

Fort Worth Thunderbirds

Radio Control Association Inc.

The Pilot's Log

Charter # 1217

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Issue 4448, May 2018

Next club meeting: May 28th, 2018, 7:00 pm, Thunderbirds Club Field

Presidents Corner: by James Meadows

Greeting to all. May has been a busy month for many of us. This is the time of the year, where we start seeing the warm weather, plan to attend that High school or College graduation, and getting out to the field to fly. Speaking of flying, don't forget that this month's meeting will be at Thunderbirds field. Club is providing Drinks and Pizza, please bring a chair, a flying machine and let's have a good time.

The Old Farts Fly In is just around the corner. Bring your old reliable or new 4 Stroke equipped aircraft, a lunch of your choosing and lets enjoy some flight time as we are mesmerized by that hum of a four-stroke engine. It's open to all members and non-members. Look forward to seeing you June 6th 2018.

A new addition to the events at Thunderbird Field is a Pylon race set for Jun 16, 2018. If you have the

Vice Presidents Corner: by Rob Lowe

Hello Thunderbirds! I hope to see you at this month's meeting at our flying field. Our very own Joey Tamez of JTs Hobby will be speaking about turbine jets and will have one with him. He plans to show us all the unique systems and processes involved, and then he will fly a demo for us! It will be a great event. Please plan to be there and bring something to fly!

As a teaser for future meetings - we are coordinating with a former SR-71 pilot who has written a few books on the subject to come speak to us. I have recently heard his presentation and now that the program is declassified, his tell all presentation is very interesting!

April 23rd Meeting Minutes: by Mike Schroeder

Recap

Welcome to our first time guests: **Stephen Carr Barry Snyder** Tom Muhlen opportunity to participate or assist with this event please contact the CD Gary James.

On July 4th bring your family out to the field for the annual 4th of July celebration, free hotdogs and drinks, and a parking lot Swap Meet and Sale. It's for you and it's Free. Please make plans to attend.

Be sure to check out other events scheduled thrughout the DFW area, some of which are located on our schedule of event calendar on the web site.

It's getting warm, really warm out at the field, so please remember to use sunscreen hydrate, take some break time in between flight, and look after one another

Happy flying.

You won't want to miss it. More soon as we work through schedules!

James Meadows and I continue to work on the notifications to surrounding airports for our upcoming summer Float -Fly on Lake Worth. That is all on track so far and we expect to meet with the Navy Air Traffic folks soon. We will keep you posted on the outcomes.

I hope you've been flying a lot in this nice weather! Here is my virtual low-pass salute to you Thunderbirds! See va at the field!

SPA event was cancelled due to weather and there is no makeup date for the event at the moment.

Thunderbird Warbird Flyin Event: May 19 - Pilots meeting at 9:00. This is 22nd year the club has had this

warbird flyin event. There will be lots of great raffle prizes to be had. Ed will need volunteers to help with safety and as participants and spectators continue to grow each year.

WAMS: Sarge gave us an update on the annual WAMS swap meet and awarded Ed Kettler the grand prize of a new DX-6 radio

Old Farts Four Stroke Event: Scheduled for June 6th. (4 Stroke engines only) No cost for this event. All about flying four strokes. This is a brown bag special event. Drinks will be provided.

The May club meeting will be at the flying field. Bring something to fly and a chair. Pizza and drinks will be provided. Less talking and more flying. Joey from JT Hobbies will talk about turbine jets and give the club a flying demo.

Summary of Reports

Treasury Report: Chris Berardi - No report at this time.

Orders for badges and labels have been made.

Secretary Report: Mike Schroeder - A motion by Bill Lake to not read the minutes to the club and seconded by Ken Knotts. James called for a vote to not read the minutes which passed. The minutes are in the March newsletter.

Vice President Report: Rob Lowe - No report at this time. See Presentation.

Safety Report: Ed Kettler - New Safety Code is posted at the flying field for everyone to read. Ed passed on reading the new code as everyone has read them. Gold Leader Club is to read the safety code each year at the meeting which was done by Ed. Discuss the simplified code that was placed at the flying field display board. Thanks Mel for getting the sign printed and installed. No incidents this month.

President Report: James Meadow - James was contacted about donations from Jerry Matches for plane parts. A trainer and radio was donated to the club for the training program.

Show and Tell

Ed Kettler showed us a slide show of his plane. Nachang CJ-6A. Nine cylinder 285 HP top speed 135 knots.



Tom Blakeney talked about the F-8 Crusader from Motion RC. The plane has interesting control throws. Dave Hudson scratch built a 1/6 scale and is competing in Top Gun Master Classical builder. Good Luck Dave.

Old Business

Corp of Engineers inspection: Inspection went great on April 10. Many thanks to Ken Knotts for heading up this Corps inspection.

Youth Deer Hunt: The Corp was notified of the dates that work for the Youth Dear Hunt. The Corp will pick from one of the two dates proposed, October 27-28 or November 17-18.

New AMA Rules sign has been posted at the field. There are references as to where to look up details about the AMA.

Presentation: Rob Lowe

Rob talked about the FAA and AMA rules on the Know Before You Fly program. He passed out a great hand out touching on the some of the rules. Go to website: www.knowbeforeyoufly.org

Please visit site and get familiar with the new changes.

FBI has been invited to visit our club site as they are trying to learn more about RC and our hobby. Effective December 2017, if it leaves the ground you have to register with the FAA. It can be engraved, permanent marker or label but it has to your number on the plane. Please visit FAA website to become familiar with all the details.

Camp Joy Float Fly- Rob talked about what the club is doing so that the club is in compliance for the float fly at Camp Joy. Rob presented a diagram of the flight pattern around the base and showed that the airspace above Camp Joy as being 400 AGL and the club would not be affecting the base flight pattern. Great presentation Rob.

New Business

Pylon Race: Gary James proposed to the club about having a Two Pole Pylon race. The dates were discussed. June 16 and November 3 were added as a dates for two Pylon Races

SAE: Tom Blakeney informed us of the dates for the SAE which will be March 8 to 10, 2019. Tom will start

talking about it in October. SAE is adding two extra hours on Sunday so we can get in seven rounds this time.

Sumer Float Fly: Woody mention the Float Fly will be on Sunday this year with nice raffle prizes.

Warbirds over North Dallas: This event is scheduled for June 8 & 9. Please go to Thunderbird website under events for link to North Texas Warbird flyer with details.

Attendees

Jason Meadows	Gary Alpine	Tab Bowland
Ken Knotts	Bill Lake	Gary James
Sarge Bell	Grant Schroeder	Rob Lowe
Brian Lowe	Ian Waring	Woody Lake
Ed Furche	Robin Blakeney	Tom Blakeney
Tom Muller	Tracy Kobs	Roger Spencer
Gary Cummings	Joe Claunch	Steve Knonkle
Clarence Konkle	Peter Lucas	Mike Schroeder
Ed Kettler		

Meeting adjourned 8:20

Treasurer Report: by Chris Berardi



Who is Robert?

In 1876 Henry Martyn Robert put together a book of parliamentary procedures for non-legislative organizations. He wrote that they were based upon the rules and practices of congress. These "Robert's Rules of Order" enable any of us to be part of a meeting in California, Texas or New York and know that the rules are the same.

As long as I can remember the club has implemented in some loose fashion a portion of these rules: Motions are made, seconded and voted upon; however, not every member understands how the procedures actually work and as a result our discussions tend to be lop sided. In many ways, we could vote in a ham sandwich because our discussions tend to leave out minority opinions.

If we all took some time to acquaint ourselves with the rules of order, we might foster an improved environment where we allow:

- The right of the majority to decide
- The right of the minority to be heard
- The rights of individual members
- The rights of absentees

Fortunately, the board (club's officers) are working on improving the situation and we are all now in possession of a handy little guide book. The book, "Robert's Rules in Plain English," Doris P. Zimmerman, is an easy to follow book that will allow all of us to be more proficient in managing meetings. Here's an example of a small improvement taken from the book: "Mrs. E makes the motion that"the association assess members \$100 for construction of the playground." Mrs. E subsequently realizes she has made a poor motion and asks that he motion be withdrawn. The presiding officers say, "If there is no objection, the motion will be withdrawn." Only general consent is required to withdraw the motion - the permission of the seconded is *not* required.

When it comes to documenting the withdrawn motion in the meeting minutes, they aren't! It's as if the motion had never been made. So there you have it, a straightforward example of how we can improve the conduct of our meetings and simplify the process at the same time. Next month, I will pick out a couple of relevant examples for us to follow along with.

Incidentally, I purchased the books from Amazon and they cost about \$7 each.

Membership Update

Another 20 club badges, stickers and a unique button badge have been sent out to our newest members. If you look below, you'll see that there has been quite a jump in membership since my last newsletter article in March. You may ask yourself, what do I do to get my very own 2018 Member commemorative button? Well, right now I am handing them out at our club meetings. In the coming months, we'll also be rolling out other commemorative tchotchkes that I've mentioned in other newsletters. These items will be to recognize contributions such as volunteering at events, participating in next year's massive SAE competition or providing other valuable services to the club.



Here is the latest membership count - we have added 34 new or renewing Individual & Associate memberships since last month.

Membership Type	Count
Individual	153
Family	12
Associate	5
Life	11
Service	0
TOTAL	181

AED Now Accessible

The Automated External Defibrillator is now at the field in a weather proof box. Your club membership key will open the padlock should you need to use it. We will be meeting at the field for our next club meeting this month. I think we'll take some time to talk about it and to gauge the interest in another CPR/AED training class.

There is still a concern over theft especially after hearing about what people will do to get into a soda machine at the Greater Southwest (GSW) club off Randol Mill Road. Admittedly, their Coke machine is in a much more public and accessible location, but it is inside a steel bar cage. Thieves still broke in even when it was posted that no change remains in the machine. Eventually, the solution was to leave the soda machine open to show that there was no money in it and the cokes are moved to a small refrigerator also located in the cage: Worst case, the thieves get a case of soda.

We may have to come up with a compromise on when the AED is placed in the box in the pit area; perhaps we'll talk about this at the next club meeting.

That's it for this month. See you at the field.

Safety: by Ed Kettler

This month's article involves another local club, and NOT the Thunderbirds, so relax. Rob Lowe contacted me about a UAS incident involving an RC field and a helicopter who reported a near miss from "a red and white RC plane flown by an elder gentleman wearing a tan hat at an RC park". After re-reading his note, I was relieved to find it wasn't us, and I identified the club for Rob. I am friends with the club president, and notified him of the report, and gave him Rob's contact information. Rob had a good chat with the president as a fellow modeler and from what I understand the interaction was valuable and positive.

According to club member witnesses, the helo slowly approached the perimeter of the field and hovered as if to watch the plane fly aerobatics. As we are all trained to do, the RC pilot immediately tried to land to avoid the helicopter, but got a little rattled and had to make a second attempt. The RC pilot had to reverse direction and was pointed at the helo for a brief moment. The RC plane landed downwind safely, and reportedly did not get within 150 yards of the helo. The helo pilot then flew crosswind over the top of the RC field and departed. The helo pilot filed a report with the FAA. This is still an active investigation, and it will be a while for the enforcement side of the FAA completes its review. Rob works in the air traffic control side of the FAA, and is not involved in the investigation.

"See and avoid" is a foundational element of aviation safety, and is in the new Safety Code: "I will not interfere with and will yield the right of way to all human-carrying aircraft using AMA's See and Avoid Guidance and a spotter when appropriate". See and avoid also applies to the helo pilot, who appears to not have exercised good judgement by getting

close to the RC field. That being said, in the court of public opinion, "Drone strikes helicopter" is going to be a bad news story for our hobby, even if the helo operator exercised poor judgment and caused the incident.

We have planes and helicopters operating near and over us all of the time and most of them have no clue we are there, or how high we can operate. If you hear a plane, spot it, assess its path, and warn other pilots if necessary. I had a conversation with the local FAA Safety Team lead, and he was absolutely certain we couldn't operate above 400' AGL, so we have an information gap there as well.

It may be time for the AMA to work with the FAA to put our fields on the VFR charts so that the 100% scale pilots know where there are risk areas and they can avoid us. I have discussed this with Rob and Lawrence Harville, our AMA District VP, and will be forwarding a proposal to the AMA leadership shortly.

We are very lucky to have Rob in our club, as we are getting a lot of great information about how the FAA is dealing with drones, and how we can operate safely. If you missed April's meeting, Rob did a great presentation on how we should use airspace management rules to help us with our upcoming float fly, which is near the JRB flight paths. It's a new world for both the FAA and the RC community, and we are going to have to reach out and educate each other as we share the air space.

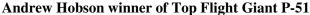
Warbirds Over Benbrook Flyin

Pictorial review











Joey Tamez, JTs Hobbies, Turbine, Awsome Flight Demo

Half Cuban-8 with 1 1/2 negative snap rolls: by Senior Tech Editor Model Airplane News

In the past, we've discussed different aerobatic moves that consist of endless variations of a basic maneuver. Let's take a look at another variation of the basic Cuban-8, this time making it a half Cuban-8 with 1 1/2 negative snap rolls. As performed by Aerobatics Made Easy columnist John Glezellis, the half Cuban-8 is usually performed with a half-roll on the down-line, but John spices things up by replacing the roll segment with a more impressive, 1 1/2 negative snap roll, (starting from inverted to end in the usual up upright position.) With a strong aerobatic foundation, this maneuver is a great deviation from the norm. Let's get started!



If you're flying Inverted or upright, always concentrate on "wings level."

Let's first examine radio and aircraft setup. It is very important to spend extra time in your workshop to ensure proper setup before taking to the skies. On a maneuver like this one that combines a rather elegant maneuver with a harsh element (the 1 1/2 negative snap); you have to use dual rates. I also recommend using Flight Modes (assigning all dual and/or triple

rates to one specific switch). Doing this greatly minimizes pilot workload, allowing you more time to focus on performing the maneuver and less time looking for switches!

For this maneuver I use low-rate settings for the looping portion of the maneuver, which is about 25-percent aileron expo, 25-percent elevator expo, and 30-percent rudder expo with about 20 degrees of aileron deflection, 15 degrees of elevator deflection, and 30 degrees of rudder deflection. Then, when for the snap roll, I use about 50-percent expo on both the ailerons and elevator control surfaces and about 55 percent of rudder expo with 35 degrees of aileron deflection, 20 degrees of elevator deflection, and about 40 degrees of rudder deflection on my next rate.

Since this maneuver includes 1 1/2 negative snaps, keep in mind that all airplanes perform differently. If you find that your particular airplane performs the snap too quickly for you to keep up with, pull back on the dual rate values to slow it down. Some airplanes have differing rotation speeds due to too much rudder throw. I have flown a few giant-scale Cap 232s and have noticed that too much rudder greatly affects rotation rates. Other airplanes may offset their flight path quite a bit, which also means you have too much rudder. Also, if your airplane gets too deep in pitch, decrease the amount of elevator deflection.

Once flying, if at maximum aileron stick deflection the roll rate is too slow, increase the dual rate for that given rate. If roll rate is difficult to manage, decrease the amount of deflection in that particular setting. Similarly, if the airplane is too responsive around neutral but the endpoint value is great (the dual rate value); increase the exponential you are using. It will

take time to dial in your airplane, but the effort is well worth it. Always remember, that what works for one airplane may not work for another.

-ON A MANEUVER LIKE THIS ONE THAT COMBINES A RATHER ELEGANT MANEUVER WITH A HARSH ELEMENT, YOU HAVE TO USE DUAL RATES.

If you find that your airplane does not perform the snapping segment with easy and changes rotation speed, you may be experiencing blowback. This means that even though your aircraft has a certain fixed deflection on the ground, it may have less deflection during flight. Simply said, this means that a pushrod is flexing on a given surface or, you may not have servos that aren't powerful enough. Use stiffer pushrods and upgrade those servos.

Whether you are flying a park flyer or a giant-scale unlimited aerobat, always remember to perform new maneuvers at a safe altitude you're comfortable with. Stay in your comfort zone. If you are not yet proficient with snaps, start at a higher altitude like 150 feet for a typical 50-inch electric park flyer or 400 feet for a giant aerobat. Select your entry altitude, fly your aircraft parallel to the runway and increase your throttle to about 75 percent power.

FLYING THE MANEUVER



Pan AM Clipper - Alameda Calling

FLYING THE ATLANTIC DURING THE LATE 1930's.

The Pan Am Boeing "Clippers" were very special aircraft. The Clipper had a range of 3,500 miles — enough to cross either the Atlantic or Pacific, with room for 74 passengers onboard. Of course, modern aviation offers an amazing first class experience (and it's a whole lot safer), but nothing in the air today

The half Cuban-8 begins in upright level flight then the pilot pulls from upright level flight to establish a 45-degree down-line. Once a brief line segment is flown, the 1 1/2 negative snap rolls are executed. Another line segment that's equal to the first is then flown before the pull to bring the aircraft back to upright level flight at the same altitude in which it began but travelling in the opposite direction!

STEP 1: Increase throttle to max power. If the aircraft you are flying is highly overpowered, use slightly less power. Begin to pull back ever so slightly while using low rates on elevator to initiate a graceful 1/2 loop.

STEP 2: As the model nears the top, begin to decrease the throttle, establish an inverted 45-degree down line then stop pulling up elevator. Define the 45-degree down-line with a brief line segment, (about two seconds in length) then flip to your medium or high rate settings to prepare for the snapping portion of the maneuver.

STEP 3: Perform the 1 1/2 negative snaps by applying opposite aileron input to rudder input and down elevator. Use full right aileron and left rudder and down-elevator input to perform the negative snap to the right. Then, stop the aircraft upright on the 45-degree down-line. Fly another brief line segment, equal to first one.

STEP 4: Flip back to low rate setting and perform a smooth and constant radius to level upright flight. Remember, exit at the same altitude you began with, so keep an eye on your altitude. To perfect the maneuver, practice again and again! After all, practice makes perfect!

Take your time, and if you find that you are consistently having difficulty performing this stunt, break the maneuver down to its basic components, check the model's setup and seek an experienced pilot for help. You can also contact me with your questions and comments at my blog-page at ModelAirplaneNews.com. Have fun!

matches the romanticism of crossing the oceans in the famed Clipper.

The Clipper made its maiden trans-Atlantic voyage on June 28, 1939. But once the US entered World War II, the Clippers were pressed into service to transport materials and personnel.





Here's a diagram of the different areas of the plane.

What It Was Like Aboard A Pan-Am Clipper...

Clipper passengers took their meals at real tables, not their seats. For most travelers in the 21st century, flying is a dreary experience, full of inconvenience, indignity, and discomfort. That wasn't the case in the late 1930s, when those with the money to afford transoceanic flight got to take the Boeing Model 314, better known as the Clipper. Between 1938 and 1941, Boeing built 12 of the jumbo planes for Pan American World Airways.



On the Pan Am flights, passengers had access to dressing rooms and a dining salon that could be converted into a lounge or bridal suite.



The galley served up meals catered from four-star hotels. If you want to sit at a table to eat with other people these days, you have to fly in a private jet. There was room for a crew of 10 to serve as many as 74 passengers.



On overnight flights, the 74 seats could be turned into 40 bunks for comfortable sleeping. The bunk beds came with curtains for privacy.



On the 24-hour flights across the Atlantic, crew members could conk out on these less than luxurious cots.



Unlike today the Clipper had real controls, where the hell are all the engine controls and gauges?



Navigating across the oceans required more manpower in the air.



The lavatory wasn't too fancy, but it did have a urinal — something you never see in today's commercial jets, where space is at a premium.



The ladies lounge had stools where female passengers could sit and do their makeup.



POSTSCRIPT:

Prior to WWII, the Japanese Military became very interested in the new Pratt & Whitney radial engines that powered the Pan Am Clipper. On a flight from San Francisco to China, a Clipper landed on Truk Lagoon to be refueled by Japanese authorities. Later, the Clipper was assumed lost over the Pacific.

Years later, it was revealed that the crew and passengers were arrested and executed by the Japanese. The engines were retrieved and sent to Japan and the Clipper was sunk in deep water off Truk Lagoon.

Members Projects





Grant with his Top Flight B-25. Planning to fly at our Warbird

Mel's Tucano after Maiden Flight





Woody's B-26 "Pistol Pack'n MaMa". Original B-26 'out of the box' scheme on left.

THUNDERBIRD 2018 CALENDAR

<u>POINT OF CONTACT</u>

June 6th Old Farts Fly-in Ken Knotts

June 16th Racing Gary James/Sarge Bell

August 5th Summer Float Fly (Sunday) Woody Lake

September 22 – 23 SPA West Competition

October 12-14 **Alliance AirShow**

October 20 **TEX Electric Fly Tom Blakeney**

November 4th Winter Float Fly Mel Wells

November 24th **Toys for TOTS Steve Ehlers**

December 8th Christmas Party

DATE	LOCATION	HOST CLUB	EVENTS
April 14	Waco, TX	HOTMAC	Club 40 / FF-1
April 28-29	Kansas City, MO	KCRC	424 / 426
May 20	Austin, TX	HCAM	EF-1
May 26	Georgetown, TX	GMAC	Club 40 / EF-1
June 9-10	Hillsdale, KS	Barnstormers	424 / 426
June 16	Ft Worth, TX	Thunderbirds	Club 40 / EF-1
July 6-13	Muncie, IN	AMA NATS	All events
Aug 25-26	Littleton, Co	NMPRA Champs	Q-40
Sept 15 (Tentative)	Ft Worth, TX	Golden Triangle	Club 40 / EF-1
Sept 29-30	Wichita, KS	HSF	Q-40
Oct 7	Austin, TX	HCAM	EF-1
October 20	Waco, TX	HOTMAC	EF-1/ Club 40
Early Nov? (tentative)	Georgetown, TX	GMAC	Club 40 / EF-1
Nov 3	Ft Worth, TX	Thunderbirds	Club 40 / EF-1

WWW.FWTHUNDERBIRDS.ORG

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Club Officers 2018



Pres: James Meadows



VP: Rob Lowe



Sec: Mike Schroeder Safety: Ed Kettler





Treas: Chris Berardi

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JT's Hobby Shop 817 244-6171 8808 Camp Bowie Blvd. Fort Worth TX 76116 jtshobby@yahoo.com

Humor



How do you spell incompetent? Encompedent......





Name the Plane

First correct answer will win a \$10.00 gift certificate to JTs Hobbies. Winner announced at the May Club Meeting. Contact Woody at: wdylake@yahoo.com







Proposed Projects Chart

Project#	Proposed Project	Summary of Project	TYPE	EXPENSE	POC	Status	Notes
		Turbine/Giant				- 100	Approved to exp. 10K, seeking Bids
	20 200 20	Aircraft Ramp		2802820300			and costs, 5yr plan to the Corp bein
1	Ramp Expansion	Start up	Contract	15000	Officers	APROVED 2017	drafted
		Install starting					
		posts for giant	- 15 1-		- 50		
2	Starting Post	scale airplanes	Self /Contract	500	Officers	APROVED 2017	Determining types
		10x10 Concrete				10001150 0015	Will require new Lease /or wait for
2	HELIDAD	flush with	C-16 /Ctt	1000	Officers	APROVED 2016-	expiration of 2018 Lease to negotiat
3	HELIPAD	ground, Could be Develop area for	Self /Contract	1000	Officers	17	Less \$\$ Will require new Lease /or wait for
		line control					expiration of 2018 Lease to negotiat
4	Line control Area	modelers	Self /Contract	1000	Officers	APROVED 2017	Less \$\$
							Suggest to member ship for Purchas
5	Shed Update	Cross vent FAN	Contract				Purchase
							Will require new Lease /or wait for
	Larger	Larger shed to					expiration of 2018 Lease to negotiat
6	shed/addon	store more stuff	self/contract			5	Less \$\$
	Enclose some of	utilizing rollup				- 0	
	the covered	doors that can be		200 000			
7	shelter area	pulled down	Self /Contract	\$Unknown			
		More stopping					
	Extend current	distance for					
8	runway	models	contract	\$ Unknown			Lease Renewel/cost
		at approach					requires Corp Approval will
		end of					request Corp permission and
9	Tree Removal	runways.	Contract	\$15-\$20,0000			requirements
3	Tree Kellioval	Tullways.	Contract	\$13-\$20,0000			requirements

Academy of Model Aeronautics National Model Aircraft Safety Code

Effective January 1, 2018

A model aircraft is a non-human-carrying device capable of sustained flight within visual line of sight of the pilot or spotter(s). It may not exceed limitations of this code and is intended exclusively for sport, recreation, education and/or competition. All model flights must be conducted in accordance with this safety code and related AMA guidelines, any additional rules specific to the flying site, as well as all applicable laws and regulations.

As an AMA member I agree:

- I will not fly a model aircraft in a careless or reckless manner.
- I will not interfere with and will yield the right of way to all human-carrying aircraft using AMA's See and Avoid Guidance and a spotter when appropriate.
- I will not operate any model aircraft while I am under the influence of alcohol or any drug that could adversely affect my ability to safely control the model.
- I will avoid flying directly over unprotected people, moving vehicles, and occupied structures.
- I will fly Free Flight (FF) and Control Line (CL) models in compliance with AMA's safety programming.
- I will maintain visual contact of an RC model aircraft without enhancement other than
 corrective lenses prescribed to me. When using an advanced flight system, such as an
 autopilot, or flying First-Person View (FPV), I will comply with AMA's Advanced Flight
 System programming.
- I will only fly models weighing more than 55 pounds, including fuel, if certified through AMA's Large Model Airplane Program.
- I will only fly a turbine-powered model aircraft in compliance with AMA's Gas Turbine Program.
- I will not fly a powered model outdoors closer than 25 feet to any individual, except for
 myself or my helper(s) located at the flightline, unless I am taking off and landing, or as
 otherwise provided in AMA's Competition Regulation.
- I will use an established safety line to separate all model aircraft operations from spectators and bystanders.

For a complete copy of AMA's Safety Handbook please visit: www.modelaircraft.org/files/100.pdf