



AMA Charter 1344
Gold Leader Club

Hangar Talk

Inside this issue:

From the President

Meeting Minutes

Navy Mustang

From the President

2013 is underway, and as I stated at the beginning of last year my goals are simple: Continue doing the things club members enjoy and maintain our airfield as one of the premier flying sites in Colorado. With the combined efforts of all of you, we met those goals last year. With your continued support we will do so again this year. Thanks!

Our annual Snowbird event was cold but the winds were low and overall, it was a great day. The stove going inside and everyone was able to warm up when needed. As always, there was plenty of food. Tom and Gary joined forces to run the event and provide the trophies. This year the task was flying as many loops as possible in 60 seconds and it was dominated by electric planes. Tom came in first, Lee was second and Jake rounded out the top three. Congrats to everyone that came out and gave it a try and a very big thanks to Tom and Gary and everyone that brought food and helped cook. Be sure to check out the pictures on the web site.

January meeting. There were several guests, one brand new member and one that committed to join soon. Our thanks go to Larry Fueher for doing the leg work to get our new hats designed, ordered and delivered. They look great with the embroidered logo. We have 48 hats selling for \$12 to members and \$15 to non-members. We also have around 20 M.A.S. T-shirts for \$10 each in size "large". We sold quite a few hats at the meeting and several more at the airfield. If you want one, check with Dennis or myself, we will have some with us when we come out to fly.

Around the middle of December Matt Pollart from the Colorado State Board of Land Commissioners stopped by the airfield and luckily Mark Smith was there flying. Mark directed Matt to me and we talked on the phone a few days later. Matt informed me that the prairie dog population is out of control in the area and that he is coordinating a one day mass chemical attack in January or February. Apparently, M.A.S. is responsible for controlling the prairie dogs on the land we lease from the state and we are expected to participate. A permit is required to purchase and apply the chemical, so we will need to work with a licensed contractor, possibly one of the nearby farmers. The cost will be between \$6 and \$8 per hole for an estimated \$200-300. Matt will call me when a date is set.

Upcoming meetings and events Dues are Due...

Feb. 23rd - Wings over the Rockies

February 28th Meeting

March 28 Meeting

April 20th - Work Day

April 25th Meeting

May 4-5 - IMAC contest at MAS field

June 15 - MAS Family Picnic (potluck at field)

July 13-14 - Pattern contest at MAS field

July 31-Aug 4 - Adams County Fair

Aug 10 - Kids day

From the President continued:

We reviewed and discussed the 2013 club activities.

- Jefco Auction February 13
- Aeromodeling Expo @ Wings Over The Rockies on February 23rd. MAS will have a booth again this year. The museum has undergone extensive remodeling and is worth a visit.
- Spring cleanup at the MAS Airfield – April 20. We will put together a list of chores and post it at the field. If you see something specific that needs attention, please let me or one of the board members know about it. The weather alternate date is April 27.
- The 3rd Annual Lamar Steen IMAC event – May 4 and 5.
- Annual family picnic (pot luck) – June 15
- 1st Annual M.A.S Pattern event – July 13 and 14.
- Adams County Fair – July 31 thru August 4.
- Annual Kids Day Event – August 10.
- Warbirds Over the Rockies – September 13 - 15

2013 is shaping up to be another great year at MAS. Your participation in club activities and camaraderie is what club membership is all about and what attracts new members. So lets all have fun, help those around us enjoy our hobby and above all – BE SAFE.

I'll see all of you at the airfield.



January Meeting notes

Larry F. brought the new hats. They look good. We sold 6 at the meeting. \$12 for members. Dennis has them, so contact him if you'd like one.

We had one visitor, Dan Craig. He flies electric and is thinking of joining. Speaking of joining, we got one new member who joined at the meeting. Everyone welcome Ken Funk.

At you know, there is a lock on one of the porta-potties at the field. Recently, the lock has been open, so when the guy comes to clean the unlocked potty, he thinks the other one needs cleaning too. The problem is, that costs MAS almost \$100. We need to keep the lock locked on the unused potty. It was decided at the meeting that we'll change the combination on the lock. Only Lee and the officers will know the new combination. This should prevent just anyone opening it and drop our costs.

Jeff wasn't at the meeting, but Larry explained that he hasn't gotten to the tables yet. He will. Larry F. is getting lumber for the top and seats. Based on that, Larry F. doesn't think Jeff needs to take them home. The two will talk.

Lee and Milo think we need to replace the roof. This was brought up last year. When it gets warmer, we'll get that project going.

Lee mentioned that we have cracks in runway that are getting big. We need to get them filled. Snow and ice will make them worse of course, but we also need some warm days to fill them properly. No plans were made to do it.

The RC event at Wings Over the Rockies is Feb. 23rd. Larry O. has a list of names to work our booth. There are 9 names on the list so far. If you signed-up, be there between 7:30am and 9:45am. The doors will be locked at 9:45am, so don't be late. When you arrive, go to the registration desk and tell them what club you're with. Without doing that, they won't let you in.

As usual, we'll have a table with planes on it. We'll explain what we do and what the club is. There are demos of free flight, helis, control line, 3d, etc. This is an AMA sanctioned event. 2 airplanes per person MAX!. 1 if it's big.

Treasurer's note: This is a Work Bond event. If you show-up and help, you'll knock out one of your Work Bond obligations.

Mark Smith was contacted by the State Land Commission board. They are organizing a prairie dog kill day. All the farmers in the area will be doing it on the same day. It is our responsibility to get the ones on our property. We have to buy the poison. The problem is we don't have a permit to buy the poison. They said we could get a contractor to do it, but it's \$6-8 per hole. We have probably 20-30 holes. Larry O. said the state is supposed to call us with details on when and also give us a name of a company that could do it for us. Some members asked if Monk (the farmer/rancher near the field) has a permit. If so, he may be willing to help us. This will probably all happen within the next 6 weeks. Stay tuned.

willing to help us. This will probably all happen within the next 6 weeks. Stay tuned.

Calendar for 2013:

- Feb. 23rd - Wings over the Rockies
- April 20th - Work Day
- May 4-5 - IMAC contest at MAS field
- June 15 - MAS Family Picnic (potluck at field)
- July 13-14 - Pattern contest at MAS field
- July 31-Aug 4 - Adams County Fair
- Aug 10 - Kids day

As we always do at the start of the year, we held a drawing for some cash. For every meeting you attend or every Work Bond event you do, you get a ticket. These were the tickets we drew from for this drawing. These are the winners for 2012:

- \$25 - Lee Overholt
- \$50 - Larry Litsey
- \$100 - Jake Martinez

BTW for those of you who have not paid, dues are due.



HISTORIC AVIATION

The Naval Mustangs
by Gaëtan Marie

With a surface of 69 millions square miles, the Pacific Ocean covers nearly a third of the Earth's surface. During World War II, military operations in the Pacific were confronted with the problem of range. This was particularly true of aerial operations. Mainland Japan was bombed on 18 April 1942 by Doolittle and his raiders, but that was a one-time effort of mostly psychological value. All of the 16 aircraft involved were lost, and 11 of the 80 raiders were either killed or captured. After that, no bombing raids were flown against the Japanese Home Islands until the second half of 1944 when B-29 long-range bombers were used from bases in China and later the Marianas islands. These raids were unescorted as no fighter had the range to escort the bombers all the way to Japan and back.

The lack of escorts for the B-29s became a growing concern. One of the solution that was considered was to have fighter launched from aircraft carriers located closer to Japan join the bombing raid. Even so, no naval fighter had enough range. The only fighter which seemed suitable for this was the North American P-51 Mustang.

The Mustang had initially been designed as a fighter, and evolved into a dedicated long-range escort fighter by late 1943. It had never been intended for carrier-borne operations. Most naval aircraft are designed as such from the start for several reasons. The stress endured by airframes during catapult launches and arrested landings far exceeds that of normal, land-based operations. This requires modifications to the aircraft, notably reinforcement of its fuselage and undercarriage. Catapulting hooks are required for catapult launches, and a tailhook is needed to catch the arrester cable upon landing. The small size of an aircraft carrier deck also means that a low approach speed is preferable.

The environment in which naval aircraft evolve is also a problem. High salt and humidity levels greatly increase corrosion. Naval aircraft, just like ships, need to be treated to retard this as much as possible. Lastly, space is a rare commodity on an aircraft carrier, and folding wings are a very desirable feature of any naval aircraft.

The Mustang had none of these features but, due to urgency, it was decided to modify a Mustang and investigate its performance in carrier operations. The program was given the name "Project Seahorse". An early-series P-51D was selected. P-51D-5-NA serial number 44-14017 was retained by North American Aviation in Dallas, Texas. [\(1\)](#)

To enhance low speed handling, it was fitted with a fin fillet extension. This was a standard retrofit for early-series P-51D aircraft. The other modifications were specific to the new naval role of the aircraft. A tailhook was fitted, attached to a reinforced bulkhead. A catapult hook was fitted on the fuselage centerline, just forward of the wing. To cope with hard carrier landings, the tires were replaced with special high-pressure ones. The main undercarriage shock absorbers received increased air pressure to reduce bouncing upon landing. The airframe was also reinforced in various points to withstand the extra stress.

Thus modified, 44-14017 was redesignated ETF-51D and sent to Mustin Field, near Philadelphia, for initial testing in September 1944. The pilot in charge of testing the ETF-51D was Navy Lieutenant Robert M. Elder. He was an experienced naval test pilot who had already conducted carrier-suitability trials with several types of aircraft.

One of the runways at Mustin Field was specially modified in order to test the naval Mustang. Markings simulating the size of an aircraft carrier's deck were realized and arrester cables were installed, as well as a launch catapult.

During the months of September and October 1944, Lt. Elder made nearly 150 simulated launches and landings with the ETF-51D. Sufficient data concerning the Mustang's low speed handling had to be gathered before carrier trials could begin. The Mustang's laminar-flow wing made for little drag and high speed but was relatively inefficient at low speed, resulting in a high stall speed. As the arrester cables could not be engaged at more than 90 mph, Elder reported that "*from the start, it was obvious to everyone that the margin between the stall speed of the aircraft (82 mph) and the speed imposed by the arrester gear (90 mph) was very limited.*"

By late October 1944, Elder had amassed enough data and was confident the ETF-51D could enter the next stage: live carrier operations at sea. The ETF-51D was transferred to the USS Shangri-La (CV-38), a newly-launched Essex class carrier undergoing her shakedown cruise off the coast of Virginia. On 15 November, Elder made the first P-51 carrier landing. This is the extract from the ship's log:

NOV 15, 1944 1220hrs

Lt. Robert M. Elder, USN, made the first carrier landing of P-51 type fighter plane #414017, followed by three landings and four takeoffs all successful.

It is interesting to note that 15 November was a special day for the Shangri-La. It was the day flight operations began on the ship. Also, on the same day, the PBJ (the US Navy version of the B-25 bomber) made its first carrier landings and launches from it.

Bob Elder "*made all carrier landings at the speed of 85 mph. Luckily, the Mustang reacted well, even in the most delicate situations. One just had to use the throttle wisely.*" Elder reported that speed control on the ETF-51D was excellent. He also stated that "*the forward visibility was good and never gave me any problems. In fact, fighters with radial engines such as the F4U or F6F were worse than the P-51 in that respect.*" The aircraft also behaved well during catapult launches.



But everything was not perfect. As previously mentioned, the margin between stall speed and maximum engagement speed was small, too small for safety. Rudder control at low speeds and high angles of attack was inadequate. In addition, landing attitude had to be carefully controlled to avoid damaging the airframe upon landing. One of the handling quirks of the Mustang was also potentially dangerous. During a missed approach or a wave-off, power has to be re-applied gently. If not, the aircraft could roll rapidly, or even snap-roll. At such low speed and altitude, the result could only be fatal.

The carrier suitability trials were rather short: only 25 landings and launches were made. Elder wrote “Although I had “premiered” many US Navy aircraft carrier landings, no such experience had been as interesting as with the Mustang”. Nevertheless, he did not think the Mustang had its place in naval operations.

By early 1945, the islands of Okinawa and Iwo Jima were conquered. Their airfields were immediately taken over by US forces, providing fighter units with bases from which they could escort bombers to mainland Japan. The navalized P-51 was no longer needed and the program never went any further.

The NAA-133 project never went further than the design stage. However, the US Navy did continue to play with the idea of navalized Mustangs for some time. In August 1945, P-51H-5-NA #44-64420 was transferred from the Army Air Forces to the Navy. It was used to determine whether the P-51H had low-speed performance that would allow it to operate from carriers. The handling of the aircraft at approach speeds was considered adequate and much better than that of the P-51D. Once this had been ascertained, no further testing was undertaken for some time.

In late 1947, another P-51H was borrowed by the US Navy: P-51H-10-NA #44-64700. This aircraft was modified by the Naval Aircraft Factory and received a center-line catapult attachment point. The aircraft was used to test new catapult equipment. A few catapult launches were made at different weights, and the type was considered suitable for catapulting with no further modification.





Had the naval Mustang entered operational service, this is what it could have looked like. Based on a VF-4 F6F Hellcat's livery in early 1945. Profile by Gaëtan Marie.

Obviously, the Navy was interested in the Mustang's long range at a time when early jets had very short "legs" and could not stay over the battlefield or stand patrol for extended periods. Nonetheless, navalized versions of the P-51H appear not to have been attractive enough to warrant further interest. Attempts to navalize the Mustang thus came to an end and the "Seahorse" became an amusing and little-known "what-if" part of aviation history.

2013 Club Officers

President **Larry Ott**
Vice Pres **Jeff Griego**
Treasure **Tom Glaess**

Board **Earl Keffer**

Board **Steve Graham**

Board **Lee Overholt**

Field Maintenance

Newsletter Editor **Gary Hodges**
gbhodes58@msn.com

Web Page

<http://www.miniatureaerosporters.org>

Serving the Northeast Denver Area the Miniature Aero Sportsters flying site sits on 48 acres with a 500 foot paved runway. The club is open to all who have a current AMA membership. The Miniature Aero Sportsters consists of a group of individuals with a common interest in radio control aircraft. Club meetings are on the 4th Thursday of the month at Gander Mountain Sporting Goods located at 9923 Grant Street Thornton , CO. Meetings start promptly at 7:00 pm. All M.A.S. club members are encouraged to attend meetings, and to become actively involved in the club's activities

The first year there is a once a lifetime \$35 initiation fee charged to all new members. Total first year dues are \$125, every year after that Annual membership dues are \$90.

For membership information check out our web page:



HobbyTown USA
9120 Wadsworth Blvd
Westminster, CO 80021
Phone: (303) 431-0482
Email: htwestminster@mesanetworks.net

All articles or items of interest should be submitted to me by the 1st Wednesday of the month. Newsletter editor (that's ME) reserves the right to accept, refuse and edit all articles submitted for publication. Articles or items submitted after the deadline will be included in the following month's newsletter. Send or deliver articles to:

Gary Hodges
gbhodes58@msn.com

Published articles reflect the author's opinion and may or may not reflect those of the club in general, its officers, or the newsletter editor.