

# Middle Point R/C Flyers



## February 2017 Newsletter

### Upcoming Events:

- March 1 – Membership Meeting
- March 17 – MPRCF Swap Meet
- April 5 – Membership Meeting
- May 3 – Membership Meeting
- June 7 – Membership Meeting
- July 5 – Membership Meeting
- August 2 – Membership Meeting
- August 24-25 – MTRCCA Fall Fly-In  
– Dickson Airport
- September 6 – Membership Meeting
- October 4 – Membership Meeting
- November 1 – Membership Meeting
- November 3 – MTRCCA Swap Meet  
– Antioch, TN
- December 7 – Membership Meeting
- January 3, 2019 – Membership Meeting
- February 7 – Membership Meeting
- March 7 – Membership Meeting

### Prez Says:

It's really been a bad month for doing just about anything. The lousy weather has been getting in the way of flying and in the way of our getting any field improvements or field maintenance done. Hopefully March's weather will be better so that we can all start to enjoy the outdoors.

The club's 24<sup>th</sup> Annual Swap Meet will be coming up on March 17. For those who are new to the club, the Swap Meet is the primary fund-raising event that the club puts on. There are always lots of good deals to be had and it is always a good time. There is a lot of work that goes into putting on this event and it doesn't happen by itself, so members are asked to step up and help in any way that they can. Please don't leave it to just a few members. Members are asked to either rent tables (if they have things to sell); come out to the event as buyers; and/or help with the setup, running, and teardown of the event. We set up for the event in the afternoon of Friday, the day before the event. This includes setting up the tables, setting up the PA system, and getting the concessions and registration tables ready. We need help during the event to man the registration/raffle table and man the concession area. After the event we need help to take down the tables and equipment and to police the armory of trash. I hope to see a good turnout of members at this event...I'm counting on seeing some new faces helping out this year. I will send out email reminders as we get closer to the event.

Continued...

<https://www.facebook.com/groups/mprcf/>

[www.mprcf.com](http://www.mprcf.com)

## February Meeting Minutes:

The meeting, held at O'Charley's, was called to order by VP, Dick Tonan @ 6:00pm. There were 12 members present. There were no guests.

The January meeting minutes were accepted as published in the Newsletter.

The January Treasurer's report was read and accepted.

There were 3 new members added since the last meeting.

Old Business:

### Upcoming local events:

- ❖ Indoor Flying – Smyrna, TN – every Tuesday – contact Family Hobbies for info.
- ❖ Indoor Flying – Charlie Daniels Park – February 5, 2018
- ❖ MPRCF Swap Meet – March 17, 2018
- ❖ Joe Nall Week – May 12-19, 2018

### Field Development:

#### Since December Meeting:

- ❖ No action

**Continued**

## Prez Says (cont.):

With all of the rain that we've been getting we have seen some erosion of the driveway at the road gate area. Additionally, the drain piping that we previously installed at the field gate is proving inadequate. We have plans to get out there, with Clint Russell's help, to fix this problem once and for all. At the road gate area we will either extend the right-side ditch down to the main drain pipe or run a drain pipe across the road to the low side. At the field gate we will run a bigger drain pipe across the road. We may also need to get a delivery of gravel to replace some that has washed away.

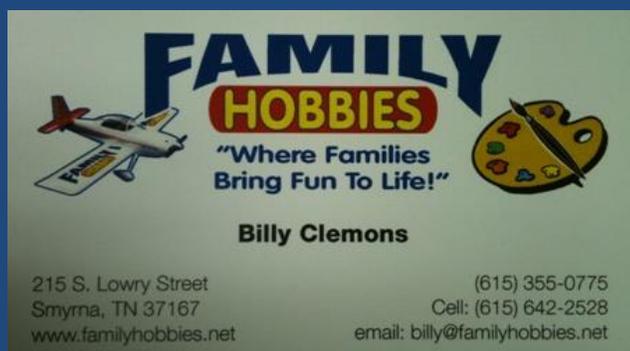
Another area of erosion is under the fabric runway. Unfortunately, with the slope that exists at the south end of the runway, and with the lack of grass in that area, there is quite a bit of water runoff that is running under the fabric creating erosion. We are exploring options for eliminating/reducing the runoff away from the runway. We are considering a French drain solution. We would rent a Ditch Witch to create a trench filled with gravel to capture the surface runoff. Optionally, we could place a perforated pipe in the trench along with the gravel. If anyone has experience with this or any other erosion control options let me know. After we are successful in eliminating the erosion we will need to pull up one side of the fabric runway in order to level the ground underneath. While having this problem is a disappointment, we need to do what we need to do.

John Dudinetz purchased a nice set of ramps that we will use at the container to allow for easier movement into/out of the container of the grill and any lawnmower that might be stored there in the future. The ramps are 10' long and consist of two separate foldable/portable ramps. Being separate we can adjust the width to any size ramp needed and being portable they can be easily stored and transported. An added benefit is that we will be able to use the ramps at the Association's Fall Fly-In at Dixon where there is a bit of a ditch that these ramps can go over that will help the larger airplanes transition across.

We applied for the AMA Flying Site Development/Improvement Grant this month. According to the AMA: "The AMA Flying Site Development Improvement Grant Program is designed to help provide funding for AMA Chartered Clubs that are making improvements to AMA Chartered Club Flying sites." We received a grant in 2013, so I'm not sure if we will be approved again, although we are eligible. I'm keeping my fingers crossed. A grant would certainly help us fund future improvements at the field.

Well...that's it for this month.

Dan



## **February Meeting Minutes (cont.):**

### **Pending Actions:**

- ❖ Remove trees at north approach
- ❖ Remove stumps in runway at the north end
- ❖ Remove rocks and other debris in the east runway perimeter
- ❖ Add "X" to runway ends
- ❖ Install giant scale starting stations
- ❖ Install sign with field's address and emergency responder phone numbers
- ❖ Seed in the spring
- ❖ Fix erosion under runway. Need a drainage solution beforehand.

### **Field Maintenance Items:**

- ❖ Fix drainage at the entrance gate – John D. looking into a contractor. Will be a priority due to the coming spring rains.
- ❖ Evaluate/repair starting stations -- \$300 budget approved. John D. looking into.
- ❖ Clean tables/chairs/bleachers – will coordinate with Dan who has a water tank.
- ❖ Shore up field gate which is sagging – John D. looking into.
- ❖ Relocate pilot stations more to the south
- ❖ Install first aid box/fire extinguisher – will install inside container after the dividing wall is installed. Members will have access to the container.

### **Swap Meet:**

The Swap Meet will be held on March 17. We need to formalize the contract with the armory in February, although they have us on their calendar. The AMA ad has been placed. We may need to rent tables since the armory appears to have less tables. If any member has access to tables let Dan know.

### **Airplane Setup for Gerry Rollins:**

Purchased an e-Flite 1.2m BNF T-28 from Family Hobbies. \$120 of budget remains for batteries and a charger. Richard Ricca donated a few batteries that might be compatible. A charger will be purchased and the airplane will be presented when it can be coordinated with Gerry.

### **Storage Container:**

- ❖ John Dudinetz purchased ramps for \$200 (half the budget allotted). They are portable, foldable ramps.
- ❖ Need to install a locking dividing wall. Richard Ricca volunteered to investigate a solution.

### **Charging Station:**

- ❖ We have batteries and some of the electronics.
- ❖ The remaining equipment needs to be purchased and installed. The budget to complete is \$500.
- ❖ John Dudinetz has started developing a specification for the system. Tim DeWitt volunteered to assist with the electronics design/setup.
- ❖ Storage container venting/cooling solution needs to be investigated.

# February Meeting Minutes (cont.):

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## Garage Port(s):

Inquiries were made with several suppliers: Watson's Portable Buildings, MetalMax Steel Buildings, Horizon Steel Structures and Eagle Carports. Further evaluation will need to be made to determine size, number of units, and placement prior to purchase. Once the weather breaks, a meeting will be held with any interested members to make these decisions.

## Club Orientation Airplane:

The club received as a donation a "Sport 40" ARF (with glow engine and Hitec FM radio/servos). Mark Cramer volunteered to complete all of the assembly except for the electric conversion. We need a volunteer to install the electric power system. If anyone has an electric setup to donate or sell cheap to the club it would be appreciated. We will be on the lookout at the Swap Meet for the electrical power setup.

## TN Veteran's Home Presentation/Field Visit:

The TN Veteran's Home, located in Murfreesboro near the VA, asked if the club could make a presentation to their residents and allow them to visit the field sometime. Dick Tonan, Richard Ricca and Doug Hopper volunteered to handle the details. No action yet

## 2018 Events:

- ❖ The club will hold a Model Aviation Day event (together with Cane Ridge) on August 17.
- ❖ We will hold an Open House once we feel that the field is in a condition to do so.

## Newsletter Editor:

Jessica Waggener published her first newsletter in January. Members are asked to send pictures, articles, etc. to Jessica for inclusion in the Newsletter.

## Membership Renewal:

Renewals are due by February 1. After March 1, a \$15 reinstatement fee is added to the dues amount. Members are reminded that a current AMA is required to fly.

## New Business:

### FAA Registration:

A discussion was had regarding the FAA registration requirement. With guidance from the AMA, the club will not monitor compliance; that is the responsibility of individual citizens.

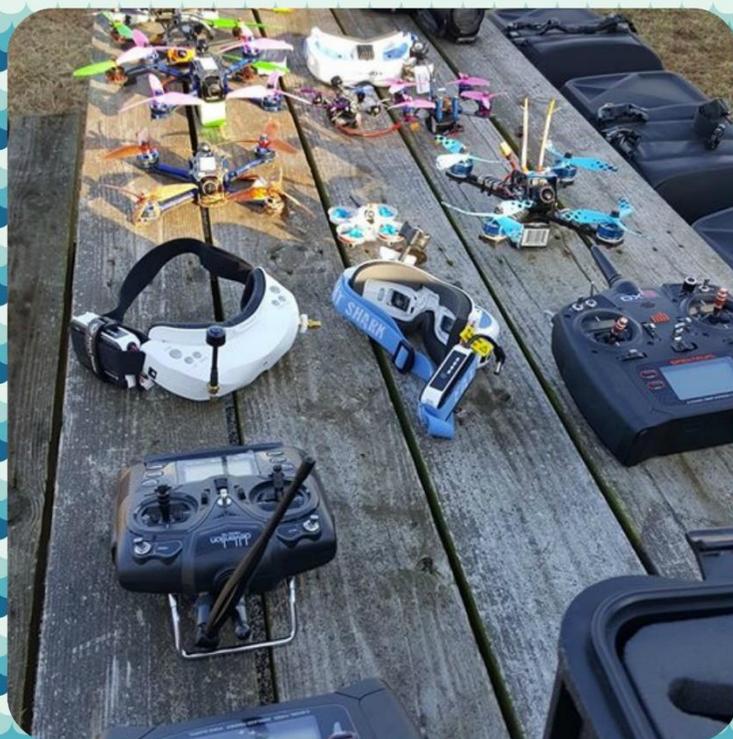
### March Meeting Location:

The March meeting will be held at O'Charley's.

Meeting adjourned at 7:25pm.

# Photos from the Field – February 2018

## NEW RAMPS



**Club Meeting !**

March 1, 2018 @ O'Charley's 6:00PM

# Middle Point R/C Flyers



## 24<sup>th</sup> Annual



# Swap Meet

## Saturday, March 17, 2018

## Murfreesboro, TN - National Guard Armory

### Table Reservations:

- \$15.00 - 8' tables (new larger table size this year)  
(Due to table availability different table sizes may be used; however, rented area will be an 8' equivalency)

*Tables not prepaid by March 9, 2018 will be charged the day of the swap meet rate:*

- \$20.00 per table the day of the Swap Meet (subject to availability)
- Setup at 7am for vendors/sellers
- Doors open to general public from 8am-12:00pm
- Concessions available

### Raffle:

Spektrum DX8

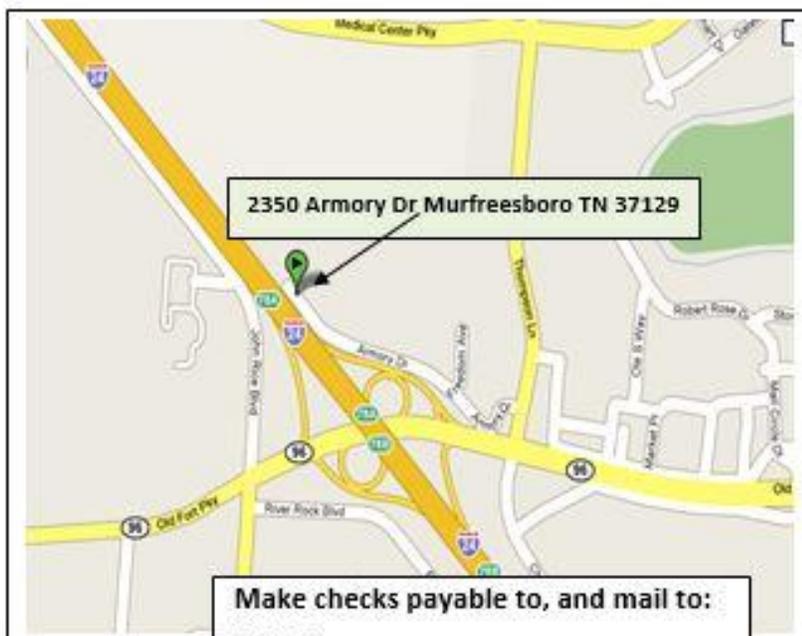


### Directions:

I-24 exit 78-B. East on Hwy 96. Left onto Thompson Lane. 1/2 block to a left onto Armory Drive. Armory is at the end of the road. The entrance is in back.

**General Admission:** Adults \$5.00; Children 12 and under are free

**Contact:** Dan Wandel [mprcflyers@gmail.com](mailto:mprcflyers@gmail.com) (615) 439-8554



Make checks payable to, and mail to:

MPRCF  
PO Box 11532  
Murfreesboro, TN 37129

PayPal available. Contact CD for info.



**Do you have access to folding tables that the club could borrow for our Swap Meet? If so, let Dan know at [mprcflyers@gmail.com](mailto:mprcflyers@gmail.com) or 615-439-8554.**

**Thanks!!**

**Do you have unused metal shelving that you could donate to the club? We could use shelving of any size for inside of our container to help keep things organized. If you do, let Dan know at [mprcflyers@gmail.com](mailto:mprcflyers@gmail.com) or 615-439-8554.**

**Thanks!!**



# Article

## Preparing to Put a New Covering on a Model Airplane

*Model Aviation*

Recovering a model doesn't always involve a crash. Wear, tear and time can be stimulations for recovering an airplane. The sharp metal molding on a car or the wooden corner of a work table can produce a dent here or a puncture there. That, plus the normal wear and handling from flying can necessitate a recovering job. Another reason for recovering a model is less about the flying qualities and more about not wanting your airplane to look like all the other ARFs at the field. Re-covering can let you express your individuality, resulting in a compliment like "I didn't know that airplane came in that color scheme."

Name	Usage	Required?
Surface Preparation Tools		
Lite Spackle	Filling small dings, scratches, cracks	Small amounts usually needed
Vinyl Spackle	Filling deeper gouges	
Palette Knife	Application of spackle	Yes – Plastic knife will work
Sanding Blocks – 240-320 Grit	Sanding of structure prior to covering	Yes
Tack Rag	Removal of sanding dust prior to covering	Yes
Acetone or Lacquer thinner	Removal of excess adhesive, small, stuck bits of covering	Yes if excess adhesive
Rubber gloves	Wear when handling thinners	
Cutting and Measuring Tools		
Single edge razor blades	For cutting covering – straight lines	If using just the hobby razor knife, change blades frequently
X-Acto Knife with extra #11 blades	For cutting covering – curves	
Pilot water based fine-line marker	For marking covering during cutting	Yes – Make sure it is water based
Scissors	Good for trimming small edges	Optional
Cutting Surface	Synthetic cutting board, glass, or Masonite–Avoid wood with grain	Yes
Steel measuring rule, straightedge	18" and 36" rules for measuring covering and cutting straight lines	Yes – Carpenters square a substitute.
Covering tools		
Iron-on covering	Material you cover the model with	Yes
Coverite Ironex thinner	Cleaning covering irons, removes excess glue	Yes
Covering iron with sock	Tacking, adhering covering to framework, tightening covering	Either covering or trim iron required.
Trim iron	Same as above but adhering small trim pieces	If only trim iron you will need heat gun.
Extra tip for trim iron	Flat and curved tips for trim iron to fit appropriate surfaces.	Comes with trim iron
Covering thermometer	Setting temperature of iron	Optional – not needed if thermometer built in

The photo below makes it look like a lot of tools are required. If you are an experienced modeler, you have these already. If not, even RTF assemblers need most of these items, especially the heat irons and heat gun used to tighten RTF and ARF coverings. Of course, if this is your very first covering project, you might want to try borrowing some of the more expensive items.



Borrowing some time from a flying buddy who knows model covering can be excellent idea as well. Covering is not hard to learn, but having a friend who knows how to do it can significantly reduce your learning curve. Check out whether a friend or your club can loan you tools, especially more expensive ones like a covering iron, trim iron or heat gun. *(Note: Don't ever, not ever, use a covering heat gun as a hair dryer. A model covering heat gun blows out air at temperatures above 450°F. YES, above 450°F. That will not only dry your hair, it will burn it off. Your scalp will melt, your brain can boil and you will definitely be hospitalized for some time. Then, who will be recovering your airplane?)*

The table below explains tool usage and which ones are required and which are optional. In addition, make sure you have a large, clear work surface with good lighting, ideally from two sides. A large towel, laid under the model covering you are working on, helps prevent scratching of the film.

## Project Tools

### Repair or Replace?

If your project is a repair, evaluating damage determines the “recover or buy decision”: Your first step in recovering is to evaluate the pros and cons of recovering your airplane vs. buying a new one. To assess the condition of your model, disassemble it, removing the landing gear, motor, radio gear, and pushrods, followed by a visual inspection of the airframe.



The structural damage on the Tiger 400 used in this exercise was minimal and repairable, so recovering rather than buying a new ARF was the better choice. Besides, when completed, the Tiger 400 will look different and better than new. Remember, everything must be kept straight and aligned once repaired. If the damage is such that proper alignment is not possible, it is not truly repairable.

## Removing the Old Covering

Once the re-covering decision has been made, it's time to remove all the old covering unless you plan on retaining the same color scheme or just recovering a broken or punctured part, such as a wing.

If you only cover one part, do some research to find out what brand of covering the model originally used. Matching the same brand will facilitate matching the original film color. On the Tiger 400, the kit instructions state clearly that the airplane was originally covered with Cub Yellow and White Oracover film.

To remove the old covering, first warm the old covering with heat gun to loosen the adhesive. Wear cotton gloves to protect your hands; at temperatures of up to 450°F, a heat gun can burn an uncovered hand. As you pull off the covering, go slowly and pull at an angle to minimize residual glue problems. A covering iron can also be used to loosen the adhesive if you do not own a heat gun.



Once you have the covering off, remove any residual adhesive or stuck bits of covering with Acetone or a covering thinner like Coverite Ironex. Acetone and the toluene in Ironex are toxic, flammable, and can be absorbed through the skin so wear rubber gloves and have adequate ventilation.



Working outside on a folding work bench covered in plastic is a safer way to use these chemicals. A spot remover like K2R (if you can find it) can be used to remove and absorb fuel stains on a glow model. *(Note: Since K2R is extremely hard to find today, there is an even better way to remove oil from wood. That heat gun works wonders on oil-soaked wood. Keep the gloves on, hit the wood with full heat; close up. The oil will bubble out of the wood. Wipe away the oil that surfaces with a paper towel. Repeat the process until the wood is dry enough to cover.)*

## Preparing the Surface

As in painting or wall-covering, good surface preparation and surface damage repair makes the final covering appear professional: Now that the covering is gone, re-inspect the model for cracked ribs, broken spars, cracked sheet surfaces, loose engine and landing gear mountings. If the airplane needs repairs or additional re-gluing, now is the time to do it.

Once the repairs are made, fill nicks and dings using light or vinyl spackle and a palette knife. Lightly sand the surface with 240-320 grit sandpaper. When you are done sanding, wipe it off with a tack rag, running your finger over the surface and holding it up to a light at an angle to a light to check for imperfections. If you can feel or see any imperfections now, you'll see them later when it's covered. Covering does not hide poor workmanship under it.

## Checking the Assembly

Careful pre-assembly saves time later: Pre-assembling the model, before recovering, ensures all surfaces fit together and all hardware is in place. During the trial assembly, be sure to check the following items if they are on your model:

- **Dowels:** Remove these before covering if possible. Fit them, unglued, during the pre-assembly. If the dowels, usually rubber band hold-downs or forward wing mounts for bolt-on wings, cannot be removed, it is easy to cover around them. Do not damage the airframe just to remove dowels.
- **Hinge slots:** Cut slots and fit hinges in the wing, stabilizer, and control surfaces prior to covering. Make sure control surfaces flex easily. If the hinge control surfaces are still attached using Mylar type hinges, just cut the hinges with a sharp hobby razor knife. Remount with new hinges located adjacent to the ones cut.
- **Control Horns:** Fit these prior to covering. I sometimes inset  $\frac{1}{32}$  or  $\frac{1}{16}$  plywood behind a nylon control horn on a sheeted surface to keep the control horn from flexing or worse, the screws pulling out. (*Note: a neat trick is to slice a centered hinge groove under the control horn and insert a Mylar hinge all the way inside. Use thin CAA to lock it in place. This strengthens the control horn mount as much as do plywood inserts but is faster.*)
- **Pushrods and pushrod exit covers:** Fit these before covering, making sure the pushrods line up with the control horns.
- **Structural improvements:** On an ARF, check to make sure there are enough internal braces for the control push rods in the rear of the fuselage to keep the cable from flexing and causing control inconsistencies. If you want to change from a wing held in place using rubber bands, now is the time.
- **Air vents:** On open surfaces, like wings and some stabs, drill small air vent holes in the ribs if there are none. This allows the heated air under the heat gun to escape to a cooler area so the covering over the heated area can “lay down” properly.

When you are done with the pre-assembly, disassemble the model for covering.

## Creating a Covering Plan

Designing is the key to covering success. Before you begin covering, create a covering plan to make the covering job a lot easier and to produce better-looking results. Here’s a simple way to put one together.



A covering plan starts with a photo of the model from a box top or off the Web. Blow it up to fit an 8½ x 11 sheet of paper using a copier or image editing software of your choice. Make some copies of it. Then make a line drawing of the major components of the airplane minus any surface decoration by tracing over the top of the photo. Make copies of the line drawing and then sketch your covering design on the copies until you are pleased with the results.

You could make multiple sketches of different wing and fuselage patterns until you have something you like. During this process you might often look in books or on the Web for design inspiration. When done, again make copies of your covering design and then shade the drawing with pencil to create a light and dark value drawing. It’s the contrasting light and dark pattern along with good color choices that make an airplane readable at a distance. On complex designs, it may be best to make full-size paper patterns of the design. Last, choose colors that appeal to you and that work with your design.

## Selecting a Covering Material

Your choice of a covering material determines not only what your airplane will look like, but may affect how it performs. This is especially true of smaller electric-powered aircraft. Choosing a covering means making the right choice for your model. Before you can decide on the colors, you’ll want to decide if your model will be covered with opaque or transparent film – or some combination of them, and which brands of covering come in the colors you want to use. To choose a type and brand of covering you need to understand the differences between coverings.

Iron-on coverings come in four types; high heat, low heat, fabric, and light films. Fabric coverings are mainly used on heavier scale models of airplanes that were originally fabric covered and I'm skipping them because the Tiger 400 is a lightweight, non-scale airplane. The table below describes the differences between iron-on plastic film coverings:

**Table: Comparisons of Iron-on Plastic Film Coverings**

	High Heat Film Coverings	Low Heat Film Coverings	Light Film & MicroLite Film Coverings
Brands	21st Century Film MonoKote UltraCote	AeroKote  Black Barron Film EconoKote Polycover Supercover  TowerKote	AeroKote Lite  21st Century MicroLite  Nelson LiteFilm
	Over 30- 50" wingspan		Under 30-50" wingspan
Recommended For	Models that require fuel proofing, durability, structural integrity, and wide color choice.	Models with foam, covered foam, foam board, plastic, or where cost is a factor.	For lightweight park flyers and indoor models
Not Recommended For	Foam, plastics	Designs needing great strength in the covering	Planes over 50"
Weight1: Oz/Sq. Yd.	1.8 – 2.5	1.8 – 2.5	0.6 – 1.8
Heat1 to Affix to Wood	225-325°F	200°F	135-200°F
Heat1 to Shrink Covering	Up to 350-400°F	Up to 250°F	Up to 250°F
Colors	Largest color range.	Limited color range.	Limited color range.

*Weights and heats shown are an approximate range. For exact weights refer to the web site for a specific covering. For the exact heat ranges to affix the covering to wood or to shrink it, refer to the directions that come with your covering.*

For the Tiger 400, we decided to use Coverite 21st Century MicroLite film; a light, iron-on plastic covering suited to models under 50-inches in wingspan. Because the Tiger 400 is a light weight electric, it does not need a heavier covering with fuel proof qualities. And, because the Tiger 400 is lightly built, it does not have structures to resist the force and pull heavier coverings create when they shrink that can lead to warping or breakage.

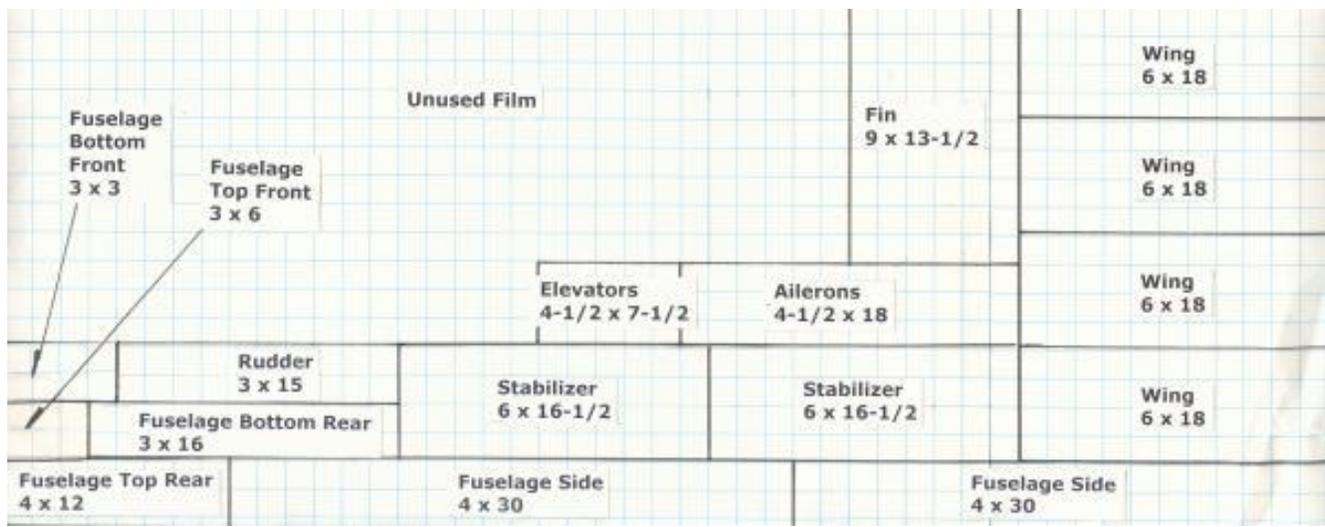
This table shows the specifications for MicroLite, the film we selected. No matter what film you choose you should be aware of the size roll it comes in, weight, temperature rating, and color selection.

**Table: Coverite 21st Century MicroLite Specifications**

Name	Manufacturer	Size / Form	Weight /Yard2	Temperature to Affix Covering to Wood	Temperature to Shrink Covering
21st Century MicroLite	Coverite	27¾" X 72" Roll	0.6 Oz.	175°-195°F	230-250°F

### **Making a Cutting Plan**

If you can carefully estimate materials with a cutting plan, that saves time and money later: Now that we've chosen the covering and colors, you'll need to estimate the number of rolls of covering required. Again, a little planning now may save you a long drive to the hobby shop later. Here is how to plan your covering materials and make a cutting plan:



To create a cutting plan, make a scale drawing of each  $27\frac{3}{4} \times 72$ -inch roll of Microlite covering on a piece of graph paper. Label each one for color. Each  $\frac{1}{4}$ -inch square represents  $1\frac{1}{2}$  inches of covering in the example, but you can use whatever scale is convenient. Measure each and every panel of your airplane and sketch them out on the graph paper, making sure to add dimensions and label them. When measuring a panel, add at least 1-inch on all sides of a panel and 3 inches at a wingtip for handling and stretching the film. If the covering needs a great deal of stretching as on a rounded nose, add even more than 3 inches for handholds.

Our cutting plan indicated that we needed one roll of transparent yellow Microlite and one roll of opaque white as our primary colors. We also used a small amount of opaque red for trim. If your airplane is large, remember that most films come on a 6-foot long roll but several brands also sell 15- or 25-foot rolls, ensuring color consistency for larger modeling jobs. Some brands also sell smaller “trim” rolls that can be used for trim colors such as the red used here.

That’s it! You’re ready to begin applying the new covering.

## Next Month’s Newsletter Article: Covering a Model Airplane