



The R/C Spinner

Volume 07 Issue 7 July 13, 2007

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Next Meeting

Our July monthly meeting will be held at the Idaho Pizza Company at 6840 Glenwood and corner of State St., on July 19, 2007. The meeting will begin at 7:30 PM.

Next Board Meeting

The August Board meeting will be held at the HobbyTown meeting room at the HobbyTown USA on Cole Road beginning at 6:30 PM on August 8, 2007. Club members are always welcome. Our thanks to HobbyTown USA.

President and Board

The President and Board would like to announce that the Code has changed for the 2007 – 2008 year. If you have paid your dues and do not have the new code please contact any of the officers of the club.

Welcome to New Members

There were no new members this month

June Fun Fly

The coupon winners for the June Fun Fly were Lynn Street, Roy Keralla, and Chris Ingram.

Other News

Annual Dues Were due by June 30th

Make your check payable to BARKS and mail it to the following address:

BARKS
P.O. Box 8685
Boise, ID 83707

These dues are for the upcoming year covering July 1, 2007 thru June 30, 2008. Whether you owe \$40 or \$60 depends on your having prepaid the \$20 annual runway assessment. **The combo has changed.**

Only the officers are allowed to give out the gate combo. Do not give out the gate combo to those who have not paid their dues. Have them call any of the officers and they will be able to assist. A phone number will also be posted at the gate.

Due to belated annual dues payments by many club members, the club approved changes to the bylaws last September. These changes, below, reduced the grace period for paying dues late without penalty.

By-Law change: Article IV

Section 3: This section is to become effective June 30, 2007. Members who have not paid dues and/or assessments by June 30 will immediately lose all privileges in the society. Members will have 30 days to pay back dues and/or assessments with no penalty. After 30 days back dues, and/or assessments, and 1/2 of the initiation fee will be required to reinstate. Members who are 60 days in arrears will have to pay dues, and/or assessments, and full initiation fee to reinstate.

Did You Know?

From the Pine Barren Modelers, Barnegat, New Jersey

Water Can Be Dangerous

by Bill Bowne

Water is wonderful stuff. Without it, we wouldn't have life as we know it. But, water can be dangerous too. Oh, I'm not talking about drowning in it, I'm talking about what happens when water evaporates and recondenses in midair. I'm talking about what can lead to thunderstorms and lightning.

You see, water is great at absorbing heat. That's why it takes so long to boil water. Water stores a lot of heat in it when it is evaporated. When water evaporates, it turns into a gas, making the parcel of air it's in moister. To turn it back into water, all you need to do is cool that parcel of air, either by expanding it or by moving it to where the temperature is less. The easiest way to do both is by lifting the parcel of air to a higher altitude, where the temperature and pressure are lower.

There are several ways to start the moist air on its upward trek. It can be forced upwards by an advancing cold front, by being blown against a hill (like the hill our site is on) or by being heated by the sun until it expands and rises like a balloon. The first is more common in spring and fall, whilst the latter two are more common in the summertime.

When some of the water in the air cools enough return to a liquid state, it releases the heat that had evaporated it, warming the air around it. If the air surrounding that parcel of air is cooler than the parcel, the parcel will keep rising, expanding, and cooling, and water will keep condensing and warming the air. Eventually, the parcel will either run out of water vapor or else it'll reach a level where it's no longer warmer than the surrounding air. If the parcel tops out shortly after condensation starts, then we get some nice, puffy

cumulus clouds. Those are the little cotton balls that often show up in the middle of a summer's day. But, if the parcel keeps growing and is joined by other parcels, eventually the moisture that has condensed will grow until droplets form.

Those droplets can then combine and grow until they become too heavy for the rising air to keep them up. So, they fall as raindrops.

That's still not too bad. We need rain. Without it, balsa wouldn't grow, and where would the hobby be without balsa (You foamy fliers, just be quiet!)? It isn't much fun to fly in rain, but we can put up with some light showers. The problems start when the rising parcels get high enough to form ice crystals. You can tell that's happening when the puffy cloud starts to spread out and form a classic anvil shape. When the ice crystals form, the cloud starts to develop areas of different electrical charge (Exactly how is still a mystery argued over by a multitude of meteorologists and their grad students). This is when we start seeing flashes within the clouds, as charges try to equalize each other within the cloud.

Meanwhile, as the electrical charges grow in the cloud, a similar (but opposite) charge starts to form in sort of a "shadow" on the ground below. That "shadow" will follow the cloud as the cloud drifts along.

The big problems start when the charges in the cloud and the "shadow" on the ground start reaching feelers towards each other. You see, air is a wonderful insulator, so it takes a strong charge difference between the cloud and the ground before the air separating the two charges can be bridged. So, when the bridge is made, the spark is a big, powerful flood of electricity, not a little seepage. That's the big spark of cloud to ground lightning. The lightning stroke can travel miles through the air to find an opposite charge. It can strike, literally, miles away from the nearest storm and can hit in areas where the rain hasn't even started or has already ended.

Now it gets personal. Lightning isn't malicious, it just wants to seek ground; the source of the opposite charge. If something like a guy flying a model airplane just happens to be in the way, that's just too bad for the guy. Hey, when you drive down the Turnpike, do you seek out the butterfly that innocently passes in front of you? Heck, no, but it's still kind of fatal for the butterfly to be in your way.

To make it worse, the "shadow" charge will try to climb the tallest conductor it can find, so it can get closer to the bottom of the cloud charge. And, if the tallest object is a person holding an R/C transmitter with a 3-foot whip antenna, oh well.

So, what can we do to be safe during thunderstorm season?

1) If you can hear thunder, land immediately and take cover, even if the cloud is no longer overhead. People have been hit by lightning from clouds that were over 5 miles away. So, just because the storm seems to have passed, don't consider it to be time to go back up. Wait until you're sure it's over.

2) Remember, our particular field is on a hilltop, so it's closer to the cloud base and will attract more lightning strikes than the surrounding lowlands. Remember, too, that the trees at our site are not very tall, so anyone standing on the field is a much more attractive target.

(FOR BARKS we can see if a thunderstorm is coming pretty easily. If you see one headed your way, its time to pack up and go home.)

3) Lightning is not like a laser-guided bomb. It's more of area weapon. If it were to strike our flagpole, for example, the "bloom" from it would still have the ability to kill or injure everyone within several dozen yards of the pole. So, don't expect the flagpole to protect you.

4) What if you see showers, but haven't heard any thunder? There does have to be a first rumble, and others could be hearing it as you are being hit. So, if you feel your hair standing on end or you feel a "prickly" sensation, you are feeling that charge "shadow" move over you. You may be within seconds of being hit! Either hit the ground or dive into your car immediately. Don't take the time to clean off your plane, etc., as you may not have that much time left.

5) The speed of light is so fast as to be almost instantaneous for us. But, the speed of sound is about 1100 feet per second at sea level. So, if you see a flash and hear the rumble about 5 seconds later, you can assume the stroke was about a mile away. What you have to ask yourself is “Am I sure that rumble was the sound from that flash?” and “Was the rumble from the near end of the flash or from the far end?” If in doubt, err on the side of caution – No model airplane is worth dying for!

Oh, and one myth I'd like to dispel right now. You are not safe in your car because the tires insulate you. Air is a much better insulator than rubber. A lightning bolt that has just traveled through thousands of feet of air is not going to be delayed by the one-foot gap between your car and the ground it so dearly seeks. The tires aren't even a factor. What protects you is what is called a “Faraday Cage.” The electrons in the stroke all repel each other, so they try to travel as far apart from each other as they can. When a car gets in the way of a bolt, the electrons travel along the surface of the car, then to ground. The people inside the car are bypassed by the power of the lightning as it pursues its path to the ground.

All of that power, all due to the ability of water to evaporate and condense. It's amazing how much that liquid we so take for granted can do. And we haven't even begun to talk about tornados, microburst's, or hurricanes! →

Tips & Hints

Waterfall

Continuous tail-over-nose descending flip.

It's not a loop, but the aircraft actually flops around its canopy. Start relatively high. At low throttle, gradually pull the nose up until its near vertical. Just before it stalls, add full down and full power at the same time. You have to continuously “fly” the rudder and ailerons to keep the airplane flipping over in a straight line. To do consecutive Waterfalls, continue to hold full down and “fly” rudder and ailerons, and chop the throttle as the nose comes back up to vertical, then add full power as it flips straight down .

—Mike McConville, *the Suffolk Aero Modelers, Bay Shore, New York.*

Calendar of Events

<u>Meeting</u>	<u>Date</u>	<u>Time</u>	<u>Location</u>	<u>Event Lead</u>	<u>Contact #</u>
June Club Meeting	6/20/07	7:30 PM	Idaho Pizza on Glenwood	Karl Watts	938-1738
June Fun Fly	6/24/07	10:30 AM	BARKS Field	Ken Iley	
July Board Meeting	7/11/07	6:30 PM	HobbyTown –Cole & Ustick	Karl Watts	938-1738
July Club Meeting	7/19/07	7:30 PM	Idaho Pizza on Glenwood	Karl Watts	938-1738
July Fun Fly	7/21/07	10:30 AM	BARKS Field	Keith Adams	861-7006
Aug Board Meeting		6:30 PM	HobbyTown –Cole & Ustick	Karl Watts	938-1738
Aug Club Meeting		7:30 PM	Idaho Pizza on Glenwood	Karl Watts	938-1738
Aug Fun Fly		10:30 AM	BARKS Field	Chris Ingram	
Sept Board Meeting		6:30 PM	HobbyTown –Cole & Ustick	Karl Watts	938-1738

Editors Pick

From the Windom Eagles, Windom, Minnesota
Thoughts for the Month of July

1. The easiest way to find something lost around the house is to buy a replacement.
2. Never take life seriously. No one gets out alive anyways.
3. Gardening Rule: When weeding, the best way to make sure you are removing a weed and not a valuable plant is to pull on it. If it comes out of the ground easily, it is a valuable plant.
4. An unbreakable toy is useful for breaking other toys.
5. If quitters never win, and winners never quit, then who is the fool who said, "Quit while you're ahead?"
6. Get the last word in: Apologize.
7. All of us could take a lesson from the weather. It pays no attention to criticism.
8. Health is merely the slowest possible rate at which one can die.
9. Health nuts are going to feel stupid someday, lying in hospitals dying of nothing.
10. Whenever I feel blue, I start breathing again.

Club Officers

President	Karl Watts	938-1738	Karlwatt@sarmc.org
Vice President	Tom Farmer	859-2610	Racefein@cablone.com
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Librarian	James Spencer	321-7873	jspencer@spencerdomains.com
Directors	Keith Adams	861-7006	Kmadams47@msn.com
	Jerry Kent		
	Ken Iley		
	Paul Cary		

2007 Fun Fly Schedule and CDs

July	Keith Adams	Saturday	7/21/2007	10:30 AM
August	Chris Ingram	Sunday	8/19/2007	10:30 AM
September	Karl Watts	Saturday	9/22/2007	10:30 AM
October	Don Irwin	Sunday	10/21/2007	10:30 AM
November	Jerry Kent	Saturday	11/17/2007	10:30 AM

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