

THE COLLEGE OF NEW JERSEY
DEPARTMENT OF ENGINEERING

2000 Solar/Electric Boat Project

For the "Solar Splash 2000" World Championship Solar/Electric Boat Regatta

New Orleans, LA, June 7-11, 2000



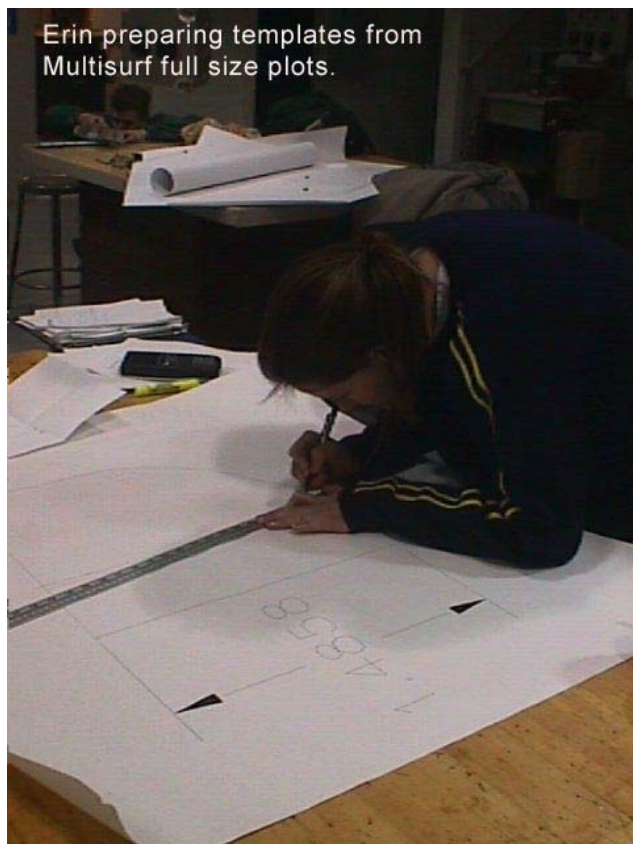
The team on the shore of Lake Pontchartrain, from the left: Erin Smith (Senior), hull designer; Mandy Newman (Senior), main foil and aileron designer; Tom Batten (Junior), Launching dolly designer and fabricator; Oliver Cueff (Senior), power system designer; Gregg Bonstein (Senior), canard foil, skimmer, and rudder designer; Norm "Doc" Asper, advisor. Not pictured, Kristen Rusak (Senior), Engineering Management.



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Erin preparing templates from Multisurf full size plots.



Erin cutting full size patterns for lofting jig.



Mandy, Erin, and Kristen assembling lofting jig.









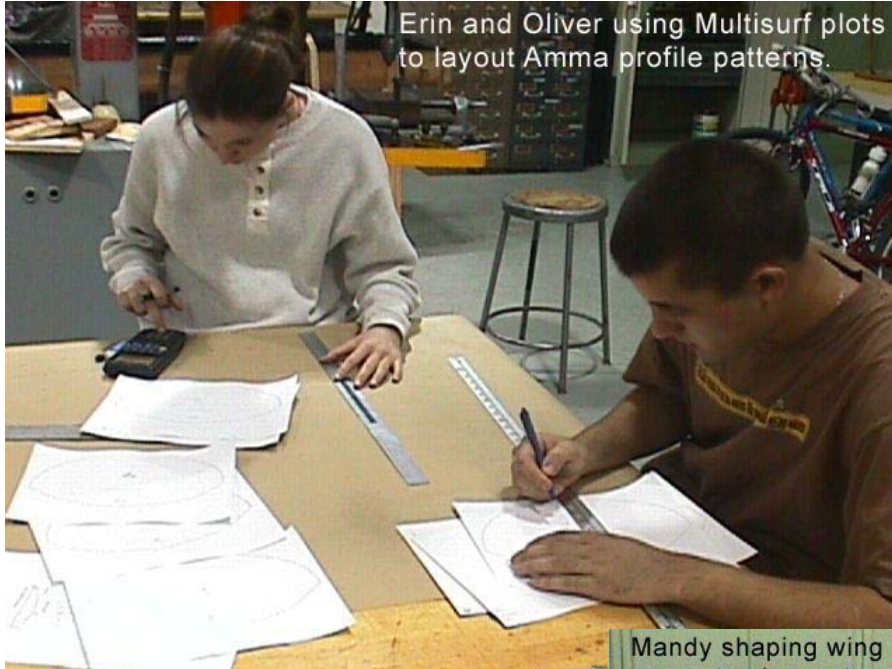
Greg sanding canard foil to
plexiglass profile templates.



Canard/rudder/skimmer
mechanism.



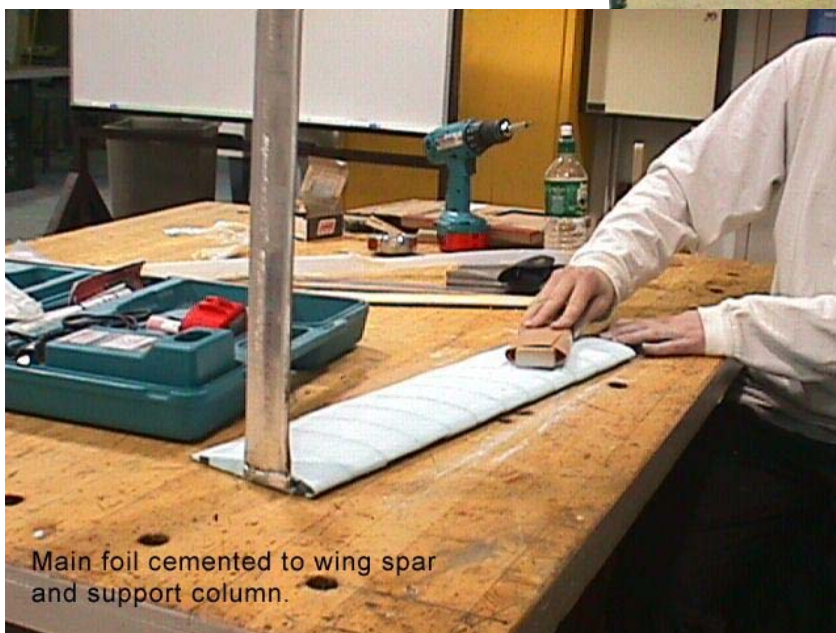
Greg with
full size mock-up of
canard/skimmer mechanism.



Erin and Oliver using Multisurf plots to layout Amma profile patterns.



Mandy shaping wing support columns to attach cross beam, through ammas to wingtip.



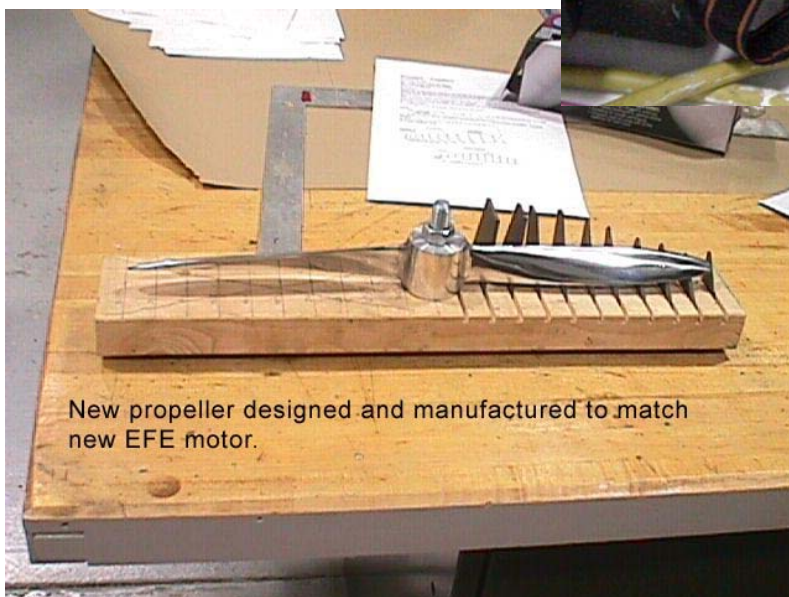
Main foil cemented to wing spar and support column.



Dyno testing new EFE motor.



New EFE motor on mounting plate. Aileron cables and rods, and bilge pump switch also shown.



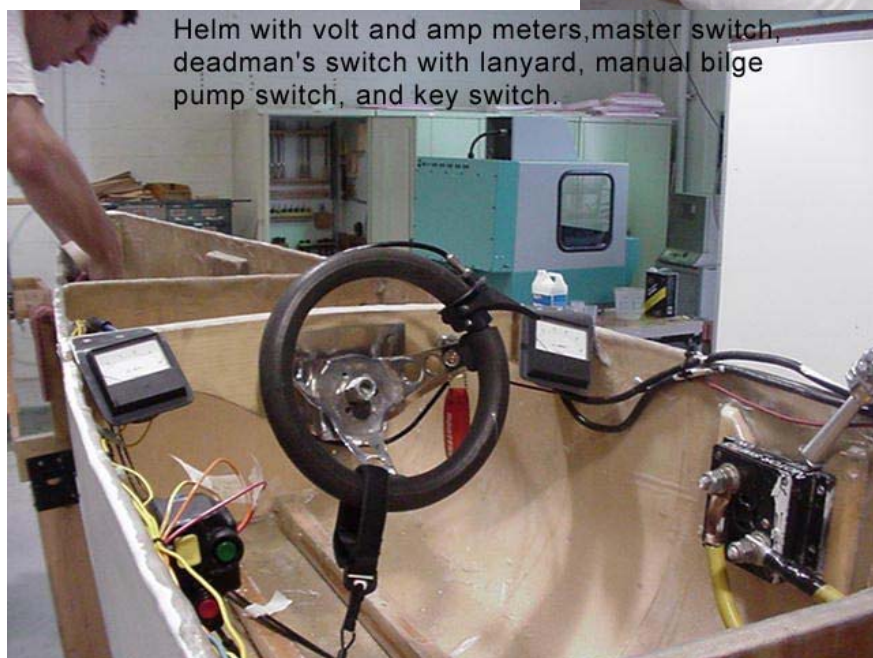
New propeller designed and manufactured to match new EFE motor.



Helm being glassed in place.



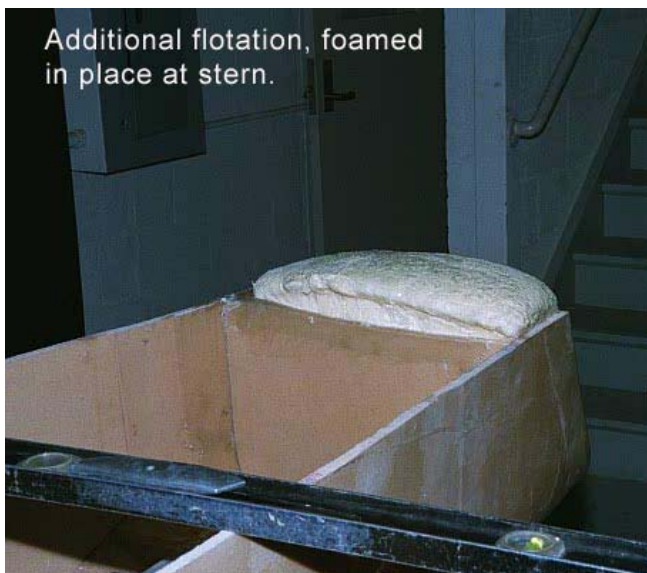
Thrust bulkhead glassed in place.
Cross beam mounted.



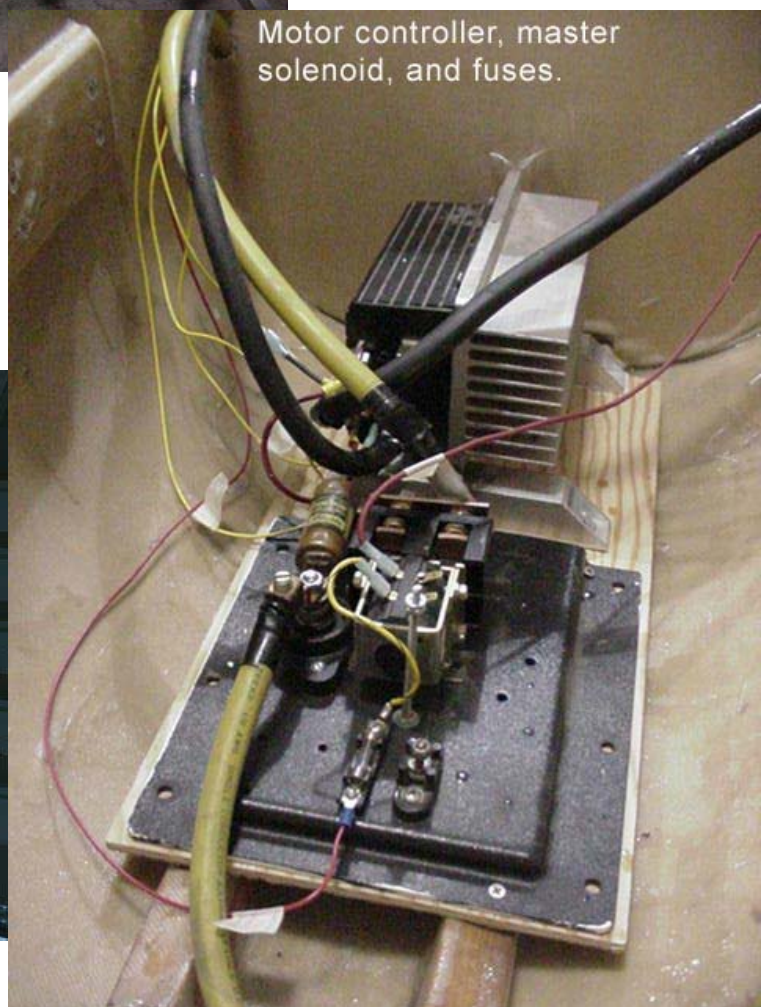
Helm with volt and amp meters, master switch,
deadman's switch with lanyard, manual bilge
pump switch, and key switch.



Pedals and cables that control ailerons.
"Pot Box" assembly in background.



Additional flotation, foamed
in place at stern.



Motor controller, master
solenoid, and fuses.



Tom Batten, designer and fabricator
of new launching dolly.

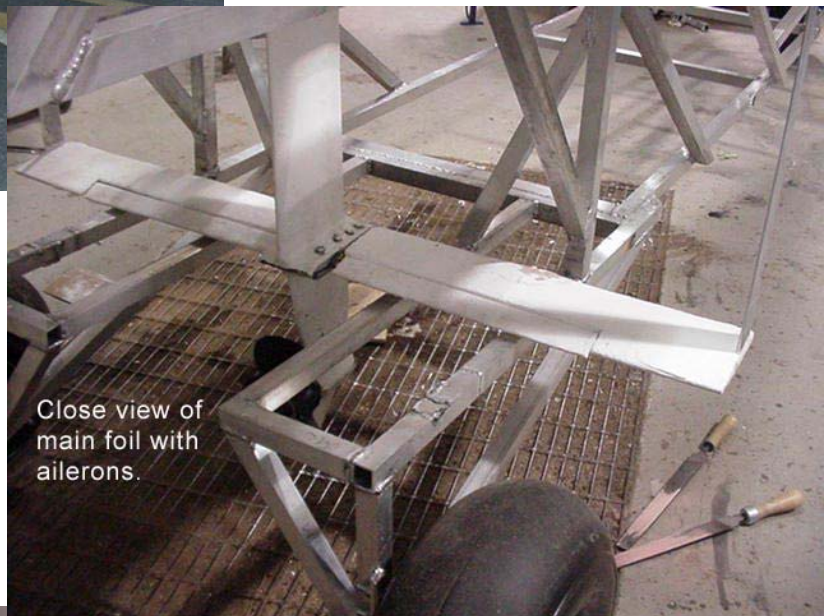


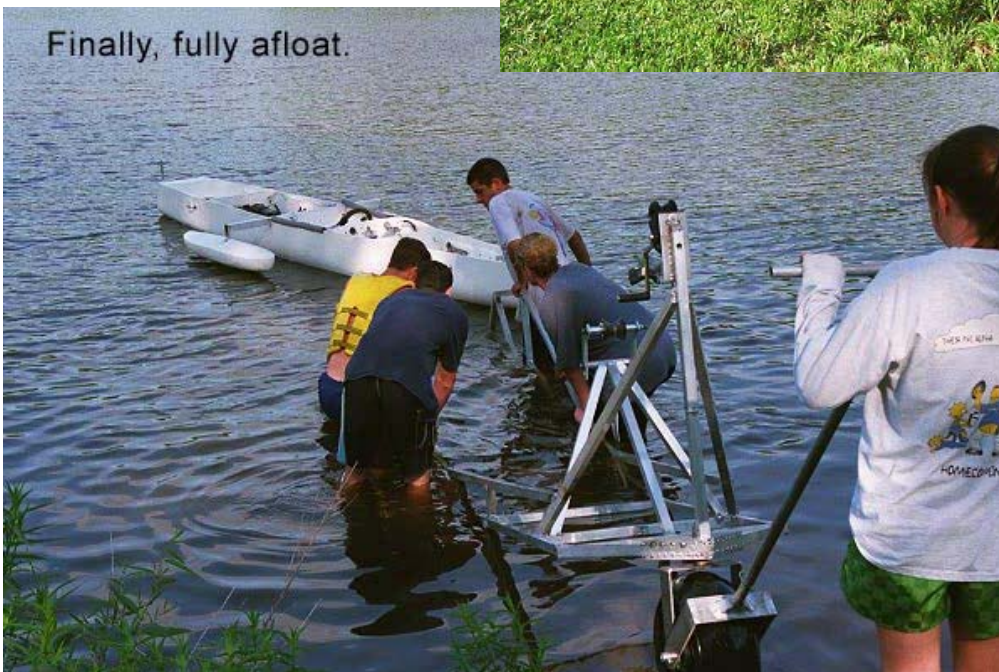
Front steering fork and Roleez wheel for dolly.



Completed dolly. Boat loaded,
ready for first testing.







Erin gets ready for first test
in endurance config.



Greg sorts out controls for endurance test.

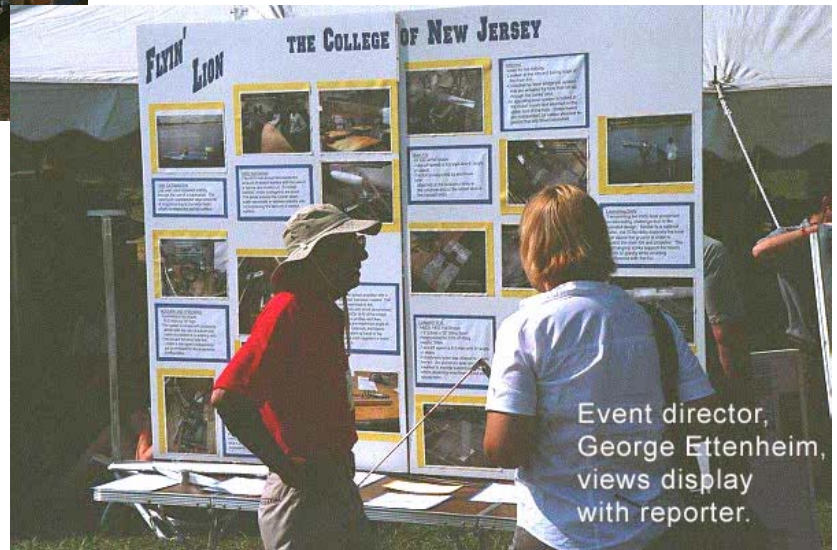


Tom's first time at the helm.



SOLAR SPLASH 2000 – June 7th Lake Ponchartrain, New Orleans, LA





Launching into Lake Ponchartrain. Plywood unnecessary for Tom's dolly design.



Greg, rounding tetrahedron, in slalom event.



Retrieving the "Flyin' Lion" following successful qualifications. Greg's mom and sister taking pictures.





Mandy driving the first endurance heat.

Mandy, Tom, and Oliver monitoring recharging
of batteries from solar panels between events.



Erin rounding tetrahedron in second,
two hour, endurance heat.





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