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2004 Sportsman Sequence Revised

Over the holidays, we had quite a productive debate regarding the "N" figure in the 2004 Sportsman compulsory (Known) sequence, which was approved unanimously by the board in October 2003. Several important points of thought came from those discussions, and I want to share a few of mine with our membership.

I view our organization as an institution that promotes five categories or levels of knowledge and skill. Our job as leaders of this institution is to safeguard this standard by which a ranking has been bestowed upon members since 1970. In 1991, the snap roll was removed from Sportsman compulsory sequences because of a general opposition. I personally was against this move because it removed a knowledge requirement that had been safely in place for more than 20 years. It seems we are having increasing difficulty developing sequences that meet the needs and desires of our membership, especially in the lower categories. There may be a very good reason for this.

Scott Poehlmann, our IAC secretary, went to work on a statistical analysis of our category structure, which has netted concrete evidence of a growing need for change. When the category structure was developed in the 1970s, the most sophisticated Unlimited aircraft in common use in the United States was the Pitts S-1S. Citabrias, Taylorcrafts, various forms of clipped-wing Cubs, Stearmans, Great Lakes, and so on were common aerobatic types. The S-2B, Extra, Yak, Sukhoi, and Edge were many years in the future. To use

We have agreed to make a simple change to the sequence, which will address concerns while protecting the institution of this category.

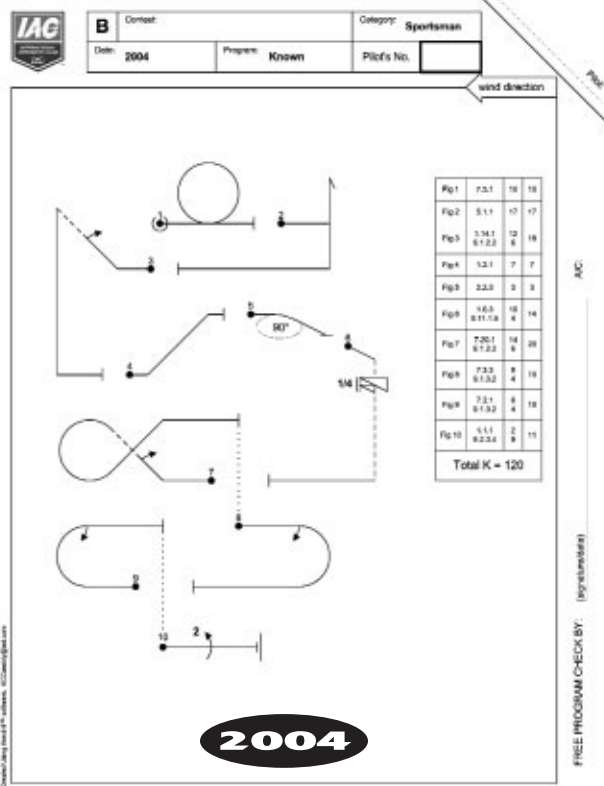
Allan Cassidy's Aerobatic Performance Index (API), the range in the early 1970s spanned from an API of 3 or 4 (for the Citabrias and Cubs) to about 47 (Pitts S-1S) with the vast majority of aircraft clustered between an API of 10 and 25. This is a range of about 44 API points overall, and when the then-current "Unlimited types" are removed from consideration, this range shrinks to more like 25 API points.

In the past, it was easy for someone to begin his or her aerobatic career in an airplane of reasonable performance for the time, and stay in that same airplane all the way up to Advanced or even Unlimited. As time has gone by, most of the "classic" aerobatic aircraft have gone out of production, and those that remain in the fleet have aged now by 30 additional years. On the other hand, the performance of the highest-end aircraft has continued to increase, with the Edge 540 having an API of 93. Many of these higher performance aircraft are still in serial production and are proportionally watering down the numbers of the older fleet aircraft for which the categories were originally designed. The point is we now have double the aircraft performance range to cram into our present category system. Even though

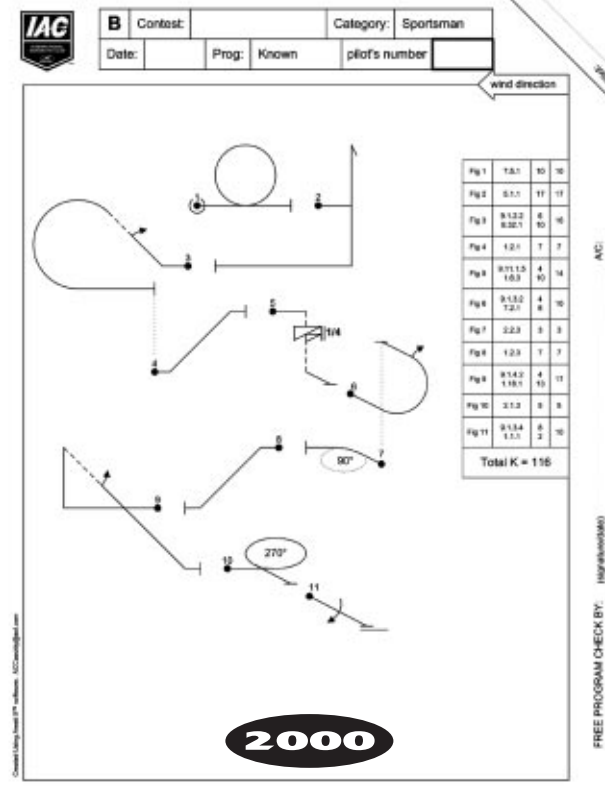
we use a benchmark aircraft in sequence design for the bottom four categories, it has been getting more challenging to please all.

Your leaders will be taking up this issue at the spring board meeting, but what about the Sportsman sequence for this year? Remember, the intent of the compulsory sequence is to encourage learning and discovery. Compulsory sequences were never meant to be easy, and it's assumed that pilots will have ample time to optimize the technique required to fly them. The "N" figure, although modern in its appearance, is made up of the same elements that have appeared in past Sportsman sequences. I want you to know that your hardworking board of directors (especially considering the pay) and I listen to your comments. We have agreed to make a simple change to the sequence, which will address concerns while protecting the institution of this category. The "N" has been replaced with a wedge followed by a 45-degree upline (see the revised sequence on the following page). We do want everyone to have fun doing this sport, and in this particular case considered it to be the right thing to do. But next year, let's follow the comment period protocol, okay?

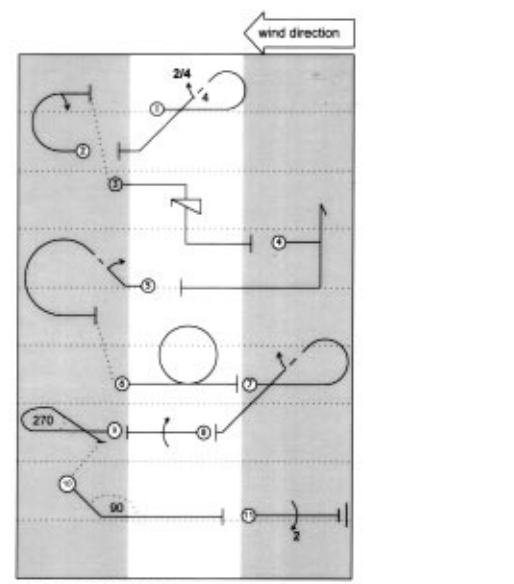
For the record, I want you to know that half of your board recently went up to fly the Sportsman sequence in all types of classic aircraft. My 20-year-old son, Gerry, and I had a ball going up in IAC Chapter 1 member Doug Bartlett's beautiful American Champion Decathlon. Thank you, Doug! At maximum weight allowed, 25 inches of



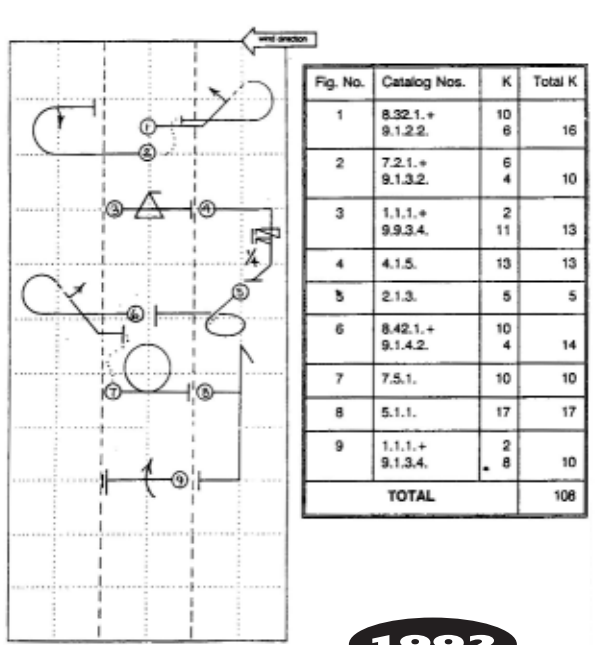
2004



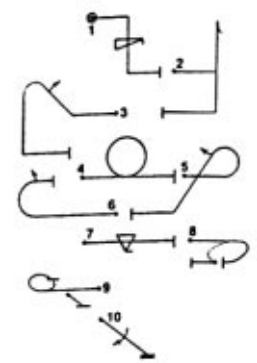
2000



1996



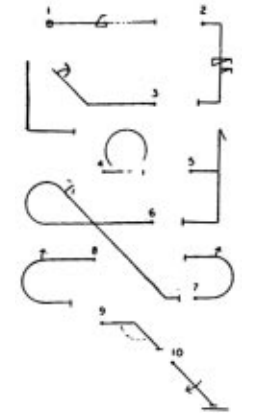
1992



1988

SPORTSMAN 1988

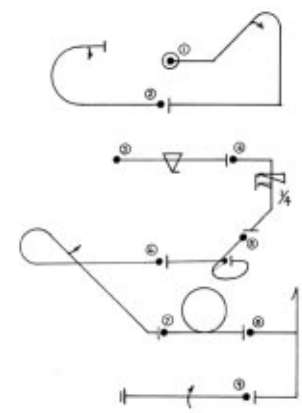
Fig #	Catalog #	K
1	4.1.1.	10
2	5.1.1.	20
3	9.2.1.2.1.	18
4	7.1.1.	12
5	9.1.1.2.	16
6	8.1.1.1.	17
7	8.3.1.1.1.	10
8	2.3.	2
9	2.2.	3
10	8.1.1.1.1.	10
TOTAL K		118



1984

SPORTSMAN 1984

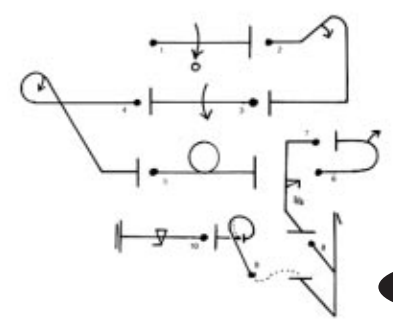
Fig. #	Cat. #	K
1	8.3.1.1.1.	10
2	4.1.7.	12
3	9.2.1.2.1.	18
4	7.1.1.	12
5	5.1.1.	20
6	9.1.1.2.	16
7	8.1.1.1.	17
8	9.2.1.1.	17
9	2.4.	1
10	8.1.1.1.1.	10
TOTAL		136K



1980

SPORTSMAN

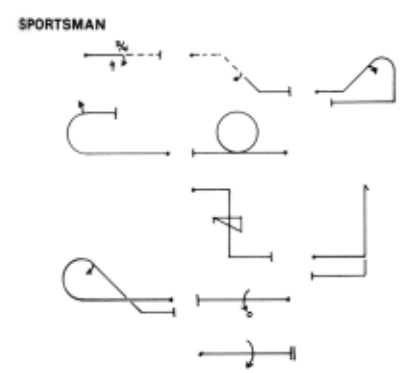
Man. No.	Acct. Number	Description	K-Factor
1	8.1.3.1.1.	Inside Barrel Roll	10
2	9.2.1.2.1.	Half roll, 1/2 Loop	18
3	8.1.1.1.1.	Slow Roll	10
4	9.1.1.2.	1/2 Loop, Half Roll	16
5	7.1.1.	Loop - Inside	12
6	9.1.1.1.	Half Loop, Half Roll	17
7	4.1.2.	1/2 Inside Spin	7
8	5.1.1.	Hammerhead	20
9	2.2.	270° Turn	3
10	8.3.1.1.1.	Inside Snap Roll	10
TOTAL			133



1976

SPORTSMAN

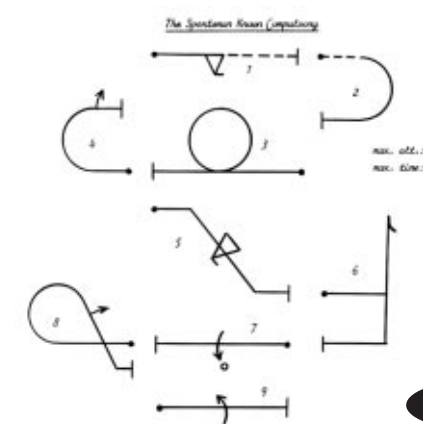
Man. No.	Acct. Number	Description	K-Factor
1	8.1.3.1.1.	Inside Barrel Roll	10
2	9.2.1.2.1.	Half roll, 1/2 Loop	18
3	8.1.1.1.1.	Slow Roll	10
4	9.1.1.2.	1/2 Loop, Half Roll	16
5	7.1.1.	Loop - Inside	12
6	9.1.1.1.	Half Loop, Half Roll	17
7	4.1.2.	1/2 Inside Spin	7
8	5.1.1.	Hammerhead	20
9	2.2.	270° Turn	3
10	8.3.1.1.1.	Inside Snap Roll	10
TOTAL "K"			123



1972

SPORTSMAN

MAN. NO	CAT. NO.	K FACTOR
1	8.2.2.1.3.	7
2	8.1.1.7.2.3.	16
3	9.2.1.2.1.	18
4	7.1.1.	12
5	9.1.1.1.	17
6	4.1.1.	10
7	5.1.1.	20
8	8.1.3.1.1.	10
9	9.1.1.2.	16
10	8.1.1.1.1.	10
TOTAL		136



1970

manifold pressure, 2500 rpm, and 160 mph entry speed (top of the airspeed indicator's green arc), +4 and -1g allowed the airplane to cleanly fly the "N" figure. Granted, the outside air temperature was cold. I did feel, however, that this figure with its relatively high K-factor would disproportionately penalize the lower powered fleet and require a higher level of expected finesse

for the target proficiency level. These were my reasons for advocating the change. I have one last thought before leaving the subject of the "N" figure. I was concerned to read messages that a few members felt that they had to fly their machines to a maximum speed and g to successfully accomplish this figure. This is not necessary, even to

win! Please take the time to learn how to optimize this figure properly even though we have taken it out of the sequence. The key to this particular figure is not only controlling the length of the last vertical line, but more importantly, how aggressively you place the aircraft back to an attitude for horizontal flight. Please fly safely and smartly, learn all you can, and above all, have fun!