Trying to tame a Bearcat

By Dave Trojan, davidtrojan@earthlink.net May 2013, updated June 2014

Grumman F8F-1 Bearcats, photo courtesy the San Diego Air & Space Museum

The Grumman F8F-1 Bearcat went from prototype to deployment in an amazingly short period of time towards the end of WWII. From its inscription, the Bearcat's main mission was for carrier protection as an interceptor fighter. The Bearcat was smaller and 20% lighter compared to the big F6F Hellcat which made its handling much easier giving it a 30% gain in climb performance and it was almost 50 mph faster. The Bearcat was also the first US Navy fighter to feature a full "bubble" canopy providing excellent all around visibility for the pilots. The Bearcat was designed to accommodate the powerful 2,100 HP, Pratt & Whitney R-2800-34W Double Wasp engine which took the Bearcat easily beyond 400 miles per hour. The first Bearcat prototype flew on August 21, 1944 and early production F8F-1s began armament tests and carrier qualification trials in early 1945. By May of 1945, the Bearcat was cleared for operations.

Pilots were enthusiastic about the Bearcat because it was so fast. The F8F Bearcat was often called a "hot rod" by its pilots for its fantastic acceleration and climbing ability. Its speed also made the Bearcat a difficult airplane to fly because pilots had to stay in control of its high performance. The Bearcat was a true pilot’s aircraft in the air, but young pilots could become overconfident and trapped in a situation they couldn’t get out of. Taming the Bearcat was not easy and there were certain things that pilots just shouldn’t do with that much power up front.

As soon as enough of the new fighters had been produced, two squadrons, VF-18 and VF-19, were equipped with F8F-l Bearcats in May 1945. Their training was expedited in order to get the new fighter into service against Japanese 'kamikaze' suicide plane attacks in the Pacific.

Over northern California, a group of five Bearcats went on a field carrier landing practice flight, July 17, 1945 in preparation for their upcoming deployment when tragedy struck. The flight crews were still getting familiar with their new planes as they flew along in a loose formation at 2000 feet altitude returning to Naval Auxiliary Air Station (NAAS) Santa Rosa from NAAS Vernalis in the central California valley. Ensign Robert V. Clark was flying in F8F-1 Bearcat serial number 94794 and had a total of 86.3 hours of training in the Bearcat. The sun was low on the horizon when Ensign Clark was seen to commence a barrel roll facing into the sun. The pilot in the number four position saw him attempt a recovery by pulling through when the plane was on its back. Unfortunately, Ensign Clark was killed when he was unable to pull through and the plane crashed after a vertical dive into the rugged foothills east of Mt. Diablo.

The Navy fighter plane was totally demolished, scattering aircraft parts for some 50 yards and imbedding its motor five feet into the ground. The crash also started a 1000 acre grass fire. Nearly 700 men were thrown into the fire-fighting battle as southeast winds threatened to carry the fire across the county. The spectacular blaze swept up one hill and down the other lighting up the night sky. Beef cattle in a lower pasture were quickly herded out of the path of the onrushing fire. The fire burned until 4 am before it was brought under control, but not before it destroyed winter feed for hundreds of cattle.

The accident was just another tragic training mistake in the rush to the battlefront during World War Two. Sadly, this type of accident happened all too often when young pilots were mixed with high powered hot rod fighter planes. Overall Navy flight statistics for 1945 are impressive with a total 15.5 million hours flown. However, more than 13,000 major accidents occurred; 6,497 resulted in at least one aircraft destroyed. Furthermore, the accidents caused 3,171 fatalities at the rate of 20.5 per 100,000 hours flown.

Bearcat squadron VF-19 deployed onboard the carrier USS Langley shortly after the accident and they were en-route across the Pacific when the war ended on August 16, 1945. There is little doubt that if the war had continued, the Bearcat's fantastic climb and acceleration would have been invaluable in combating the kamikaze menace. Regrettably, Bearcats came along too late for WWII, and by the time the Korean hostilities broke out, jets made the F8F Bearcat obsolete.

Bearcat production ended in early 1949, but not before being employed by 24 Navy squadrons and by the Blue Angels flight performance team from 1946 to 1949. In 1952 the Bearcat was removed from active service, but many found a second life in other foreign Air Forces and as racing planes. A modified Bearcat still holds the piston-powered world record for its class for time to climb.

Nearly 68 years after the accident on a warm spring day a few intrepid explorers made their way to the crash site. After hiking a distance in the hot sun and climbing a steep hillside the group located the crash site. Scattered wreckage still remains in the idyllic California foothills from the accident so long ago. The force of the high speed impact was still evident with twisted metal parts scattered along the hillside. All the large pieces were most likely removed just after the accident. While not much remains at first glance, these parts revealed important clues to the identity and the story behind the crash. Several parts were found partially hidden in the dry grass that had part numbers and some still had traces of the Navy deep sea blue paint color. Several parts were easily identified including an ammo box, wing flap and parts from the canopy. A drive shaft from the engine bore witness to the sudden impact due to its bent shape. Several aluminum parts were crushed like an accordion. Upon close inspection of one of the wrecked dive recovery flaps, pencil markings were revealed. Written on the piece was “Beam # 62 nite”. The writings must have been from one of the Grumman factory workers like "Rosie the Riveter". The pencil manufacturing markings were used to speed the assembly process. A cockpit light control switch was also found. This part was a reminder of the human element involved in the accident. Much of the fighter plane is still probably buried near where it crashed. The crash site is now hallowed ground where a brave young pilot met his end.

This crash site investigation was a little different because a local news reporter came along to witness what aviation archaeology is all about. The reporter was busy the whole time taking pictures and jotting down notes. This trip was also used as a training session to pass along tips and training to a new generation of crash explorers from one of the most experienced aviation archaeologists to the newest and youngest. Visiting a wreck site can have a tremendous impact on one’s awareness and understanding of the time period and can provide quite an education. Aviation archaeology’s goal is to preserve the information and history and to ensure the education of the public about the aircraft and the history surrounding them.

Before leaving the site a small American flag was left behind to honor the pilot. The memory of Ensign Clark is not forgotten. Although he did not die in battle, he made the ultimate sacrifice none the less trying to tame the Bearcat.

Photos from the crash site:

See this link to “Grumman F8F Bearcat, Mt Diablo Foothills” crash site photos by Colson Johnson

http://www.flickr.com/photos/colsonj8sphotos/sets/72157631727133862/

Site photos:

F8F-1 Bearcat wreckage, photo by Colson Johnson

Manufacturing markings “Beam #62” found on part, photo by Dave Trojan

A more permanent memorial site marker was constructed and placed near the crash site in early April 2014 by Dave Trojan.

In memory of Robert V. Clark, by Dave Trojan

During the Aviation Archaeology and Heritage Association (AAHA) Symposium held April 27, 2014, a group hike was organized by Dave Trojan to the Bearcat crash site.

The historic Navy F8F Bearcat crash site from WWII was visited on 21 June 2014 by members of the Civil Air Patrol Squadron 22 from Travis AFB. It was a chance for squadron members to get out a see what a real life crash site looks like and experience history first hand. The visit was led by Dave Trojan.

Dave Trojan, Aviation Archaeologist, and Travis Heritage Center Researcher conducted training prior to the Civil Air Patrol hike and on site about the importance of historic aircraft crash sites. The training included: F8F-1 Bearcat aircraft history, accident history of flight, safety at a crash site, rules/regulations of Navy aircraft crash sites, identification of debris/parts/ part numbers/markings/inspection stamps, and the protocols of handling crash site materials.

It was an enjoyable field trip for all the participants and thankfully no snakes were spotted. Hopefully, the CAP will visit more crash sites and do more training at them in the future.