SOME SOLUTIONS TO THE “POTATO CHIP” STAB

A couple of articles from the May2011 Scale Staffel Newsletter,
George Mansfield, Editor

One solution from Michael Heinrich-Small Flying Arts Forum
(http://www.smallflyingartsforum.com/YaBB.pl?
num=1303503309)

Everybody's got a different take on warps, and they all will work
for someone. Here's mine--I've not found preshrunk to be
helpful, as you then must ask your framework to carry that load
that the traditional dynamic of "balsa compression, tissue
tension" would normally do--not my preference. I'll build a stiff
outline and cover with Esaki, tacked to every bit of surface
available, and shrink, & dope. Keep pinned down during the
shrinks & dries, and a few days after doping if I can. Then I just
watch for warps and deal with 'em if & when.

I've shown this in a couple of places--my version of the Stahl
foil is to lay a central spar in and build the outline, then spring
sticks over that spar to dive inside the outline structure, making
that side of the foil; flip over, chock up outline, and spring sticks
over that side, to overlap as they dive down to LE & TE. It's
micro-lighter, less sanding, and no feathering out the grain--runs
continuous through the structure. Also less glue in the
laminating, & what's there is along the laps where the sticks
meet.

Another solution — Chris Starleaf's — as interpreted by
George Mansfield:

After building my Starleaf-designed Fairey Barracuda in 2008
having an absolutely flat (until warp time!) stab with the spars in
the same plane as the diagonals, Roger Willis let me know that I
didn't follow the plans correctly. DUH! Here is the correct
construction. 1. Except for the spars, build all of the stab flat.
Glue full-length medium balsa spars to the tops of the diagonal
1/16 square ‘ribs’. 3. Score the spars at the outermost diagonals,
then bend them down, and cut them to be glued flush with the
stab tips’ inner faces. 4. Preshrink your tissue two or three times.
5. Cover using a glue stick, lightly mist and pin down for a few
days. 6. Dope or Krylon and pin down again for another few
days. Looks good so far-crossing my fingers. John Donelson
swears by this construction and says he’s never had one warp!
Here are a couple of pics:

Still another solution is provided by Bill Henn, in an article you
can find on the PFFT website under the title “Stab Sections for
Small Models.”