

FlightLine

A Monthly Publication of Collins Model Aviators

January 1998



Reminders:

- Have you sent in your 1998 CMA membership application and dues?
- January's meeting and build session with both be held on Thursday January 8th

January's Featured Photo:

Crist Rigotti sent in this photo of his Kyosho Concept 30SR he took in Las Vegas at a helicopter convention. He took his R/C heli out to the ramp and positioned it to look like a real chopper. The model is the one on the left!

Crist built the Concept from a kit in 1993. It is powered by a Thunder Tiger Pro .36H engine burning 30% nitro fuel. Weight is 6 1/2 lbs. It had about 750 flights on it when he sold it in 1996. Rotor diameter is about 47" and in fast forward flight could achieve

about 60mph. Capable of inverted flight and all advanced helicopter aerobatics. ➔

In This Issue:

Featured Photo	1
President's Column.....	2
New CMA Officers for 1998	3
December Minutes.....	3
Micro Air Vehicles.....	4
DARPA Micro Air Vehicle.....	5
NIEUPORT 28.....	6
Local Events.....	7
CMA Heads Up CMA Staff	7



Crist Rigotti with his Great Planes Big Stick 40 kit, powered by an OS 46SRF.

Built in 1993 and covered with Monokote and weighed 6 lbs. A great 2nd plane, nice and sturdy. Good for basic aerobatics and inverted flight. On landing it slows up real nice (as long as you keep the nose up!).

Excellent slow flyer and great for working on your landing pattern especially from both sides.

Crist put about 75 flights on it then sold it

President's Column

by Crist Rigotti

Greetings! First off, thanks to all who voted during the last election for club officers. It's the members participation that will make this club into what it is, and should be! I thought I'd introduce myself, outline some goals, and some thoughts in this first column.

I've been married for 24 years and have two children, Jaquelyn who is 19 and going to Bethel College in St. Paul, and Buddy who is 16 and a junior at Cedar Valley Christian School. We moved from Las Vegas, Nevada and I have been working at Rockwell Collins for almost 2 years as a Systems Engineer at the airport.

My modeling started as a youngster with some control line. While in Jr. High school I flew some indoor and outdoor free flight. In High school I started in R/C with a single channel, escapement, .049 powered Jr.

Falcon. I have owned a "Galloping Ghost" radio along with a "reed" set (which I still have!-That would make an interesting show and tell!). By the mid 70's I was well into "full house" proportional control. I flew a Super Kaos in some pattern events then (no, I didn't do too well). I took some time off from the hobby in the early eighties to the early nineties to raise the family. The "bug" bit again and I flew a Great Planes Big Stick 40 for about a year. My attention was turned to R/C helicopters, which has been my primary interest. Each year I do manage to build at least one "fixed winged" aircraft. As I progress with the helicopter, my interest is growing back toward fixed wing, which I find to be a great change of pace.



Crist Rigotti in the 70's with his Super Kaos

It is with great enthusiasm that I look forward to serving this club and hobby in the coming year. I do believe that some changes are necessary and inevitable. I pledge to all of the CMA membership to be forthright and up front with all the dealings of this club. I will need and will rely on the membership to help with the tasks that are before us. I know that all will not agree with everything, but that's what makes diversity so good for this club. We do have a varied cross-section of flyers and interests. Lets all work on bringing the new, and the young pilots along. At the same time the more experienced pilots need to examine their flying styles/habits to see what needs improving.

I will always welcome your comments and suggestions. Remember, we all see this hobby through a different set of eyes! Each has an idea of what the hobby means to us. To one, competition, to another sport flying, to another building, and another helping others, and so on. My extension at work is 50612. My home address is: 3475 Whitehall Ave. Marion, 52302. Phone 373-5904 and my e-mail is CARigotti@aol.com.

Don't forget to renew your AMA and pay your dues early! Please don't wait till the weather starts to get nice. It is an encouragement to see the membership

renew during the "slow" months of winter. It also helps the club run more smoothly without the "rush" just before flying starts again. I know March and April sound far away, but with the building, and refurbishing going on, it's not that far away. Also, with the winter months ahead we will be looking at some changes, (SFA, the ban on helicopters, to name a few), so renew early and get in on the discussions!

Hey, I'm out of altitude, airspeed, and ideas....See ya next month!

Crist Rigotti, CMA President →

New CMA Officers for 1998

- President: Crist Rigotti
- Vice President: Floyd Van Auken
- Secretary/Treasurer: Doug Emerson
- FlightLine Editor: Jim Doty
- Web Page Editor:..... Steve Plantenberg

December 4, 1997 Minutes

by David Gillespie

Old Business:

President John Michael brought up changes to be made for the CMA bylaws.

Also on last months agenda was the upcoming elections. Ballots would be sent out to CMA members and that they need to be returned before the December meeting.

New Business:

The ballots are in and the following are the results:

- President: Crist Rigotti
- Vice President: Floyd Van Auken
- Secretary/ Treasury: Doug Emerson
- Flight Line Editor:..... Jim Doty

Bylaws:

John opened the floor for discussion. Crist Rigotti asked if the President should have control over minor changes in the bylaw. Some have agreed that this might be a good possibility, but should be brought back up after the formal bylaw changes.

Rich Dean motioned to accept the proposed changes to the bylaws as stated in the Flight Line News letter. Motioned was seconded, and passed. Rich also motioned to change Bylaw 4.2 which is to read:

"CMA club meetings shall take place at 5:00pm on the first Thursday of each month."

The motion was seconded and passed. Crist Rigotti asked about Bylaw 1.1 to change it to read:

"Nominations from the membership for club officers may be submitted to any current officer between the October through the November meeting. A ballot will be mailed to each current member at least 2 weeks prior to the December meeting. Ballots must be returned to the vice-president by the December meeting. Results of the election shall be counted by the officers and made public at the CMA club meeting in December."

Typo's in the bylaws are to be corrected as the bylaws are amended.

Brought up was whether CMA allows Sport Fliers to fly at our site. Questions were brought up about whether our insurance will cover Sport Fliers. Discussion on this subject is to be brought up at a future CMA meeting.

Meeting adjourned

David Gillespie, 1997 CMA Secretary →

Micro Air Vehicles

The Ultimate in small modeling?

by Jim Doty

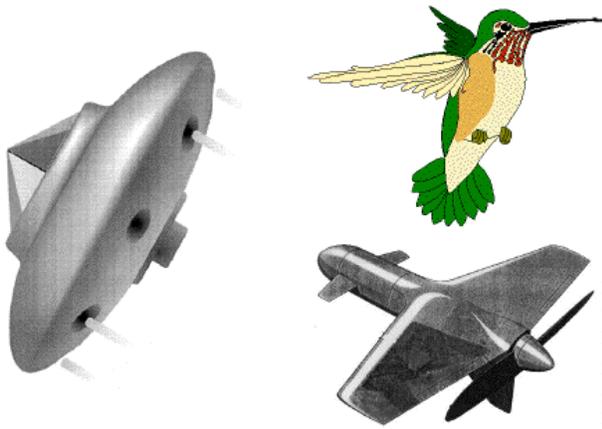
Lately I've been reading articles about the micro air vehicle programs at DARPA and universities and labs (see article on the next page). They are trying to come up with the ultimate in small aircraft for surveillance and other applications. They want everything: long range and endurance, very small size, easy operation, and the ability to carry cameras and sensors.

Of course, our club doesn't have the resources of some of these organizations, but I thought it might still be fun to try to come up with our own ideas for shrinking a model close to their 15 cm goal.

The servos would seem to limit the size reduction. With conventional radio gear the minimum size will be much larger. Rubber band and CO₂ indoor models are routinely made very small, but they don't have any control system.

Does anyone have any ideas for a nanoservo to control such a small airplane. I've got a few concepts, I've been considering, for a rudder-only indoor model controller. Let me know if you are interested in the subject. I think it might make a fun winter project for the club.

James H. Doty, CMA FlightLine Editor →



DARPA Program to Develop Micro Air Vehicle

From DARPA web page:
<http://www.darpa.mil/tto/micro.html>

Overview

A new family of Micro-Air Vehicles (MAVs) which are at least an order of magnitude smaller than current flying systems (less than 15 cm in any dimension) will be developed and demonstrated.

The capability to accomplish unique military missions as diverse as covert imaging in constrained areas, biological-chemical agent detection and characterization, remote precision mines, and urban battlefield communications enhancement, will be stressed through an examination of a variety of vehicle concepts. The resulting capability should be especially beneficial in the emerging urban warfighting environment, characterized by its complex topologies, confined spaces and areas (often internal to buildings), and high civilian concentrations.

The MAV program will focus on the technologies and components required to enable flight at these small scales, including flight control, propulsion and lightweight power, navigation and communications, building upon and exploiting numerous DARPA technology development efforts, including advanced communications and information systems, high performance computer technology, Microelectro-mechanical Systems (MEMS), advanced sensors,

lightweight, efficient high density power sources, and advanced electronic packaging technologies.

FY 1996 Accomplishments:

Initiated assessments of operational scenarios, candidate MAV configurations, and critical component technologies including four SBIR tasks.

FY 1997 Plans:

Conduct studies of Micro-Air Vehicle (MAV) systems and technologies; continue to explore and assess operational scenarios, systems configurations and component technologies. Initiate development of MAV systems, flight enabling technologies and critical technology components.

FY 1998 Plans:

Initiate design and development of functionally diverse unpropelled and propelled MAV systems, employing alternative technology solutions, and satisfying user-identified critical military applications. Explore and demonstrate feasibility of key flight enabling technology component and subsystems. Continue evaluation of operational concepts.

FY 1999 Plans:

Complete unpropelled MAV fabrication and initiate developmental flight testing. Continue propelled system development and fabrication. Continue exploration and demonstration of flight enabling technologies and subsystems. Initiate flight test planning for propelled systems incorporating operational templates, design flight capabilities, and mission characteristics. Prepare and release Broad Agency Announcement (BAA) for Advanced MAV Concept Definition. →

For more information on micro air vehicles see:

<http://web.mit.edu/techreview/www/articles/oct97/reporterlinks.html>



Nieuport at one time or another in their careers.

This reproduction was rebuilt by Museum personnel. It contains wood and hardware from an original Nieuport 28. The aircraft is painted and marked to represent a Nieuport of the

NIEUPOINT 28

From US Air Force Museum web page, Wright-Patterson AFB, Dayton, Ohio

The Nieuport 28 (N.28C-1) was the first fighter airplane flown in combat by pilots of the American Expeditionary Forces (AEF) in WWI. Its second armed patrol with an AEF unit on April 14, 1918, resulted in two victories when Lts. Alan Winslow and Douglas Campbell (the first American-trained ace) of the 94th Aero Squadron each downed an enemy aircraft. Although the Nieuport 28 was considered obsolete at the time, American pilots maintained a favorable ratio of victories to losses with it. The Nieuport was more maneuverable than the sturdier SPAD XIII that replaced it, but it had a reputation for fragility and a tendency to shed its upper wing fabric in a dive. Even so, many American aces of WW I — including 26-victory ace Capt. Eddie Rickenbacker — flew the French-built



95th Aero Squadron, 3rd Flight, as it appeared in July 1918.

It was placed on display in May 1994.

SPECIFICATIONS

Span: 26 ft. 3 in.

Length: 24 ft. 4 in.

Height: 8 ft.

Weight: 1,625 lbs. loaded

Armament: Two Vickers .303-cal. machine guns

Engine: Gnome 9-N rotary of 160 hp.

Crew: 1



PERFORMANCE

Maximum speed: 122 mph.

Range: 180 miles

Service Ceiling: 17,000 ft.

http://www.wpafb.af.mil/museum/early_years/ey7.htm →

Local Events

Jan 17th — Skyhawks Banquet at Longbranch
Supper Club, Marion, Iowa
Feb 22nd — Swap Meet, Palo, Iowa

Send your input for FlightLine to:

James H. Doty
MS 124-111
x5-2931
jhdoty@collins.rockwell.com



Heads Up, CMA Activities

Thursday, Jan. 8, 5:00 pm — Club Meeting
Thursday, Jan. 8, 6-9 pm — Build Session
Friday, Jan. 23, 5:00 pm — FlightLine Deadline
Thursday, Feb. 5, 5:00 pm — Club Meeting
Thursday, Feb. 12, 6-9 pm — Build Session
Friday, Feb. 20, 5:00 pm — FlightLine Deadline

Note: Meetings and build sessions will be held in the
35th street N.E. Facility (main plant) Cafeteria
building 140.

For membership information:

Contact: Doug Emerson
CMA Secretary/Treasurer
MS 153-260
x 5-2356
daemerso@collins.rockwell.com

For an AMA membership application:

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

AMA National Newsletter goes on-line: <http://modelaircraft.org/News/Newsletters.htm>

For selected articles from AMA club
newsletters around the country



Send your input for the CMA Web Page to:

Steve Plantenberg x5-9625
soplante@cacd.rockwell.com

1997 CMA Staff

President:	Crist Rigotti.....	x5-0612
Vice President:	Floyd Van Auken..	x5-4057
Secretary/Treasurer:	Doug Emerson.....	x5-2356
FlightLine Editor:	Jim Doty	x5-2931
Web Page Editor:	Steve Plantenberg .	x5-9625

Flight Instructors:

Rich Dean
Tom DeWulf
Dave Dillman
Mark Woytassek

Flight Instructors in training:

Irv Anderson

Test Pilots for first flights of new airplanes:

Rich Dean
Mark Woytassek

Build Sessions

Build sessions start in November and are held
from 6 to 9 pm on the second Thursday of every
month

Bring your current project, or just stop by and see
what people are working on

For more information call:
Rich Dean x5 8002,
Build Session coordinator

1997 CMA Membership

<u>M/S</u>	<u>NAME</u>	<u>M/S</u>	<u>NAME</u>
108-103.....	Irvin Anderson	108-136	Patrick Neu
108-166.....	Geoffrey Barrance	137-146	Marion Payne
124-224.....	Alan Bechtold	108-175	Elio Piccmenti
108-260.....	Bob Buschette	137-152	Steve Plantenberg
107-150.....	Brian Collins	164-100	Crist Rigotti
124-111.....	Dan Cooley	124-123	Wayne Savold
124-115.....	Rich Dean	137-137	Troy Simonton
153-260.....	Tom DeWulf	108-135	Duane Smith
153-264.....	Dave Dillman	108-135	Duane Smith (for Brian)
124-111.....	James Doty	124-115	David Sneitzer
106-183.....	Mike Eastman	105-190	Steve Timm
153-260.....	Doug Emerson	107-140	Floyd Van Auken
153-163.....	David Gillespie	107-140	Floyd Van Auken (for Ehren)
153-163.....	David Gillespie (for James)	139-142	Charles Ward
153-163.....	David Gillespie (for Amy)	153-260	Bryan Wesner
108-166.....	John Michael	153-260	Bryan Wesner (for Michael)
108-166.....	John Michael (for Kevin)	107-110	Victor Wolfe
108-136.....	David Neu	137-125	Mark Woytassek

Mike Crilley
2090 F Ave. NW
Cedar Rapids, IA 52405

John Crilley
2540 Second Ave
Marion, IA 52302

Jack Morgan
1209 Raney Street
Hiawatha, IA 52233

Basil Tilley
1028 Regent St N.E.
Cedar Rapids, IA 52402

Academy of Model Aeronautics
5151 E. Memorial Drive
Muncie, IN 47302

R/C Adventures
PO Box 284
Marion, IA 52302

Have you paid your 1998 dues?