



# The **SENIOR PATTERN ASSOCIATION** *News Letter*

## OFFICERS and DIRECTORS

**Bruce Underwood—President**                      **Scott Sappington — Vice President**  
**Steve Byrum—Sec/Treas**                      **Ed Hartley — Webmaster**  
**Jamie Strong—Appointed**                      **Keith Watson—Appointed**  
**Mickey Walker — FOUNDER EMERITUS**

**WEB SITE-<http://www.seniorpattern.com>**

**JAN/FEB 2005**

## **Precision Aerobatics - like the “good-ole-days”**

### **THE PRESIDENTS PERSPECTIVE**



Watching Jamie Strong flying electric pylon model after Board meet.

-0-

Photo by:  
**Phil Spelt**  
Jan. 08, 2005  
SERMA

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### **2005 (Tentative) SPA contest schedule**

April 23-24 Cullman, AL—Steve Byrum—CD  
May 14-15     Huntsville, AL—Ken Nix --CD  
June  
July 23-24     Hotlanta, GA—John Baxter—CD  
August 27-28 Knoxville, TN—Dennis Hunt-CD  
Sept 17-18 Masters @ Auburn, AL-R. Helmke-CD

CD's as your' AMA sanctions are approved, please advise so we may publicize via webpage, maillist, etc.

CD's please forward Contest info details to SPA-PIO:

[bunderwo@hiwaay.net](mailto:bunderwo@hiwaay.net)

What a GREAT Board meeting to kick-off what promises to be one of the finest season's ever for our beloved S P A.

Details are covered, for the most part in Steve's and Scott's columns. Let me add to what they report my sincerest thanks to all who were there. 100% of the Board was present. All items were 10's!

I am humbly grateful for your' vote for my reelection and Keith Watson, very active Boardmember, expressed his same gratitude for his support. Keith shared the good news with those present that former President Ron Reed and son Kevin Reed who've been down in Florida past few seasons were back in the Atlanta area and were making plans to get active. Jim Rogers' new PHANTOM-1 is almost complete (Curt Diggs construction). Mickey Walker has a new bird for this year.

The Cullman club had the largest representation other than we folks in Guntersville with Steve, Sid, Randy, Pam and Big Robbie all taking part in the good breakfast food and fellowship.

TOGETHERNESS was certainly evident at the Board meeting. My minister the next morning shared a story that reminded me of the good feeling of fellowshiping with someone you enjoy being with. A Grandfather was visiting his Daughter and Son-in-Law....his rather new Grandson was crying, bawling and begging with his chubby arms outstretched to his PA-PA to comfort him. PA-PA bent down to pick him up....when his Daughter admonished him.. Dad....."NO....don't do that, he is being disciplined and must remain confined to that playpen"! Well,.....the Granpa did what you would expect him to do.....*got in the playpen with him!*

Enjoy this edition of the Newsletter. Some "good stuff" in it.

**Bruce**

### **NEBRASKA readies for 2005 pattern**

Allan Worrest, Lincoln, NE on "SPA-like contests 2005)

From the Lincoln Sky Knights web site, the LSK "Legacy" (SPA-Like) contest will be on July 31, a Sunday. That date is firm. John Willman who will be the CD has announced that date at the past meeting. From the Hastings Sky Lark site, the Grand Island contest will be May 22, the Hastings contest June 26, and the Aurora contest will be at yet to be determined date in October.

*Allen J. Worrest* SPA—201



MINUTES of 2005 BOARD of DIRECTORS MEETING

Steve Byrum

Sec/Treas

The 2005 SPA Board Meeting was held January 8 in Guntersville, AL. The location, no surprise here, was a high quality local restaurant. We were, of course, required to eat breakfast during the meeting.

Attending were Bruce and Jane Underwood, Scott Sappington, Steve Byrum, Keith Watson, Ed Hartley, Cass Underwood, Scott Anderson, Robbie Walker, Randy Roberts, Pam Shackleford, Bill Collins, Sid Austin, Jamie Strong and Phil Spelt.

Bruce opened the meeting with thanks to all who have agreed to serve, and to Keith Watson particularly, for not only serving on the Board, but also his willingness to serve as President should the election have come out that way. He thanked Jamie Strong for his efforts as Special Events chairman. Jamie kept the points straight all last season. He also recognized Mickey Walker for his long-time efforts. Ed Hartley related that he had spoken to Mickey the previous evening. Mickey is well and has a new plane. Senior Expert pilots beware.

Steve Byrum gave a financial report. The details are included in this issue Basically, we had some money. We spent some money. We've collected this year's dues, so we have some more money.

We discussed the possibility of either sending the Newsletter in a .PDF format to those with high speed internet, or having members download the Newsletter themselves to cut costs. The Newsletter is our largest expense.

The Southeast Model Show will be held March 4-5 at the fairgrounds in Perry, GA. We will have 4 tables for display again. We need display models. Any member willing to bring a plane for display should contact Bruce to let him know.

Ed Hartley took the floor to specifically thank Bruce for his efforts as Newsletter editor.

Having held the position previously, Ed understands the effort involved.

We discussed several By-laws changes. We established an Emeritus Member status based on a proposal from Ed Hartley. Based on their service to the organization, Mickey Walker, Frank Stewart, Jack Dunn and posthumously, Curtis Motes are our first Emeritus Members.

Ed Hartley and Jamie Strong proposed a change in the format for the Masters Fly-off will change beginning this year. The top 2 pilots in points for each class attending the Masters will fly one round sudden death. The Senior Expert pilot who wins will have his name added to the Memorial Trophy. Each winner in the other classes will receive a special award.

These By- laws changes will be included in the next version of the Judges' Guide and on the Web site shortly.

There was a lot of discussion about the patterns. The result was a consensus that only minor changes should be made as everyone competing regularly seemed reasonably happy with last year's patterns. In Novice, the Traffic Pattern has been replaced with a Short Inverted Flight. It was felt that, while the Traffic Pattern is a useful skill, it is very difficult for anyone to fly correctly, it is difficult to judge fairly and it takes a lot of time.

Most pilots entering competition are capable of inverted flight. The single Stall Turn was replaced with a Double Stall Turn, also. Sportsman was changed the most. The Double Stall Turn was removed. The rest of the sequence was rearranged. A Double Immelman followed by Knife Edge Flight were inserted before the Three Turn Spin to end the pattern.

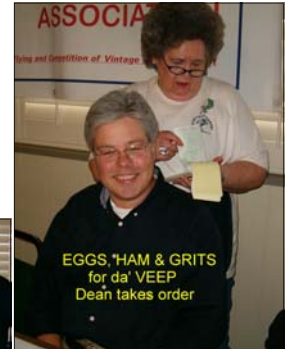
In Expert, the pattern remains the same with the exception of the first maneuver. Scott Anderson proposed changing the Rolling Eight to a Figure M with 1/2 Rolls.

The meeting closed at 11:30 AM just before we would have been required to eat again.

Steve Byrum



Steve Byrum & Scott Anderson ready SPA Board for BOD meet Guntersville, AL Jan. 08, 2005



EGGS, HAM & GRITS for da' VEEP Dean takes order



2005 OFFICERS & BOARD

Weather was just PERFECT !!



Sid, Randy, Pam, Robbie



Phil & Daddy-Rabbit



Flying after Board meeting Jan. 08, 2005 - SERMA

L-R: Bruce, Wendell, Bill, Cass, Jamie

Flying RC airplanes at SERMA after grits, eggs, biscuits country ham, fellowship visiting, laughing. Ya' gotta love-it !

TOP NOTCH TROPHIES

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Trophies for all events

All Occasion Plaques

Desk Plates—Name badges

TNT for all your awards & Engraving

**Senior Pattern Association  
Treasurer's Report for 2004**

**Beginning Balance** \$2,558.96

**Deposits**

Dues 01/16/04 \$1,540.00

Dues 01/20/04 \$120.00

Dues 10/01/04 \$280.00

Total \$1,940.00

**Expenses**

SE Model Show Table Reservations \$40.00

Net Express Web site hosting \$300.00

Bryan Business Solutions Jan/Feb Newsletter \$217.40

US Postal Service Postage \$79.88

GAMA SE Trade Show Passes \$56.00

Bryan Business Solutions March/April Newsletter \$179.03

Bryan Business Solutions May/June Newsletter \$162.75

US Postal Service Postage \$37.00

Bryan Business Solutions July/August Newsletter \$162.75

KCRC Masters Field Prep \$100.00

Bryan Business Solutions Sept/Oct Newsletter \$162.75

US Postal Service Postage \$74.00

GAMA - SE Model Show Tables & 6 Passes \$82.00

Top Notch Trophies Masters Awards \$183.40

Top Notch Trophies Points Awards \$179.40

Bryan Business Solutions Nov/Dec Newsletter \$179.03

US Postal Service Postage \$74.00

Airborne Media Model Aviation Ad 87.13

Total \$2,356.52

**Year End 2004** \$2,142.44

Dues \$1,320.00

**Current Balance** \$3,462.44

**STALL ??** by Eric Henderson MODEL AVIATION

I think that we over use the word **stalled** without qualifying it. We use it in:

1. The Stall-turn (Hammerhead) to mean that the plane stops climbing.
2. In a spin-entry to mean that it has slowed down, stopped flying and drops.
3. In the snap definition when the angle of attack is increased, regardless of speed change, to stop the flying surfaces from working normally. We say it is stalled. It is probably better described as a high-speed stall.

The truth of the matter is that we have model planes that can snap so quickly that we can't see all of the components. I filmed airshow pilots, IMAC pilots and Pattern pilots all doing snaps. The smaller the plane the less obvious it was that the plane snapped. You could see that it did not barrel or axial roll, but beyond that it was exceptionally hard to see a no-break error.

We owe it to the pilots to set a visual standard that we can all adhere to. Words are not enough for this problem .

Regards,

Eric.

(Editor note) STALLS are a "never-ending" topic among modelers. After reading and re-reading numerous comments regarding them from pattern pilots everywhere, doesn't Eric's statement sound logical? It is a sincere wish, each CD will set that "STANDARD" for his event.

**INFORMATIVE FEATURES**

There is some really interesting stuff coming in this and some following issues of the SPA newsletter.

While browsing the NSRCA maillist, I came across some input from Mr. Bob Richards, a former District Vice-Pres for the NSRCA. A series of articles he had authored back in '95 and '96 for the K-Factor publication. There's a world of information therein.

I E-Mailed Bob for some personal information about himself and his approval to share the articles with you readers of the SPA Newsletter. His reply is below and article # 1 of the series deals with ATV (Adjustable Travel Volume) and DR (Dual Rates) on the Futaba radios. Most of the info can also be utilized on other brands of computer-type radios.

Bruce,

Feel free to use the articles.

I live in Raleigh, NC.

I started flying RC in '73, but did not get started in competition until '78 or so, flying in fun-fly events. I designed an airplane called "Miss Martha" for that purpose, was a popular plane for a few years. I still get requests for plans once in a while.

I flew a pattern plane during that same time, a Mach-One, by Norm Page. It was very heavy, the person that built it glassed it and it was close to 8lbs without retracts. But, I practiced the pattern a lot. Never flew it in pattern competition, though. I flew a couple of pattern contests in the early 80s with a Miss Martha, and won a couple of trophies. I did not get serious about flying pattern until '90. I built a Great-Planes Cap21 and started in the advanced class, then the masters class. I won the D2 points championship in '92 with that plane, still have it. In '93 I started flying a Runaround, and somehow won the masters class at the Nats that year. I also flew at the Nats in '95 flying in FAI, finished in the middle of the pack. '96 was the last year I flew pattern.

I was the NSRCA D2 VP in '94 and '95. If we met, it would have been at either the '93 or '95 Nats, or at a contest in NC, SC, VA, or TN during the years '91 - '96. I don't know that we have met.

Anyway, that is the short story. I could talk for hours about flying RC. :-)

Bob.

PS: you can check out more about me at:

<http://www.toprudder.com>

This is Bob's personal website, check it out.

### Futaba 7UAX radio setup— (by Bob Richards)

This following information specifically covers the Futaba 7UA family, including: 7UAP, 7UAF, 7UAPS, 7UAFS. Some of the information applies to all computer radios. This issue I will talk about ATV, Dual Rates, and how they interact. This information is not intended to replace the manual, just supplement it.

ATV (adjustable travel volume) is used to set the maximum amount of travel of a channel. When adjusting the ATV value, remember that there are two settings per channel, one for each direction of servo travel, ie: up and down, left or right. Access to both numbers is done by moving the stick/knob/switch being programmed. For instance, after selecting the ATV screen and moving the pointer to the desired channel, you will have to move the control for that channel from one side to the other to get to both numbers.

I prefer having my ATV set for near maximum throw, making any initial changes in control throw by changing the mechanical linkage on the plane. The reason for this is that if you reduce the throw by using ATV, you are reducing the precision of the entire system. If you cut your ATV (or DR) throw to 50%, you are now using a 512 (or less) radio, instead of the 1024 positions the radio is capable of doing. Also, you are wasting half the torque and precision of the servo, although the control response will be quicker (less distance for the servo to move).

I do use ATV initially to determine just how much throw is needed to perform the pattern. I may fly a dozen flights, doing every maneuver (including snaps) and adjusting the ATV until I determine the maximum throws needed. Then, I measure the maximum control surface deflection. I set all my ATVs and DRs to their maximum (110% on the older radios, 120% on the Super 7) and adjust the mechanical linkage until I have the same throw as previously measured. Err on the side of more throw. Then, I fly the pattern some more, making fine adjustments with the ATV.

Whether to use DR or not is a matter of preference. I don't use dual rates unless absolutely needed, except on rudder. I always set my rudder throw to max for stall turns, and set my low dual rate to allow me to hold knife edge with full rudder stick deflection. I presently use elevator dual rate to increase throw for spins.

It is important to realize that a change in ATV affects every other function relating to an individual channel. For instance, reducing the ATV setting of channel 2 (elevator) will reduce the travel on both sides of the dual rate switch, and also reduce the available travel when the snap switch is engaged. So, once an airplane has been setup, it is wise to make minor changes in travel with the dual rate instead, unless you need to change the throw in only one direction. The DR setting affects the total throw in both directions, while ATV allows you to set each direction independently, ie: more down than up, or more left than right.

Another thing worth knowing about ATV and DR is how they apply to trim authority. *Trim authority*— (the amount the surfaces move with a given trim lever movement) increases or decreases with a corresponding change in

the ATV. Cut the ATV from 100% to 50%, and the trim movement is also cut in half. If you leave the ATV at 100%, but cut the travel by using the DR setting, the trim travel does not change. For instance, using my Ace Datamaster to measure the pulse widths, here are some numbers from my four year old Futaba 7UAP:

(center was always 1.52ms)

ATV 100%, DR 100%

Full up = 1.95

Full down = 1.10

Trim up = 1.64

Trim down = 1.39

ATV 50%, DR 100%

Full up = 1.73

Full down = 1.31

Trim up = 1.58

Trim down = 1.46

ATV 100%, DR 50%

Full up = 1.73

Full down = 1.31

Trim up = 1.63

Trim down = 1.40

Notice that the total throw is the same whether the DR or ATV is used to reduce the throw, but the trim throw is directly affected by the ATV setting, but not by the DR setting. For the purposes of pattern flying, you are MUCH better off having a very small amount of trim throw, otherwise you may have difficulty trimming the plane to hold straight and level flight. The following is just for comparison:

ATV 110%, DR 110%

Full up = 2.04

Full down = 1.02

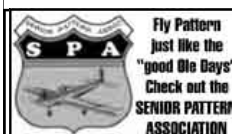
110% is the max for both DR and ATV on the older 7UAP radio. The newer "Super Seven" allows you to go 120%, but (if I remember right) only on the first four channels.

If you have a Futaba 7UA radio, check your ATV and DR settings for every channel. If you have an ATV and/or a DR (high side) that is less than 75%, the precision gain by going to 100% or more, and a corresponding change in the mechanical linkage, may be worth the effort. The decision to change it is entirely yours, however.

Next issue (if I get a chance) I will cover the ins and outs of two channel aileron setups. For instance, you CAN have aileron differential AND flaperons, you just gotta know how!

Later on, I will cover the topic of mixing out roll and pitch coupling.

### Bob Richards



Visit our SPA Website at:  
[www.seniorpattern.com](http://www.seniorpattern.com)

SPA ad at left to be inserted into  
MODEL AVIATION  
AMA PUBLICATION  
January, February and March  
editions.  
(Referring modelers to SPA website  
for all details of SPA)



# **HOWARD ENGINEERING**

## **K w i k F l i I I I**

*A legacy kit from the 70's still kitted by the original manufacturer*

*Senior Pattern Association Approved*



*Span ~ 64 in Length ~ 52-½ in Wing Area ~ 650 sq in Weight ~ +/- 6-½ lbs Engine ~ 60 up*

*Kit contains ...*

*Joined glass fuselage CNC foam cores Pre-cut fuselage bulkheads Aileron stock CAD plans Construction manual*

*\$165 + shipping built on order PayPal / money order*

*Tony Howard 14532 247 Dr SE Monroe WA 98272-7627 360.794.6036  
Tony\_Howard@comcast.net*



S P A is grateful to Tony Howard of HOWARD ENGINEERING for the donation of a KWIK FLI III to the SPA displays at the SOUTHEASTERN MODEL SHOW hosted by the Georgia Aircraft Modelers Association, Inc. March 4—5, 2005  
The kit will be raffled with proceeds to  
S P A



Mike Dailey and KWIK FLI III—text from Tony Howard

**Mike Dailey and his Kwik Fli III at the SRAC flying field in Washington State circa 1974.**

I first met Mike – who now lives in the Atlanta GA area – in the late 60's and I've considered him a close friend ever since. He's always been an inspiration both as a builder and as a pilot. His flying is smooth and graceful, making it a pleasure for me to watch him anytime he's aloft. I have a lot of fond memories flying with him.

Mike built several of my kits back in the 70's and he recently started finishing one of my Kwik Fli's with retracts that he'd nearly completed way back then. After the plane was very heavily damaged shipping it back to him, Mike started with his characteristic attention to detail repairing the broken fuselage and building a new wing. Not surprisingly it will be every bit as good as new when he's done. He's detailing his repair odyssey on an R/C Universe thread.

**DON SZCZUR PATTERN PLANE TIP**

When building a pattern airplane, it is very important to seal the ailerons. Sometimes there is a small gap between the ailerons and the wing.

If the gap on one side is greater than the other side, it could have adverse trim characteristics during looping maneuvers. Here is an easy technique for sealing control surfaces. Cut pieces of clear covering strip from the roll- 1 inch wide at one end, 3/4 inch at the other end. I fold the piece of covering in half then tuck it into the aileron. Then use an iron to seal the strip starting at the base of the aileron. Clear covering folds very well, almost like paper, so one can get a nice straight line and tuck it in without a lot of wrinkles. It looks nicer too. Trim the excess from the tip of the ailerons.

(Ed note: Don was F3A (FAI) National Pattern Champ at USA Nats in 2003, lived in ALABAMA for several years while stationed in Huntsville, AL)

While visiting the SOUTHEASTERN MODEL SHOW

March 4 & 5th in Perry, GA

Please visit the



and get your chances for the Howard Engineering KWIK FLI III kit to be drawn for at the conclusion of the show.

It isn't necessary to be present to obtain chances on the nice glass and foam kit. For chances on the kit E-Mail our good Sec/Treas Steve Byrum the number you'd like at:  
[sbbyrum@hiwaay.net](mailto:sbbyrum@hiwaay.net)

Proceeds from raffle further SPA projects.

***Special Project Chm Jamie on 2004 participation***

***From: [JStrong205@aol.com](mailto:JStrong205@aol.com)***

***Not bad numbers for the SPA for the year. We had 47 different contestants participate in contest for the year.***

***Lets all shoot for 60 for next year, call your neighbors, call your friends.***

***Competition, good for the heart, flying the old birds of yester year, wonderful, Being with the best folks in the world, PRICELESS.***

***Jamie Strong***



Recognize the “golden-era” model in the above photograph? Answer will be revealed on the SPA Mail-list soon.

Any E-Mailer may join the SPA Mail-list thru the webpage:  
[www.seniorpattern.com](http://www.seniorpattern.com)

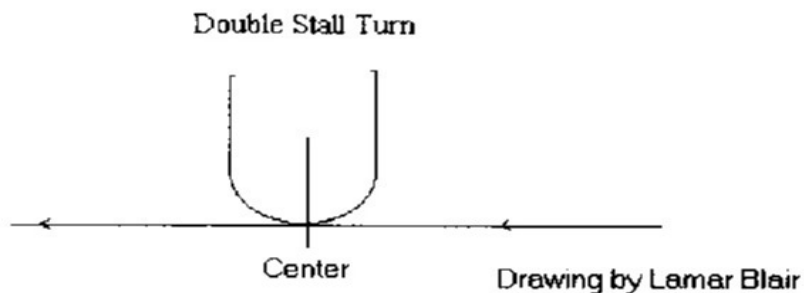
## 2005-06 SPA PATTERNS

EXPERT	K	SPORTSMAN	K	NOVICE	K
1. Take-off (U) (Downwind Trim Pass)	1	1. Take-off (U) (Downwind Trim Pass)	1	1. Take-off (U) (Downwind Trim Pass)	1
2. Fig. "M" w/ 1/2 rolls(U)	4	2. Cuban Eight (U)	2	2. Straight Flt Out (U)	1
3. 3 Horizontal rolls (D)	3	3. 3 Rolls (D)	3	3. Procedure Turn	2
4. Top Hat (U)	3	4. Cobra w/full Rolls (U)	3	4. St. Flight Back (D)	1
5. Four Point roll (D)	4	5. Horizontal. Eight (D)	4	5. Immelman Turn (U)	2
6. 3 Rev Outsd Lps(U)	4	6. Three Loops (U)	3	6. Dble Stall Turn (U)	3
7. 8 Point roll (D)	4	7. Slow Roll (D)	3	7. One Roll (D)	2
8. Cobra w/Full Rolls(U)	3	8. 1 Rev. Outside Loop(U)	2	8. Three Loops (U)	3
9. Slow Roll (D)	3	9. Two Point Roll (D)	2	9. Sht Inverted Flt (D)	2
10. Double Immelman(U)	2	10. Double Immelman (U)	3	10. Landing (U)	2
11.Rev Cuban 8 (D)	2	11. Knife Edge (D)	3		
12.3 Turn Spin (U)	3	12. 3 Turn Spin (U)	3	Total	19
13.Landing Perfection (U)	2	13. Landing (U)	2		
Total 38		Total 34			

### NOVICE TO FLY DOUBLE STALL TURN

In Steve's column he informed all of the Novice class replacing its' Stall Turn with a DOUBLE Stall Turn. Its' a nice maneuver, if done precisely. There's a lot of exposure time so perhaps its' most advantageous to "divvy" up the rather long maneuver and fly it in precise increments (parts of it to eventually equal the entire maneuver).

Here's the maneuver as is defined and shown in the current edition of the COMPETITORS & JUDGES GUIDE.



**2 DOUBLE STALL TURN** Model pulls up into one-quarter (1/4) loop to a vertical track then performs a stall turn through 180 degrees. Model then performs one-half (1/2) loop to a vertical track and performs another stall turn then recovers with another one-quarter (1/4) loop to level flight. The length of the vertical segments is not a judging criteria.

**Downgrades:**

1. Model not flying straight and level at beginning and end of maneuver
2. Track of model does not become exactly vertical at points of turn.
3. Loop segments not round with same size and radius
4. Bottom of half loop not at same altitude as entry and finish
5. Model turns left or right during pull ups
6. Does not yaw tightly through 180 degrees
7. Return track more than one-half (1/2) wingspan from entry path
8. Return paths not parallel to entry path
9. Maneuver not finished at same altitude as entry
10. Vertical segments not equal

## Senior Pattern Association Membership Application

Name \_\_\_\_\_ Date of Birth \_\_\_\_\_

Address \_\_\_\_\_ Phone ( ) \_\_\_\_\_

City-State-Zip \_\_\_\_\_

AMA Number \_\_\_\_\_ Club affiliation \_\_\_\_\_

Membership Dues \$20.00 Make Check payable to Senior Pattern Association. Mail to:

**Steve Byrum**  
**1326 3rd St. SE**  
**Cullman, Alabama 35055**

**Bruce Underwood**  
**1412 Patterson Street**  
**Guntersville, AL 35976**

