

Prerequisites for XC Soaring



Wally Berry, 2018

Prereq's for XC Soaring

1. Glider

2. Transport

3. Crew

Prereq's for XC Soaring

First you get a glider:





Crew



Prereq's for XC Soaring

Altitude

Airspeed

Intelligence

Two out of three of these are needed for
successful completion of a xc soaring
flight!



Prereq's for XC Soaring

What you really need:

Training

Experience

Practice

Prereq's for XC Soaring

How to get?

SSA ABC, Bronze badge program!

Training, Experience, Practice

ABC BRONZE TRAINING PROGRAM

The SSA ABC Training Program was developed at the prompting of Society members to have a standard of training available. It is designed to provide a basic approach to flying for the student glider pilot as well as to give the accomplished power pilots the necessary points unique to soaring so that the transition may be made safely.

This program is administered by designated SSA Instructors who must have 50 hours of glider time with 100 flights and hold a current CFI-Glider.

The SSA Instructor is responsible for ascertaining that the training requirements have been met. The appropriate pins and blue cards are awarded to the students who achieve the level indicated by A, B, C, and Bronze, each designated to develop skills and experience necessary for future safe flight and FAI Badge attempts.





Bronze Badge Requirements

(study guide available [here](#)):

Cross-Country Readiness

Applicant Must:

- Complete the ABC Training Program with the C Badge Awarded.
- Log at Least 15 Solo Hours in Gliders. This Time Must Include 30 Solo Flights with at Least 10 Flights Flown in a Single-Place Glider if Possible.
- Log at Least 2 Flights, Each Having Duration of Two Hours or More.
- Perform at Least 3 Solo Spot Landings in a Glider Witnessed by an SSAI. The Accuracy and Distance Parameters Established Should be Based on Glider Performance Data, Current Winds, Runway Surface, and Density Altitude. As a Guideline, a Maximum Distance of 400 Feet Would be Acceptable for a Schweizer 2-33 Glider.
- Log Dual Time in Gliders with an Instructor during which at Least 2 Accuracy Landings are Made without Reference to the Altimeter to Simulate Off-field Landings.
- Pass a Closed Book Written Examination Covering Cross-country Techniques and Knowledge. The Minimum Passing Score is 80%. This Examination is Administered Only by an SSAI.



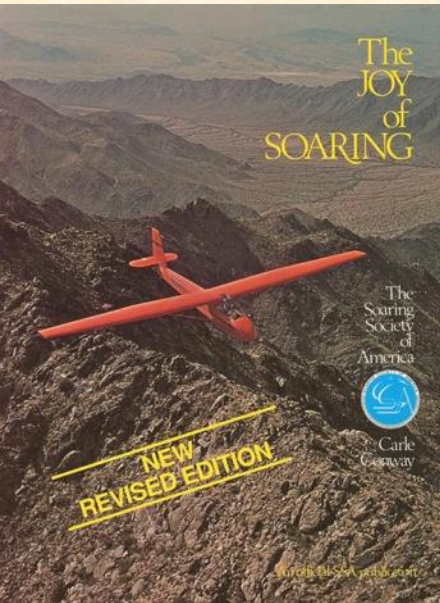
C Badge Requirements:

Pre Cross-country Phase

Applicant Has Completed the Following Flight Training:

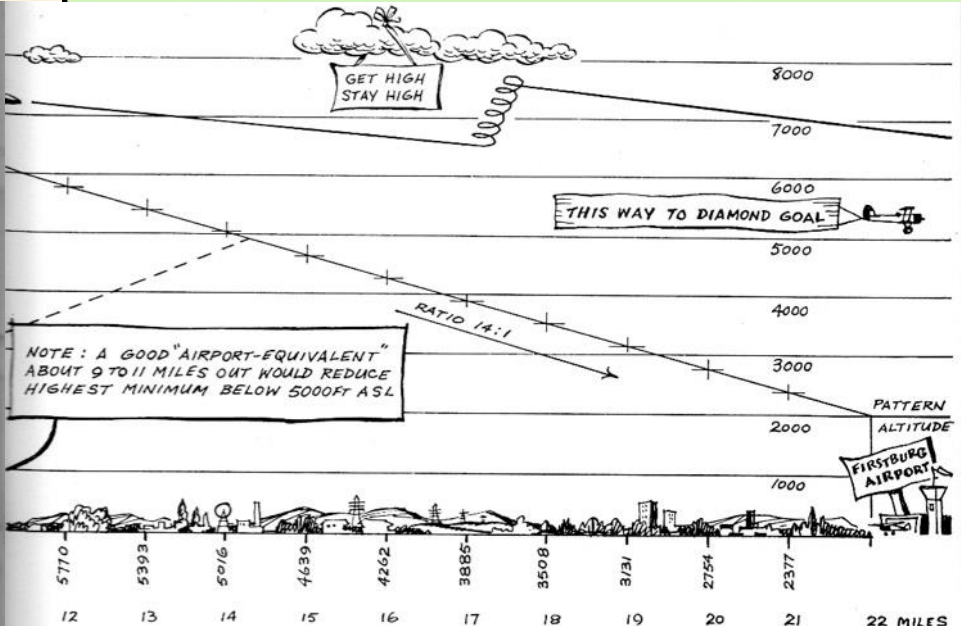
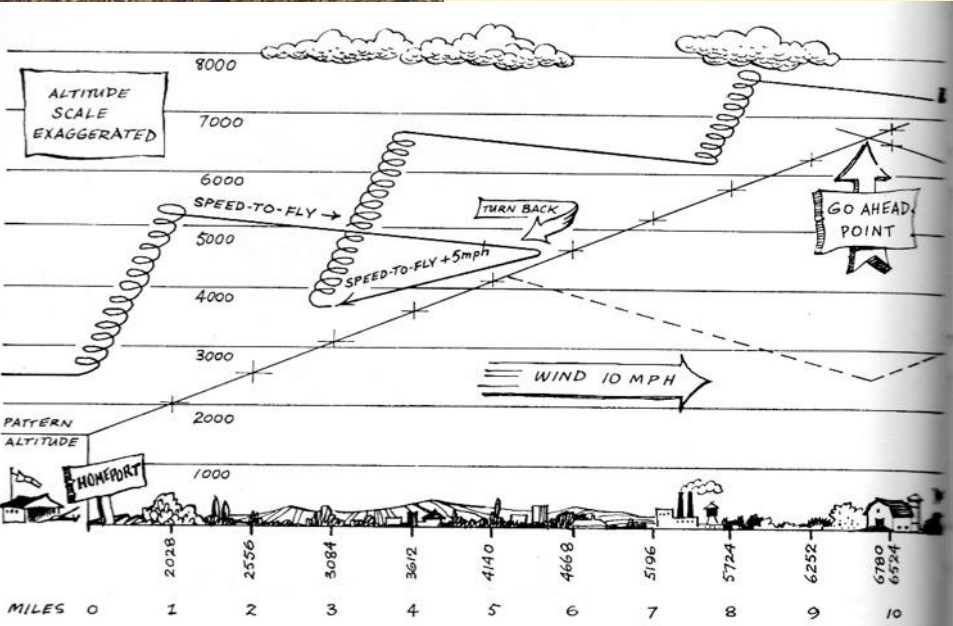
- Dual Soaring Practice, including instruction in techniques for soaring thermals, ridge soaring, and wave (simulated flight and/or ground instruction may be used when suitable conditions do not exist).
- Has Knowledge of:
 - Cross-country Procedures
 - Sailplane Assembly, Disassembly, and Retrieves
 - Hazards of Cross-country Flying
- Demonstrates Soaring Ability by Solo Flight of at Least 60 Minutes Duration After Release From 2,000 Foot Tow (add 1½ minutes per 100 foot of tow above 2,000 feet).
- While Accompanied by an SSA Instructor, Demonstrate the Following:
 - Make a Simulated Off-field Landing From the Approach Without Reference to the Altimeter
 - Perform an Accuracy Landing From the Approach, Touching Down and Coming to a Complete Stop Within an Area No Greater Than 500 Feet in Length.

Read...



Cloud base or top of convection

	Blue Sky	Cumulus Sky	MacCready
1/3	Stay on track	Intercept all active cumulus clouds within 15 to 20 degrees on either side of track	Set to expected average climb rate in next thermal
1/3	Consider small track deviations to align track with likely thermal sources.	As above but include clouds further off track. Accept average lift.	as above
1/3	As above but accept greater track deviations	Look for lift upwind of cloud and accept average lift to get up again	Reduce MacCready setting to extend range



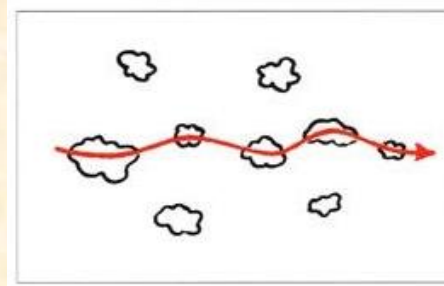
Read more...

HELMUT REICHMANN CROSS-COUNTRY SOARING

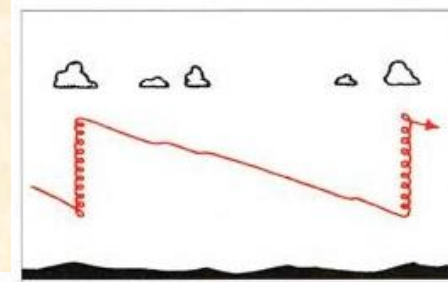
(STRECKENSEGELFLUG)



REVISED EDITION



18. Small changes of heading can save height and therefore minimize time spent circling.



19. To improve average speed by reducing time spent circling in thermals and therefore time spent getting established and centered in them. Practice in "tactical undersetting of speed-to-flying."

Leo and Ricky Brigliadori

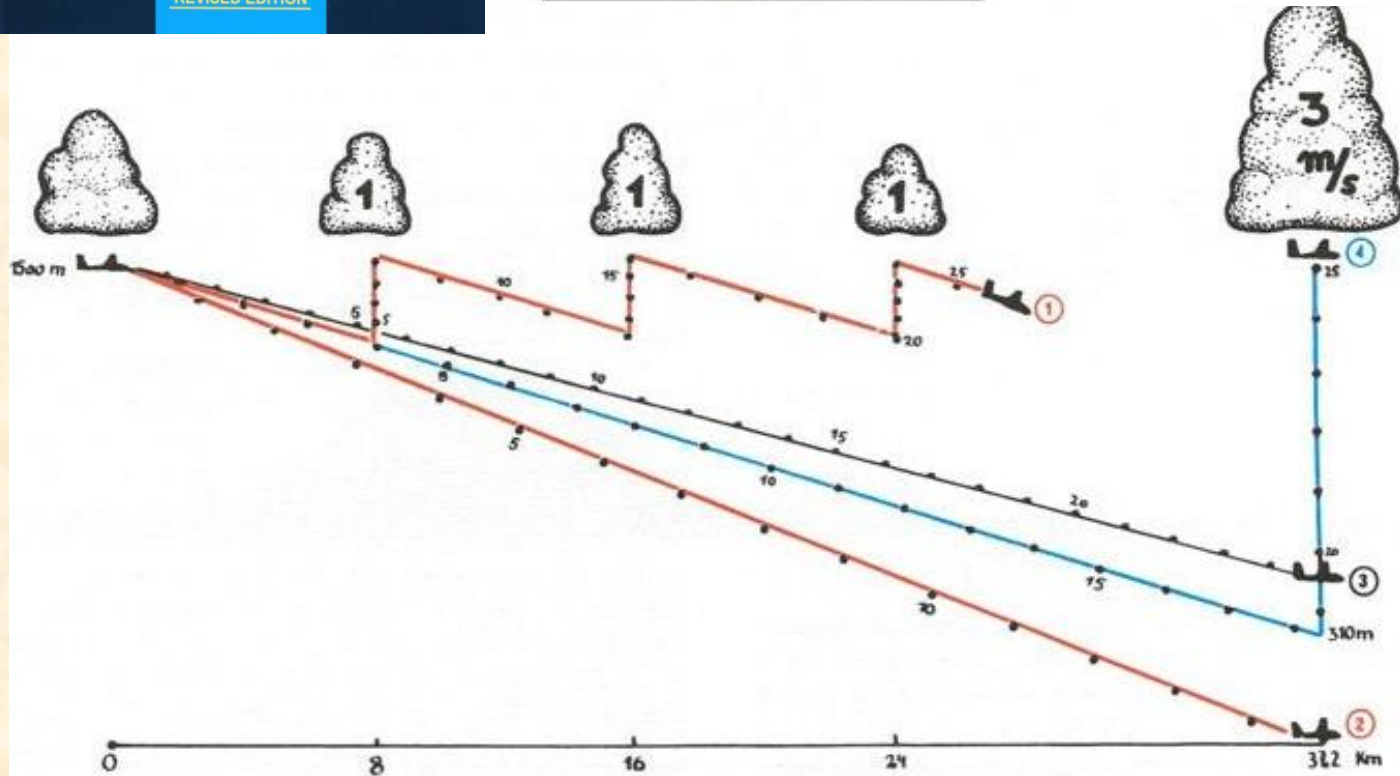
Competing in gliders

2nd EDITION

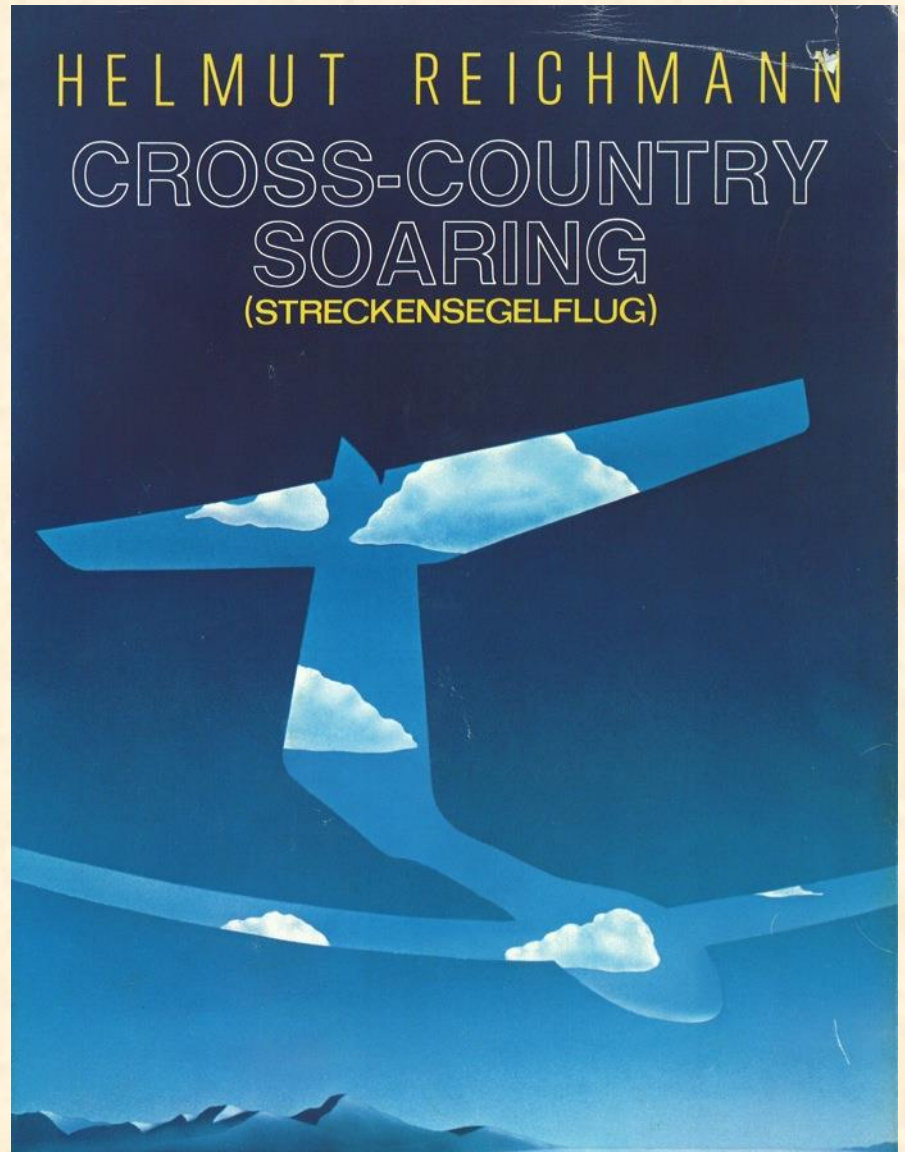
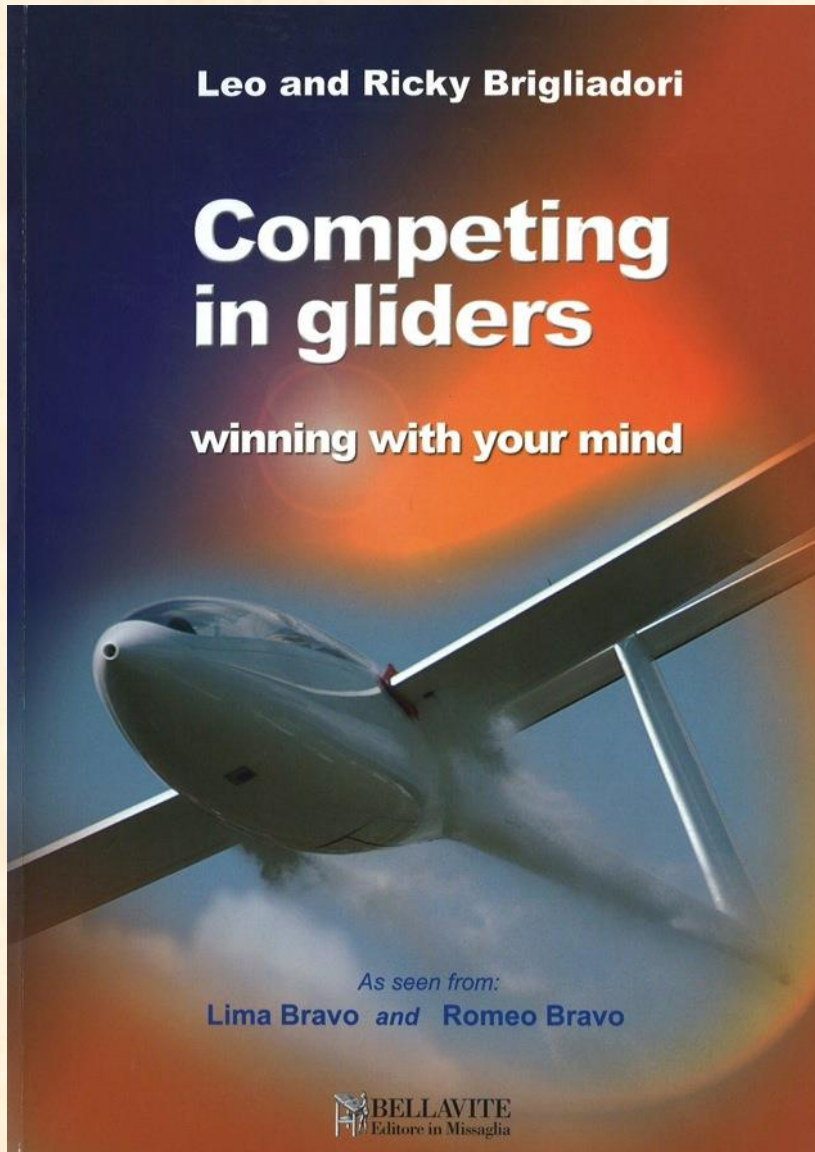


Winning with your mind

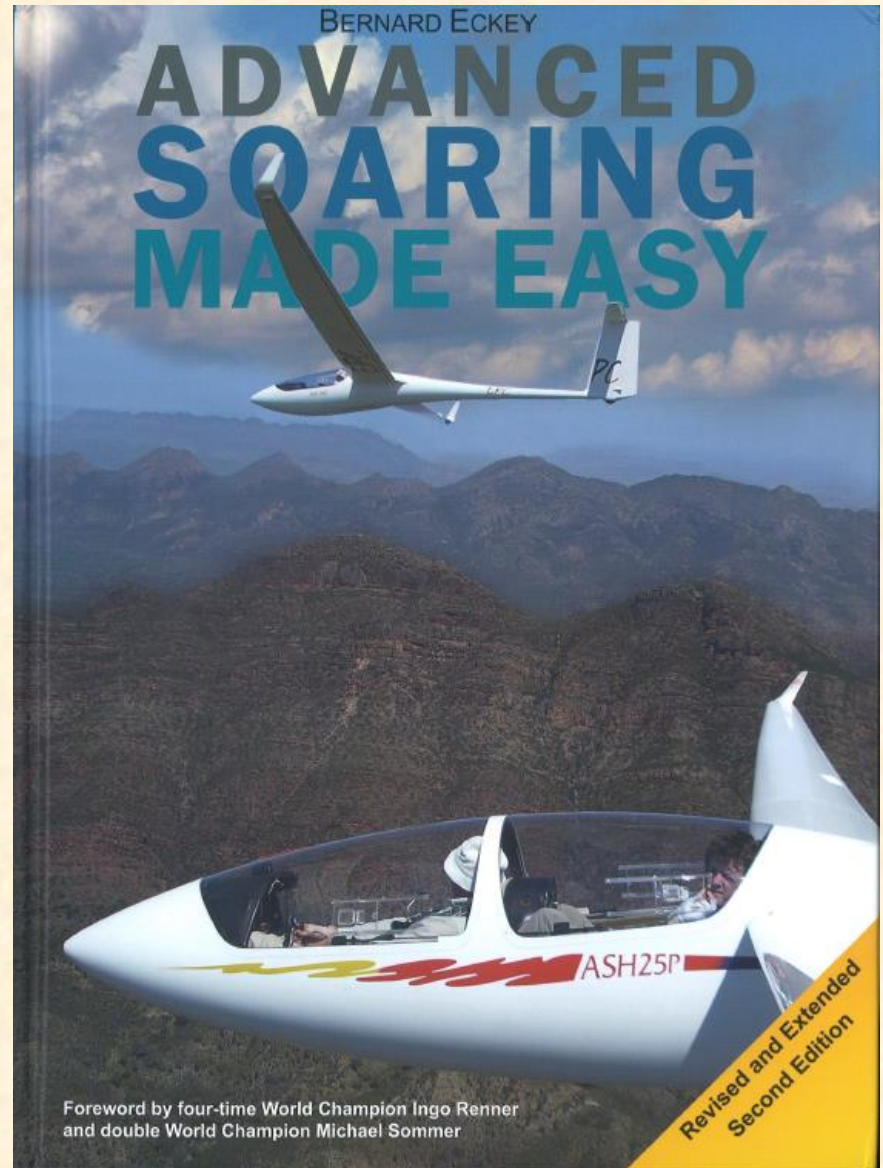
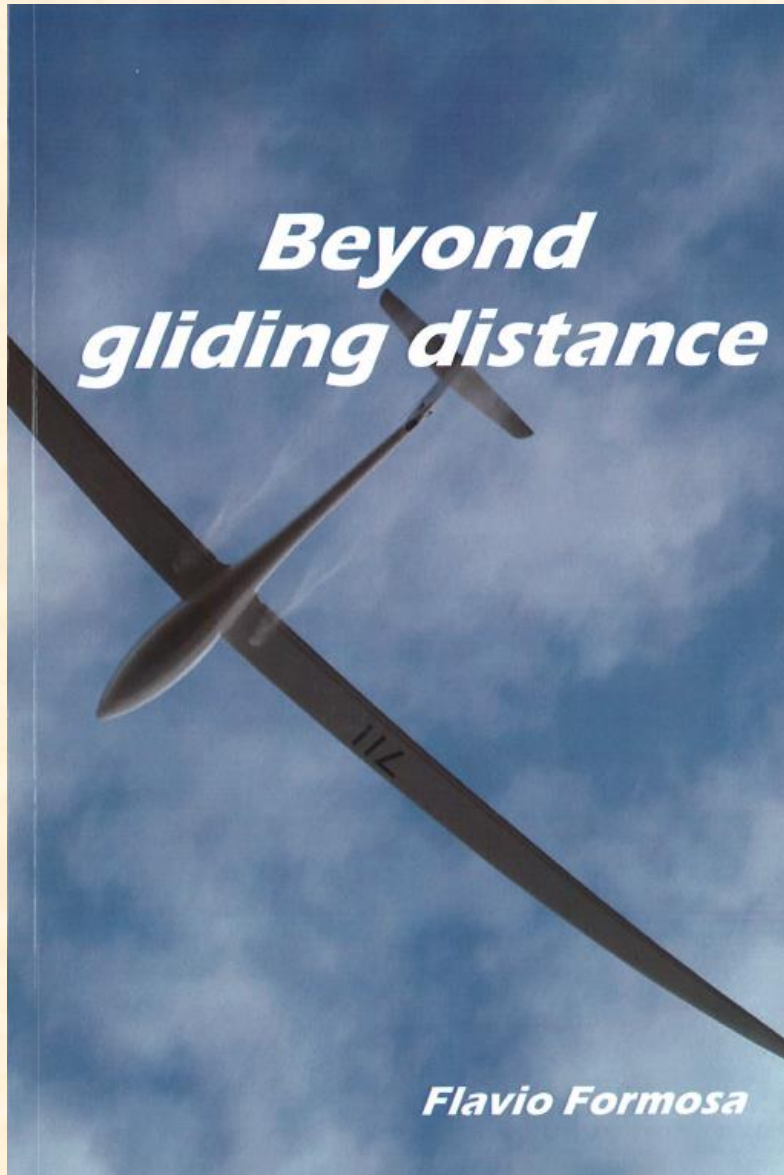
As seen from Lima Bravo and Romeo Bravo



My two favorite books

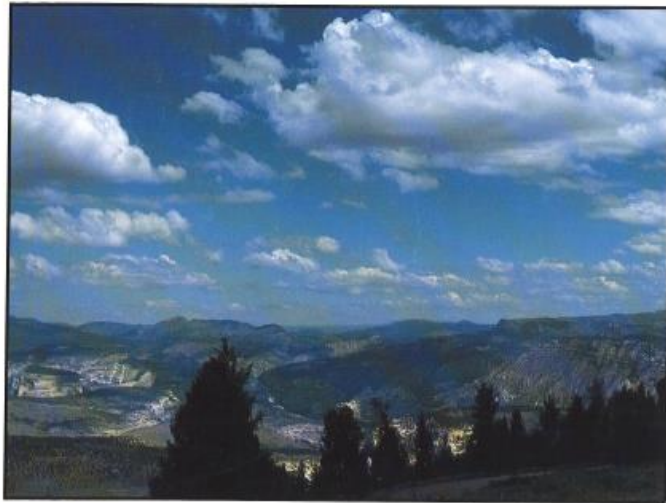


Two new books that are good



And, two more books

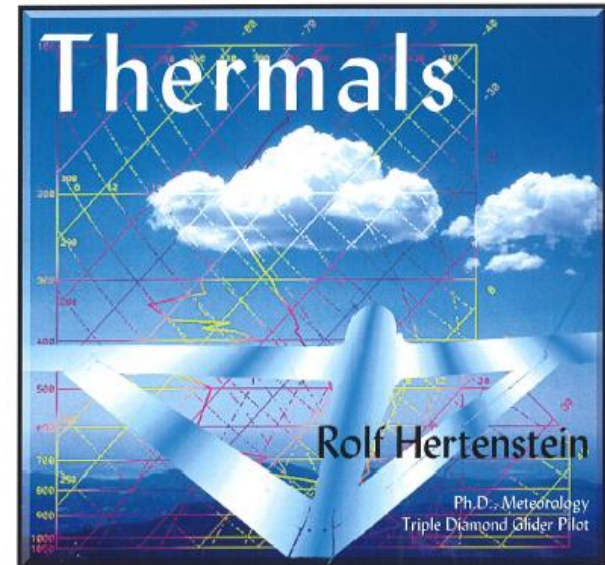
UNDERSTANDING THE SKY



by DENNIS PAGEN

A SPORT PILOT'S GUIDE
TO FLYING CONDITIONS

Bob Wander's
GLIDING MENTOR
Series

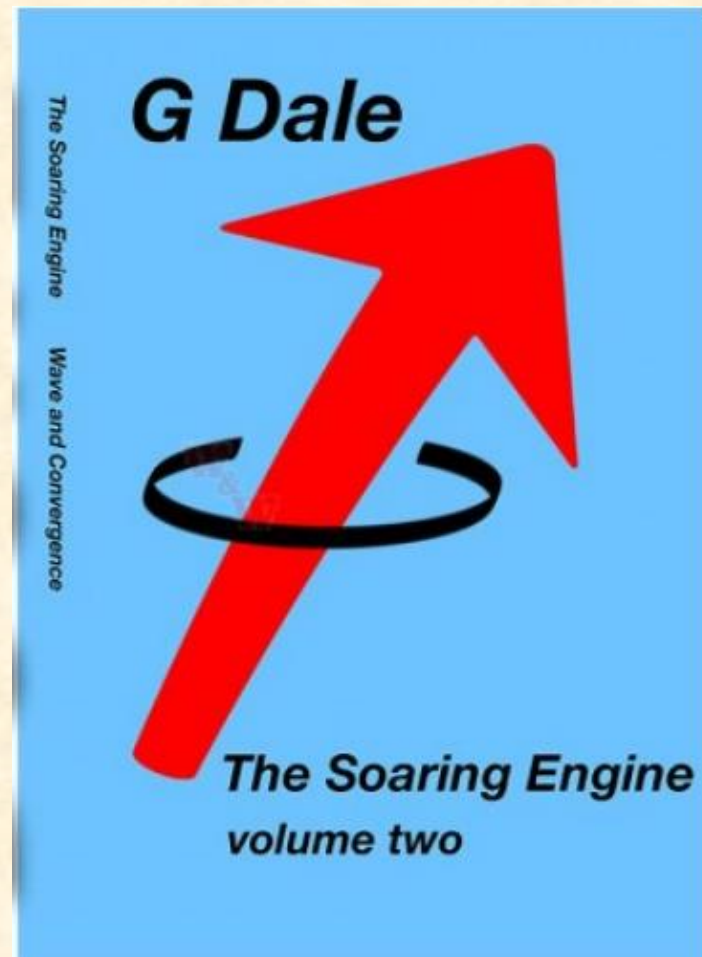
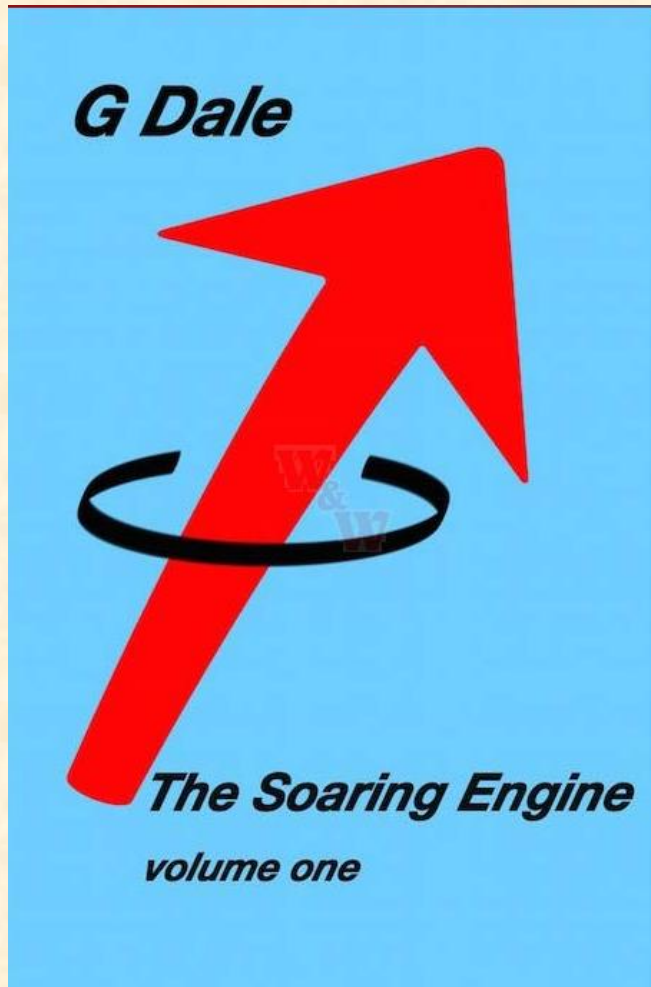


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And, two more books



Additional Skills

Beyond what is covered in the SSA ABC,
Bronze program:

Gagging
Final Glides

Gaggles



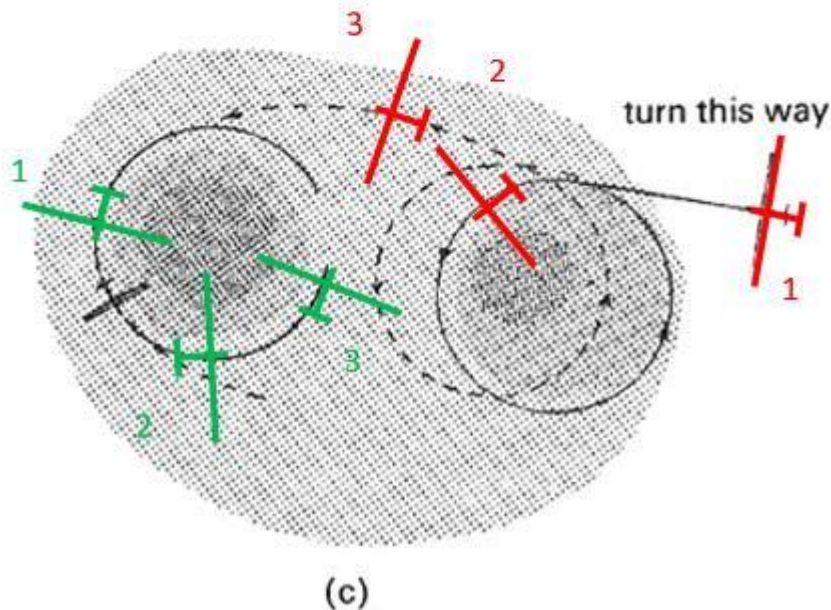
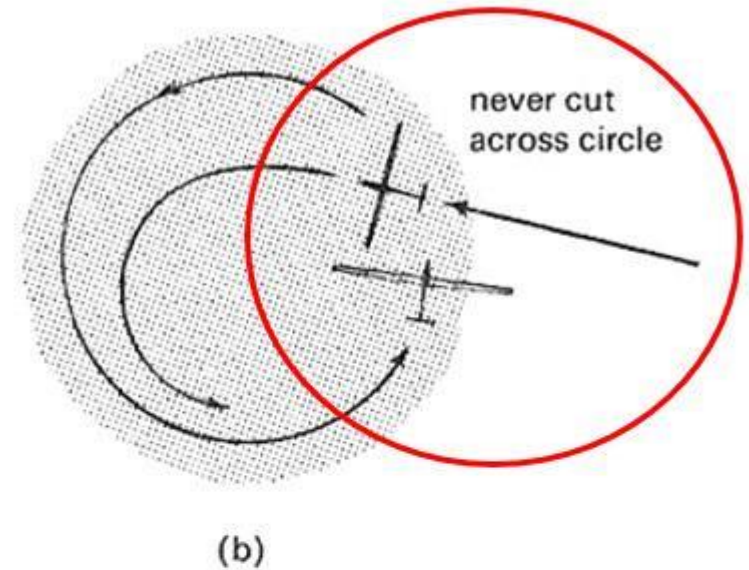
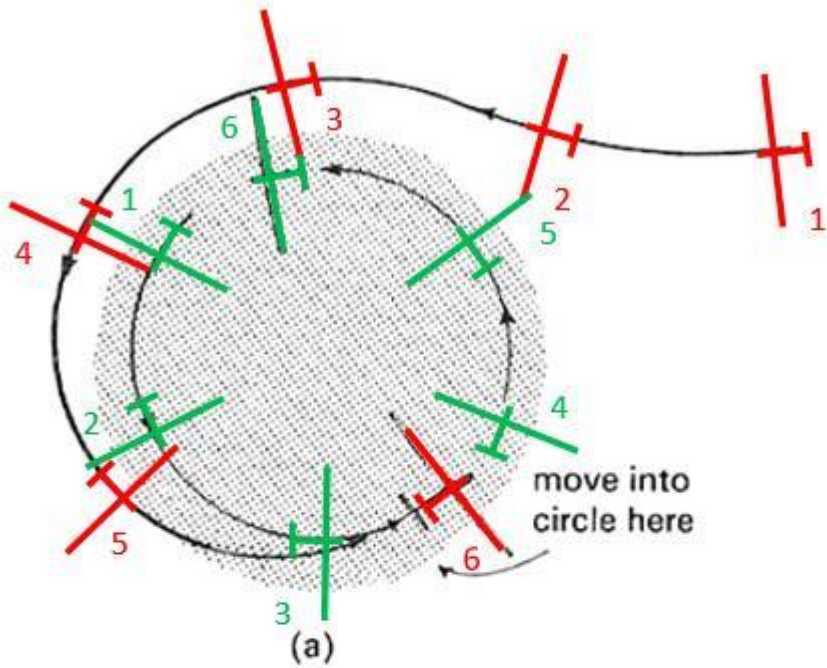
Goggles

Gliding Safety Videos 1 Cutting In

<https://www.youtube.com/playlist?list=PLg2FFq0MZjyNkxgE0RvDrQ1Z8QvGktZ>



Joining Gaggles



(a) Always join outside their circle and only move in when on the opposite side.
[Notice when red glider is at position 6 the green glider is 180° across circle]

(b) Never join by cutting across another pilot's circle or pulling up into the circle.

(c) Always circle in the same direction as any nearby glider to make joining each other safe and simple.

Joining Gaggles

- Enter from the side, don't aim for the middle

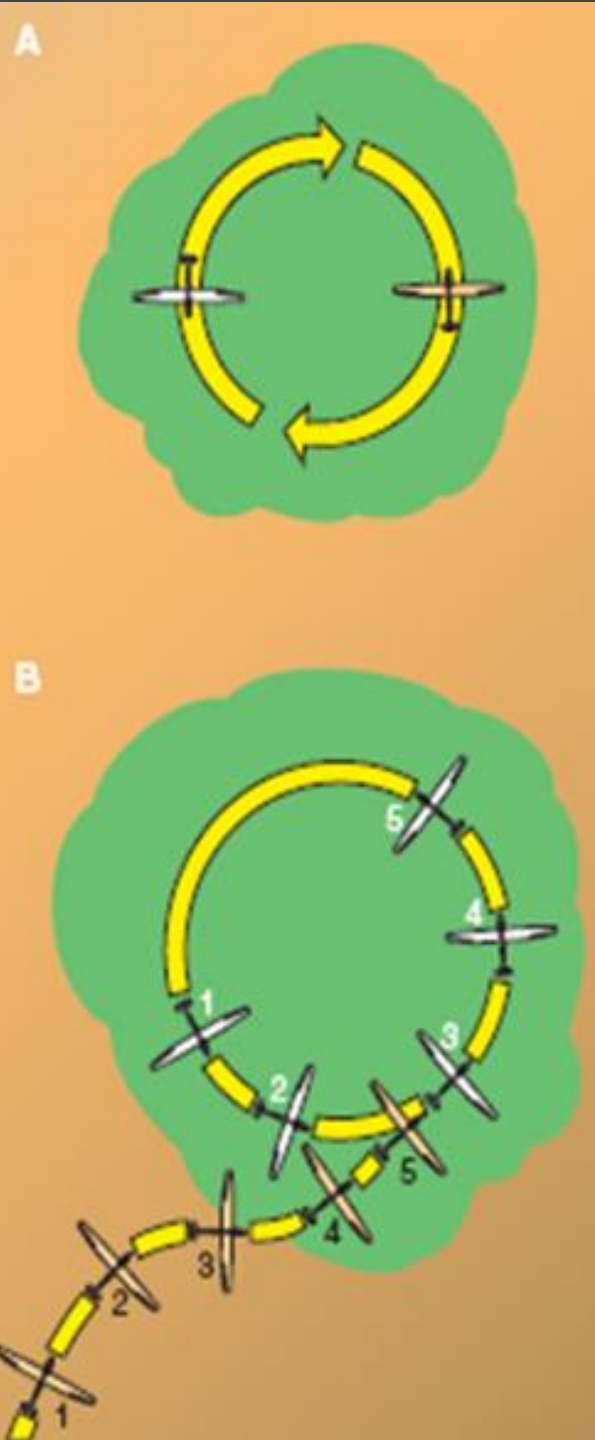
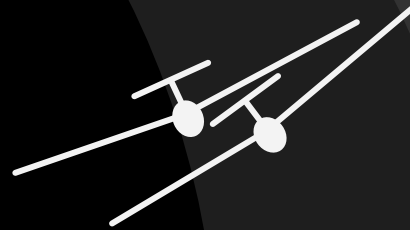
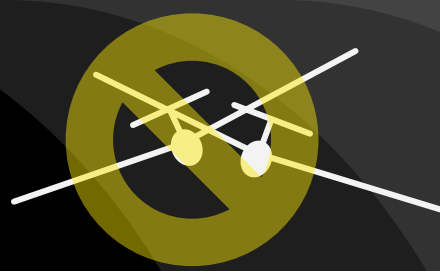
- Vary your bank to fit yourself in

- Turn in the same direction of the first sailplane in, usually above

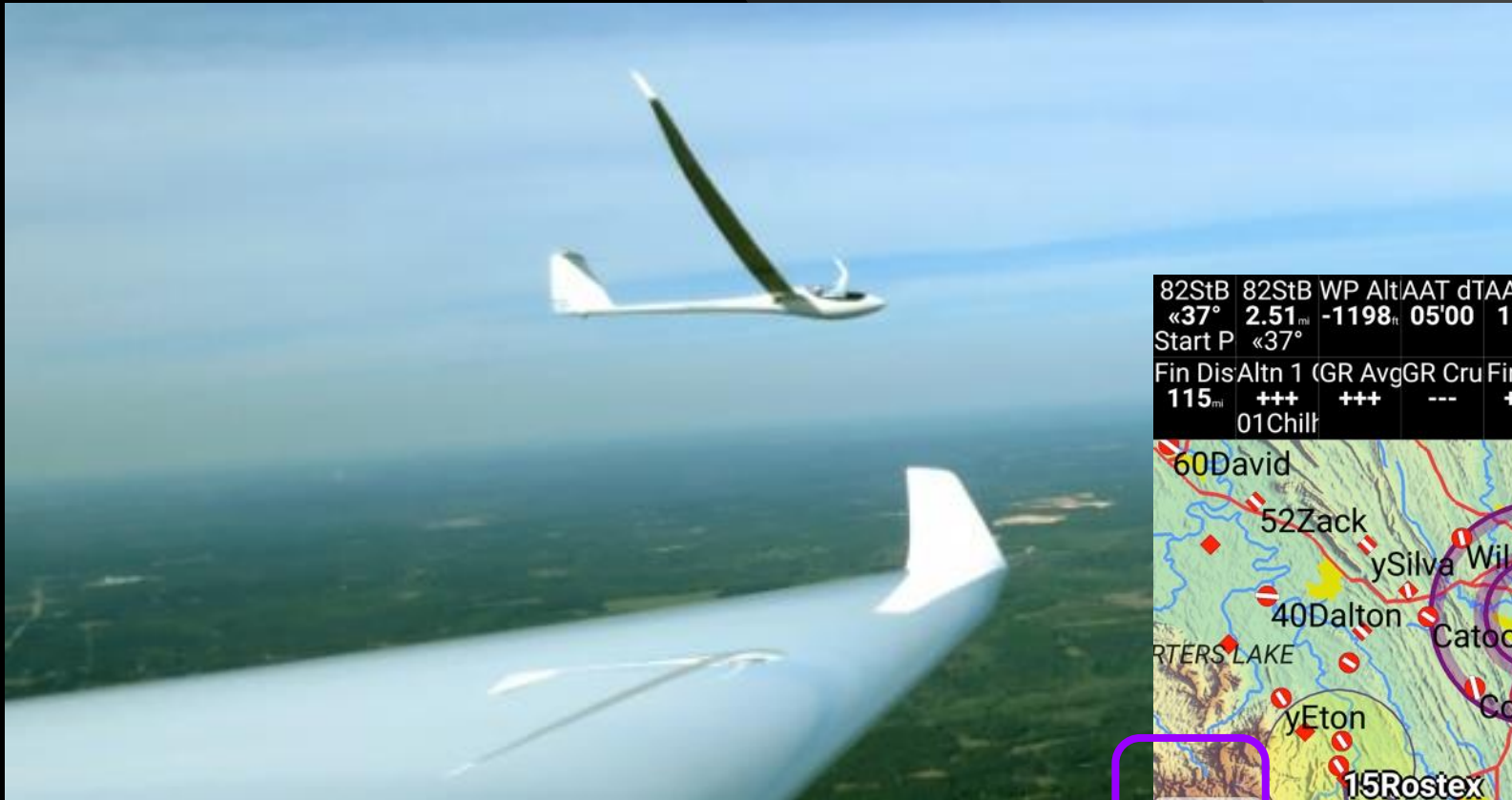
- Avoid just above or just below positions

- Passing, avoid cutting across the nose of a slow climber

- Don't bomb through the center upon leaving, *no matter what the books say*



Final Glides



82StB	82StB	WP Alt	AAT d	TAAT Dt	MC MA
«37°	2.51 _{mi}	-1198 _{ft}	05'00	113 _{mi}	3.8 _{kt}
Start P	«37°				75 kt
Fin Dis	Altn 1	(GR Avg	GR Cru	Fin GR	H AGL
115 _{mi}	+++	+++	---	+++	29 _{ft}
	01Chill				9 m



Conservative:
 1,000+AGL finish & 3.5+McCready,
 Or even more so to start with.

Finish & Landing



Off-Airport Landings



Waverly Hall





Chilhowee





Chilhowee
(same contest)



Caesar Creek



Hobbs

