



The *SENIOR PATTERN ASSOCIATION*

Official S I G (Special Interest Group) of AMA

Dedicated to the Building, Flying and Competition of Vintage Pattern Model Aircraft

SPA NEWSLETTER www.seniorpattern.com MAR/APR 2016

PRECISION AEROBATICS from *PATTERN'S Golden Age*

OFFICERS

PRESIDENT-

Jeff Owens

VICE PRESIDENT-

Ken Knotts

SEC/TREASURER-

Eric Nessler

PAST PRESIDENTS-

Mickey Walker

Bruce Underwood

WEBMASTER-

Jim Johns

SPECIAL PROJECTS

Dan Dougherty

APPOINTED-

Phil Spelt

ELECTED-

Scott Sappington

EDITOR-

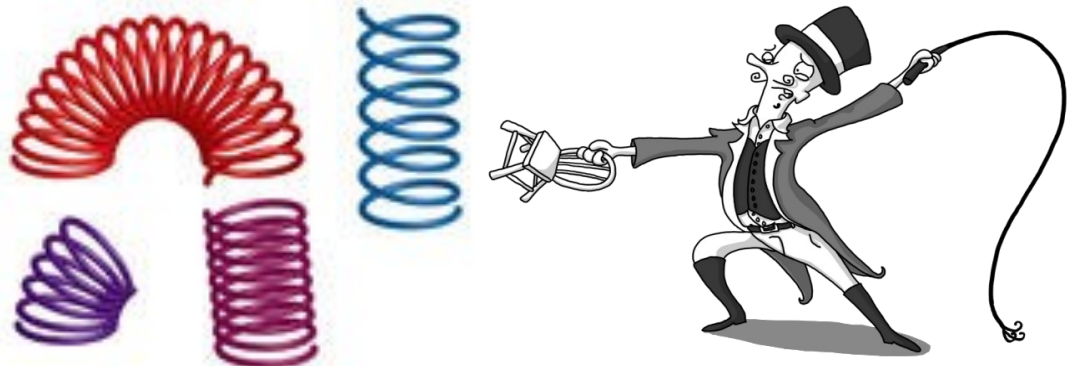
Duane Wilson

avlwilsons@charter.net

IN THIS ISSUE

"SPRING TRAINING" EDITORIAL	Page 1
FROM THE PRESIDENT	Page 2
SPA WEST 2016 SCHEDULE	Page 2
PERRY, GA MODEL SHOW, (EAST'S OPENING EVENT)	Page 3
"SPRING TRAINING" AT SERMA	Page 4
SPA EAST 2016 SCHEDULE	Page 4
SELECTING YOUR MOTOR with E-CALC	Pages 5-6
WEBSITE WONDERS!! (From our website "GURU")	Page 7
PARTING SHOTS	Page 8

SPRING TRAINING ISSUE !!



Join our Discussion list from within the webpage or inform any officer and we'll "sign you up". It's like a gigantic Mailing-list, but at NO CHARGE. A service to membership and potentials from SPA.



It's Spring Training time again! Unless you live in Texas, or you're a real die-hard flyer north of Florida, winter is the traditional time for building, but now the new planes, (except mine), are built, Klass-coated, and rarin' to go. Some of us (myself included), haven't flown since the Masters last October, but with Prattville and the Thunderbird's Spring event just around the corner, it's time to come out of "hibernation", and get that proverbial rust off our thumbs. This short "Spring Training" issue of the newsletter hopefully will inspire you to get "revved up" for the upcoming season.

First, Spring would not be Spring for many of us without the traditional "Perry" swap meet and early season get together for a time of comparing notes and scrounging for bargains we can brag about to our buddies (see page 3).

On pages 5-6, I found a cool program called e-Calc that some of the "electronically inclined" may know about for selecting that perfect motor for electric pattern. Try it out!

Finally, anyone who knows Jim Johns knows he has **single-handedly transformed** our web site from pretty good to extraordinary. In terms of innovation, Jim has outdone himself with tremendous new features you'll want to use. Check them out on page 7. From all the BOD members, have a safe, happy, and victorious 2016 season!! All the best!!



Bruce & Jane Underwood

TOP NOTCH TROPHIES
Awards and Engraving

TOP NOTCH TROPHIES
2044 O'Brig Avenue
Guntersville, Alabama

Work: 256.582.0606 Home: 256.582.3742

Email: topnotchtrophies@bellsouth.net



Bob Wilkes, Jerry Black and Bill Collins gather at the SPA tables Friday afternoon to discuss-airplanes.



FROM THE PRESIDENT – The news this spring is, as always, the season kick-off at Perry!

We had an excellent turnout of SPA members and more than a few SPA airplanes on display. We had three tables and all were full on the first day. Former member Frank Chick (soon to be renewing I am told) had several beautiful planes and also several kits - all for sale. They included an Intruder, a gorgeous Daddy Rabbit, and a nicely finished Smog Hog for the Antique class.. The kits included a Carolina Custom Curare (went to Jon Weichbrodt) and a Super Curare (went to Jim Johns). Jim also had his Tower Kaos on display – I'm looking forward to hearing about the first flight tests. Jerry Black had his latest beauty on display, as well. Check out the photos on the Home Page of the SPA website. There was time for the usual browsing of various treasures, but nothing leaped out at me this time. I guess I had visions of all the kits stacked in the garage that I have yet

to build. All-in-all it was a good time and served to help get me fired up for the new season. Of course, lunch afterwards Saturday afternoon at the Lane Packing Company was wonderful – as was the blackberry cobbler for dessert!

Elsewhere in this issue is an article by our webmaster Jim Johns concerning the **NEW** “Members Only” area suggested by your Board of Directors, where you can check out the current roster of SPA Members and also print out your own membership card. This is a fantastic resource, and I have been using it recently to track our membership level. I think that you all are going to like it. Many thanks to Jim for setting this up.

In a previous issue I wrote about a Deception built back in 1980 by my long time flying friend Al Weir. I returned the plane to active flight status on February 27 of this year, powered by an OS 61 SF (ringed). I now have 9 flights on it and it flies fantastically well. Very little trimming has been needed and at 7 ¾ lbs the OS pulls it with authority. No problems with maneuver size except sometimes my loops get too big! I'm quite happy with this one and it gives me some more motivation to finish covering my next one.

Two items for you to think about for this year. In the fall we will have elections once again. Eric Nessler has announced that he will be stepping down as Secretary/Treasurer, after a job well done, for which we owe him our thanks. So, please be thinking about which, if any, office you might wish to run for or nominate someone for. This is also the time for establishing the next two-year set of maneuver sequences and I will be appointing a committee to carry out this task. For the past two cycles the committee members have been me, Phil Spelt, and Eric Nessler.

I hope that you all are dusting off your planes, warming up your thumbs, and reviewing your maneuver sequences. The next season is almost ready to start. The Prattville and Fort Worth contests will be here before you know it!

SPA West Schedule

Date	Location	Contest Director
April 23	Ft Worth, TX	Thunderbirds Spring 1 Day Gary Alphin CD
May 21	Grand Prarie, TX	Golden Triangle 1 Day Franklyne Cox CD
New Date Sept 10	Ft Worth, TX	Buzzardaire 1 Day Pat Ensign CD
Oct 15-16	Ft Worth, TX	SPA West Open Championships Ken Knotts CD

The 2016 SPA East Flying Season Kicks-Off with Perry, Georgia Swap Meet



For me at least, each SPA flying season unofficially begins with the **Southeast Model and Trade Show**, better known simply as 'Perry'. I've attended this event at least eight times out of the ten years I've been an SPA member. This year, since we didn't need to hold the annual Board of Directors meeting (open to the membership at large), due to a lack of pressing business, many of us hadn't seen each other since the 2015 Masters last fall. For that reason, it was especially enjoyable to get together for the weekend and talk "airplane talk" in between forays out

among the three buildings looking for personal treasure among the tables of sometimes dusty merchandise, (some people might call it junk). Remember however that one man's "tradable trash" might be another's rare find. Many products "new in box" were purchased years ago for that special project and were never used. Now old, out of production kits, engines, and other accessories come available once more; you just have to get there early, know what you are looking for, and have a keen eye out for that special item you've always wanted.

Perry is also a good place to pick up building supplies and other necessities like fuel, servos, tools, and whatever else might catch your eye. Personally speaking, this year I didn't see any special gems" like past years, but I stocked up on servos at a discount, extensions, batteries etc etc.

Others however picked up used pattern aircraft at a bargain, (sometimes ready to fly.) One of those is a newcomer to SPA named Ken Vandebosch who joined late last year. Ken also happens to be my "**long-lost but recently found**" **R/C pattern mentor** from way back in Battle Creek, Michigan in the mid-80s. I ran into Ken at the Toledo show a couple years ago after not seeing him for over 25 years! If it hadn't been for Ken, I might have had a passing interest in pattern flying, but I wouldn't have had that little push to actually get involved in pattern contests. For two seasons, Ken was my coach and mentor; we traveled to various contests in Michigan and around the Chicago area. He showed me the "pattern contest ropes", and provided me with at least two of my first pattern planes—one of them was my first Blue Angel back in 1985—the plane I won my only NOVICE contest with. I always liked that plane and felt very comfortable with it, so when



My former mentor Ken Vandebosch poses with his beautiful new Daddy Rabbit picked up at Perry. Built by Frank Chick. I owe much to Ken.

Bernie Olson brought one to SPA last year, I got excited about building a new one. It has been my project for the winter. In 1986, I sold the Blue Angel back to Ken, moved to Asheville, then lost track of him until I ran into him at Toledo and told him about SPA. Now that he's retired and has relocated to Florida he will be joining us this season. Ken has already built a Tiger Tail; he then picked up the beautiful Daddy Rabbit mentioned by Jeff in his column. Be sure to welcome Ken when you see him on the circuit this year.

One of my favorite things at Perry is the Friday night dinner get together at Red Lobster, where (believe it or not), we continue to talk about airplanes, our bargains, and the upcoming season. I sat next to Bruce this year, and jokingly reminded him about how we (unintentionally), left him at the SPA table without a ride or way home one year while we went to dinner. After a while we all said, "where's Bruce?" Friday night is always a great time.

Why don't you plan on attending next year, even you SPA-West pilots if you get the hankering. Yes, it's a ways but you'll have a good time if you come. Certainly anyone within range should plan coming. We'll be looking for you.



Left: Jerry Black with his second creation of the off-season—another beautiful Bootlegger ready for painting. At this stage you can really see the workmanship, and this plane was as perfect as I've ever seen.

Spring Training at SERMA (Suck Egg Road Model Airfield)

Bobbie Johns photo



With a field name like that, what can go wrong!! Like most training camps, the rigors of Spring training at SERMA include calisthenics, three laps around the runway, and flying—not necessarily in that order. Some of Alabama’s pilots best rest up a bit after the rigors of aerobatic flight. (L-R) Former long-time SPA president Bruce Underwood, Webmaster Jim Johns, and Bob Wilkes show off their collection of Alabama Daddy Rabbits before assaulting the skies over Guntersville. The Prattville Alabama Eastern season opener is just around the corner.

SPA East Schedule

Date	Location	Event & Contest Director
Apr 16-17	Prattville, AL	Cass Underwood/Ken Scott Memorial Larry Hill, CD
May 21-22	Knoxville, TN	Ben Oliver Memorial Phil Spelt CD
June 11-12	Chattanooga, TN	SPA 25th Anniversary Scott Anderson CD
July 9-10	Cullman, AL	Steve Byrum CD
Aug 6-7	Roberta, GA	Dan Dougherty CD
Aug 27-28	TBD	TDB
Sept 24-25	Alabaster, AL	SPA East Masters Dave Phillips CD

Selecting An Electric Motor With *e Calc*



First, let me make it clear that in no way am I claiming to be any kind of electric propulsion expert, (I would lose all credibility if I tried), but I don't have to be an expert to write from the point of view of a novice to electric power.

As discussed in the last newsletter, I became interested in the Swiss **Marabu**, the SPA-legal aircraft that won both the 1969, and 1971 World Championships designed by Bruno Giezendanner. Bruno was a forerunner to European greats like Wolfgang Matt and Hanno Prettnner, and is still a well known name in Europe. Although not as well known over here, his reign as World Champion is in the heart of the SPA legal time period, coupled with the fact that Bruno's plane is now offered as an ARF from Sky Aviations in Germany. With the loss of the Phoenix 7, and Dirty Birdy ARFs, we in SPA need to have a good-flying ARF available to us. Many of us have turned to the newly offered KAOS 60, and no doubt, we'll be seeing many of these this upcoming season. I decided to try the Marabu, and it is my next project after I finish my Eureka kit Blue Angel. I hope to have them both ready by May, but with my track record, that might be a bit optimistic—still it's better to set goals than not to.



The original prototype of the Marabu ARF is powered by an electric motor, which is the norm in Europe due to their lack of available land and strict noise restrictions. As I said last time, while this ARF can be finished as either glo or electric, it looks a little easier to go the electric route because the ARF is already set-up for electric power. In light of that, I decided this would be a good model to use as my first SPA pattern electric project. Retracts are also the norm, (though again it can be finished either way), (and I got a real good deal on them), so I decided to go all-in and try them in order to go fully "Swiss" with the Swiss Leomotion motor and retracts. It will be interesting to test to see if they actually make an appreciable difference. Bruno said in his original article that the plane flies well without retracts, and does even better with them.

Dieter at Sky Aviations recommended a LEO 4120-0710, which approximates more closely the performance of the original glo engine on a traditional 12-inch prop. This motor performs best on a 4S or possibly 5-S battery set-up. Here in the States, our SPA rules were established a couple years back to best match the performance of our standard 4-stroke ,91-.95 with a 13 X 8 or 13.5 X 9 Narrow APC prop. **Here, we set a maximum of 1400 watt output using up to a 13.5" propeller and it is most common in SPA to use a 6-S battery set-up.** To see how the original 4120-0710 motor would do under those conditions, I sent a simulation program called "e-Calc", where a number of variables can be plugged-in in order to best match a motor to a particular model, or desired conditions like we have here. The link for a **limited demo version** is in blue below, or click the red link at the bottom, and sign up for the complete **full version** for the time period you'd like for a very reasonable price:

http://ecalculator.com/motorcalc.php?leomotion&lang=en&cooling=medium&motornumber=1&weight=3500&calc=auw&warea=42&elevation=500&airtemp=25&qnh=1013&batteries=liipo_5000mah_-_30/45c&chargestate=0&s=5&p=1&battdisc=0.85&esc=cc_talon_90&motor=leomotion&type=11%7Cle0_4120-0710&gear=1&propeller=apc_electric_e&diameter=12&pitch=6&blades=2&speed=0

Maybe all of you already know about **e-Calc**, but to me it was new. When our SPA variables were plugged into the calculator, (see link below), it was found that the original **LEO 4120-0710** motor is not really the best choice for SPA use if I wanted to use a 13-inch prop and approach 1400 watts, so I looked for alternatives and settled upon the **LEO 4120-0530** motor which I believe gives a better fit. I ordered that motor, and will keep the original for future use.

I found myself getting caught up plugging in different variables in search of all the dials being in, (or close to) the green zones. The calculator is fun, and it's addicting. The calculator link below leads you to the full version and can be used with most brands of motors, (I found it very useful when I signed up). If you particularly like the Leomotion motors, they can be ordered directly from <http://www.leomotion.com/> by sending Urs Leodolter (also a pilot for Swiss Air), an e-mail. The web site is in German, but near the top there is a single sentence that says "we understand English...", and it gives his e-mail address. They presently do not have a formal sales and service network in the US, but it's in the works for the future.



<http://www.ecalc.ch/motorcalc.php?ecalc&lang=en>

LEOMOTION **@Calc** LEOMOTION

all data without guarantee - Accuracy: +/-10%

propCalc - Propeller Calculator

News | Help | Language: english

General	Motor Cooling: medium	# of Motors: 1 (on same Battery)	Model Weight: 3500 g (123.5 oz) incl. Drive	Wing Area: 42 dm ² (651 in ²)	Field Elevation: 500 m ASL (1640 ft ASL)	Air Temperature: 25 °C (77 °F)	Pressure (QNH): 1013 hPa (29.91 inHg)	
Battery Cell	Type (Cont. / max. C) - charge state: LiPo 6000mAh - 30/45C	Configuration: 4 S 1 P	Cell Capacity: 6000 mAh (6000 mAh total)	max. discharge: 85%	Resistance: 0.0028 Ohm	Voltage: 3.7 V	C-Rate: 30 C cont. (45 C max)	Weight: 151 g (5.3 oz)
Controller	Type: CC Talon 90	Current: 90 A cont. (90 A max)	Resistance: 0.0013 Ohm	Weight: 85 g (3 oz)	Wire extension battery: AWG10=5.27mm ²	Length: 0 mm (0 inch)	Wire extension motor: AWG10=5.27mm ²	Length: 0 mm (0 inch)
Motor	Manufacturer - Type (Kv): Leomotion LEO 4120-0710 (710)	KV (w/o torque): 710 rpm/V	no-load Current: 3.3 A @ 10 V	Limit (up to 15s): 1240 W	Resistance: 0.012 Ohm	Case Length: 48 mm (1.89 inch)	# mag. Poles: 14	Weight: 293 g (10.3 oz)
Propeller	Type - yoke twist: APC Electric E - 0°	Diameter: 13 inch	Pitch: 8 inch	# Blades: 2	PConst / TConst: 1.08 / 1.0	Gear Ratio: 1 : 1	Flight Speed: 0 km/h (0 mph)	calculate

Load: 10.06 C

Mixed Flight Time: 8.7 min

electric Power: 847.7 W

est. Temperature: 65 °C

Thrust-Weight: 1.12

Pitch Speed: 111 km/h

Remarks:	Battery	Motor @ Optimum Efficiency	Motor @ Maximum	Propeller	Total Drive	Airplane
	Load: 10.06 C Voltage: 14.12 V Rated Voltage: 14.80 V Energy: 88.8 Wh	Current: 63.67 A Voltage: 14.00 V Revolutions*: 9039 rpm electric Power: 891.6 W	Current: 60.36 A Voltage: 14.05 V Revolutions*: 9099 rpm electric Power: 847.7 W	Static Thrust: 3916 g (138.1 oz) Revolutions*: 9099 rpm Stall Thrust: 2465 g	Drive Weight: 1080 g (38.1 oz) Power-Weight: 255 W/kg (116 Wh/lb)	All-up Weight: 3500 g (123.5 oz) Wing Load: 83 g/dm ² (27.2 oz/ft ²)

Comparison between two LEOMOTION motors to see which has the best "fit" for SPA use. The idea is to stay in the green zones as much as possible. The bottom simulation fits our SPA rules better. Results are approximate, & it's fun!!

LEOMOTION **@Calc** LEOMOTION

all data without guarantee - Accuracy: +/-10%

propCalc - Propeller Calculator

News | Help | Language: english

General	Motor Cooling: medium	# of Motors: 1 (on same Battery)	Model Weight: 3500 g (123.5 oz) incl. Drive	Wing Area: 42 dm ² (651 in ²)	Field Elevation: 671 m ASL (2200 ft ASL)	Air Temperature: 25 °C (77 °F)	Pressure (QNH): 1013 hPa (29.91 inHg)	
Battery Cell	Type (Cont. / max. C) - charge state: LiPo 5000mAh - 25/35C	Configuration: 6 S 1 P	Cell Capacity: 5000 mAh (5000 mAh total)	max. discharge: 85%	Resistance: 0.0042 Ohm	Voltage: 3.7 V	C-Rate: 25 C cont. (35 C max)	Weight: 124 g (4.4 oz)
Controller	Type: CC Talon 90	Current: 90 A cont. (90 A max)	Resistance: 0.0013 Ohm	Weight: 85 g (3 oz)	Wire extension battery: AWG10=5.27mm ²	Length: 0 mm (0 inch)	Wire extension motor: AWG10=5.27mm ²	Length: 0 mm (0 inch)
Motor	Manufacturer - Type (Kv): Leomotion LEO 4120-0530 (535)	KV (w/o torque): 535 rpm/V	no-load Current: 2 A @ 10 V	Limit (up to 15s): 1354 W	Resistance: 0.02 Ohm	Case Length: 48 mm (1.89 inch)	# mag. Poles: 14	Weight: 285 g (10.1 oz)
Propeller	Type - yoke twist: APC Electric E - 0°	Diameter: 13 inch	Pitch: 7 inch	# Blades: 2	PConst / TConst: 1.08 / 1.0	Gear Ratio: 1 : 1	Flight Speed: 0 km/h (0 mph)	calculate

Load: 9.87 C

Mixed Flight Time: 9.4 min

electric Power: 1030.7 W

est. Temperature: 70 °C

Thrust-Weight: 1.22

Pitch Speed: 109 km/h

Remarks:	Battery	Motor @ Optimum Efficiency	Motor @ Maximum	Propeller	Total Drive	Airplane
	Load: 9.87 C Voltage: 20.96 V Rated Voltage: 22.20 V Energy: 111 Wh	Current: 53.67 A Voltage: 20.78 V Revolutions*: 10142 rpm electric Power: 1115.2 W	Current: 49.33 A Voltage: 20.89 V Revolutions*: 10253 rpm electric Power: 1030.7 W	Static Thrust: 4262 g (150.3 oz) Revolutions*: 10253 rpm Stall Thrust: 3066 g	Drive Weight: 1225 g (43.2 oz) Power-Weight: 313 W/kg (142 Wh/lb)	All-up Weight: 3500 g (123.5 oz) Wing Load: 83 g/dm ² (27.2 oz/ft ²)



WEBSITE WONDERS ... Jim Johns, SPA Webmaster

Requests for member contact information continue to pop up regularly on the SPA Discussion List. Last winter I asked for ideas for new website features, and Duane Wilson suggested that a “Members Only” area on the website could be quite useful. It should be an area of the website accessible only to members containing information like member contact info and such. I researched the feasibility of creating such an area. After some study, it became clear that it was not only feasible, but also relatively simple to accomplish. I say “relatively simple” in terms of the size of most web projects, as I’ve spent well in excess of 120 hours creating what you see. The Members Only project went live on Monday, March 21st. If you haven’t visited yet, please click on the new link at the far right of the website menu. Here are some highlights and a view of the member menu....Enjoy!

The screenshot shows the SPA Member's Only Area. On the left is the SPA logo, a shield with 'SENIOR PATTERN ASSOC.' at the top, 'SPA' in the middle, and a biplane at the bottom. To the right of the logo, the text reads 'Senior Pattern Association Member's Only Area' in a large, serif font. Below this text is a blue link labeled 'Logout'. A yellow box in the center contains a welcome message: 'Welcome back Jim Johns!' followed by a list of links: 'Current Membership List', 'Update Your Member Info', 'Print Membership Card', 'Change Password', 'Renew your SPA membership with Paypal' (with a 'Buy Now' button and logos for Visa, Mastercard, American Express, Discover, and PayPal), and 'Logout'.

We've created a real-time database of SPA member information that can be accessed online.

- Access to the entire area will be password protected and limited to SPA members only. You will create your own password when you register, and it will be encrypted for security. If an unauthorized person tries to access any of the pages directly – such as via a bookmark – they will be automatically redirected to the Login page.
- There are **three levels of access** :
Members, Board of Directors, and Administrators. Each level will be allowed to access specific portions of the database.
- **Members** can view the Membership List, update their member information (password, address, email, phone and Opt Out info), renew their SPA membership online with PayPal, and create their SPA Membership Card as a PDF file which can be printed or stored on their computer.
- **BoD members** can access all Member functions plus view all historical membership records in the database.
- **Administrators** – currently the President and Secretary – will have BoD access plus the ability to add new members, update all information on current members, and upgrade members to Life membership status when that option is chosen.
- The possibility of adding a **For Sale/Wanted To Buy** section within the Members Only area has been discussed but it's still under evaluation. Let us know what you think!!Jim Johns

PARTING SHOTS

—A Really “Cool” (not your ordinary), Intruder ?

The World Models Intruder ARF was re-introduced, (at our urging and with our help), about eight years ago. Since then it has served a great purpose as a basic, nice flying ARF for those pilots either new to SPA, people who can't or don't like to build, or those who need a quick replacement after an accidental you-know-what. It is a no-nonsense aerobat that performs reasonably well—especially in the hands of a good pilot. But it has never been called “cool”.

Leave it to Bernie Olson to come up with a “cool” Intruder. This beauty comes from a short-kit from **Laser Design Services**. It's an all wood kit including a built up wing that faithfully follows Jim Kirkland's 1970 plans. The kit leaves the canopy up to the builder so a fiberglass one was molded that follows the profile shown on the plans. I also decided to invert the engine and lay up a glass snorkel cowl “**just cuz it looked kool**” on the Crusader and the Intruder plans show one. Wing is covered in Monokote. The fuselage and tail are covered in ¾ oz glass and painted with matching Lustrekote. Weight came in at 6 lb 4 oz with an OS .65.



Beautiful Workmanship



What's next?

SENIOR PATTERN ASSOCIATION MEMBERSHIP APPLICATION

**COME
VISIT
OUR
WEBSITE**

@

**WWW.
seniorpattern.
com**

www.seniorpattern.com

Name _____

Street Address _____

City _____ State _____ Zip _____

Date of Birth: ____ — ____ — ____ AMA Number _____

Telephone (____) _____ E-Mail _____

Mail this form along with check/money order made out to The Senior Pattern Association for \$20.00 to: Eric Nessler 2080 Smokymill Rd. Dublin, Ohio 43016

Eric Nessler
2080 Smokymill Rd.
Dublin, Ohio 43016

