THE EDUCATION COORDINATOR • MARCH 13, 2014


Seversky P-35

DESIGN & DEVELOPMENT

Competitors, Seversky Aircraft Company and Curtiss-Wright Corporation each designed a fighter aircraft in 1935. These would become the first single-seat fighter in the U.S. Army Air Corps to feature all-metal construction, retractable landing gear and enclosed cockpit. Many variants of these two airplanes existed and saw service in many countries. Seversky's P-35 underperformance, slow deliver, and higher cost required the Army to select the Curtiss P-36 as a backup fighter. The P-36 had an extremely low wing loading of just 23.9lb/ft² provided a great turning performance and with its high power-to-weight ratio of 0.186 hp/lb gave a superior climbing performance and is remembered as the predecessor of the Curtiss P-40 Warhawk.


Curtiss P-36 Hawk

Aviation is very competitive and has created advances in medicine, communications, navigation systems, safer air travel and many more benefits through innovations in air travel.

Prior to 1929 the Wright Brothers and Glenn Curtiss were bitter rivals in development and production of aircraft. On July 5, 1929 a merger of 12 companies formed the Curtiss-Wright Corporation becoming the largest aviation company worth $75 million in capital. Most engines produced by this new corporation were known as Wrights while most aircraft were named for Curtiss. Curtiss-Wright designed and built aircraft for the military, commercial, and private markets. During World War II the corporation competed for contracts with the military and produced 142,840 aircraft engines, 146,468 electric propellers and 29,269 airplanes employing over 180,000 workers. The C-46 and its nearest competitor, the Douglas C-47 Skytrain and their variants can still be found in service in many countries. Curtiss-Wright failed in attempts to transition to design and produce more advanced wing and airframe, as well as jet aircraft concepts. This was a turning point in the company and Curtiss-Wright sold its entire airplane division to North American Aviation and became a component manufacturer specializing in aircraft control, flight simulators, valves, metal treatment and nuclear navy systems. By 2010, Curtiss-Wright acquired several companies and added Hybricon Corporation to supply electronic packaging for aerospace, defense and commercial markets.


C-46 Commando


Douglas C-47 Skytrain

A successful bid by Boeing in June 1946 for a long-range subsonic jet-powered bomber brought a new age to aviation. The B-52 "Stratofortress" was born. The B-52 was designed with a straight wing and through numerous modifications the swept wing design was developed. The first flight was in April 1952. The B-52 has been in continuous active service with the Air Force since 1955. Currently there are 85 B-52s in service and nine in reserve. With upgrades proposed for 2013-2015 service life is expected to extend into the 2040s.


B-52 Stratofortress

The 1960s and 1970s saw a concept change in military aircraft that almost eliminated propeller driven aircraft in favor of jet aircraft. Helicopters were introduced in larger numbers so by the 1990s the Air force and Navy were better equipped with better aircraft, better pilot training and a tactical shift from the 50s nuclear threat to being able to operate with more clearly defined objectives.

A new multirole fighter is currently being designed and built by an aerospace industry team led by Lockheed Martin and industry partners Northrop Grumman, Pratt & Whitney and BAE Systems. The project is being partially funded by the United Stated with additional funding from partnership with the United Kingdom, Israel, Italy, Australia, Canada, Norway, Denmark, the Netherlands, and Turkey. Called the F-35 Lightning II, it made its first flight on December 15, 2006. The program calls for Lockheed Martin to produce more than 2,400 F-35s and has already rolled out its 100th jet in December of 2013 by the 14,000 Lockheed employees in Fort Worth, Texas. The design goals call for the F-35 to be the premier strike aircraft through 2040.


F-35 Lightning II

When everything seems to be going against you, remember that the airplane takes off against the wind, not with it. HENRY FORD

DISCOVER • AVIATION
LEARN TO FLY HERE
ANOKA • BLAINE AIRPORT
www.ANEairport.org
BLAINE AIRPORT PROMOTION GROUP

www.DiscoverAviationDays.org

A FREE EVENT TO THE PUBLIC, REQUESTING A PARKING DONATION TO COVER COSTS

DISCOVER AVIATION DAYS
2014
May 31 & June 1

EXPERIMENTAL, HOMEBUILT, CIVIL, CORPORATE, MILITARY, WWII, AND VINTAGE AIRCRAFT.

CLASSIC CARS, NUMEROUS AVIATION EXHIBITORS, MILITARY REINACTORS, AND MEET VETERENS IN THE EDUCATION AREA FEATURING SCHOOL ACTIVITIES AND MILITARY HISTORY.

Contact the event organizers for more information regarding placing your aircraft on display during the events or devoting time to volunteer.

Volunteer for management or attendant for parking to provide this important service to showcase the Blaine airport to the general public during the daytime event as well as the Saturday night dance.

On February 27, 2014 the 1st grade class from the University Avenue Elementary School attended a tour and workshop event at the Anoka County-Blaine Airport. Twin Cities Aviation and Golden Wings Flying Museum where host to the 110 students and their teachers for a 2 1/2 hour visit with flight instructors, historians and tour guides.

Kate Watson, Curriculum Integration Coordinator, in her comments regarding the tour thanked the airport in general for the welcoming feeling they experienced. "I cannot thank you enough for your time devoted to yesterday's event. I was able to spend some time in the first grade classroom this morning and the students were still SO excited to talk about their experience! The teachers were amazed by this trip and the opportunity for our kids to get such a rich hands-on learning experience."

A teacher sent Kate Watson this response: "For the Airport; the staff was welcoming and the tour guides very knowledgeable and did a great job dealing with the excitement and energy of the students. The staff demonstrated their vast knowledge with endless student questions about anything and everything related to aviation. Regarding Golden Wings, the tour guides and historian told personal stories and were knowledgeable in answering the many wonderful questions from the students. They provided excellent visuals and tactile activities that gave the students a great opportunity, for example, they were able to see Bernoulli's Principle and Venturi Effect live and in action. They were warm and welcoming, and very kid friendly".

James Mecklenburg, Project Lead the Way Program Director was one of our staff members at the Golden Wings Museum. James presented Weather, Wind Energy and Magnetism, and responded with this memo regarding the students. The faces of the students tell it all. "It takes a village to educate our children for they are the future and our future is bright".

Tom Lymburn, Aviation Historian, stated that their enthusiasm was wonderful. "The students were great and asked very good questions".

Words of the month: APOGEE & PERIGEE