ▶

▶ ISHPRING KILLY JOHNSON



With a model of the P-38—one of the United States' most deadly fighter aircraft of the World War II era—engineers Paul Theriault, Johnson, Hall Hibbard, Ice Johnson, and James Gerschler.

## USAF Museum

### Korean War

◀ Lockheed F-94A

▶ N.Amer. F-86H

### Observation A/C

◀ Loening OA-1A

▶ Cessna O-2A

### Related Pages

Continental O-470

Vietnam History

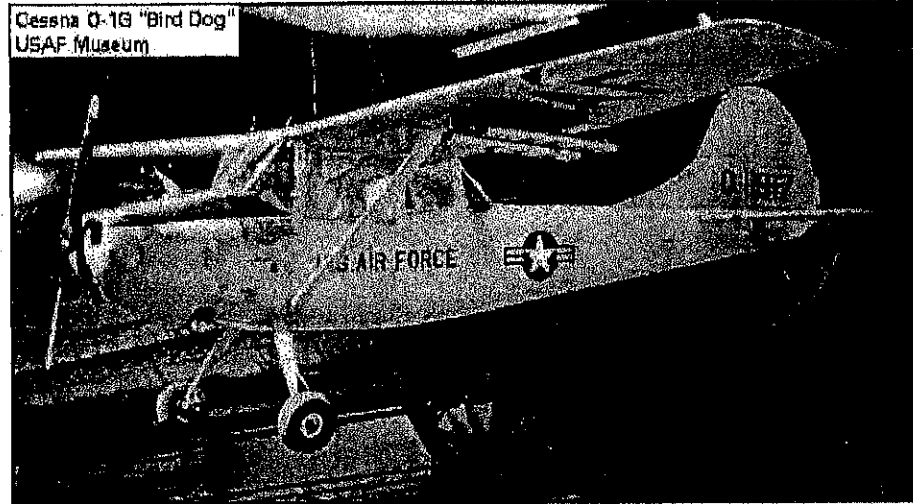
FACs

Liaison A/C

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## CESSNA O-1G "BIRD DOG"



The O-1G is a two-place observation and liaison aircraft developed from the commercial Cessna Model 170 in 1949. Originally designated as L-19s, "Bird Dogs" were used by the USAF, Army, and Marines for such tasks as artillery spotting, front-line communications, medical evacuation, and pilot training.

In Vietnam, O-1s were used by forward air controllers (FACs) for reconnaissance. A "FAC", often an experienced fighter pilot, was assigned to a specific geographical area, so that he could readily identify enemy activity. If a FAC observed enemy ground targets, he marked them with smoke rockets so they could be easily attacked by fighter-bombers. The FAC remained on the scene to report bombing results.

The USAF ordered more than 3,200 "Bird Dogs," most of which were built as L-19As between 1950 and 1959. The O-1G on display was transferred to the Museum in 1971.

### **SPECIFICATIONS**

**Span:** 36 ft.

**Length:** 25 ft. 10 in.

**Height:** 9 ft. 2 in.

**Weight:** 2,400 lbs. loaded

**Armament:** Generally none except smoke rockets

**Engine:** Continental O-470 of 213 hp.

**Crew:** two

**Serial number:** 51-11917

### **PERFORMANCE**

**Maximum speed:** 150 mph.

**Cruising speed:** 115 mph.

**Range:** 530 miles

**Service Ceiling:** 20,300 ft.