

# The

# EAGLE

by HELMUT STIEPMANN

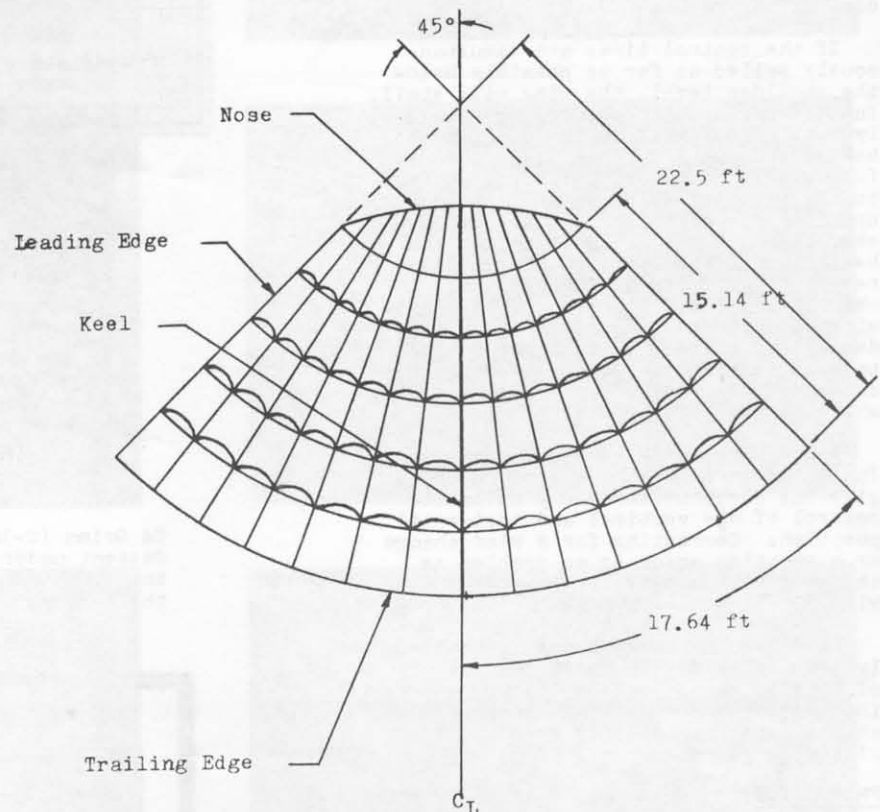
C.S.P.A. Rigger

## PARAWING

constructed by Irvin Air Chute is perhaps the newest and most highly developed canopy to enter the gliding field. Irvin has opened new prospects for the non-competitive jumper by creating a chute which is actually fun to fly. No longer is the canopy a means of decelerating the free falling parachutist to a safe landing velocity, it is rather a device under which he will enjoy a soaring descent.

### DESCRIPTION:

The Irvin canopy consists mainly of two trinagular wings, one running on each side of an 18.5 ft. center "keel". It is constructed from fourteen gores which run lengthwise throughout. Each of these gores contain 5 aerodynamic lifting panels comprising a total surface area of only 400 sq. ft. The material is 2.25 oz. calendered and silicone treated ripstop nylon with an average porosity of 3.5 cfm. The suspension system of the wing consists of nineteen lines (550-750-1,000 lbs. T/S). Twelve of these are located on the leading edges of the canopy, while the others run along the center keel. The line lengths are very crucial so as not to distort the wings basic position of flight.



PLAN FORM OF 22.5 FT L<sub>k</sub> EAGLE PARAWING

### DEPLOYMENT:

The Parawings openings are consistent and reliable. When the sleeve begins to slip from the canopy instantaneous inflation occurs, averaging .52 seconds. (After complete line extraction). The "G" forces at this time are the same as those of a Para-Commander however they are much more pronounced because of the shorter time element. Deployment, from pilot chute release to full flight configuration averages 2.5 seconds.

When jumping the wing one will notice that the greater the air speed the more comfortable the opening. This is due to the fact that at high speeds the canopy has a tendency to "squid" thereby slowing deployment somewhat. Irvin Air

Chute is presently developing an addition to the present deployment system which will considerably reduce the opening shock.

### PACKING:

Packing of the Eagle is relatively fast. The average time from layout to pin insertion is 8 minutes. To pack the wing you simply stake down the harness, stretch the canopy sideways on the ground, check lines, pull tension on the trailing edges and make several longitudinal folds (from trailing edge to nose) making certain that tension is placed on the lines as they are folded into place. Then stow lines as on any standard parachute and place it into the container. (The parawing will fit into any extended surplus container and all custom rigs).

PILOTING:

Once the Eagle has inflated, it will be noted that its flight behaviour is similar to that of any airplane. Turns are of the banking type, the degree of bank depending on how far the toggle is pulled. Basic turns (4-5 seconds for a 360 deg.) are very stable because of the banking causing it to rotate with little or no oscillation. Extremely quick turns (stall turns) are made by pulling down one toggle to full arms reach, thereby going into a steep, diving rotation of about 20 rpm., but when the toggle is released the wing comes out of the turn smoothly with no oscillation, resuming stable flight.

If the control lines are simultaneously pulled as far as possible below the shoulder level, the wing will stall. In this position the canopy moves slowly back wards until it is out of sight behind the jumper. When taken into a full stall the canopy will drop 70 ft. before recovery which is instantaneous upon release of the controls. If however the controls are released at the beginning of the stall the Eagle will resume flight with no further stall characteristics. Stalling of the Parawing close to the ground is definitely dangerous, therefore if target concentration is involved stall stops are recommended to prevent accidental stalling while making an approach.

A low rate of descent (averaging 8 fps.) combined with high forward speed give the parachutist nearly unlimited control of his vertical and horizontal position. Correcting for a wind change or a spotting error is no problem as the wing will penetrate a twelve mph wind.

Landings on the Parawing are extremely soft. One desirable characteristic of this is that complete layout is possible during a competition landing, while at the same time greatly reducing the risk of personal injury.

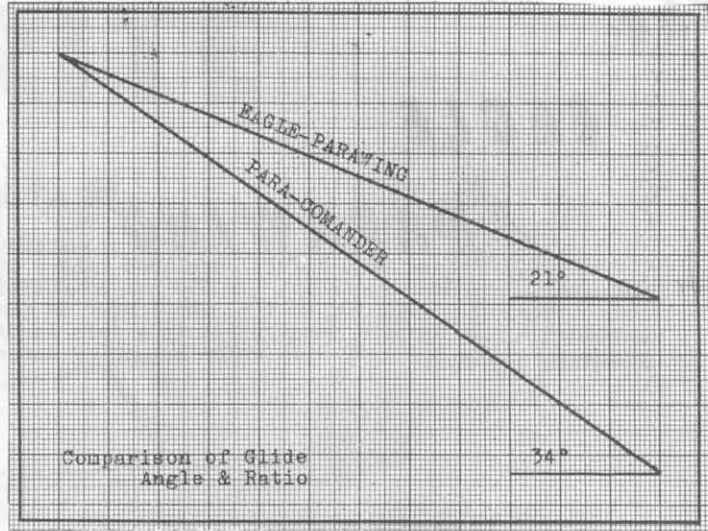
PRODUCTION:

The "Eagle Parawing" will soon be manufactured by Irvin Air Chute in Fort Erie, Ontario. For further information address all inquiries to: Niagara Parachutes, 4088 Thorold Stone Rd., Niagara Falls, Ontario.



Floyd Martineau (D-2), approaching Burnaby sand bowl on third "PARAWING" jump.

Photo by Plumett C-242



Ed Grimm (C-34), enjoying a soaring descent under the Wing. Note steering system on the trailing edge of the canopy.

Photo by Plumett C-242

Socializing at the A G M →

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 Dan Poynter and Glen Masterson  
 Dan supplied Can Para with all these pictures. Many thanks Dan.
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 Barry Brand and Vic Borghese  
 being serious.
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 Mike Saul and Bill Sheldon  
 (without his glass)
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 Bill Dickson, Don Saari,  
 "Mickey Mouse", Kevin MacNeil
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 Tom Cox and Jim Taylor
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 The banquet head table