# THE SCOUL ROLL President-Frank Moskowitz

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President—Frank Moskowit: Vice President—Tony Quist Treasurer—JB Bowers Secretary—Lou Pfeifer IV Editor—Bob Purdy rcbobsyf@aol.com





The Slow Roll is published by the Sun Valley Fliers by and for its membership to all others interested in the building and flying of radio control aircraft.





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**SVF MEETING JUNE 3 @ 7 PM** 

### THE PRESIDENTS CHANNEL

Frank Moskowitz

June 2015 Slow Roll Presidents Letter

Welcome to Junes Slow Roll.

Elections are over and for those of you that weren't in attendance at the election meeting in May; the results are as follows with new officers and

board members in red: Our club officers; Frank Moskowitz – President, Tony Quist – Vice President, Lou Pfeifer IV – Secretary, J B Bowers – Treasurer. Our Board Members; Andrew Schear, Bob True, Steve Miller, Charlie Beverson Eric Stevens, Mike Smith, Wayne Layne, John Russell and Dan Bott. I thank all of you that took the time to attend last month's election meeting to vote for your candidates and those of you that utilized our new online voting method. I also thank those of you for voting for me as your president. I will always do my best to make sure this club is the best in Arizona. Our safety officer position is up for grabs at this point. If you are interested please let any board member know. The pay is terrible and the hours are long. But the rewards are forever. Let's make this year a productive one for our club. I always welcome comments so please feel free to call me anytime you want to chat about club related issues. You can always reach me at 602-809-4195. If I don't answer, please leave a message and I will get back with you. I can receive text messages on that number as well.

Summer is moving in fast, along with our record breaking triple digit temperatures. Make sure you protect yourself from those harmful summer rays. Use sun screen on exposed skin. You can still purchase hats from our website links for apparel. For a list of apparel that SVF sells, go to our website www.sunvalleyfliers.com and click on either of the two apparel links. They are located in the center of our web page under the Slow Roll thumbnail picture.

Our next meeting is Wednesday June 3<sup>rd</sup> at 7:00 pm. Location is Deer Valley Airport Restaurant. (7th avenue and Deer Valley Road). Lots of great food to purchase. If you want to eat I suggest you arrive no later than 6:15 pm. The Club meetings get better every month. We will always have more than one raffle prize and the 50/50 could make you very happy \$\$\$. You never know what might happen, and you don't want to miss it. Have fun out there!

Frank Moskowitz President **SVF MEETING JUNE 3 @ 7 PM** 





#### **Sun Valley Fliers General**

#### **Membership Meeting Minutes – 5/6/2015**

Meeting called to order by Frank Moskowitz at 7:33Pm. There were 41 members present

**Executive members in attendance** 

•Frank Moskowitz- President, Mike Peck – VP,Lou Pfeifer IV- Secretary, J B Bowers –Treasurer Board Members in attendance: Charlie Beverson John Russell, Dan Bott, Eric Stevens, Mike

#### smith,

**Absent:** Wayne Layne, Ron Thomas

**Open:** Ken resigned. Frank explained what happened with the voting procedure. Thanks to Frank, Mike, and Lou for the hustle to get the election off on time.

• Charlie Beverson received an award for all his help in the years with the club. Thanks Charlie on being a good guy and all the years of help. We all thank you!

Guests: Mike Metz New Members: None Solo Pilots Jerry Dolbow

Secretary's Report – Lou Pfeifer

Minutes from the 4/1/2015 meeting were approved as published in the Slow Roll.

#### **Treasurer's Report – J B Bowers**

• **J B** gave his financial report to the members. His report is on record for review upon request by the members.

#### **Membership Director's Report – Mike Peck**

• There are 264 paid members for 2015. Mike will stay on as Membership Director

Safety Officer's Report: None

Old Business: Svf apparel is now on the web site.

- As we discussed before many times *CLOSE THE GATE AND LOCK IT!!!!!* It happened again and was left open! WE WILL LOOSE OUR FIELD!!!! **NO ONE LEAVE THE GATE OPEN FOR ANY REASON!!!!!!!!**
- The NEW Gate key is going in EFFECT!!!! Make sure you have the NEW KEY!!!! If you do not have one please contact any of our BOARD MEMBERS!

#### **New Business:**

- In accordance with our **2015 SVF Administrative Actions/Submissions Schedule**, we are to conduct annual officers/board election.
- Mike Peck has stepped down after many years of great service to our club. Thanks Mike!
- The results of the Election are as follows:

President: Frank Moskowitz
 Vice President: Tony Quist
 Secretary: Lou Pfeifer IV
 Treasurer: J B Bowers

Board Members:

Mike Smith

Steve Miller

Andrew Schear

Bob True

Wayne Layne

Door Prize Winners: Steve Miller, Jim Spice, John Olejniczac, Norm Pilcher, Pete Dickinson, Tom Goca, Scott John-

son, Andrew Schear, Mike Metz. 50/ 50 Winner: Roger Miller

**Show And Tell: None** 

The meeting adjourned at 8:00 pm

Respectfully submitted,

Lou Ffeifer IV, Secretary

# SVF Officers & New Board Members

2015-2016 Officers



President Frank M.



Tony Quist V.P.



Treasurer J.B. P.



Secretary Lou P. IV

#### 2015-2017 Board Members



**Wayne Layne** 



**Steve Miller** 



**Andrew Schear** 



Mike Smith



**Bob True** 

#### **AMA** member wins Indianapolis 500



If you happened to tune out the world of motor sports this past weekend, you missed some huge news! AMA member Juan Pablo Montoya won his second Indianapolis 500 on Sunday, May 24. His first Indy 500 victory came in 2000 when he was a rookie driver. Early in this year's Indy 500, another driver crashed into the back of Juan's car, dropping him to last among the 30 cars still running. He managed to squeak back to the front of the pack—passing his teammate Will Power with three laps to go to win his second career Indy 500. AMA would like to congratulate Juan on his victory. To learn more about AMA member Juan Pablo Montoya's love of model aircraft, you can read an article about him in the September 2010 issue of Model Aviation, which can be viewed in the digital library at https://library.modelaviation.com/ma/2010/9/offtrackgrinning-201009.











https://www.youtube.com/watch?v=QePqNOCRC\_I https://www.youtube.com/watch?v=LsziAToG6Ws https://www.youtube.com/watch?v=8sVfNJOkNr4 https://www.youtube.com/watch?v=Jnb2Ax9DRww https://www.youtube.com/watch?v=885JEnKIm8 https://www.youtube.com/watch?v=bb1t1WVdJ-E https://www.youtube.com/watch?v=vpvgbcgaQDQ https://www.youtube.com/watch?v=BkpYnAzuUNw https://www.youtube.com/watch?v=gH7JXAz3Tpw (B-17)

https://www.youtube.com/watch?v=gH7JXAz3Tpw (B-17) https://www.youtube.com/watch?v=IPP3Z0qXJcM (P-47)

https://www.youtube.com/watch?v=rTGq3TbJoeA (NIEUPORT 28)

http://www.modelairplanenews.com/blog/2015/05/06/top-gun-2015-static-award-winners/ (Winners)



SVF People are the most.....























#### The Battle of Palmdale

#### August 16th 1956, the typical clear blue California sky shone brightly.

At Point Mugu Naval air station, ground crews prepped an F6F-5K wildcat drone for it's last flight ever. The Hellcat was painted high-visibility red and was rigged to be guided by remote control. The plane was to fly out over the vast pacific into a training scenario where the navy would blast it out of the sky for target practice. But the Hellcat had other ideas.



Shortly after 11:30 A.M. the Hellcat drone took off from the navy base heading west over the ocean. Soon thereafter it started a lazy turn to the south and began heading straight towards the teeming metropolis of Los Angeles. The remote controllers at the navy base tried frantically to turn the escaped plane back out to the ocean to no avail. Having lost contact it proceeded to head straight into the heart of one of the most populated areas in the country.

When all backup systems failed, the Navy finally gave up and called for assistance. As the Navy had no fighter aircraft standing by, they swallowed their pride and made a call to Oxnard Air Force Base. Five miles north of

the navy base were two F-89D Scorpion interceptor jets ready to scramble. Being that this was in the thick of the cold war era, the planes were armed and fueled and ready to go. The Scorpions were armed with two rocket pods containing 52 Mighty Mouse rockets. These rockets were designed to be fired into approaching Russian bomber formations and thus had no guidance systems. However, today, this was an altogether different threat. 1st Lt. Hans Einstein and his radar op 1st Lt. C. D. Murray sprinted across the tarmac and climbed into their waiting silver steed. 1st Lt. Richard Hurliman and 1st Lt Walter Hale jumped into the second plane and joined the pursuit.



The Air Force planes raced southward at full speed to intercept the small wandering blip on their radar. At 30,000 feet just north of Los Angeles the sprinting jets intercepted the portly drone. It was on a southwest course that took it directly over Los Angeles, then it turned slowly circling over the city of Santa Paula. The pilots were waiting for it to wander away from populated areas so they could blast it from the sky.

Soon the red Hellcat drifted over a rural area known as Antelope Valley. The pilots tried to fire their rockets with a turning fire-fire control method, but a malfunction in the system prevented the rockets from igniting. The drone then turned southeast and began

heading back for the center of Los Angeles. Under pressure, the pilots decided it was now or never. They abandoned the automatic fire modes on the rockets and decided to launch them manually. One snag was that the gun sights had recently been removed from the planes! The theory was that they shouldn't ever have to use them because the automated firing system would target the rockets, but it had failed.



The pilots decided to fly by the seat of their pants and began their first rocket run. They set their intervalometers to "ripple fire," which would strafe the plane with three rocket salvos. The first plane lined up and let loose... and missed completely. The second plane's rockets undershot the fleeing drone.

The rockets blasted past the mindless drone, overshooting their target. They then descended into the mountains near the town of Castaic and ex-

ploded in the forest below. They started a raging forest fire that would destroy 150 acres in an area known as Bouquet Canyon.

The second salvo of rockets also missed the drone, blasting into the town of Newhall. These rockets started fires in an oil field. They ignited a number of oil sumps and began a fire that burned more than 100 acres of brush. These fires blazed out of control and almost reached the Bermite Powder company's explosives plant!

The drone continued to drift northward toward the town of Palmdale. Frustrated,



#### The Battle of Palmdale

the pilots tried another rocket run. The first salvo went wide again, and of the second salvo, a few Mighty Mouse rockets bounced harmlessly off of the slow moving drone's belly.

Suddenly in the quiet bucolic town of Palmdale, all hell broke loose. Mighty Mouse rockets fell from the sky like fiery hail. An explosion outside Edna Carlson's house caused shrapnel to smash her front window, blast through a wall, and wreck her pantry. Mrs Lilly Willingham heard a deafening explosion and nearly missed being maimed by a hot piece of metal that lodged in the wall inches from her face in her own living room. A rocket exploded in the middle of the street directly in front of the car young Larry Kemp was driving. The explosion blew out his tires, and made Swiss cheese of the front of his vehicle.

After a few minutes the mayhem subsided and the bewildered residents of Palmdale searched the skies. Was this a coordinated Russian attack? A nefarious Sunday surprise? Luckily, no one was injured in the battle and 13 dud rockets were recovered by air force ordinance disposal teams. But it took 500 of the region's firefighters two days to put out the brush fires that raged.

The pilots of the interceptor jets were running on fumes so they abandoned the mission and returned to their base defeated. The drone itself headed east and ran out of fuel. It descended in a spiral glide into an unpopulated area eight miles east of Palmdale. In it's final moments, it sliced through some power lines and cartwheeled into the dirt, disintegrating in the crash.

So this was the story of one of the only aerial battles to be fought in the skies over the continental United States. The story of how one oblivious, mindless drone evaded the concerted attacks of the state of the art weaponry of it's day. A day that will live in infamy for the rest of recorded history and will always be known as the Battle of Palmdale.





**VIDEO** 

https://www.youtube.com/watch?v=ZGTb7 FlaQVc

#### Mike Grady — B-17 Flying Fortress

At this year's scale invitational, Mike's competition aircraft for Team Scale was this amazing WW2 4-engine, B-17 Flying Fortress heavy bomber. The B-17 was 1/9-scale and built from a Wingspan models kit and has a span is 138 inches with a fuselage length of 99 inches. Weight is 65 pounds. The model is electric powered and is equipped with four Hacker A60 electric motors and ESCs. Each motor is individually controlled so that the outboard motors provide differential thrust to offset the yaw inherent in a model with a large vertical stabilizer and tail wheel. Four Thunder Power 4S 7700mAh Lipo batteries are used wired in two 8S circuits. Each circuit draws about 5500 watts at full throttle using Master Air Screw 16X10 3-bladed propellers cut down to scale size.

The model also has BVM E Brakes for each main gear wheel to provide better steering and some additional yaw control at taxi speeds. Just like the real B-17 you can lock up one brake and rev up the opposing outboard motor to make a scale turn. I use an 18 channel Spektrum Transmitter, eleven JR servos and JR gyro's. The model is finished using catalyzed urethane primer and aluminum color coat. Model Master enamel is used for the top colors and is wet sanded and "tape pulled" to provide a weathered appearance. About 250,000 Pro Mark dry transfer rivets and fasteners are used for added eye candy under the top coat paint.





















#### Giant DC-3 Dakota – 18 years old and still flying!

Owner and pilot Dave Johnson notes that his 1/5-scale Dakota is 18 years old, with a white polystyrene foam fuselage and outer wing panels sheeted with balsa, then covered with Solartex and sprayed with automotive paint. The center wing section is all wood for strength. Powered by two Zenoah 62cc gas engines, the giant airliner has certainly held up well over the years! Thanks to Pete and Dean Coxon for taking this great video and posting it to YouTube.

VIDEO https://www.youtube.com/watch?v=b6gUlsSWg28



#### **FANTASTIC 58% ZLÍN Z-526**

If bigger is better, this Zlín is the BEST! With a wingspan of 201 inches, this giant aerobat is powered by a 4-cylinder ZDZ 420cc inline engine – just listen to that powerhouse on takeoff! The 1/1.73-scale model is based on the Czechoslovakian Zlín Z-526 AFS-V Akrobat Special (and a glider tug variant), nicknamed Kra as ("shorty") for its clipped wingspan and length as compared with the originally designed Z-526 variant. Thanks to YouTube's Airservicemen for sharing this great video.

**VIDEO** https://www.youtube.com/watch?v=piruV\_96JM0



#### 80%-scale V1 Buzz Bomb

The bi-annual Classic Fighters airshow in Omaka, New Zealand, re-enacts the exploits of WW II New Zealand forces attacking a German V1 rocket site in Egypt, and this 80%-scale, RC "b uzz bomb" was one of the stars of the show! Built by a large team over six months, the nearly 200-pound "Doodlebug" is powered by five electric ducted fans using 10, 5000mAh 6S LiPo packs. The scale launcher thrusts the model into the air with 3Gs of force! Thanks to Greg Alderman for sharing these pics on Facebook and to YouTube's Ourvideoworks for posting the video

VIDEO https://www.youtube.com/watch?v=zy03UVxfxqg

#### **YUMA AAF**

#### **Marine Corps Air Station Yuma**

#### **History**

#### Air Force use

Patch from the Flexible Gunnery School, Yuma AAB

In 1928, the federal government purchased 640 acres (260 ha) near Yuma at the recommendation of Colonel Benjamin F. Fly. Temporary dirt runways were installed for usage by military and civilian planes. It was called *Fly Field*.

The outbreak of World War II transformed the civilian airport into the **Yuma Army Airfield**. Construction of facilities began on 1 June 1942 and was activated on 15 December

Yuma AAF was a single-engine flight training school, operated by the Army Air Forces Flying Training Command, West Coast Training Center, with flying training beginning in January 1943. Its training unit was the 307th Single Engine Flying Training Group which operated AT-6 Texans, with the base operating unit being the 403d Army Air Force Base Unit. In 1944, the unit was upgraded to multi-engine flight training, operating B-26 Marauders. In addition to the flying training, a Flexible Gunnery School was established at the airfield in November 1943. Flight training was discontinued on 23 April 1945 and gunnery training on 31 May 1945.

The base was closed on 1 November 1945. After the war, the airfield was turned over to the Department of the Interior as a headquarters for the Bureau of Land Reclamation.

Emblem of the 4750th Air Defense Wing

On 1 January 1954, **Yuma County Airport** was reactivated by the United States Air Force Air Defense Command (ADC) as a training facility. In the mid-1950s, ADC was equipped almost solely with rocket-firing F-86D Sabre and F-89C Scorpion interceptors, and Headquarters USAF decided they should have their own training base.

Yuma Airport became the home of the 4750th Training Wing (Air Defense). The 4750th had two major components, the 4750th Training Group (Air Defense) and the 4750th Training Squadron. The group had two flying squadrons assigned - the 4750th TS equipped with six F-86D Sabres and six F-94C Scorpions: and the 4750th Tow Target Squadron equipped with twelve T-33As and eight B-45As used to tow targets for the live fire portion of the course.

The first ADC squadron arrived at Yuma for the Rocketry Proficiency Program on 1 February 1954. ADC squadrons rotated through Yuma on a regular basis for a two-week proficiency program that included 'live-fire' exercises over the Williams AFB and Luke AFB gunnery ranges.

The two-week course included a controller course, many hours in the F-86D simulator and at least one 'live fire' mission flown each day. The targets, usually towed behind B-45A tow ships, were 9'x45' target sleeves, with two radar reflectors attached for the interceptor fire control systems to lock onto. Most of the TDY personnel were quartered in tents near the flight line, at least until April 1954 when the first permanent barracks buildings were finished and air conditioned. By June, seven ADC units had rotated through the Yuma program.

Also Headquarters USAF decided to add a separate air-to-air rocketry competition to the annual USAF gunnery meet that was held at Las Vegas Air Force Base (renamed *Nellis Air Force Base* in 1950). The Interceptor Phase of the competition would be held at Yuma between 20 June and 27 June 1954. The competition would take place each year, with the last occurring in 1956.

Several changes occurred during the last half of 1954. On 24 August, Yuma County Airport was redesignated **Yuma Air Force Base**. On 1 September, the 4750th Training Wing became the 4750th Air Defense Wing (Weapons). The 4750th Group and squadrons were also redesignated. And on 8 January 1955, the 4750th Tow Target Squadron became the 17th TTS. Between July 1954 and the end of the year, ADC rotated eleven more squadrons through the Yuma program - nine in F-86Ds, and one each in F-94Cs and F-89Ds.

On 1 January 1956, the 4750th Drone Squadron was established as part of the 4750th ADW (Weapons). They were equipped with the brand new Ryan Q-2A Firebee drone, which was launched from GB-26C Invader aircraft. Although the drones were in place by Spring, the first GB-26Cs did not arrive until June, and the first Firebee flight took place in July. The Q-2A Firebees were recovered by H-21 helicopters after landing on the desert floor.

Yuma AFB was renamed on 13 October 1956 as **Vincent Air Force Base**, the installation was named for Brigadier General Clinton D. "Casey" Vincent, one of Major General Claire Chennault's top fighter leaders in the China-Burma Theater and the second youngest General Officer in U.S. Air Force history, receiving his star at the age of 29. Vincent was the subject of a TIME magazine article titled "Up Youth", [3] which covered the meteoric promotions of the Army and Air Force. Vincent was also an inspiration for the main character in the comic strip *Terry and the Pirates*. Vincent died of a heart attack in 1955 at the age of 40 while serving as the Deputy Chief of Staff for Operations, Air Defense Command (ADC) at Ent AFB, Colorado. [4]

In addition to the fighter units, Vincent AFB was used by Air Defense Command as a general surveillance radar station. The 864th Aircraft Control and Warning Squadron began operations in 1956 using AN/MPS-7 and AN/MPS-14 radars, the site being designated as "SM-162".

In addition to the main facility, Vincent AFB operated several AN/FPS-14 Gap Filler sites:

- Tacna, AZ (SM-162A): 32°41′01″N 114°03′07″W
- Corn Springs, CA (SM-162B): 33°38′49″N 115°15′36″W
- Stone Cabin, AZ (SM-162C): 33°14′24″N 114°15′27″W
- Palo Verde, CA (SM-162D): 33°17′51″N 114°44′28″W

Vincent AFB was transferred to the Navy on 1 Jan 1959, and the tenant radar site was renamed **Yuma Air Force Station**. On 20 July 1962, the base designation was changed to Marine Corps Air Station. In this time frame, the Air Force began construction of a new Yuma AFS (RSM-162) about 13 miles south of Yuma. However, the replacement site was never completed, as, in March 1963, the Air Force ordered the 864th AC&W Squadron to inactivate. Operations ceased 1 August 1963. [5][6]

#### **Marine Corps use**

The 4750th Air Defense Wing was inactivated at Vincent AFB on 15 June 1959 and control of the base was passed over to the United States Navy. Nine days later the base was turned over to the United States Marine Corps. The base was renamed Marine Corps Air Station Yuma (Vincent Field) on July 20, 1962.

MCAS Yuma is currently the busiest air station in the Marine Corps, offering excellent year-round flying conditions and thousands of acres of open terrain for air-to-ground weapons ranges, and associated restricted airspace for military flight operations. During the 1960s, 70s, and early 1980s, MCAS Yuma was home to VMFAT-101, the Marine Corps' Fleet Replacement Squadron (FRS) for the F-4 Phantom II, training U.S. Marine Corps, U.S. Navy, and NATO/Allied flight crews and maintenance personnel in the F-4B, F-4J, F-4J, and F-4S. Following the transfer of VMFAT-101 to MCAS El Toro, California in the 1980s, MCAS Yuma became the principal Fleet Marine Force Pacific operating base for the AV-8 Harrier and AV-8B Harrier II, under the cognizance of Marine Aircraft Group 13 (MAG-13).

Marine Aviation Weapons and Tactics Squadron 1 (MAWTS-1) is a major aviation command at MCAS Yuma, conducting training for all Marine Corps tactical aviation units, most notably the Weapons and Tactics Instructor (WTI) course. Marine Fighter Training Squadron 401 (VMFT-401) is a Marine Air Reserve squadron also based at MCAS Yuma, containing both active duty and Selected Marine Corps Reservists, providing aerial adversary/aggressor services and dissimilar air combat training (DACT) for all U.S. military services, and selected NATO, Allied, and Coalition partners. This base was also used in the late 80's and early 90's as the Marine Corps Airborne Training Center.

MCAS Yuma is currently programmed to become the Marine Corps' initial operating base for the F-35B variant of the F-35 Lightning II Joint Strike Fighter (JSF), the first of which arrived on 16 November 2012.<sup>[7]</sup>





















































# DOT / Federal Aviation Administration – Docket FAA-2015-0150 Operation and Certification of Small Unmanned Aircraft Systems

Comments submitted on behalf of the Academy of Model Aeronautics By: Richard Hanson, AMA Government and Regulatory Affairs

#### General

As the community-based organization representing more than 176,000 recreational unmanned aircraft (model aircraft) users, the Academy of Model Aeronautics (AMA) is submitting its comments to the FAA's Notice of Proposed Rulemaking for the Operation and Certification of Small Unmanned Aircraft Systems – Docket FAA-2015-0150.

The AMA has some concerns regarding FAA's small Unmanned Aircraft Systems (sUAS) proposal and is offering the following comments and suggestions for improvement:

Overall, the AMA views the proposed sUAS regulations as a positive first step. And, the Academy believes the proposed rules in the new Part 107 are an important and appropriate approach to enabling the rapidly emerging and highly beneficial unmanned aircraft industry.

It's important to note that the integration of sUAS into the National Airspace System (NAS) should be seamless and should not impede existing manned aircraft operations or create additional requirements for position source and/or navigational equipment. Manned aircraft associations such as the Experimental Aircraft Association (EAA) have made significant strides with the FAA regarding their "Equip 2020" ADS-B Out mandate. This cooperative effort has recently allowed new and affordable options for FAA-compliant ADS-B equipment to be introduced into the marketplace. The introduction of sUAS does not justify further equipment requirements for GA aircraft. AMA shares the views of the manned aviation community in terms of equipage and stresses the importance of maintaining the current timeline and requirements for ADS-B.

The AMA supports the exemption of model aircraft from the regulation for unmanned aircraft systems. As Congress recognized in its Special Rule for Model Aircraft, self-governance under community-based safety guidelines has worked exceptionally well for decades, and should remain in place. However, in the preamble to the proposed rule, the FAA has repeated its June 2014 statement that model aircraft are "aircraft" subject to all existing aviation regulations. The Academy has taken exception to this stance as well as several other elements of FAA's interpretation of the "Special Rule for Model Aircraft". (See AMA's previous comments to the Interpretive Rule, Docket No. FAA-2014-0396.) <a href="http://www.modelaircraft.org/files/AMAComments">http://www.modelaircraft.org/files/AMAComments</a> InterpRule0914.pdf

The Academy believes the FAA must revise this interpretation so that it is in agreement with what Congress directed in 2012, specifically that recreational model aircraft are subject to community-based safety guidelines, not aviation regulations.

The FAA predicates its exemption for model aircraft in the proposed rule on its interpretation of the Special Rule for Model Aircraft. However, future regulations for model aircraft should not be

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FAA's narrow interpretation of hobby and recreational use also excludes the use of model aircraft as a tool for teaching science, technology, engineering and mathematics (STEM). AMA has been directly involved in youth education for decades and advancements in science and technology as it relates to aeronautical and aerospace disciplines has been a core mission of the Academy since it was founded in 1936. Hundreds of AMA chartered clubs across the nation are active in AMA's Adopt a School program. These Leader Clubs are directly involved in their communities and have introduced hundreds of thousands of students, Boy Scouts, Girl Scouts, youth of the 4-H, and members of the Boy's and Girl's Club to the wonders of aviation and the application of math and sciences to the marvels of flight.

The Academy of Model Aeronautics has been integrally involved in creating train-the-trainer programs aimed at instructing educators on how to use model aircraft in teaching STEM curriculum. AMA's highly successful AeroLab program is an off the shelf transportable package that gives teachers the materials and teaching tools needed to give students a hands on practical experience in the theory of flight.

Most recently AMA partnered with the Alcoa Foundation for the "STEM Takes Flight" initiative and was awarded \$300,000 to promote education and career opportunities in science, technology, engineering and mathematics. This project will help expand AMA's educational work and is estimated to impact an additional 9,600 young people. This grant is an extension of the Alcoa Flight Research grants previously awarded to AMA. As part of this extended project, AMA will conduct an additional 15 STEM-based workshops for teachers working at an estimated 300

elementary, middle and high schools at locations across the United States. AMA's goal is to inspire more students to pursue STEM-related careers.

By its structure the proposed rule for sUAS and the new Part 107 is limited to individuals age 17 and older, leaving out the vast majority of our youth in the K-12 educational system. FAA must make it clear that model aircraft and recreational UAS can be used under the hobby rules as a tool for teaching STEM curriculum.

To date and as these comments are being prepared there have been 4,000 comments submitted to the sUAS NPRM. There were over 33,000 comments submitted last summer concerning FAA's Interpretative Rule. The vast majority of the comments for both have come from the aeromodeling community. A community that has been operating safely, responsibly, transparently and harmoniously within our communities and in the national airspace for over 100 years. For the past seven years this community has been beseeching the FAA, the U.S. Government and the nation's political leaders to not create onerous, overreaching and unnecessary regulation that could potentially destroy model aviation.

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Comments submitted on behalf of the *Academy of Model Aeronautics* By: Richard Hanson, AMA Government and Regulatory Affairs

The Academy believes that the FAA must address and adjudicate the 33,000 plus comments to its interpretation of the Special Rule for Model Aircraft and resolve the issues and concerns presented before moving forward in finalizing the small UAS Rule.

#### **Proposed sUAS Rule**

§ 91.1 Applicability.

(e) Except as provided in §§ 107.27, 107.47, 107.57, and 107.59 of this chapter, this part does not apply to any aircraft or vehicle governed by part 103 of this chapter, part 107 of this chapter, or subparts B, C, or D of part 101 of this chapter.

The applicability statement for Part 91 has been revised to include the new provisions of Part

107. However, the new § 101.41 Subpart E for model aircraft was not added to the list of the other subparts addressing special rules for ultralights, moored balloons, kites, amateur rockets and unmanned free balloons which are excluded from Part 91.

In our view, the FAA was free simply to expressly exclude from proposed Part 107 and all other new regulations the devices identified by Congress in Section 336 of the FAA Modernization and Reform Act (FMRA) by reference to the provisions of that statute. However, the FAA has taken a different approach, namely to insert the specific language of Section 336 concerning model aircraft into the federal aviation regulations. AMA does not object to this approach except to the extent that inclusion of text in the regulations that is described as "rules governing the operation" of model aircraft would in any way be considered or interpreted in a way that violates the directive in FMRA Section 336 that the FAA not impose regulations upon model aircraft operators who meet the criteria therein. In light of the FAA's June 2014 interpretation of the Special Rule for Model Aircraft, referenced repeatedly in the NPRM, we remain concerned about the FAA's imposition of new regulations upon our members, as set out in our comments filed in response thereto.

Moreover, the FAA's language in proposed 14 CFR 91.1(e) suggests that model aircraft hobbyists could become subject to Part 91 operational regulations (and perhaps, by implication, other aviation regulations).

Congress clearly intended for persons operating model aircraft for recreational purposes to be subject, at most, to community-based organization safety codes and programming, not federal aviation regulations. AMA believes Congress intended to exclude model aircraft from the operational rules governing manned aircraft

regulations in establishing the Special Rule for Model Aircraft. AMA believes an exclusion for Subpart E should be added to § 91.1 (e) indicating the operational rules in Part 91 do not apply to model aircraft operated under § 101.41.

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Comments submitted on behalf of the *Academy of Model Aeronautics* By: Richard Hanson, AMA Government and Regulatory Affairs

§ 101.41 Applicability.

Subpart E – Special Rule for Model Aircraft This subpart prescribes the rules governing the operation of a model aircraft that meets all of the following conditions as set forth in section 336 of Public Law 112-95:

- (a) The aircraft is flown strictly for hobby or recreational use;
- (b) The aircraft is operated in accordance with a community-based set of safety guidelines and within the programming of a nationwide community-based organization;
- (c) The aircraft is limited to not more than 55 pounds unless otherwise certified through a design, construction, inspection, flight test, and operational safety program administered by a community-based organization;
- (d) The aircraft is operated in a manner that does not interfere with and gives way to any manned aircraft; and
- (e) When flown within 5 miles of an airport, the operator of the aircraft provides the airport operator and the airport air traffic control tower (when an air traffic facility is located at the airport) with prior notice of the operation.

The new § 101.41 Subpart E codifies into regulation the criteria established by Congress for the operation of model aircraft within the programming of a community-based organization. The language is largely and appropriately pulled directly from the legislation. However, the proposed addition to Part 101 fails to include an important provision in the law, the inclusion for "aircraft being developed as a model aircraft." The language in the Special Rule for Model Aircraft intentional includes the operation of aircraft designed, manufactured and distributed by the hobby industry.

AMA believes that if the language from the legislation is to be codified in Part 101 it must include all of the language in the law including the provision to include the hobby industry,

"aircraft being developed as a model aircraft."

§ 101.43 Endangering the safety of the National Airspace System.

No person may operate model aircraft so as to endanger the safety of the national airspace system.

AMA understands and supports the FAA's need to take enforcement action against individuals who endanger the safety of the national airspace system.

However, the AMA believes that the FMRA did not give the FAA wide authority to enforce violations of sUAS operating rules upon multiple FAA-issued certificates. These rules should be enforced with the presumption that action taken against a sUAS operator certificate would not affect other FAA certificates that the operator may hold. Operation under a sUAS certificate does not necessarily affect fitness to exercise the privileges of other FAA certificates held by the

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operator. This same concept should apply to model aircraft operators who also hold FAA certificates.

Moreover, the AMA believes that the FAA has misconstrued the language in FMRA Section 336(b) in a manner that unnecessarily compels the FAA to assert application of all of Part 91 to model aircraft operators just to establish a legal basis for enforcement. The unintended and illogical consequence is that the FAA has asserted in its June "Interpretation" and elsewhere that model aircraft are subject to all operational regulations, many of which that clearly do not apply or that are impossible to comply with. Such regulations include 14 CFR 91.113 governing right of way for converging aircraft. ("When aircraft of the same category are converging at approximately the same altitude..., the aircraft to the other's right has the right-of-way.")

AMA would like to propose a different approach. An approach we feel should be reflected in the final sUAS rule as well as any interpretation thereof or future advisory circular relating to model aircraft.

Threats to manned aircraft have been posed by unlicensed and uninformed persons on the ground for years – in the form of laser pointers. 14 CFR § 91.11 provides that "[n]o person may assault, threaten, intimidate, or interfere with a crew-member in the performance of the crewmember's

duties aboard an aircraft being operated." In June 2011, the FAA issued a legal interpretation finding that "a laser beam, aimed at an aircraft by a person who is not onboard the aircraft, interferes with a crewmember's performance of his or her duties aboard the aircraft to be a violation of § 91.11." 76 Fed. Reg. 76611. This legal interpretation was published in the Federal Register in December 2011. Similar crew-interference prohibitions were also included in Sections 121.580, 125.328 and 135.120. Under Order 2150.3B published May 1, 2012, the target of such enforcement was neither onboard, nor operating, an "aircraft."

AMA believes this framework has been overlooked in the FAA's UAS enforcement guidance. The FAA's National Policy N 8900.268 issued July 15, 2014 ("Education, Compliance, and Enforcement of Unauthorized Unmanned Aircraft Systems Operators") does not cite § 91.11 or even refer to the concept of crew interference, even though it asks ASIs to evaluate "safety risk to the NAS."

When Congress wrote that nothing in Section 336 was to be "construed to limit the authority of

the Administrator to pursue enforcement action against persons operating model aircraft who endanger the safety of the national airspace system," it did not suggest that the FAA was supposed to begin policing the operation of model aircraft with respect to general safety issues, including the safety of things that are not part of the national airspace system, such as structures and model aircraft event participants or spectators. That role was enshrined by Congress as continuing to reside with community-based organizations. The provision in FMRA § 336(b) preserved the status quo in 2012 of an agency that had existing tools to protect the *national airspace system*.

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The solution of how to take enforcement action against persons who pose actual threats to the national airspace system without also fully (and inappropriately) regulating how model aircraft are operated is to invoke the crew interference regulations. In Section 336(b), Congress clarified as a matter of statutory interpretation that the FAA could pursue enforcement against persons who endanger the safety of the national airspace system regardless of how that danger is posed, and even though the actual operation of a model aircraft would continue to be unregulated. We respectfully urge the FAA to reconsider its enforcement approach, whether premised on an interpretive rule or by implication in the proposed sUAS regulations, and so as not to apply the operational aspects of Part 91 to model aircraft.

#### **Micro UAS Classification**

In addition to part 107 as proposed, the FAA is considering including a micro UAS classification. This classification would be based on the UAS ARC's recommendations, as well as approaches adopted in other countries that have a separate set of regulations for micro UAS.

AMA believes a Micro classification for UAS is appropriate and necessary. An argument could also be made for stratifying the remaining spectrum of non-recreational small UAS up to 55 lbs. based upon risk and operational parameters. In regards to the micro classification, it is assumed that the creation of the Micro UAS classification would exclude other compliance provisions of Part 107 such as the need for an operator's certificate, aircraft registration and incident reporting. With that assumption the AMA supports the concept and offers the following comments:

The unmanned aircraft used in the operation would weigh no more than 4.4 pounds (2 kilograms). This provision would be based on the ARC's recommendations and on how other

countries, such as Canada, subdivide their UAS into micro or lightweight UAS;

It should be noted that the AMA participated in the original Aviation Rulemaking Committee commissioned in 2008. And although a 4.4 lb. threshold was established for the lowest category of UAS, this was not derived by **continue** 

any scientific means nor was it based an assessment of risk or an evaluation of platforms currently available that meet that criteria. AMA recommends that before establishing this threshold the FAA conduct an evaluation of UAS platforms currently in use and assess the level of risk for injury or damage that these platforms present.

Based on AMA's years of experience with recreational unmanned aircraft, it's likely this threshold will prove to be lower than necessary, and any risks presented can be effectively managed through correlative operational criteria.

The unmanned aircraft would be made out of frangible materials that break, distort, or yield on impact so as to present a minimal hazard to any person or object that the unmanned aircraft

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collides with. Examples of such materials are breakable plastic, paper, wood, and foam. This provision would be based on the ARC's recommendations;

Again, the ARC's recommendations were never scientifically tested and the committee was

unable to conclusively determine the frangibility of UAS platforms consisting of a wide variety of materials and components. Here again AMA recommends the FAA conduct an evaluation of UAS devices currently in use to determine the frangibility of such platforms.

During the course of the operation, the unmanned aircraft would not exceed an airspeed of 30 knots. This provision would be based on the ARC's recommendation, which was concerned with damage that could be done by unmanned aircraft flying at higher speeds;

Similar to the weight threshold, the ARC's recommended airspeed limitation of 30 knots was arbitrarily determined and it's recommended the FAA validate this limitation through proper testing and evaluation.

The operation would be limited entirely to Class G airspace. This provision would be based on Canada's requirements for micro UAS; and

The unmanned aircraft would maintain a distance of at least 5 nautical miles from any airport.

AMA believes these two criteria are too restrictive and would prove the Micro UAS classification to be impractical for any

#### PART 21 – CERTIFICATION PROCEDURES FOR PRODUCTS AND PARTS

§ 21.1 Applicability and definitions.

(a) Except for aircraft subject to the provisions of part 107 of this chapter, and model aircraft as defined in part 101 of this chapter, this part prescribes:

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## PART 43—MAINTENANCE, PREVENTIVE MAINTENANCE, REBUILDING, AND ALTERATION 43.1 Applicability.

\*\*\* (b) This part does not apply to— \*\*\*

(4) Any model aircraft as defined in part 101 of this chapter.

#### **PART 47—AIRCRAFT REGISTRATION**

Add a provision:

47.3 - Registration required

- (b) No person may operate an aircraft that is eligible for registration under 49 U.S.C. 44101-44104, unless the aircraft—
- (1) Has been registered by its owner;
- (2) Is carrying aboard the temporary authorization required by § 47.31(c); or
- (3) Is an aircraft of the Armed Forces; or
- (4) Is a model aircraft as defined in part 101 of this chapter.

#### PART 61—CERTIFICATION: PILOTS, FLIGHT INSTRUCTORS, AND GROUND INSTRUCTORS

§ 61.1 Applicability and definitions.

(a) Except as provided in parts 107 and 101 of this chapter, this part prescribes:

END.....

#### **International Hand Launch Glider**









Dr. Gary Fogel gives a brief overview of the Torrey Pines Gliderport

VIDEO https://www.youtube.com/watch?v=-c\_TpqfY7rk



#### VIDEOS and Websites Links

#### Click on to view video, website

How an ARF is made 18:25 https://vimeo.com/127409244

The Lily Camera 1:46

https://www.youtube.com/watch?v=3YLxGFLpOI0&feature=youtu.be

GL-10 Test 4:44

https://www.youtube.com/watch?v=kXql26sF5uc#t=67

This is why you need an INSTRUCTOR! 4:53

https://www.youtube.com/watch?v=FJkHzE1jJf0

The Ocean Maker 10:00 This is very good!

https://vimeo.com/126090217

Macchi 205 Veltro 4:16

https://www.youtube.com/watch?v=d7rTWICIE1o

Joe Nall 28:01

https://www.youtube.com/watch?v=jWUPUg08yns#t=711

Joe Nall 6:30

https://www.youtube.com/watch?v=78FY1WnBikU#t=100

Joe Nall 12:02

https://www.youtube.com/watch?v=vljspBPDj c#t=186

Joe Nall 4:46

https://www.youtube.com/watch?v=CJ27C-rgdN4#t=13

B-36 Tour

http://www.nmusafvirtualtour.com/media/062/B-36J%20Engineer.html







My thanks to those who passed this info on.

JUNE 2015 SVF Bi	rth Day Boys Member type	Dob
Jerry Dolbow	Senior	06/01/1940
Loren Counce, Jr.		06/04/1933
Philip Mahoney	Senior	06/05/1950
Tom Perkins	Regular	06/06/1964
Jared Simmons	Regular	06/07/1983
Keven Resinger	Regular	06/09/1962
Lucky Mitchell	Senior	06/10/1944
Peter Dickinson		06/10/1954
	Regular	
Larry Martin	Senior	06/10/1950
Jacob Blank	Junior	06/11/2002
Hugh Duff	Senior	06/12/1943
W. George Irwin	Senior	06/13/1946
Magne Nerheim	Regular	06/13/1961
Richard Wildey	Regular	06/14/1971
Gary Layos	Senior	06/14/1945
Allen Casey	Senior	06/15/1940
Dennis Carrier	Senior	06/15/1945
Brian Ford	Regular	06/15/1970
Yuri Higuchi	Regular	06/16/1969
William Marhevka	Junior	06/19/1999
Joseph Keller	Senior	06/20/1934
Robert Whipple	Senior	06/24/1932
Willard Wells	Senior	06/25/1947
Robert Campbell	Senior	06/27/1949
Luke Dicksion	Junior	06/27/1998
Louis Pfeifer IV	Regular	06/28/1952

# \*\*SPECIAL NOTICE TO PILOTS! "Sun Valley Flyers Utilizes a 400ft ceiling for flying model aircraft allowing for only momentary breaks caused by non-sustaining maneuvers. All pilots must utilize a spotter at all times and abide by AMA Rule 540d" (see and avoid procedures) Any pilot willfully violating this rule is subject to loss of flight privelages.



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8058 N. 19th Ave. 602-995-1755 Phoenix M-F 9:30-8PM, SAT 9:30-6PM 11-5PM

4240 West Bell Rd. 602-547-1828 Glendale

M-F 9:30-9PM, SAT 9:30-6PM, SUN 11-5PM









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