

down. *Never* attempt to soar or make a 360-degree turn while in the traffic pattern, and do not turn your back on the field at any time. If lift is encountered there are a number of good safe ways to dispose of any excess altitude, including use of spoilers, slipping, or adjusting the pattern slightly away from the airport. If heavy sink is encountered move immediately toward the airport prepared for a quick landing rather than continue to fly a prescribed pattern that may leave you in the trees.

A smooth turn onto the final approach, made at a safe height and in a good position, is something to work toward during every landing. The altitude may vary somewhat, of course, depending on the airport and existing conditions, but in no case should it be less than twice the full wing span of the sailplane. Many pilots have considered it ideal to land without making use of flaps or spoilers, adjusting the base leg to determine the point of touchdown, but it is far safer to approach a little high and then on final, at the edge of the field, use flaps, spoilers or side slip to adjust the altitude. In this way extra altitude is available if unexpected headwind or sink is encountered. It can be seen from this that the ability to make good forward and side slips is a necessity, particularly when flying sailplanes without flaps or dive brakes, and all inexperienced pilots should make a point of practicing these maneuvers. Remember that the airspeed indicator may not be reliable while slipping, and always

recover from a slip a little early and in a slight dive to ensure sufficient speed.

Never attempt to stretch a glide, but rather keep your speed well up and if necessary dive toward the edge of the field if it appears at the last moment that there is more headwind than you had anticipated. Make a wheel landing in a level attitude, and avoid stalling the sailplane onto the ground. Remember that spoilers increase the stalling speed, and that most sailplanes have no shock absorbing landing gear. If one is stalled just above the ground the resultant hard landing can cause damage to the sailplane and back injury to the pilot. Do not attempt to land short simply to impress the bystanders or reduce the retrieve distance, for no pilot is infallible and no matter how experienced he may be he will occasionally make errors of judgment or be misled by conditions existing at the time. There are quite enough problems in flying sailplanes without introducing additional ones by depending on perfect judgment. Finally, after landing either roll off the runway or get out promptly and move the sailplane out of the way of possible following aircraft.

To sum up, work toward establishing a consistent landing pattern based on the good habits outlined above, while always remaining flexible enough to recognize changing conditions in the pattern so that you can adjust your approach accordingly.

—MILES CLOVERDALE

## BOOK REVIEW

THE GLIDING BOOK with contributions by John Furlong, E. G. Hart, Alex Watson, C. E. Wallington, Ken O'Riley, F. N. Slingsby, H. C. N. Goodhart, Derek Piggott. Edited by Richard Serjeant and Alex Watson. Published 1965 by Nicholas Kaye, Ltd., London. 109 pages, \$5.00.

Out of England has come yet another book on gliding and soaring. We may wonder why so much more is written about the sport in England than in this country, but for whatever reason, we are the beneficiaries and our shelves are all the richer for their literate approach to the subject. This latest book has seven chapters and two appendices, each written by a different expert and it makes a very interesting book which can serve as an introduction to gliding and soaring. American soaring pilots will particularly be interested in the chapter on making gliders by Fred Slingsby and Nick Goodhart's chapter on achievement.

We will also note with interest if not agreement, the comments on American soaring by John Furlong who states that "gliding on the whole does not suit the American temperament mainly because it needs patience and teamwork. Of course their private flying is much more closely organized than ours; in fact in its very unity it resembles our gliding movement." As an old AOPA member, this reviewer would have the feeling that practically nothing is less well organized than the 100,000 private pilots in the USA. In addition to some misspelled proper names, it is surprising to find that the book twice erroneously attributes the governing of world soaring records and regulations to OSTIV instead of FAI. There is also a statement made that the air in a lee wave "is neither extremely smooth nor extremely rough for flying."

This is probably a typographical error and should read "is either extremely smooth or extremely rough." Despite these minor flaws the book is well designed and printed, the 31 photographs are reproduced with excellent quality, and it makes very interesting reading.

HARNER SELVIDGE

## NEWS NOTES

**OUTWARD BOUND** Those of you who are wasting extra seconds getting around corners in your lead sleds can take heart from estimates derived from the initial flight tests of the giant XB-70. According to these a Super-Sonic Transport, cruising at Mach three, would require about 13 minutes to complete a 180-degree turn and cover between 200 and 300 miles in the process.

**IMPROVED TECHNOLOGY** The Boeing Company has developed a new and simplified method of covering surfaces with fiberglass. In the past, when fiberglass panels were needed in production, the work was sensitive to both temperature and timing. The panel had to be cut exactly to size and placed precisely before the resin and catalyst were applied. These elements then had to be mixed in careful amounts, on the spot, and the layup procedure done by hand.

Now Boeing engineers simply precatalyze the fiberglass. A special solvent is mixed with the catalyst in which the fiberglass is soaked and which, when dry, spreads a thin layer over the catalyst, thus preventing it from evaporating when exposed to the air. In this form the glass is laid on the surface to be covered, trimmed to size, set in place and the resin applied with a brush. The resin dissolves the solvent, soaks into the precatalyzed fiberglass, mixes with the catalyst and adheres to the surface below. Tests show that fiberglass applied in this manner sets as hard and holds as tight as any applied by the old method.