

# "TURBULATOR"

**Newsletter**  
of the Rio Rancho  
Radio Control  
Flying Club  
AMA Club #2770

**WATERMAN FIELD**

**ELEVATION 5840 FEET**

**35° 17.2'N 106° 44.8'W**



Get your float planes ready!!!



## PRESIDENT'S CORNER

**"Da Prez Sez"**

It's that time of the month again. I'll start the newsletter this weekend. OK March is over and I hope it took the wind with it. With only one indoor flying day in March. I think my simulator will be getting a little work out. Things should improve in April with warmer temps and longer daylight hours. We might have to go out late day, or in the evening when things calm down. Don't forget indoor flying at the Star Center on the 14th of

April see U there Ken.

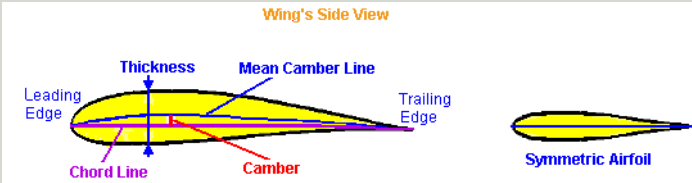
### Events & Reminders

1. April Meeting 7 April 7:00pm at the Wallen Shop
2. Indoor flying at the Star Center Monday 14 April from 9:00am to Noon.
3. Maloof Swap Meet - 3 May 2014 starting 8:00am
4. Indoor Hanger Fly @ Sante Fe Air Center 5-8pm Sat 5 Apr

# Aerodynamics

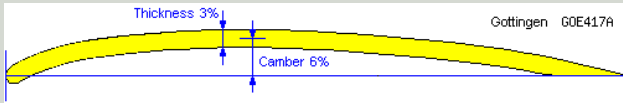
## Wing Geometry Definitions

A vertical cut through the wing parallel to flight's direction (plan view) will show the cross-section of the wing. This side view (profile) is called Airfoil, and it has some geometry definitions of its



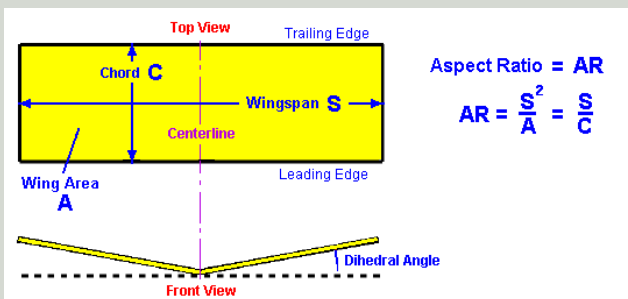
own as shown on the picture below.

The longest straight line that can be drawn from the Airfoil's leading edge to trailing edge is called the Chord Line. The Chord Line cuts the airfoil into an upper surface and a lower surface. If we plot the points that lie halfway between the upper and lower surfaces, we obtain a curve



called the Mean Camber Line.

For a symmetric airfoil (upper surface the same shape as the lower surface) the Mean Camber Line will fall on top of the Chord Line. But for an asymmetric airfoil, these are two separate lines. The maximum distance between these two lines is called the Camber, which is a measure of the curvature of the airfoil (high camber means high curvature). Asymmetric airfoils are



also known as cambered airfoils. The maximum

distance between the upper and lower surfaces is called the Thickness.

Both Thickness and Camber are expressed as a percentage of Chord. Airfoils can come with all kinds of combinations of camber and thickness distributions. They are designed for the conditions under which the plane is likely to be flown most of the time.

NACA (the precursor of NASA) established a method of designating classes of airfoils and then wind tunnel tested the airfoils in order to provide lift coefficients and drag coefficients for designers.

Aspect Ratio is a measure of how long and slender a wing is from tip to tip.

The Aspect Ratio of a wing is defined to be the square of the span divided by the wing area and is given the symbol AR.

The formula is simplified for a rectangular wing, as being the ratio of the span to the chord length as shown on the figure below.

Wing Dihedral refers to the angle of wing panels as seen in the aircraft's front view. Dihedral is added to the wings for roll stability; a wing with some Dihedral will naturally return to its original position if it is subject to a briefly slight roll displacement.

Most large airliner wings are designed with Dihedral.

On the contrary the highly maneuverable fighter planes have no Dihedral. In fact, some fighter aircraft have the wing tips lower than the roots, giving the aircraft a high roll rate.

A negative Dihedral angle is called Anhedral.

# MEETING MINUTES

## Minutes from the March 2014 Club Meeting

The meeting was called to order at 7:05pm with 13 members present.

The **Minutes** were accepted as published.

The **Treasurers report** was accepted as presented with 39 members paid for 2014.

**Field Report:** 1. North/South Runway crack. Tom Kendrick calculated the rate of expansion/contraction for the asphalt and came up with a plan to repair the crack. There was a long discussion and it was noted that we have spent many hours debating the repair of the crack. It was suggested to fill the crack with crusher fine and be done with it. The plan to fill it with crusher fine was adopted.

**Unfinished business:** Club Ball Caps- Andy Wilson picked up the finished Ball Caps and brought them to the meeting. The hats are very high quality and look great! Andy Wilson has done a good job getting this job completed for the club. Great Work ! Ball Caps were handed out to 2014 Club members at the meeting. Mike Skipwith will have control of the Ball Caps and will distribute them to 2014 Club Members. If you've paid your 2014 dues contact Mike to get your Ball Cap.

**New Business:** 1. Indoor Electric Event - Stan Johnson brought up the idea for the club to think about

hosting an indoor electric event at the Star Center. We have access to a great facility and we could take advantage of using it for an Electric Fun-Fly type event. We could start with inviting clubs in the local area and possibly expand it to a South West regional event in the future. We could get sponsorships from some of the national hobby organizations. We'd need to work with management of the Star Center to see their needs(read costs) to have the event at the Star Center. The idea was tabled for consideration.

2. Family Day - The club discussed our annual Family Day event and decide to hold the event on Sat June 4th 2014. Don will coordinate.

3. Garry discussed his annual Float Fly graciously offering to host the weekend at his home at Elephant Butte. The tentative dates are May16, 17 & 18.

**The meeting adjourned** at 7:55pm.

Vic Lukaszonas showed his new Nitro Planes P-51 Mustang.

Raffle Results:

1. Garry Wallen
2. Steve Woodruff
- 3, Vic Holtgrewe

### Turbulator:

Editor Don McClelland

We are always looking for articles, pictures and your input!

For comments, or suggestions

Please Email Don at

[macmoke1@gmail.com](mailto:macmoke1@gmail.com)

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## RIO RANCHO RC CLUB

AMA Charter #2770

[www.rioranchorcflyers.org](http://www.rioranchorcflyers.org)

### Next Club Meeting

April 7th 7:00pm at the Wallen Club House. 5545 Lilac Pl.

# ***SPRING SWAP MEET***

## ***ANd BaKe Sale***

**Saturday May 3<sup>th</sup>, 2014**

**At the George Maloof Memorial Flying Field**

**Starting at 8 AM**



**Buyers – arrive early for the best selections and bargains**

**Sellers - bring your own tables – no fee**

**Gather up all of your unused engines, kits, airplanes etc. and bring them to the swap meet.**

**Sponsored by the Albuquerque Radio Control Club**

**Check our website at [www.arcconline.com](http://www.arcconline.com) for directions to the flying field**



**Contact: Efrain Vila, [vila41@msn.com](mailto:vila41@msn.com) or 505-440-2300**