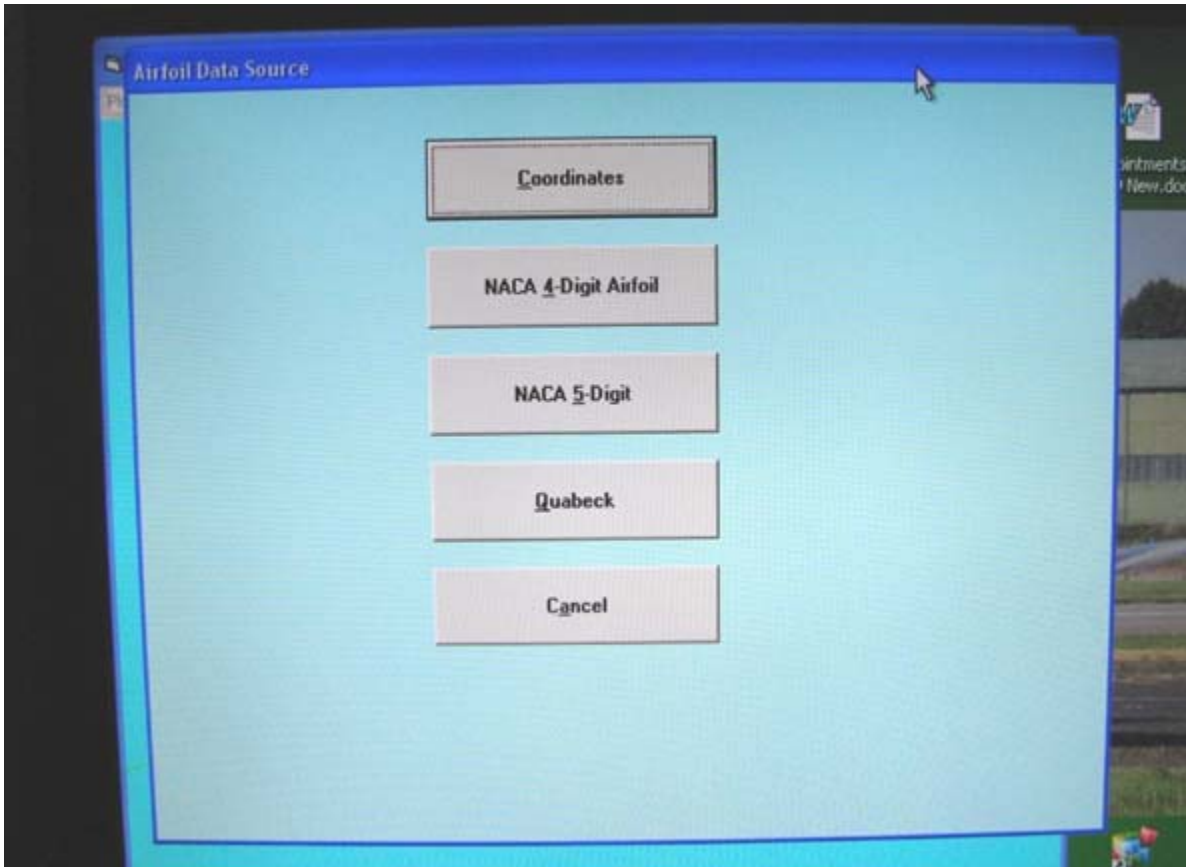


David Harding

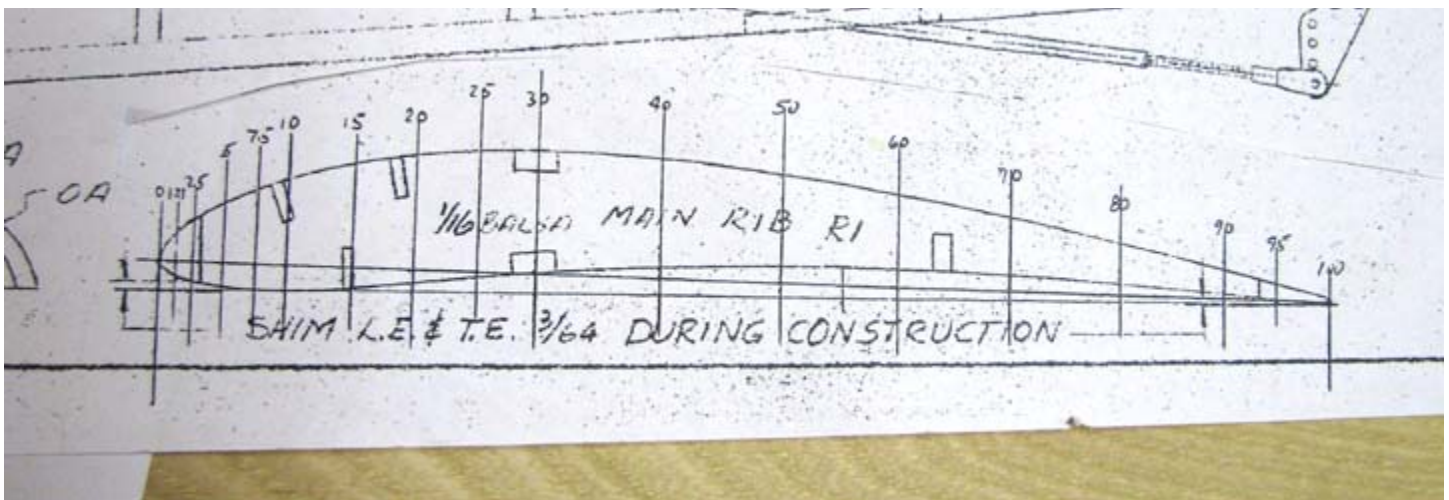
From: Tandy Walker [tandyw@flash.net]
Sent: Tuesday, December 08, 2009 11:56 PM
To: Undisclosed-Recipient: ;@smtp105.sbc.mail.mud.yahoo.com
Subject: 27 Speed 400 Cloudster - Wing Rib Patterns

Speed 400 Cloudster Project

A couple of years before Dick passed away, he had me get the "Airfoil 8" software program. Later, he gave me a cassette containing all of his empirical airfoil data of various models that he had developed and collected over the years. I loaded these data into the Airfoil 8 Program in the "Coordinates" option shown below. I had forgotten about this program because I had not used it for probably over ten years.



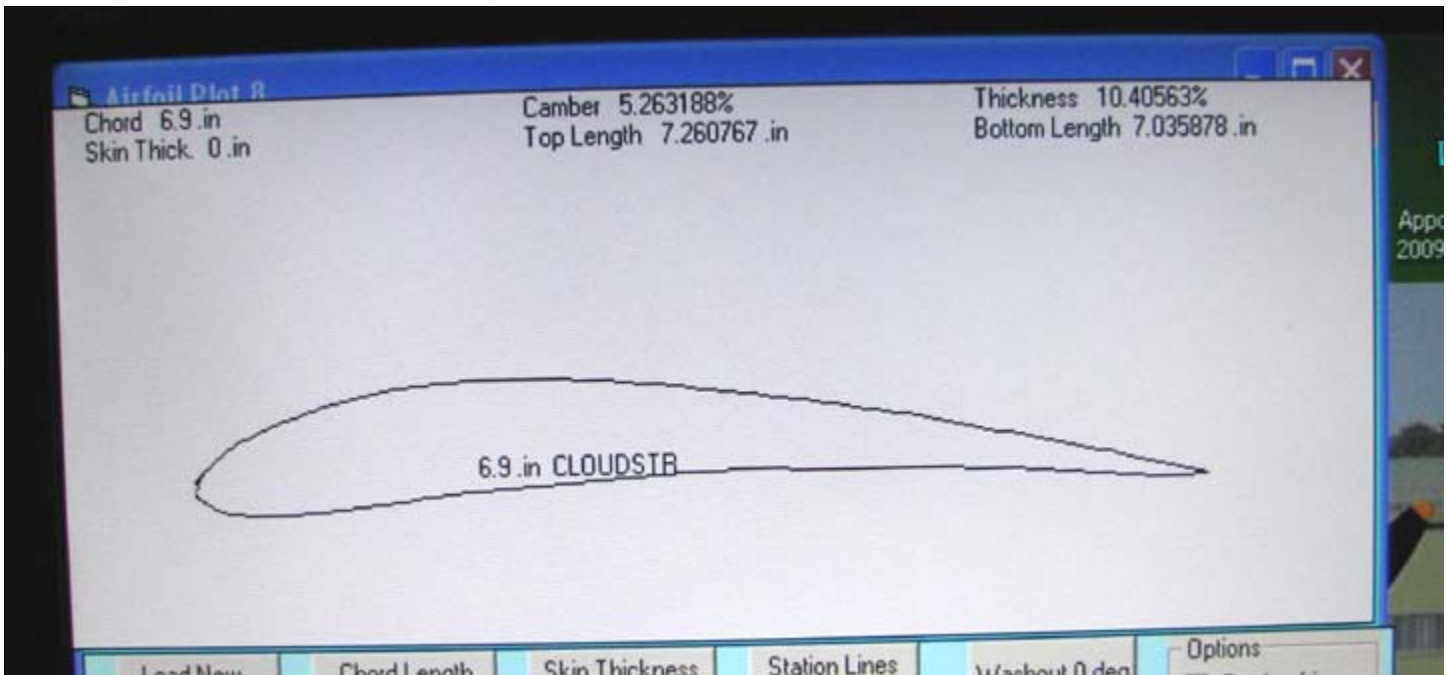
As I was preparing to develop the rib patterns for the Cloudster's wing, I noticed that the main rib R1 laid out in the bottom right corner of the Jim Adams plans as shown below. Rib stations in percent had been drawn on the R1 rib and I immediately recognized that it was Dick Huang's work from the hand printing. He obviously had measured and recorded the Cloudster rib airfoil coordinates. Could it be I already had the Cloudster's wing airfoil coordinates loaded in the Airfoil 8 Program?



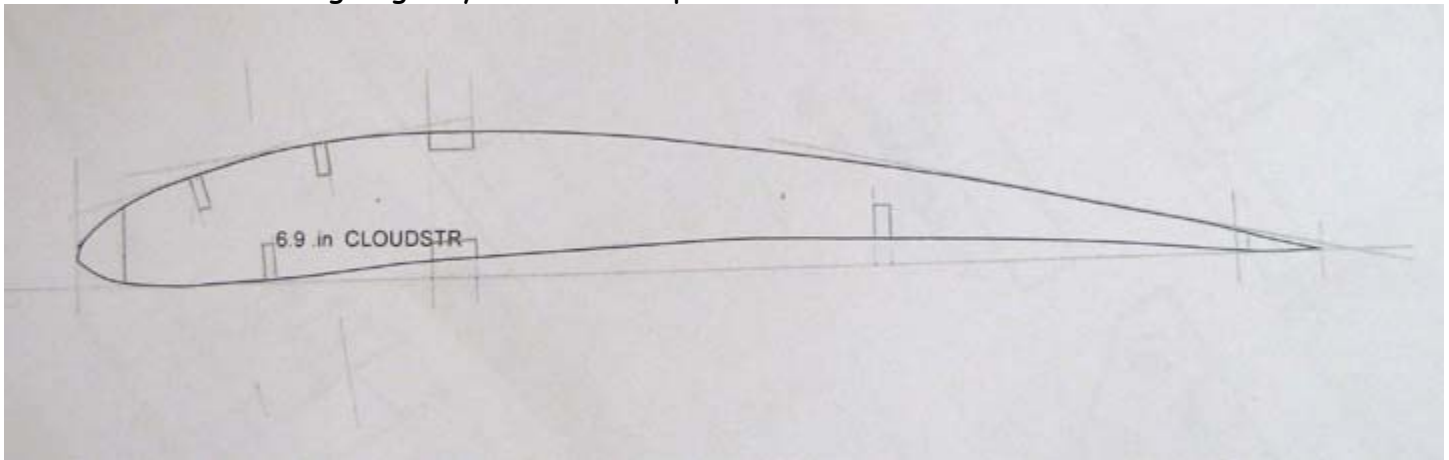
So I opened up the Coordinates option and sure enough, there was the data file for the Cloudster wing airfoil. It is called "CLOUDSTR.NOR" along with many of the other Old Timer model airfoils as shown below.



I clicked on CLOUDSTR.NOR and put in a chord length of 6.9". The Cloudster airfoil was displayed as shown below. The display is a little grainy, but the print out is smooth.



The full size Cloudster's airfoil was then printed out as shown below. I then made the R1 rib pattern by drawing in the LE, TE, and all of the spars. I checked the Cleveland Cloudster plans and the bottom of the 1/8" X 1/2" trailing edge lays flat on the plans as shown below.



So from this point on, it will be a simple matter to develop all of the Cloudster's wing rib patterns.....Tandy