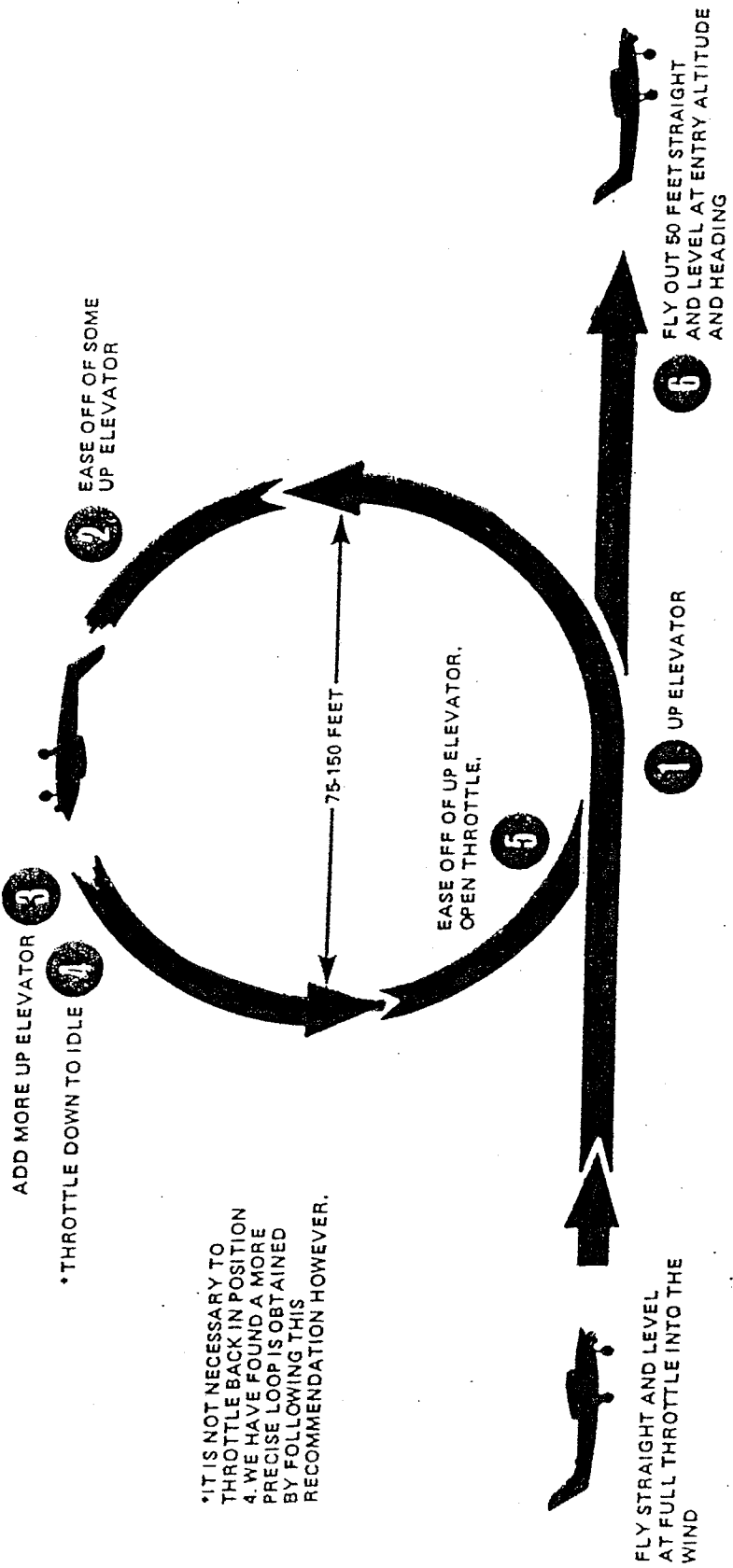
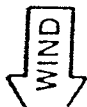


COMPETITION CLASS A

STALL TURN
 MANEUVER CONTROL DIAGRAM
 (3/4 VIEW)



3 ADD MORE UP ELEVATOR

4 THROTTLE DOWN TO IDLE

2 EASE OFF OF SOME UP ELEVATOR

5

EASE OFF OF UP ELEVATOR, OPEN THROTTLE.

1 UP ELEVATOR

6

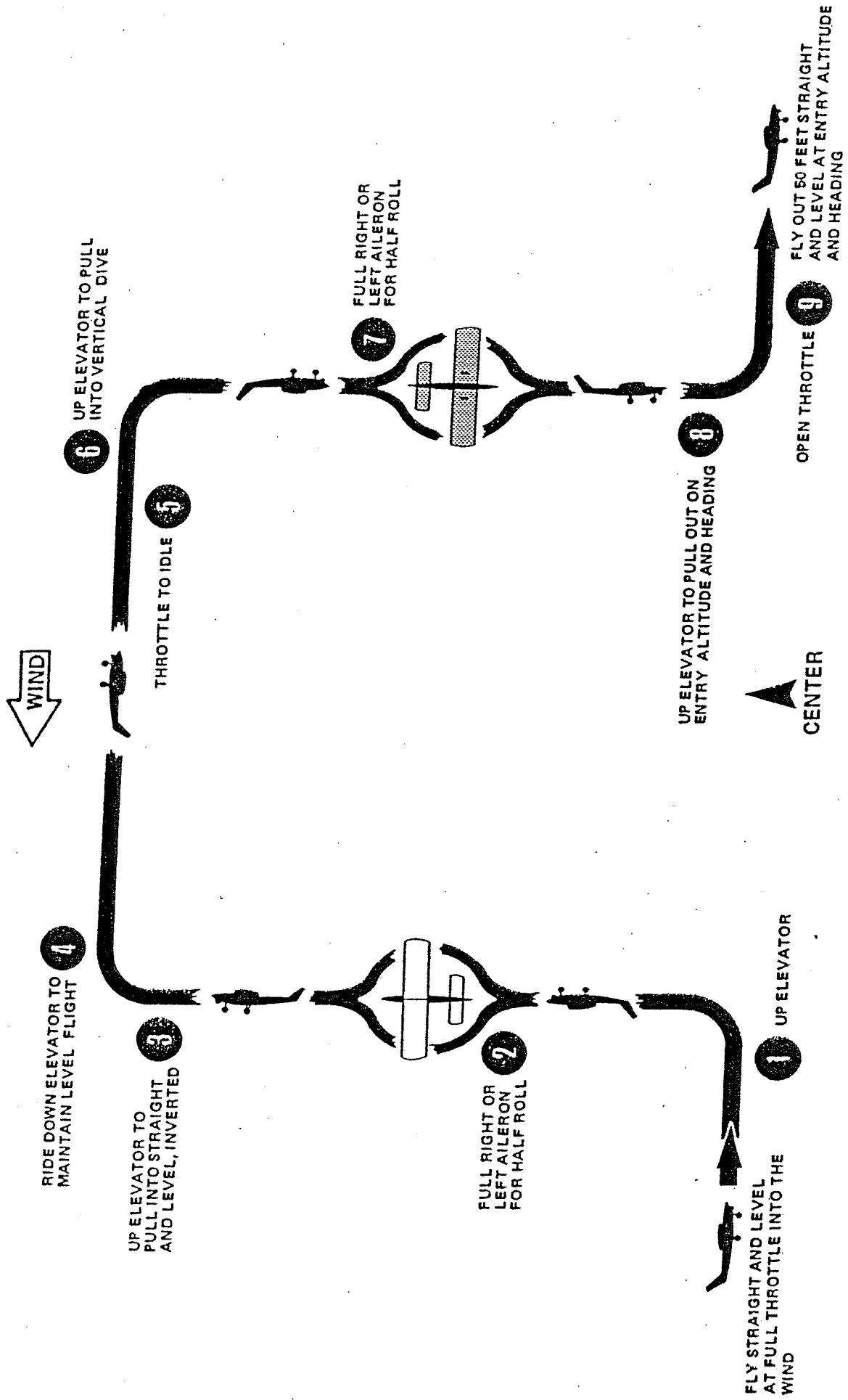
FLY OUT 50 FEET STRAIGHT AND LEVEL AT ENTRY ALTITUDE AND HEADING

*IT IS NOT NECESSARY TO THROTTLE BACK IN POSITION 4. WE HAVE FOUND A MORE PRECISE LOOP IS OBTAINED BY FOLLOWING THIS RECOMMENDATION HOWEVER.



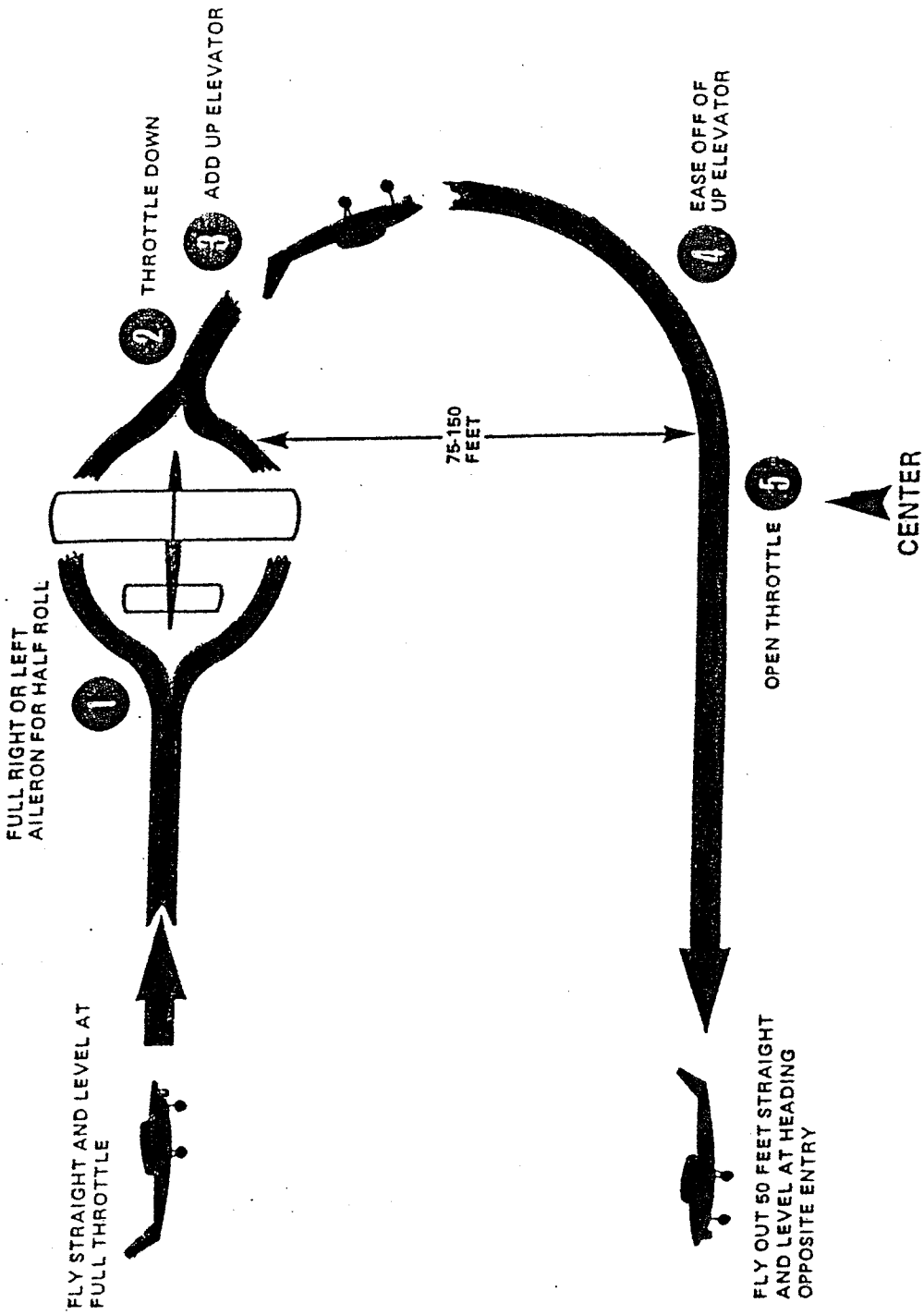
COMPETITION CLASSES A, B, C, D, & FAI

INSIDE LOOP
MANEUVER CONTROL DIAGRAM
(SIDE VIEW)



COMPETITION CLASSES C, D, & FAI

TOP HAT
MANEUVER CONTROL DIAGRAM

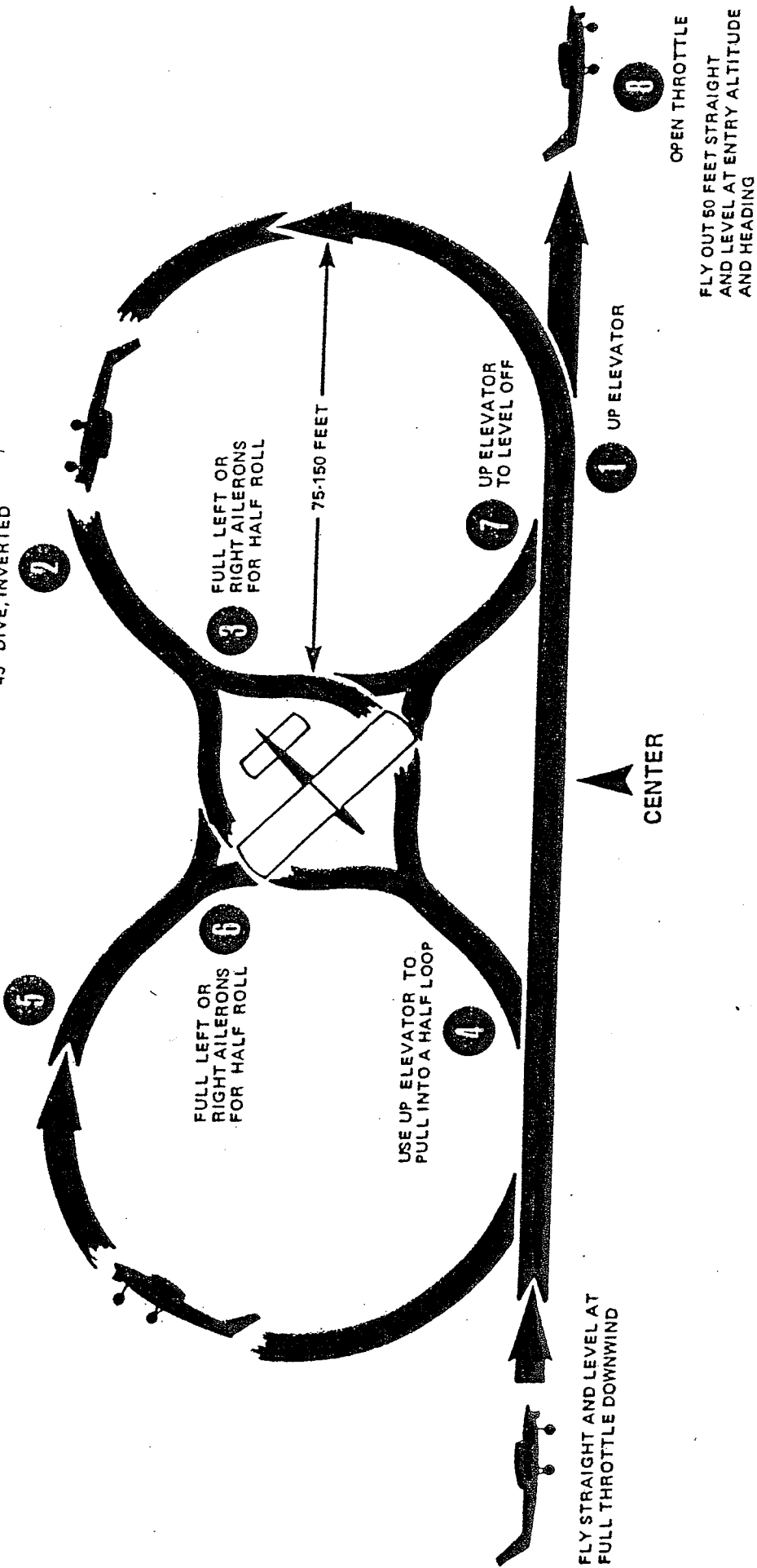


SPLIT 'S'
MANEUVER CONTROL DIAGRAM
(SIDE VIEW)



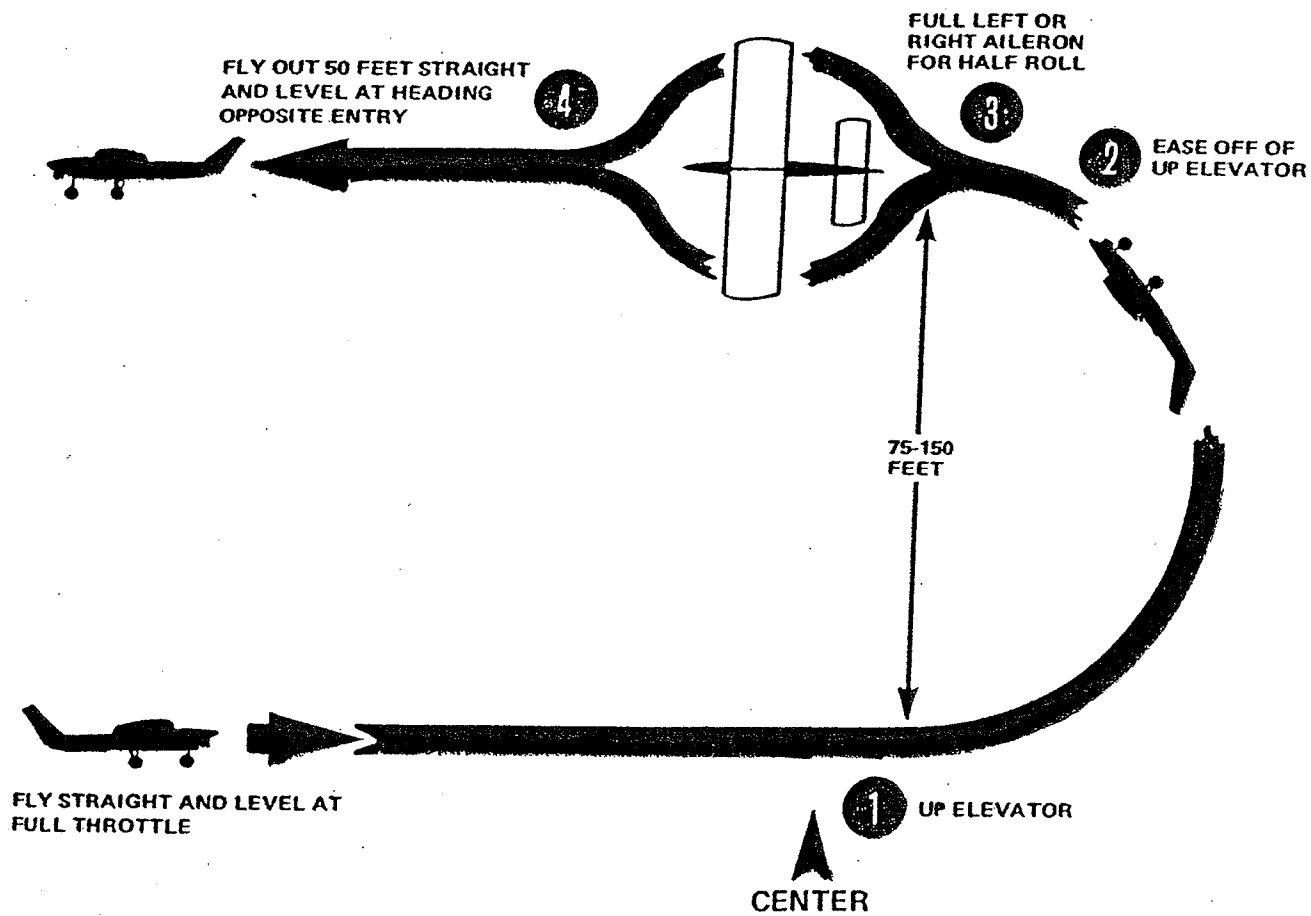
THROTTLE DOWN TO IDLE AND
EASE OFF OF UP ELEVATOR FOR
45° DIVE, INTERTED

EASE OFF OF UP ELEVATOR,
LET PLANE FALL OFF IN
45° DIVE, INVERTED

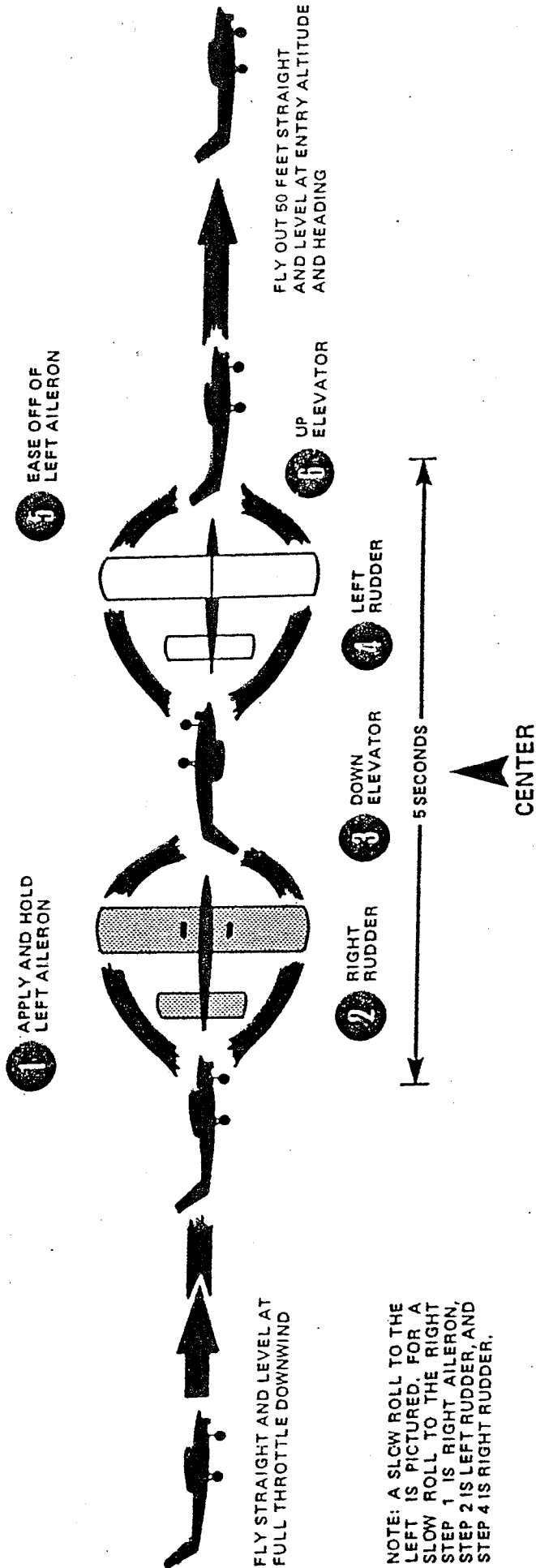


COMPETITION CLASSES B, D, & FAI

CUBAN EIGHT MANEUVER CONTROL DIAGRAM (SIDE VIEW)

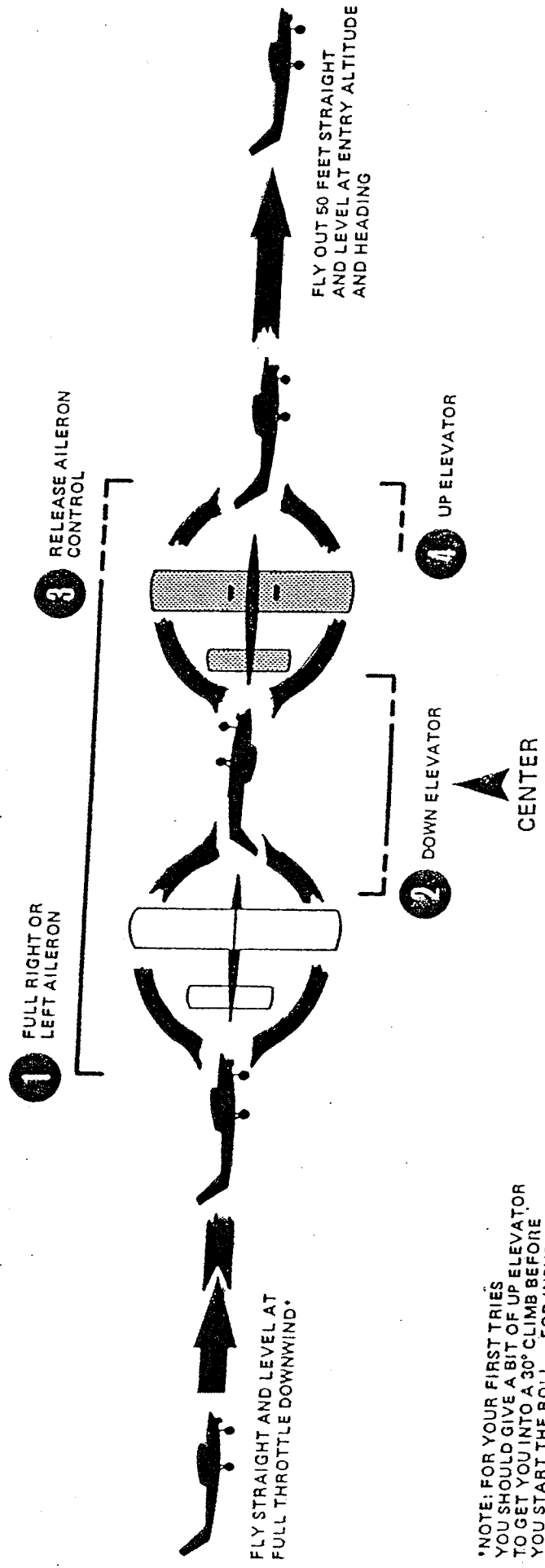


COMPETITION CLASS A
 IMMELMAN TURN
 MANEUVER CONTROL DIAGRAM
 (SIDE VIEW)



NOTE: A SLOW ROLL TO THE LEFT IS PICTURED. FOR A SLOW ROLL TO THE RIGHT STEP 1 IS RIGHT AILERON, STEP 2 IS LEFT RUDDER, AND STEP 4 IS RIGHT RUDDER.

COMPETITION CLASSES C, D & FAI
 SLOW ROLL
 MANEUVER CONTROL DIAGRAM
 (SIDE VIEW)



FLY STRAIGHT AND LEVEL AT FULL THROTTLE DOWNWIND.

FLY OUT 50 FEET STRAIGHT AND LEVEL AT ENTRY ALTITUDE AND HEADING

*NOTE: FOR YOUR FIRST TRIES YOU SHOULD GIVE A BIT OF UP ELEVATOR TO GET YOU INTO A 30° CLIMB BEFORE YOU START THE ROLL - FOR INSURANCE.

COMPETITION CLASSES A, B, C, D, & FAI
 HORIZONTAL ROLL
 MANEUVER CONTROL DIAGRAM
 (SIDE VIEW)

FORMULA USED FOR AMOUNT OF OIL NEEDED TO INCREASE PERCENTAGE OF OIL IN ONE GALLON OF FUEL.

EXAMPLE 1 RAISING OIL PERCENTAGE FROM 17 % TO 22 %

$$\frac{128 \times (22 - 17)}{100 - 22} = \frac{128 \times 5}{78} = \frac{640}{78} = 8.2 \text{ OZ. OF OIL NEEDED}$$

EXAMPLE 2 RAISING OIL PERCENTAGE FROM 16 % TO 18 %

$$\frac{128 \times (18 - 16)}{100 - 18} = \frac{128 \times 2}{82} = \frac{256}{82} = 3.2 \text{ OZ OF OIL NEEDED}$$

EXAMPLE 3 RAISING OIL PERCENTAGE FROM 16 % TO 20 %

$$\frac{128 \times (20 - 16)}{100 - 20} = \frac{128 \times 4}{80} = \frac{512}{80} = 6.4 \text{ OZ OF OIL NEEDED}$$

HOW TO FIND YOUR WING LOAD

WING AREA DIVIDED BY 144 SQ. IN. = SQUARE FEET
AIRCRAFT WEIGHT (LBS.) TIMES 16 OZS. = TOTAL OUNCES
TOTAL OUNCES DIVIDED BY SQUARE FEET = OZ. PER SQ. FT.

EXAMPLE

AIRCRAFT HAS 72" WINGSPAN WITH A 10" CORD

$72" \times 10" = 720$ SQUARE INCHES

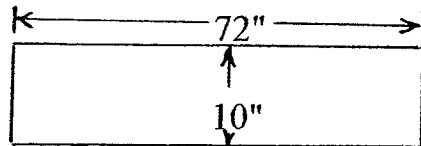
1 SQ. FOOT = 144 SQ. INCHES

$144 \sqrt{720} = 5$ SQ. FEET

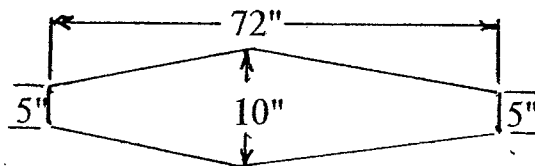
AIRCRAFT WEIGHT 7 LBS. 7×16 OZ. = 112 OZS.

5 sq.ft. $\sqrt{112}$ oz = 22.4 oz PER sq. ft.

EXAMPLE RECTANGULAR WING



EXAMPLE TAPERED WING



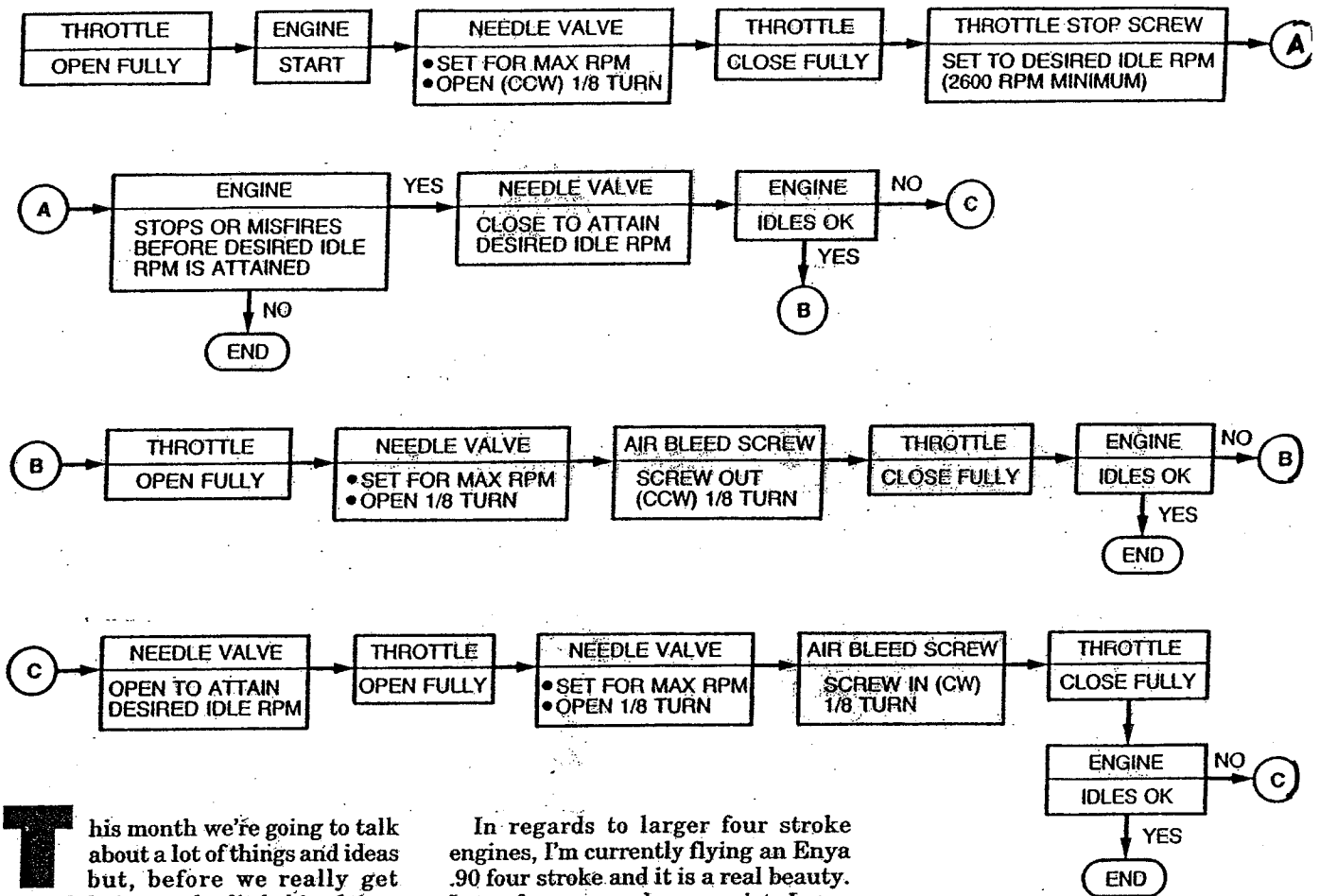
$5" + 10" = 15" \div 2 = 7.5"$ $7.5" \times 72" = 540$ sq. in.

$144 \sqrt{540} = 3.75$ SQ FEET.

AIRCRAFT WEIGHT 7 LBS. 7×16 OZ = 112 OZS.

3.75 sq.ft. $\sqrt{112}$ oz = 29.86 oz PER sq.ft.

THROTTLE VALVE ADJUSTMENT



This month we're going to talk about a lot of things and ideas but, before we really get started, let's spend a little bit of time talking about something that we have mentioned in the past. That is the ever growing use of four stroke engines. Most of the phone calls that I receive these days are from modelers wanting to use a four stroke engine in one of my designs. Hardly anyone calls any more asking about a two stroke engine.

The four stroke movement is really here and it's no wonder. Those of us who have become fans of the four stroke engine are fans because of several factors. First, and foremost, the noise level is almost non-existent. Second, the ability to swing larger props at a slower rpm allows for flying larger models. Third, the fuel consumption is just a bit over half as much as a high revving engine. Fourth, the engine idles much slower (a factor of that larger prop among other things). Fifth, the availability of a wide variety of really fine four stroke engines from a .21 all the way up to a 1.20.

In regards to larger four stroke engines, I'm currently flying an Enya .90 four stroke and it is a real beauty. Lots of power, and very quiet. Long, long flights on a 10 ounce tank. My good buddy, Al Wilcart of A & M Model Supply, is thinking of hooking up a couple of Enya .90 engines on one of his beautiful prop drive units which would make a truly fine 1:80 drive, yet not putting out the high speed whine so familiar with the normal prop drive set-ups. And, again, speaking of Al, he's the motivating force behind the latest fly-in to be held in this part of the world — a Four Stroke Fly-In, to be held at the Mountain View College campus flying field, just south of Dallas. The event is scheduled for the second weekend in May. It should be a fun two days.

As most of you know, I like the larger aircraft, but am not hung up on the chain saw type of model. I have several of this size, and a couple more in the building stage. I really enjoy flying the models that range between the standard .60 aircraft size and the Quadra powered size — the seven

footers pushed around by a .90 engine, and now being pushed by the larger four stroke. I like this size for several reasons. First, they are large enough to see in the air and, second, they are small enough to be easily transportable in most automobiles. If you're thinking along these lines for your winter project, go ahead and get your feet wet, you're going to find that you will enjoy the larger models, and the larger four stroke engines. Haven't had a chance yet to try out any of the new 1.20 size engines, but hope to rectify that in the not too distant future.

A couple of months ago I mentioned that I had received a letter from Bill Kawai. Bill lives in Japan, and kindly offered to do some translation for me from Japanese model magazines. He also offered to try to keep RCM abreast of what's happening in Japan in the modeling scene, which he has done

Model Aircraft Visibility

Note: Each color has been tested equally under sunny, overcast, twilight, & foggy light conditions

