

FlightLine

A Monthly Publication of Collins Model Aviators

October 2002

Budgets Announced



The company subsidized budgets for the coming year have been announced. All clubs will receive what they did last year which means our usual budget minus the 20% reduction. This translates to \$400 for CMA in 2003. The funding will be available effective November 1. This money, of course, is in addition to what is collected in dues from the membership. Last year we ended with 24 members.



WINTER

It's that time of the year again for formal flight training to end and for the winter build sessions to begin. Our first build session will be held on Thursday, October 10 from 6:00 PM till 9:00 PM in the

main plant cafeteria (same place as the monthly meetings). Bring you "stuff" to work on and join in the comradery with your fellow club members and RC builders. A rumor is circulating that there may be pizza at the build session so don't miss out!!



Elections Coming Up !!

Nominations for next year's officers will be taken from the October monthly meeting through the November meeting. Actual election of officers will be performed in December at the regular monthly meeting. As was the case last year, ballots will be distributed following the November monthly meeting electronically and may be sent in electronically also. The November newsletter will contain the names of all candidates at that time. If any additional candidates surface at the November

CMA Web Page Addresses:
<http://www.collinsclubs.com/cma/>



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meeting, a special email will be sent to all members announcing such.

Please consider running for office in order to help support your club. None of the offices are very demanding of time or energy and doing your part in holding an office shows your interest and support for the club's future and allows you to influence its direction and quality.



AMA Membership Renewal



AMA membership renewal time is here again and dues have gone up this year! A regular membership has increased from \$48.00 per year to \$58.00 per year! You should be getting your renewal notices in the mail soon (if you haven't gotten them already) so keep an eye out.

AMA membership is required for membership in the Collins Model Aviators due to insurance requirements at the flying field (and almost every other flying field in the USA). A current AMA membership card is often required to be able to fly at another club's flying field. It would simplify the life of our Secretary/Treasurer (Membership chairman) if you could email Larry Kerns as soon as

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you get your new membership card. A yearly function of the Membership Chairman is to verify all AMA memberships with the AMA for purposes of insurance verification.

CMA Membership Renewal Time !!



It's that time of the year again, sports fans (or sport fliers, which ever the case may be) !! I need to see some dues soon in order to get the books in order so that the budget planners can do their thing! As always, the dues for the coming year are \$20.00 and for this paltry sum you get a newsletter, monthly organized meetings, winter monthly build session with your buddies, a superb flying field (I think the best in the Cedar Rapids area), free beginning and advanced RC flying lessons, access to tools and expert advice for your model building pleasure and regular information about up coming events in this immediate area (and the entire Midwest). What a deal !!

Please find the membership form (required by the company even for renewing members) on the club's website at:

<http://www.collinsclubs.com/cma/>

and submit it to Larry Kerns at mail station 107-140 along with your \$20.00.



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Propeller Selection

One of the more common questions from new fliers is: "What size prop should I use with my engine?"

Don't take the selection of a propeller for your model too lightly. It is just as important a part of your airplane as the engine or wing. If you use the wrong size prop your model will not fly right, or may not fly at all. You can also damage the engine by running it with the wrong size prop. For ultimate performance, the prop must be properly matched to the engine and model. Always use a propeller within the range specified by the engine manufacturer in the instruction sheet that came with your engine.

Propeller size is designated by two numbers separated by a dash (6-3, 8-4, 10-6, 12-5, 16-6, etc.). The first number indicates the exact diameter of the prop in inches. The second number is the "pitch" of the prop in inches - the theoretical distance the prop would travel forward during one complete revolution if the prop were 100% efficient (which it is not). As an example: a 10-6 prop measures 10 inches in diameter and would travel forward 6 inches during one complete revolution.

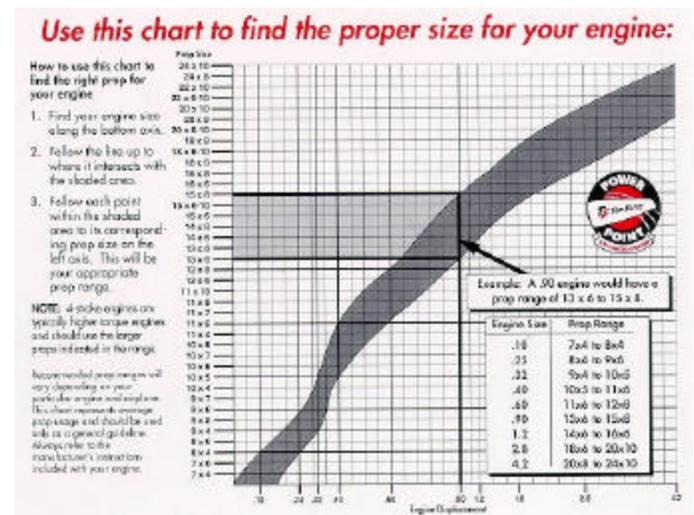
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The following prop charts are offered as a general guide.

The following chart has been provided by the fine people at Top Flite. Top Flite has been supplying the R/C industry with quality aircraft kits, propellers, covering material, and covering accessories for many years.



This chart may be found on-line at:

<http://www.rcmodelers.com/INTRODUCT/introprops/introprops.html>

In general terms, a higher pitch prop will pull the airplane faster in level flight. A lower pitch prop will cause the airplane to takeoff quicker and climb faster. Some full-scale airplanes have adjustable pitch props so they can use the most efficient pitch in each situation. The pilot will select low pitch for the takeoff and climb to altitude, and then switch to a higher pitch for better level flight speed and fuel economy. It's

exactly like shifting gears in a car! Low gear provides quick acceleration from a stop, while high gear is used for better fuel economy after the car is up to cruising speed. Even owners of simple full-scale airplanes with fixed pitch props, like a J-3 Cub, can choose between at least two different FAA-approved propellers - one called a "climb prop" (low pitch) and another called a "cruise prop" (higher pitch).

On a model airplane you should not only try different pitch props, but different diameters as well. For example, let's say you are running a .60 2-stroke engine and start out with an 11-7 prop. The model will very likely fly real nice. Next put on a 12-6 prop, readjust the needle valve, and fly again. Watch carefully! This time the model should be able to takeoff in a little shorter distance and you will be able to pull the nose up a little steeper on the climbout without stalling. However, the level flight speed will probably be slightly less than with the 11-7. So while the engine turns both propellers at approximately the same RPM, the flight characteristics of the airplane are slightly different with each prop. Don't be afraid to try another different size propeller and note any further changes. Usually the changes will be very small, and there will always be a tradeoff of some kind - what you gain in one aspect of performance you may lose in another. By trial and error you will eventually determine which size prop best suits your particular model and how you want it to perform.

Also remember that we fly off a grass field and prop size may be influenced by ground (grass) clearance during takeoff and landing.

Some of the information above was taken from the SIG website.



Club Tools Available !

The club has recently purchased some common tools needed for RC building that will be available for CMA members to checkout and use. An inventory is underway and the current plan is to set it up like the woodworker's club site for internet checkout and tracking. These tools will be made available to current club members only and may be checked out for a period of three weeks just like a library book. Items available for checkout will include commonly needed tools such as incidence meters, woodpeckers, etc. as well as how-to videos such as Top Flight's Monokoting video.

Further details will be provided in the November newsletter and at the November club meeting!!

Heads Up, CMA Activities

April 2002

4 Apr 5-6 PM Meeting
11 Apr 6-9 PM Build session
18 Apr 10 AM-2 PM Beauty Contest

CMA voice bulletin board 295-8888

✉ Send your input for FlightLine to:

Larry W. Kerns
MS 107-140 x5-7157
lwkerns@collins.rockwell.com

Or at my home EMAIL
larrykerns@mcleodusa.net

AMA events web page:

<http://www.modelaircraft.org/Comp/Contest.htm>

For an AMA membership application:

<http://modelaircraft.org/Mem/Memapp.htm>

CMA Web Page :

<http://www.collinsclubs.com/cma/>

✉ Send your input for the CMA Web Page to:

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