

FlightLine

A Monthly Publication of Collins Model Aviators September 1997



Reminders:

- Thursday September 4th is the CMA club meeting Come by and help plan the Fun Fly.
- The **CMA Fun Fly** is Saturday September 6th (rain date September 13th)

September's Featured Model: Some publications have sexy models on the cover and some don't. I'll let you be the judge.

The featured model this month is Wayne Savold's P51. Wayne's Mustang is powered by a geared cobalt .05 electric motor. Wayne has built several electrics, and it looks like he is really getting the recipe down. I don't know about you, but I think the quiet performance of this model is pretty sexy.

James H. Doty, FlightLine Editor →

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Right Flyer 60H

by Jim Doty

Well I finally did it. After many minor mishaps and associated rebuilds, I finally totaled my old Thunder Tiger 40 trainer. I was in a high-g loop at high throttle and I suddenly lost elevator control. I think the tail surface came partially loose from the fuselage. The result was a nearly vertical dive straight into the corn.

There wasn't a lot left of my trainer to rebuild, so I decided to buy another plane. I figured I needed an ARF (almost ready to fly) so I could get back up before the end of the season. My father had given me a O.S. FS70S Surpass four cycle engine for Christmas that I hadn't yet gotten a chance to break in, so I decided to get a 60 sized model.

There are a number of good 60 sized ARFs available, so the selection wasn't obvious. I wanted something low-cost, quick to assemble, easy to fly, but capable of simple aerobatics. I chose the Global Right Flyer 60H. This model is only a little over \$100, but still comes complete with all you need except engine and radio.

Assembly was easy without too many surprises. An illustrated instruction manual takes you step by step through the assembly. All the critical assembly steps are covered well, but I did notice they left out a few of the simpler steps like putting on the wheels.

I was concerned at first because the recommended engine is a two cycle. Fortunately the simple wooden

block engine mount works just as well with my four cycle as with the specified engine. All I needed to do was reroute the engine pushrod.

The Flyer has a cover over the fuel tank making installation and inspection much easier than in my old Thunder Tiger Trainer. There is a large hole in the firewall and you glue the neck of the large 450cc fuel tank into this hole with RTV. I like this arrangement because you don't need to worry about kinking the fuel lines running through the firewall. The fuel tank stopper and tubes are clearly visible making inspection a breeze.

The Right flyer has a large semisymmetrical wing with a 70 inch wingspan. Weight with my four cycle engine is 7 lbs 3 oz. The Surpass engine seems to have plenty of power to get the Flyer off of the ground. I think the engine is just about ideal for the plane.

I've only flown the Right Flyer a couple of times, but so far it seems well behaved. After the first flight I added down thrust to the engine by putting washers under the back bolt holes. This greatly reduced the tendency of the plane to want to pull up at high throttle.

The plane does have a tendency to nose down in the takeoff roll, but this can be corrected by holding a little up elevator. I used the wheels and gear provided. I may switch to a larger nose wheel or a longer nose gear to help hold up the nose. This should eliminate the need to rapidly correct the elevator on takeoff.

The large size of the plane makes it easy to see in the air, but I may add some color to the bottom of the white wings so they don't blend in with the cloudy sky. The colorful stripes on the top of the wing make it easy to follow as long as it is banked toward you.

Overall, I am very pleased with the Right Flyer 60H. The plane is well made, easy to assemble, a good flyer, and an excellent match to my FS70 four cycle engine.

James H. Doty, FlightLine Editor →

President's Column

by John Michael

Yesterday the long awaited time came when I could see my newly completed Lazy Bee fly for the first time. It was a good feeling seeing it floating in the evening breezes. I didn't do too well flying it myself, but Rich made it do a few fancy things. It was fun. The Lazy Bee is an interesting creature to see fly.

Summer is fast drawing to a close. The days are noticeably shorter. On a good night it is usually too dark before 8:00 to fly. Those of us who have been regulars on training nights I'm sure appreciate Rich Dean's efforts to extend the flying time by starting earlier. Even at that, getting much prime flying time is not easy. It would be great if more of you who have much flying experience would come out on Tuesdays and Thursdays to help those of us who are just on the edge of being on our own cross that line. Any help would be appreciated.

The fun fly is coming up. I understand all the arrangements are being made, we have a good selection of prizes to give away, and as in the past it should be great fun. I hope that all of you can come that day, bring along your airplane, and join in the fun. The details should be given elsewhere in this issue of the FlightLine.

Last month I brought up the subject of the upcoming elections. I intend to keep reminding you. OUR club needs people willing to serve as officers. There are enough people in the club that we should be able to share those duties without depending on only a few people. Consider submitting your name to hold an office. Lets have enough people to have a real election.

Finally, don't forget the next meeting. The next meeting is September 4th in the main plant cafeteria, right before the fun fly. Hope to see you there.

John Michael, CMA President →

From the Field

by Rich Dean

Some good things have happened to the club this year with the membership. It has expanded in that we have retired personnel and co-op students in our midst. John Crilley, Jack Morgan and Basil Tilley are our retired members. Dale Brech and Mark Moeller were here for the summer as co-op students. It is good to see the diversity and all the different planes they bring to the field. Dale and Mark are back at school already but they will know where to find us next summer.

So if you know any retired folks or co-op students interested in R/C send them our way.

The summer is winding down fast and the annual CMA Fun Fly is coming September 6. Jim Doty has the goodies from SIG, Dave Gillespie and I have zeroed out the club funds for R/C giveaway items, Irv Anderson is taking care of the restaurant gift certificates for the wives, and Tom DeWulf is making sure there is enough pop to go around, and Crist Rigotti is in charge of the events. All that is left to do is show up Sept 6 and have fun..

Rich Dean, CMA Flight Instructor →

My Recommendations

by Mark Woytassek

Over the past year of flying I have been asked many Questions about what products I use. I will give out the following list of R/C products that I have been able to make work.

I go through a test program on almost every product that I fly on my Pattern aircraft. I take a close look at many products that are put out every year, from those I will test some of them. The testing takes place in what I call a fun plane. Many of you have seen my yellow bipe. Every couple of years I will build a test Pattern plane.

From those tests and the ones that a few other flyers make I will pick a few products that I will use.

Please note that my aircraft have to work when at a contest you only get six flights for the weekend.

Airplane: A number of folks have asked what type of low wing plane to get. There are TWO very different

types of low wing planes Sport and Pattern. The Pattern planes fly much better than a sport plane.

Pattern Plane built up: The Boxer in the .45 .60 or .90 FS are great and the Super Kaos 60

Pattern Plane Glass: Meridian, Prophecy, Epuicre.

Motor:

Y.S. 1.20ac 1.40 fz .91ac .61 ar
OS 1.40
K&B 1.40
Bully 1.40

Sport motors: O.S or Super Tiger with dual ball bearing with ring or ABC. I Like the ring better.

Prop: APC on my .90 I use a 15-8 1.20 16-8.

Plug: Four stoke OS F Two Stoke K&B 1-L

Fuel: Omega 15 % in both 2 and 4 stroke

Spinner: Tru-turn.

Engine Mount: Dave Brown Iso Beam or Hyde.

Fuel tubing: Aero-trend.

Fuel tank: MK or Du-Bro.

Radio: JR 10SX

Battery: SR or TNR matched pack.

Servo: JR ,Airtronics. Coreless Ball Bearing

Retract: Mechanical Supra : Air Rohm Air

Retract Servo: 136G

Covering: Ultra Coat.

Paint: K&B.

Clevis: Kraft Hayes or Rocket City Kwick link SIG
Note Rolled Threads. No solder Joints

Control Horn: 4-40 or 6-32 Bolt.

Flight Hardware: MK

Keeper: Hobby Lobby Red.

Hinge: Kleet or Du-Bro

Copies of these products are NOT Equal or better.

These are the items That I have made work over the years. I try many items that do not hold up.

This flying season I have 200 plus flights.

Mark Woytassek, CMA Flight Instructor →



The following articles are reprinted from the AMA's National Newsletter

Builder's Corner

by Ken Blackwell

Color schemes and patterns are very personal. However, there are a few fundamentals that should be considered when designing your color layout for your sport or aerobatic airplane. You want to make your model as visible as possible considering adverse visibility conditions.

Note: Scale modelers are restricted in the choices that they have once they choose a model they want to replicate, but there may be some battle markings etc. that can be used to help.

Before you design your layout, look at what others are flying to determine if you can see the airplane attitude under a wide range of visibility conditions. You have to be able to see it to be able to control it! The following are some characteristics that have been proven.

(1) There should be a large pattern contrast between wing top to bottom. For example, two or three large spanwise bars or stripes on the top contrasted by a big check (four to six boxes per wing panel) will do the job. Small patterns will fade into a blur at the distance we fly.

(2) Large white or yellow wing tips on the top side show up really well when making the top of the wing highly visible. It almost looks like a neon sign flashing in a turn/roll at the end of the field.

(3) White or yellow wing and stab leading edges show up much better on approach to landing and make it much easier to judge attitude on approach to landing.

(4) A white or yellow band (about three inches) down the side of the fuselage helps in determining attitude when flying wing-level, making it much easier to determine whether the airplane is climbing or diving.

(5) Colors should be sharply contrasting such as white or yellow against insignia blue, missile red or dark green. Most airplanes use either white or yellow as their light color. Look to see which is more visible to you. Also, remember that under many lighting conditions colors change to monochrome or light verses dark. At large distances and under low light conditions, the eye can no longer distinguish colors. Two colors that really look neat together at 20 paces, may turn into a stealth airplane at flying distances. Small patterns with non-contrasting colors may cause you to be unable to tell up from down under poor visibility conditions.

(6) If you are modeling a scale aircraft, there may be some things that you can do, but it isn't as straight forward. For example: Brian Arsenault has a semi-scale helio-courier that was a real stealth plane on approach until he added two white bars about 6-8" long to the leading edge. It might pay you to search for another color scheme or resign yourself to flying the scale model on bright sunny days.

Finally, do it your way but remember, if you can't see it you certainly can't fly it and it may be headed for premature re-kitting.

from WGRC News
Ken Blackwell, Editor
207 West Sandcreek Road
Enterprise, AL 36330.
From the June 1997 National Newsletter→

Fumes Can Be Hazardous

*Let me warn you about those fumes,
from paint or gas or glue
The need for ventilation,
Is something you should do.
'Cause if you don't, you just might find,
Your judgement not quite right.
When you always breathe that stuff,
Some dangers you invite.
You mite just think that I.M. kidding,
That brainsells never fale,
I think ull find that jest ain't sew,
Tem habbe lab en snail.
Fixit Tie, dew llisten up,
Thoes fewms ar seeming thik,
Plees muve yur prockeck out uf doors,
(I'm pheeling kinda sik.)*

Author Unknown

From the June 1997 National Newsletter→

Glue—Hints, Tips and Safety

by Gary Baker

Fast setting, non-CA wood glue? There really is such a thing! You need to save one empty CA bottle with the spout that has the tiny opening at the end. You then fill it with a wood glue. You now have a container that permits a correct amount of glue to be dispensed.

Wood glue is generally sold in bottles with huge openings which pour large quantities of glue. You use several times more wood glue than you actually need, it takes forever for the water to evaporate, and so you turn to CA to speed up your work. If you would only use the amount of wood glue that you need, then you would be quite surprised at how fast it dries.

I helped a young friend build a glider fuselage one evening; we cut, sanded, shaped and glued the wood. It took less than four hours from start to finish. This fellow took his fuselage home with him. We used Weldbond wood glue, and we could have covered the fuselage ten minutes after the last piece of wood went on.

I am highly allergic to CA and have turned to Weldbond. It is now a staple in the shop. It glues almost anything to anything. There is one other wood glue that I would recommend: Titebond II. You can

glue two pieces of wood together, and after 24 hours, submerge the pieces under water for another 24 hours without the glue letting go. If you dispense the glue in the right quantity, it also dries fast. Weldbond has some water resistant properties as well. Another way of looking at this is: if you were gluing 2 x 4s, would you put so much on that it slipped out of joint? I would guess not.

If you think you need to fillet a joint, why don't you experiment to see if it really is necessary; most of the time it will be of little benefit, a lot of work, and more weight. Some people use so much wood glue that epoxy would have weighed less!

A few years ago, I discussed the correct way to use liquid adhesives with a technical person where I work (which happens to be a major manufacturer of adhesives). He said that most people do not understand how adhesives work. For instance, CA is often used improperly; far too much is used. The only strength in this glue is where surfaces meet.

Wood Glue

(Aliphatic resins like Weldbond or Titebond)

Take a couple pieces of stock sheet—let's say 1/8". Lay a thin bead of glue part way down the center of one sheet. Press the two pieces together with some pressure, then pull them apart. If you have placed the right amount of glue on the wood, there will be glue from edge to edge. If okay, press the pieces back together again, let stand 15 minutes, and then try to pull the pieces apart. If you have used the right amount (surface covered, but none squeezed out), the pieces will be hard to take apart and probably will break beyond the glue line.

CA

Pick up a small bottle, with a small tip, turn it upside down, holding the bottle a half a meter above the work table. Let one drop of glue come out on its own (free flowing). Do not force the glue out. Watch how much glue this is when it lands. This one drop will glue one square inch of material! Go ahead, draw one square inch on a piece of paper—that is the size of each surface that a drop of CA will properly glue together. The same applies to aliphatic resin wood

glue; too much is used and ends up being wiped or sanded off.

Now, do you suppose that you are using too much glue? Remember, some of these items are dangerous when used properly, and they are even more dangerous when used improperly! Have you had a nagging cold lately, running nose, blurred vision, coughing up phlegm, difficulty breathing at times, seeing your doctor to get a cure? Sick to the point that you have to stop building? After a few days you are getting better, and a couple of weeks go by and you are back building and you get another cold. Guess what. You have reached your tolerance for CA. Your body is reacting violently to the chemistry; it is trying to tell you something.

Let me tell you if you won't listen to yourself: you are pressing your luck. The next time you use CA may be your last. This happened to me. The last time I really thought I would not pull through and it was a week later that I finally discovered it was the chemistry. It took about four hours from exposure for the reaction to begin, so you may not think it was the chemistry. I didn't. Do I use CAs now? I have one small bottle, use it outside or in the garage, and leave the area immediately and stay away for a couple of hours after.

from The Electric Model Flyer
Rod Campbell, Editor
Dundas, Ontario, Canada
via The Highlands Flyer

From the June 1997 National Newsletter→

Castor Oil Trivia

A while back I ran across some interesting trivia about the castor bean. That is where the castor oil used in our model engine fuel comes from. The castor bean plant is native to tropical Africa. It is grown as an ornamental plant in gardens, sometimes as a houseplant, and also grown as a weed. It is an annual in the south and a perennial in the tropics. It may reach as tall as 15 feet outdoors.

You probably didn't know that the seeds from the castor bean plant, *Ricinus Communis*, are poisonous to people, animals and insects. One of the main toxic proteins is ricin. If the seed is swallowed without chewing, and there is no damage to the seed coat, it

will most likely pass harmlessly through the digestive tract. However, if it is chewed or broken and then swallowed, the ricin toxin will be absorbed by the intestines. One seed can kill a child.

In 1978, ricin was used to assassinate Georgi Markov, a Bulgarian journalist who spoke out against the Bulgarian government. Markov was stabbed with the point of an umbrella while waiting at a bus stop near Waterloo Station in London. A perforated metallic pellet presumably containing the ricin toxin was found embedded in his leg.

Castor beans are pressed to extract castor oil which is used for medicinal and industrial purposes. You're likely thinking, "But what about the poison?" Well, ricin does not partition into the oil because it is water-soluble. Therefore, the castor oil does not contain ricin, provided that no cross contamination occurred during its production.

from the Turbulator
Glen Nesbitt, Editor
2409 32nd Circle SE
Rio Rancho, NM 87124

From the June 1997 National Newsletter →

Tips and Techniques

The following articles are all from the
June 1997 National Newsletter

Fiberglass Application Made Easier

When applying fiberglass reinforcing to the center of your wing, try this trick to keep the fiberglass smooth. First spray the area around the center of the wing joiners (top and bottom) with 3M #77 Spray Adhesive. Now you can position and press down the fiberglass taking time to get all of the wrinkles out. The spray adhesive holds it in place until the final glueing, preventing buckling and fraying.

from Plane Talk
Troy Smith, Editor
PO Box 112
Three Rivers, MI 49093

Nail File Supreme

I went with my wife a few weeks ago to a beauty supply shop that sells to beauty shops and cosmetologists, but will also sell to the general public. While I was there I saw some fingernail file boards. Now we all use these, generally getting them at the discount store, and they are made of hard paper with grit on both sides. They have two characteristics: 1) they are handy as the dickens and 2) they only last a few minutes and the grit is gone.

Well the one I bought for 49 cents was for professionals, a lot bigger and on a resilient foam base with that nice gray grit that lasts so long. The thing is marvelous! Get a few and make the manufacturer wonder why so many people in Peoria have started to file their nails!

from the Summit Valley R/C Flyer's Newsletter
Tomy Meisel, Editor
3211 W. Wiltshire
Peoria, IL 61614

Epoxy

Did you ever have your six-minute epoxy start setting up on you after one or two minutes? Epoxy manufacturers suggest that you mix your epoxy on a flat, wide open surface as opposed to a deep container. It seems that mixing epoxy in a deep container speeds up its chemical reaction time. If you still want to use a deep container, add a little alcohol (don't exceed 50%) to the epoxy to slow down setting time.

from Valley City R/C Club Newsletter
Carl Koehn, Editor
5853 Doxmere Drive
Parma Heights, OH 44130

Dull X-Acto Blades

Tired of dull X-Acto blades? The only time I replace blades is when I drop one and break off the point. I covered my last plane using only one blade!

Go to your local hardware store or knife emporium and purchase a Washita whet stone. Washita is an extremely fine grade of stone used for finish honing a knife blade to a razor edge. About ten strokes on each side should return your X-Acto blades to their original sharpness. Mine is about 1-1/2 x 4 inches, made by the Buck Knife

people, and is the perfect size for sharpening #11 X-Acto blades. These stones cost about \$10, but think how many blades you used covering your last plane with Monokote.

It won't take many packs of blades to pay for your stone and it will last for many years. I've had mine for at least 15 years and it's still going strong. Be sure to apply plenty of oil to the stone before sharpening your blades. I use 3-in-1 oil. It will keep the metal particles that are removed from the blade in suspension so you can wipe them away instead of having them clog the pores of the stone and render it useless. Wipe the stone with a paper towel after each use. Repeat this oil-sharpen-wipe procedure each time you use the stone and it will last forever. An instruction booklet is usually packed with each stone. Read it to find the best way to sharpen your blades.

from R/C Skyhawks Club Newsletter
Craig Miller, Editor
PO Box 196
Remsen, IA 51050-0196

Take that Scratch Out!

The following question was posed on rec.models.rc.air:

"Hello Everyone, does anyone know how to take the scratches out of a butyrate canopy? I was thinking there might be some kind of wax that would work. Any Ideas?"

The answer: Check marine/boating supply stores for "Aurora" plastic windshield cleaner/protector (two bottles). #1 is a polishing compound and #2 appears to be a silicone based wax/polish. Works well except on deep scratches, works wonders on old clouded canopies. . .

Let me know if you try this!

from Transmitter
John Clark, Editor
PO Box 141
San Marcos, CA 92079

Local Events

SEPT 1 – Benton City Propbuster Fun Fly,
Blairstown, IA.

September 6—CMA Fun Fly (rain date Sept 13)
See page 9 for more information

SEPT 6-7--Council Bluffs, IA (C) Restricted to IMAA members. Loess Hills Eagles Giant Air Show. Site: The Field, I-29 to Nebraska Ave exit 52, go S 1/2 mi to field. D Hutcheson CD, 268 Kenmore Ave Council Bluffs, IA 51503 PH:712-322-0038. Camp no hook-up. Sponsor: LOESS HILLS EAGLE SQUADRON

SEPT 7 -- Skyhawks Club Picnic
Information call Pres. Kyle Friauf 364-3289

SEPT 13--Clear Lake, IA (C) Float Fly. Site: McIntosh Woods State Park. John Matteson CD, 904 S 15th St Clear Lake, IA 50428 PH:515-357-6387.
Sponsor: RIVER CITY RADIO CONTROL

SEPT 14--Mason City, IA (C) River City RC Annual Fun Fly. Site: Al Stevens Farm. Jack Kinsinger CD, 2820 1st SW Mason City, IA 50401 PH:515-424-5851. Open fun fly with safety precautions per AMA guidelines. Prizes and plaques awarded. Event starts at noon.
Sponsor: RIVER CITY RC CLUB

SEPT 20-21--Oskaloosa, IA (AA) Corn Frontation '97 for 401-404 and 406 (JSO). Site: Oskaloosa Airport. R Goffstein CD, 350 Hutchinson Ave Iowa City, IA 52246 PH:319-351-0715.
Sponsor: IOWA CITYAEROHAWKS

SEPT 21 Goodbye Party Fun Fly, Ottumwa, IA.
Information: 515-682-2727

SEPT 28--Muscatine, IA (A) Glider Meet for 442 and 444(JSO). Site: Boyfield Aerodrome. Jim Rummery CD, 2729 Brookview Rd Muscatine, IA 52761 PH:319-263-8402. Sponsor: MUSCATINE MINIATURE AIRCRAFT



Heads Up, CMA Activities

Thursday, September 4, 5:00 pm—Club Meeting

September 6—CMA Fun Fly (rain date Sept 13).

Friday, September 19, 5 pm—FlightLine Deadline

Thursday, October 2, 5:00 pm—Club Meeting

Friday, October 24, 5 pm—FlightLine Deadline

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



Send your input for the CMA Web Page to:

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tvdewulf@cacd.rockwell.com

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Dave Decker
Tom DeWulf
Dave Dillman
Mark Woytassek

Flight Instructors in training:

Irv Anderson

Test Pilots for first flights of new airplanes:

Rich Dean
Mark Woytassek



Send your input for FlightLine to:

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



CMA Fun Fly and Picnic

September 6, 3 p.m. until dark
Food, Fun, Flying and Prizes

Bring your own food and plane

Pop will be provided

Come early and grill

Eating starts at 4

Flying starts at 5

★for more information contact:

Rich Dean x5-8002 or John Michael x5-2914



For membership information:

Contact: David Gillespie
CMA Secretary/Treasurer
MS 153-163
x5-8512
djgilles@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

Flight Training

Flight Training is given every Tuesday and Thursday night from 6:00 pm until dark weather permitting

Tuesday night introductory flight training is given Most Tuesday nights at least one club trainer is available for introductory training.

Advanced flight training is held Thursday night Beginners with their own airplanes are welcome, but the club trainers are usually not available unless requested in advance

Check the CMA Hotline **295-8888** for the latest information on the training sessions

1997 CMA Membership

<u>M/S</u>	<u>NAME</u>
108-103.....	Irvin Anderson
108-166.....	Geoffrey Barrance
124-111.....	Alan Bechtold
124-111.....	Bob Buschette
137-109.....	Brian Collins
124-111.....	Dan Cooley
124-115.....	Rich Dean
153-264.....	Tom DeWulf
153-163.....	Dave Dillman
124-300.....	James Doty
106-183.....	Mike Eastman
153-260.....	Doug Emerson
153-163.....	David Gillespie
153-163.....	David Gillespie (for James)
153-163.....	David Gillespie (for Amy)
108-166.....	John Michael
108-166.....	John Michael (for Kevin)
108-136.....	David Neu

<u>M/S</u>	<u>NAME</u>
108-136.....	Patrick Neu
137-136.....	Marion Payne
108-175.....	Elio Piccmenti
137-152.....	Steve Plantenberg
164-100.....	Crist Rigotti
124-123.....	Wayne Savold
137-137.....	Troy Simonton
108-136.....	Duane Smith
108-136.....	Brian Smith
124-115.....	David Sneitzer
137-101.....	Steve Timm
107-140.....	Floyd Van Auken
107-140.....	Floyd Van Auken (for Ehren)
139-142.....	Charles Ward
153-264.....	Bryan Wesner
153-264.....	Bryan Wesner (for Michael)
107-110.....	Victor Wolfe
137-125.....	Mark Woytassek

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