



Next Meeting:

August 7, 2014
7pm

Club Field

Next Event:

Club Meeting
Sept. 4, 2014

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AIRMAIL

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President's Corner

Wish I had more to say this month since my lack of topics reflects a lack of flying! Sadly, I have not been to the field since the last meeting. I intend to spend more time at the field in August. Guess I just wasn't happy being at the field with temperatures less than 100 degrees. August should take care of that no problem.

There have not been any new or exciting developments at the field this month. Although I haven't been there it sounds like there has been quite a bit of flying. It sounds like everyone is having fun. Hope to see everyone at the meeting and with any luck get some flying in myself.

See you at the field
Wes "Scott" Parker

The Editors Note Pad

I had the privilege of visiting and flying at the Jefferson City RC Club field and the Columbia RC Club field in the last month. The Jeff City field is small and pretty tight, and the Columbia field has a grass runway that is pretty rough. Neither field has flight stands or electricity. Visiting these fields gave me a new appreciation for our field it is one of the best in the area. I did get to meet some great guys and had a good time while I was there.



David Sleeth -Owner

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For more information - Officers, Board Members and contacts see the website

July Meeting Minutes

The July meeting was held at the club field with 11 members and 2 visitors present. The meeting was called to order at 7:06 p.m. by club President Wes Parker. Treasurers Report was presented and passed. We have 41 members as of 7/3/14. We need to recruit more members. Old Business: Float Fly to be held this fall date to be announced later. It was discussed that the runway needs to be sealed this fall, and decided club members will provide the labor. The plastic fabric on the fences between the runway and pits needs to be replaced.

New Business: The swap meet was discussed and decided we would like to move it back to Springfield. Aaron Pennington, Darrell Wilson, Dennis Mood and Ron Hargrave will be coordinating. The search for a adequate facility in Springfield will begin. Tentative swap meet date will be January 17, 2015. Meeting adjourned at 7:20 p.m. and flying and fellowship commenced.

PS-

Next Month—follow up article by Bob Thompson. Sorry Bob, ran out of time this month!



Eliminate Bounce in Your Landings

Twin City Radio Controllers, Inc., Minneapolis MN

In order for a tail dragger not to tip over on its nose, its wheels must be ahead of the center of gravity (CG). As it is further forward, it can tolerate rougher ground, but the tendency to bounce is worse. But when a tail dragger lands, the impact of the main wheels tends to push the nose up, increasing the angle of attack, lowering the tail, and increasing the lift—and the airplane is flying again.

Eventually, air speed is reduced and it falls to the ground again, maybe harder. The nose rotates, and the airplane becomes airborne once again. This process will continue until all flyable airspeed is exhausted. The aircraft may continue bouncing because of a phenomenon known as "loping."

Loping occurs in a tail dragger when the bounce of the main wheels causes the tail wheel to slam into the ground while the main wheels are still in the air. Then, the tail wheel bounces, slamming the main wheels onto the ground. This argument between the front and rear continues until momentum is lost. But the severity of the loping can increase in the interim.

Loping can occur in trike-gear aircraft as well. If the nose wheel strikes the ground before the main wheels do, the nose is pushed up severely, slamming the main wheels onto the runway. Being behind the CG, the rebound of the main wheels rotates the airplane forward so the nose wheel slams down again, maybe harder than the first time.

The process repeats. Loping in a trike airplane can start with taxiing. If the main wheel hits a bump, weight is shifted forward onto the nose gear. It rebounds, returning weight backward. This ping-ponging can grow, especially if the airplane is accelerating. The only way to stop it is to stop the airplane. The longer the distance between the main wheels and the nose wheel, the greater the tendency to lope. Loping also increases if the main wheels are too far aft of the CG. Stiff struts and bouncy wheels aggravate matters.

Trike gear has less potential for bounce because the main wheels can be placed closer to the CG. When the main wheels touch down, the impact lowers the nose and the angle of attack, reducing lift. Some trike-gear designs actually have negative angles of attack when sitting on all wheels. This holds the airplane on the runway. Trikes have more positive ground steering because the nose wheel makes firmer contact with the runway than a tail wheel, especially at higher speeds.

Another little-known cause of bounce is main wheels that are too far apart. This may be shocking because this practice is generally considered good for ground handling. It usually is because it improves directional stability when rolling along the ground. What happens when the airplane lands and one wheel hit the ground before the other? A lateral form of bounce occurs from one wing to the other.

One might think that soft tires and springy struts would increase bounce. Not so. More often, bounce is aggravated by the landing gear that is too stiff. Rigidity does not absorb energy; it reflects it. The hardness of the runway contributes to bounce for the same reason. Some early racing airplanes, such as the Howard Ike, had landing gear so rigid they could not land on concrete runways because of the uncontrollable bouncing that occurred.

Moving the main gear close to the CG reduces bounce and improves tracking. The Spitfire, for example, is quite bounce resistant, but it tips over easily on rough ground.

Moving the nose and main gears closer together reduces bounce and loping, but it degrades tracking and increases the tendency to tip over on rough ground and in crosswinds.

Oleo struts help absorb impacts, but the spring tension must be just right—stiff enough to keep from bottoming out, soft enough to absorb shock. The same may be said of tires.

If your airplane rebounds into the air after a severe impact, head off further bounce by inching up the throttle slightly. Apply down-elevator if necessary to level the nose. This increases air speed, prevents a stall, and lowers the rate of descent.