



SMOKE SIGNALS

This comes from Richard Green of THE LONG ISLAND AERO MODELERS ASSOCIATION, "As President of the Long Island Aero Modelers Association a newly formed AMA chapter, I welcome you to our web site. LIAMA is open to all the R/C model airplane clubs from Brooklyn, Queens, Nassau and Suffolk counties.

Our objective in the formation of such a chapter would facilitate the unity and growth of the radio control family within our area. The formation of this chapter would give our hobby a larger voice in areas such as local government and communities. Each member of each club would have access to far more resources and information and will help to secure the future of our hobby and flying sites.

Enjoy your visit to our web site and don't hesitate to contact us for any and all information."

You can access the LIAMA web site at www.liama.org where you can access the events calendar, see pictures of club events, start or join a discussion, see what is for sale or sell something even see what the weather is at flying sites. This is a new and great organization that can only improve our flying experience.



The 8th Annual Model Expo was held at the Cradle of Aviation Museum this past May 18th & 19th. It is a fun happening that is not just for us hobbyists but for everyone. If you missed it this year you should put it on your calendar and plan to attend the 2014 event.

Calendar

JUNE 2, 2013

20TH ANNUAL OPEN FUN FLY
Lufbery Aerodrome at Cedar Creek Park
Seaford, NY 9:30 AM - 3:00 PM
Pilot Registration closes at 8:45a

JUNE 6, 2013

Club Meeting
Show and Tell

JUNE 20, 2013

Club Meeting
Lewis Schwab will be giving a lecture on Pylon Racing, but also he will field questions on any engine related issues as well and also cover proper tank set-up we use that can apply to sport planes as well.

*** For more information on upcoming events go to www.liama.org and click on the events calendar.

BIRTHDAYS

- June 3 **Pat Saverese**
- June 5 **Bernard Zarem**
- June 28 **Joe Cieslewicz**
- June 28 **Doug Frie**
- June 30 **Frank Anzaldi**

If you want to view The Long Island Aero Modelers (LIAMA) go to: www.liama.org

Send all suggestions to: newsletter@meroke.com

Meroke RC Club "Come Fly with Us"



On May 18, 2012 the Meroke RC Club held it's **"COME FLY WITH US"** event at the Lufbery Aerodrome at Cedar Creek Park. The weatherman was kind and gave us a wonderful day for flying and instruction. Led by Registrar and organizer Charlie Lando, Flight Instruction Coordinator Phil Friedensohn, Michael Hagens and Tony Pollio took parents, grandfathers and children of all ages to the skies over Long Island.



Nelson Ramos gave pre flight instruction on the use of the controls and also took flight with his students. Thanks go out to all who volunteered their time to help make the event run smoothly and safely and to Lou Pinto for documenting the event and providing us with these photos.



BALANCING



how to

By Mike Buzzeo: aka MinnFlyer

Lots of you have asked about balancing your airplane. So let's start by answering a few frequent questions, and then we'll show you how it's done.

Q. Why is it so important?

A. An airplane that is not properly balanced will fly poorly, or may not fly at all.

Q. Why?

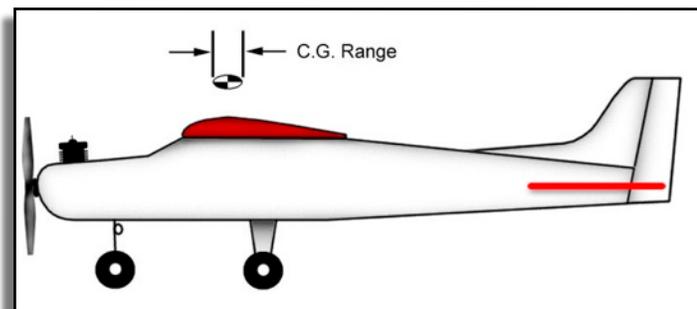
A. If an airplane is nose heavy, it will be sluggish in pitch maneuvers, tend to dive in turns, and make for some pretty fast landings. If it is tail heavy, it will be extremely sensitive to pitch controls, and could snap at a moments notice. The old saying is: "A nose-heavy plane won't fly well, and a tail-heavy plane won't fly long."

Q. Why won't a tail heavy plane fly long?

A. Think of an arrow (It is said that the man who made the first arrow was the worlds first aeronautical engineer). An arrow has a weight on one end of the shaft, and feathers on the other. If you held an arrow horizontally and dropped it from a tall building, it would automatically point nose down because there is a weight at one end with little wind resistance, while the other end is light with a large wind resistance. If you added a large weight to the tail end of the arrow, it would not drop nose down. An airplane is similar. Too much weight in the tail, and the tail wants to lead the way. Needless to say, if you're flying along and the tail of your plane suddenly spins around to the front, it makes for a very interesting flight.

Q. Ok, so where should the plane balance?

A. Check your plans and/or instructions. They will either tell you where it should balance, or show you the location of the proper CG (Center of Gravity).



Datum Mark Showing the CG Range



Q. My instructions say the plane should balance 3 1/2 inches back from the leading edge of the wing. Now what do I do?

A. First, locate the center of the datum mark from the plans, or measure the distance the instructions told you; then, put a mark on the plane in some manner. You can draw it with a felt tip pen, or mark it with a piece of tape, or whatever you can dream up. You will find that the CG (or balancing point) will usually be on or near the main wing spar. Now by lifting the model at this point, you'll be able to check whether it balances properly.

To do this, you have a choice: you can buy or make a jig to rest the plane on, or you can get someone to help you hold it while you check the balance. I don't have a jig, but there is usually someone around the house whose finger I can borrow for a few minutes. Then, starting with the plane level and the fuel tank empty, place a finger under each wingtip at the CG mark, and lift the plane off the workbench. It should balance either level, or very slightly nose down. If it does not, reposition your battery to try to compensate. If you have moved everything that you can and it still doesn't balance, you'll have to add weights to the nose or tail, but, don't fret, many planes have a chunk or two of lead hidden somewhere (even Full-Scale planes do it).

Q. If the fuel tank is empty, won't it make the plane nose heavy when it's full?

A. Yes, it will, slightly. But remember, nose heavy is better than tail heavy. You don't want to use up your fuel, and then find that you have to land a tail-heavy airplane.

Q. I heard that you should balance a low wing plane upside down. Is this true?

A. Yes. Since a low wing plane is top heavy, the top will sometimes try to flip over to the bottom. The amount of dihedral is a factor in this, but the bottom line is, you will usually get a more accurate measurement if the plane is at rest and not trying to flip itself over. (However lifting at the wing tips will sometimes cancel out this effect if there is enough dihedral).

Q. Ok, I moved the battery as far back as I can, but it still needs tail weight. What can I use for weight?

A. You can use anything that's heavy. There are stick-on weights available, or you can use fishing weights, solder, washers, nuts, bolts, etc.. The main thing is to make sure they are secure, especially in the case of nose weights. You can use screws, epoxy, CA, or whatever you like to secure them, but make sure that they are SECURE! The vibrations from the engine can loosen them if they are not held down properly! (You should also avoid doing something like putting the loose weights in a case and securing the case to the plane, as the case could open and spill out all of the weight.) You can attach them to the firewall, put them in the tank compartment, or cut a small hole in the rear fuse bottom and glue them in there. They can be attached to the outside, or inside, but, you want to put them as far away from the CG as possible to avoid having to use too much extra weight.

Q. My plane is a little sluggish and lands fast, but I have it balanced PERFECTLY. What can I do?

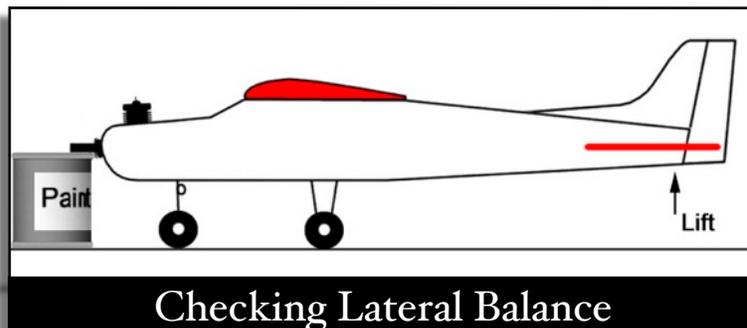
A. You can try moving the CG back a little, i.e., removing nose weight or adding tail weight.

Q. But it balances EXACTLY where the manufacturer suggests.

A. All I can say is: all airplanes are different. Depending on how your plane was built, and how you want it to fly, the CG will change. The manufacturer only gives you a reference point for starting out. The only way to know for sure where your plane should balance is to fly it - which is a good reason to have an experienced pilot do the maiden flight if you are not one yourself. Add small amounts of weight, enough to move the CG in 1/8" increments, and fly it again. Keep repeating this until the plane behaves as YOU think it should.

Q. What about Lateral Balance?

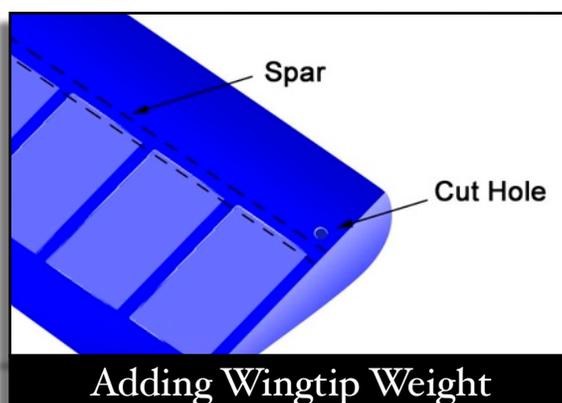
A. Lateral balance (side to side) is not as critical as forward to back, (in fact, I flew in the 60's and 70's without ever balancing a plane laterally) but it really is a good idea to check and adjust (and it's a MUST if you're flying aerobatics).



Q. So how do you check it?

A. There are as many ways as there are pilots. I have heard of suspending the plane from strings attached to the prop and to the tail wheel (OK if you have a tail wheel), but here is what I do: First, the nose must be held. You can ask someone to hold the prop for you, or if you're alone, you can set a block, or a paint can, or something similar under the spinner (or under the engine's thrust plate). Then stand at the rear of the plane and put one finger under the fuse all the way at the back and lift it a few inches off the table. Notice which way it tips. Repeat this several times. If it falls to the same side each time, add weights to the lighter wing tip. To determine the amount of weight needed, BB's or other small weights can be placed in a sandwich bag and set on the wing tip (Since I am also a fisherman, I often use those little fishing weights known as "Split Shots"). Keep repeating this until either: (a.) balance is achieved, or (b.) the model tips 50-50 to either side.

Next, put a small hole in the bottom of the wing tip (or outboard rib bay if you have solid tips), coat the weights with epoxy (Any kind of epoxy will do, i.e., 5 min. - 15 min. - 30 min., etc.), and drop them into the wing. Then stand the wing up weight side down until the epoxy cures. Finally, cover the hole with a patch of covering or plastic tape (Of course, this is assuming that you wing is covered with an iron-on or other plastic covering).



Q. That's all there is to it?

A. Well, that's all you need to know to get you flying. Of course there are some finer details that can be too complicated to get into here, but you now have enough info to keep your plane from falling out of the sky due to balance problems.

I have often written, telling you that this Newsletter "SMOKE SIGNALS" belongs to you, the members of The Meroke RC Club. It belongs to us all and thrives when members contribute to its publication. This month club member Joe Pellegrino has contributed the following article. My thanks to Joe and to all who care about the quality of the Newsletter and take the time to be a part of its success.

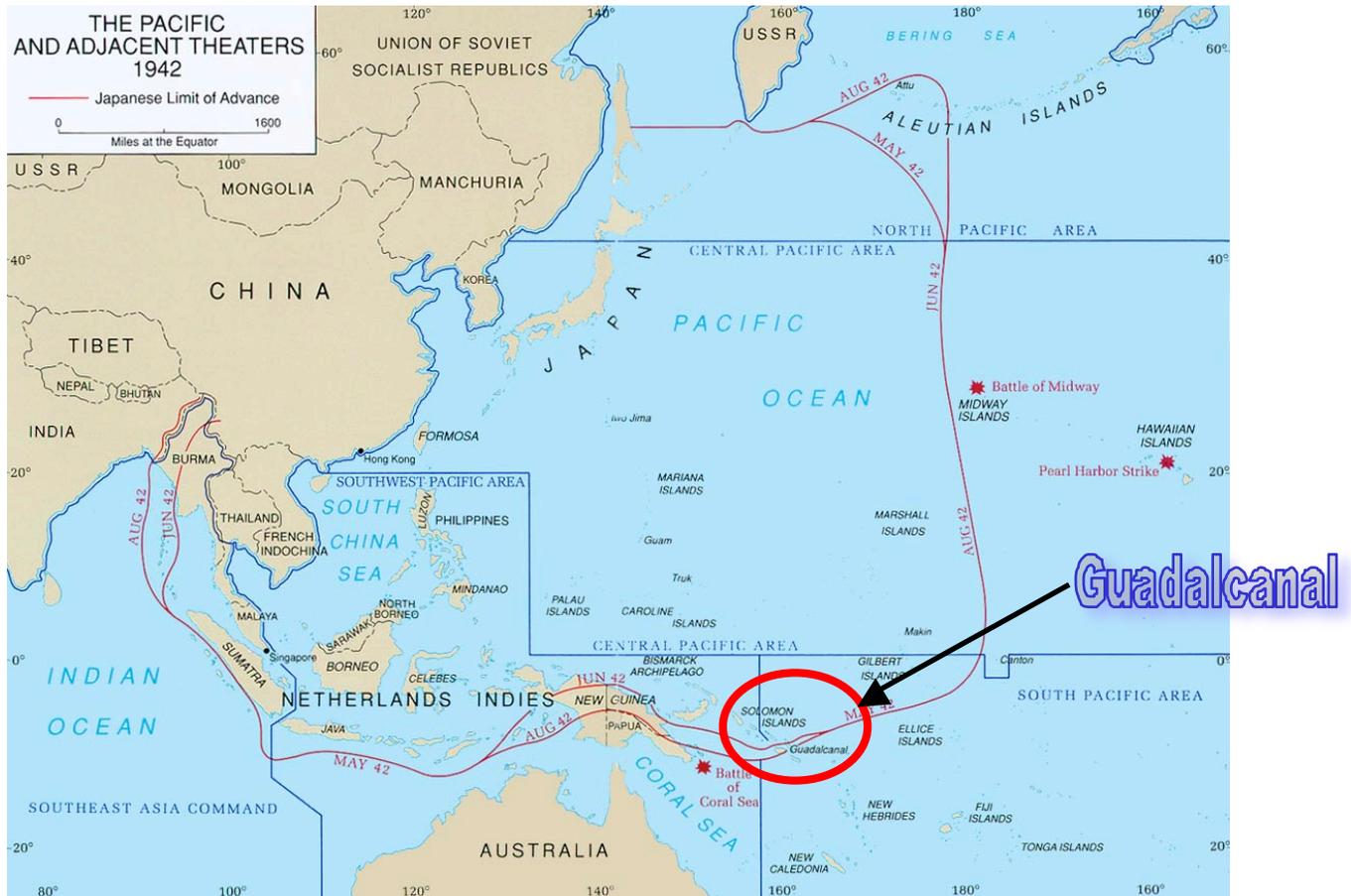
Comprised by: Joe Pellegrino

Cactus Air Force	
	
<p>Cactus Air Force aircraft crowd Henderson Field, Guadalcanal in October, 1942</p>	
Active	August 20, 1942 – April 1943
Country	United States, New Zealand
Allegiance	Allies of World War II
Branch	United States Marine Corps, United States Army, United States Navy, Royal New Zealand Air Force
Type	Ensemble air unit
Role	Aerial warfare
Garrison/HQ	Henderson Field, Guadalcanal, Solomon Islands
Commanders	
Notable commanders	Roy Geiger, Louis E. Woods Francis P. Mulcahy

Cactus Air Force:

- The ensemble of Allied air power assigned to the island of Guadalcanal from August 1942 until December 1942 (the early stages of the Guadalcanal Campaign) operating from Henderson Field.
- After December, the official name of the unit became the **Allied Air Forces in the Solomon's** (but Cactus Air Force was still used frequently to refer to the organization)
- The term "Cactus" comes from the Allied code name for the island. In April 1943 the organization was re-designated as AirSols.

Background



The Pacific Ocean, in August 1942. Guadalcanal is located in the lower right center of the map.

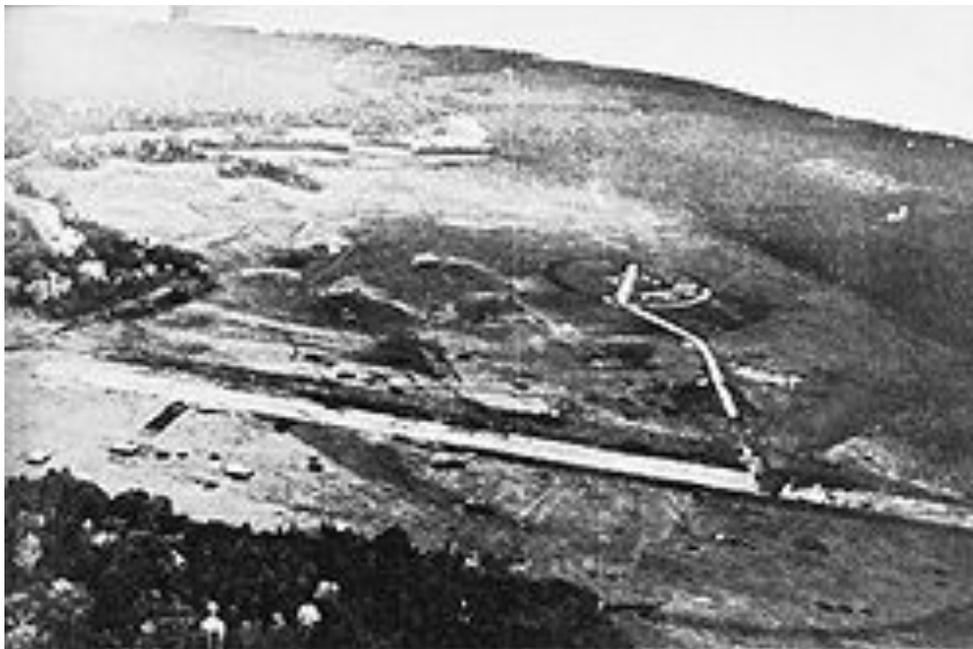
- On December 7, 1941, the Japanese attacked the U.S. Pacific fleet at Pearl Harbor, Hawaii.
- In launching this war, Japanese leaders sought to neutralize the American fleet, seize possessions rich in natural resources, and obtain strategic military bases to defend their far-flung empire.
- Two attempts by the Japanese to extend their defensive perimeter in the south and central Pacific were thwarted in the Battle of the Coral Sea (May 1942) and the Battle of Midway (June 1942).
- These two strategic victories for the Allies provided an opportunity to take the initiative and launch a counter-offensive against the Japanese somewhere in the Pacific. The Allies chose the Solomon Islands, specifically the southern Solomon Islands of Guadalcanal, Tulagi, and Florida.
- Concern grew when in early July 1942 the Japanese Navy began constructing a significant airfield near Lunga Point on nearby Guadalcanal.



The airfield at Lunga Point on Guadalcanal under construction by Japanese forces in July 1942.

- On August 7, 1942, the First Marine Division landed on Tulagi and Guadalcanal at Lunga Point, capturing the partially completed Japanese airfield and marking the first counter-offensive taken by the Allies during in the Pacific Theater.
- More construction work began on the airfield immediately, mainly using captured Japanese equipment.
- On August 12, the airfield was renamed Henderson Field, for Major Lofton R. Henderson, who was killed during the Battle of Midway and who was the first Marine Corps pilot killed during the battle.
- By August 18, Henderson Field was ready for operation.

Henderson Field



Aerial view of Henderson Field on Guadalcanal, August 7, 1942



- When the first planes began arriving, Henderson Field could barely be described as an airfield.
- The runway was a northwest to southeast running, 2,400-foot (730 m) long gravel surface with an extra 1,000 feet (300 m) of Marsden Matting that was frequently pockmarked with craters from Japanese artillery and naval gunfire.
- The strip was in such poor condition that it caused as many losses to aircraft as enemy action.
- There were no fuel trucks, aircraft hangars, or repair buildings.
- Damaged aircraft were cannibalized for spare parts, and with no bomb hoists, all aircraft munitions had to be hand-loaded onto the warplanes.
- Fuel, always critically low, had to be hand pumped out of 55 gallon drums.
- On September 9, 1942, the U.S. 6th Naval Construction Battalion (Seabees) opened up a second runway about one mile to the east of Henderson Field's original runway.
- This new runway, called "Fighter 1", consisted of tamped-down sod, and it was about 4,600 feet (1,400 m) long and 300 feet (91 m) wide.
- Proper runways began to be installed using shipped-in ground-up coral, since the local coral was deemed to be too rotten and slushy.

Japanese

- The great majority of the Japanese aircraft engaged by the Cactus Air Force during its history were from Imperial Japanese Navy air units.
- On the morning of August 7, the 5th's air strength consisted of 39 fighters (A6M3 "Zeros"), 32 medium bombers (Mitsubishi G4M Type 1 "Betty"), 16 dive bombers (Aichi D3A1 "Vals"), and 17 seaplanes, including the 15 seaplane aircraft at Tulagi

Operations

- August
 - August 20
 - Marine pilots from Marine Aircraft Group 23 with eighteen F4F Wildcat fighter planes of VMF-223
 - A dozen SBD Dauntless dive bombers of VMSB-232, landed at Henderson Field
 - August 22
 - U.S. Army's 67th Pursuit Squadron, with five Army P-400s (an "export" version of the P-39)
 - August 24
 - Eleven SBD dive bombers that came from the aircraft carrier USS *Enterprise* because they were unable to land on their own carrier, with battle damage sustained during the Battle of the Eastern Solomons
 - At the end of August

- these warplanes were joined by nineteen more Wildcats from VMF-224
- Twelve more SBD dive bombers from VMSB-231, also part of the Marine Air Group 23
- This varied assortment of Army, Marine, and Navy pilots and warplanes was the beginnings of the Cactus Air Force.
- **September**
 - September 2
 - U.S. Marine 3rd Defense Battalion began operating air search radar at Henderson Field, which, along with reports from the coast watcher's, helped provide early warning of incoming Japanese warplanes.
 - By September 3
 - CAF consisted of only 64 flyable airplanes.
 - Between August 21 and September 11
 - Japanese raided Guadalcanal a total of ten times, losing 31 aircraft destroyed and seven more heavily damaged, primarily due to the defensive efforts of the CAF fighter planes.
 - During this same time, the CAF Marine Corps fighter squadrons lost 27 aircraft with nine pilots killed

- **November**



The Pagoda that served as the headquarters of the Cactus Air Force

- CAF reached its peak of combat power on November 12 with 47 fighters, 23 tactical bombers, and 12 medium bombers.
- The first aviation units from another country to arrive at Henderson Field came on November 26, 1943, with the arrival of No. 3 Squadron of the Royal New Zealand Air Force, with Lockheed Hudson light bombers for reconnaissance work.
- On December 26 there were 161 aircraft of all types at Guadalcanal.



Tactics employed

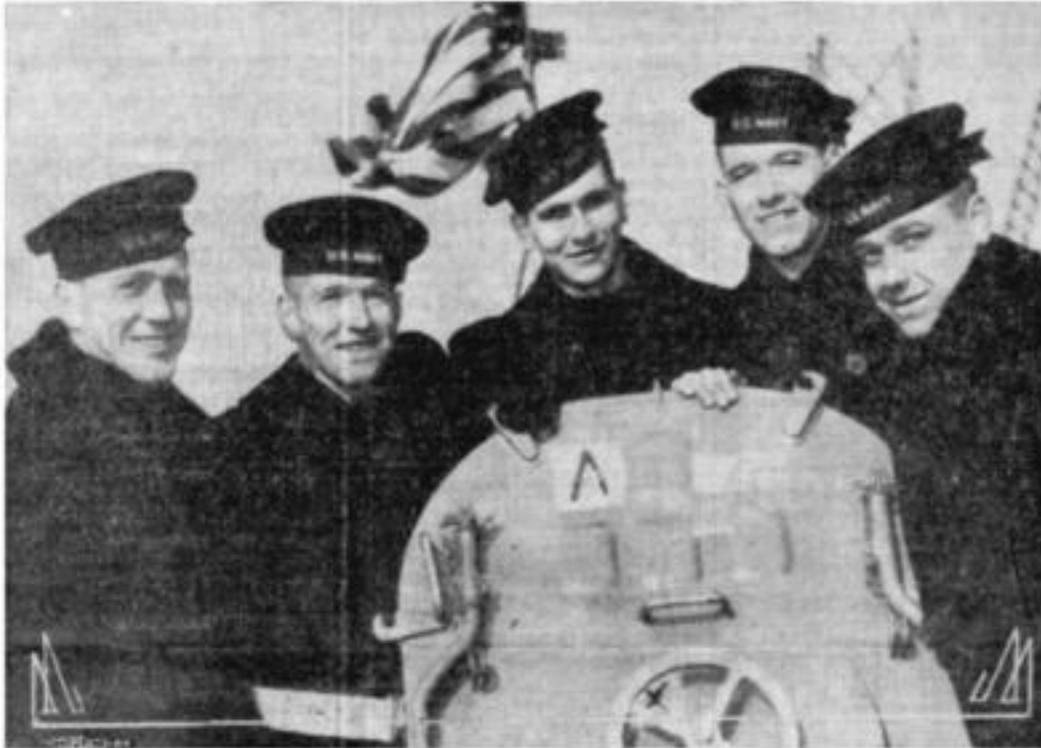
- U.S. Navy and Marine fighter pilots were at a disadvantage from the start because their F4F Wildcat was not in the same class as the Japanese A6M Zero when it came to service ceiling, rate of climb, and maneuverability.
- The American pilots learned quickly not to dogfight with the Zero.
- Because of the Zero's maneuverability, American pilots quickly adapted hit and run tactics similar to those used by the American Flying Tigers in China and Burma
- The "*Thach-Weave*."
 - This technique had previously been developed by the U.S. Navy fighter pilots John Thach and Edward O'Hare
 - The aircraft would remain in the same general area of one another and if Zeroes showed up, they had a better chance of engaging the aircraft on the tails of their wing men.

Aircraft Flown

- American
 - F4F-3 Wildcat
 - SBD Dauntless A-24 Banshee
 - TBF/TBM Avenger
 - P-39Q Air Cobra
 - PBY Catalina
 - J2F Duck
 - PBY Catalina
 - Hudson A-28/A-29/AT-18
- Japanese
 - A6M "Zero"
 - Mitsubishi G4M "Betty"
 - Aichi D3A1 "Val"

One last thought: No two brothers will ever serve on the same ship again!

Conductor Gives Full Measure of Devotion; Loses Five Sons When Cruiser Juneau Sinks



The five Sullivan brothers who were reported "missing in action" when the cruiser "Juneau" was sent to the bottom by the Japanese. From left to right: Joseph, 23; Francis, 26; Albert, 20; Madison, 22, and George, 29.
—Photo by Press Association.

Family of Union Railman Suffers Heaviest Blow Since Pearl Harbor and Probably The Worst in Naval History, Officials Declare

A UNION railroad worker—member of the Order of Railway Conductors—was revealed this week to have made the greatest sacrifice of the war for the sake of his country's victory.

He is Thomas F. Sullivan of Waterloo, Iowa, a freight conductor on the Illinois Central and a member of the O. R. C. for two decades. He lost all his five sons in the battle of the Solomons, the Navy Department disclosed.

The five, all employees of a Waterloo meat packing firm, had enlisted in the navy together and insisted on serving together. They wanted to go to the south Pacific, where the fighting was fiercest, to avenge

the death of "a buddy," an Iowa boy, who had been killed at Pearl Harbor during the Japanese attack.

Ordinarily the navy tries to divide members of the same family among different ships, Secretary of the Navy Frank Knox explained. But the Sullivan boys were so determined to remain united that the navy relented and let all sail on the cruiser Juneau.

George T., 29, the oldest, was a gunners' mate, and Francis H., 26, a coxswain. The other three—Joseph F., 23; Madison A., 22, and Albert L., 20—were seamen, second class.

Last fall, the Juneau, with the Sullivan brothers aboard, defeated the 'Japs in a blazing battle off

Guadalcanal, but in November the ship was sunk, and all five boys were listed by the navy as "missing in action," which, barring some miracle, means they lost their lives.

Navy officials declared this was "the heaviest blow suffered by any family since Pearl Harbor and probably the worst in American naval history."

From Waterloo there came word that both parents are trying bravely to "buck up" under the loss.

"If they are gone," said Mrs. Sullivan, through tear-dimmed eyes, "it will be some comfort to know they went together—as they wanted—and gave their lives for their country and victory."

<http://mikesnoise.typepad.com>