

August, 1999

The College of New Jersey

1999 Solar Electric Boat Design Team

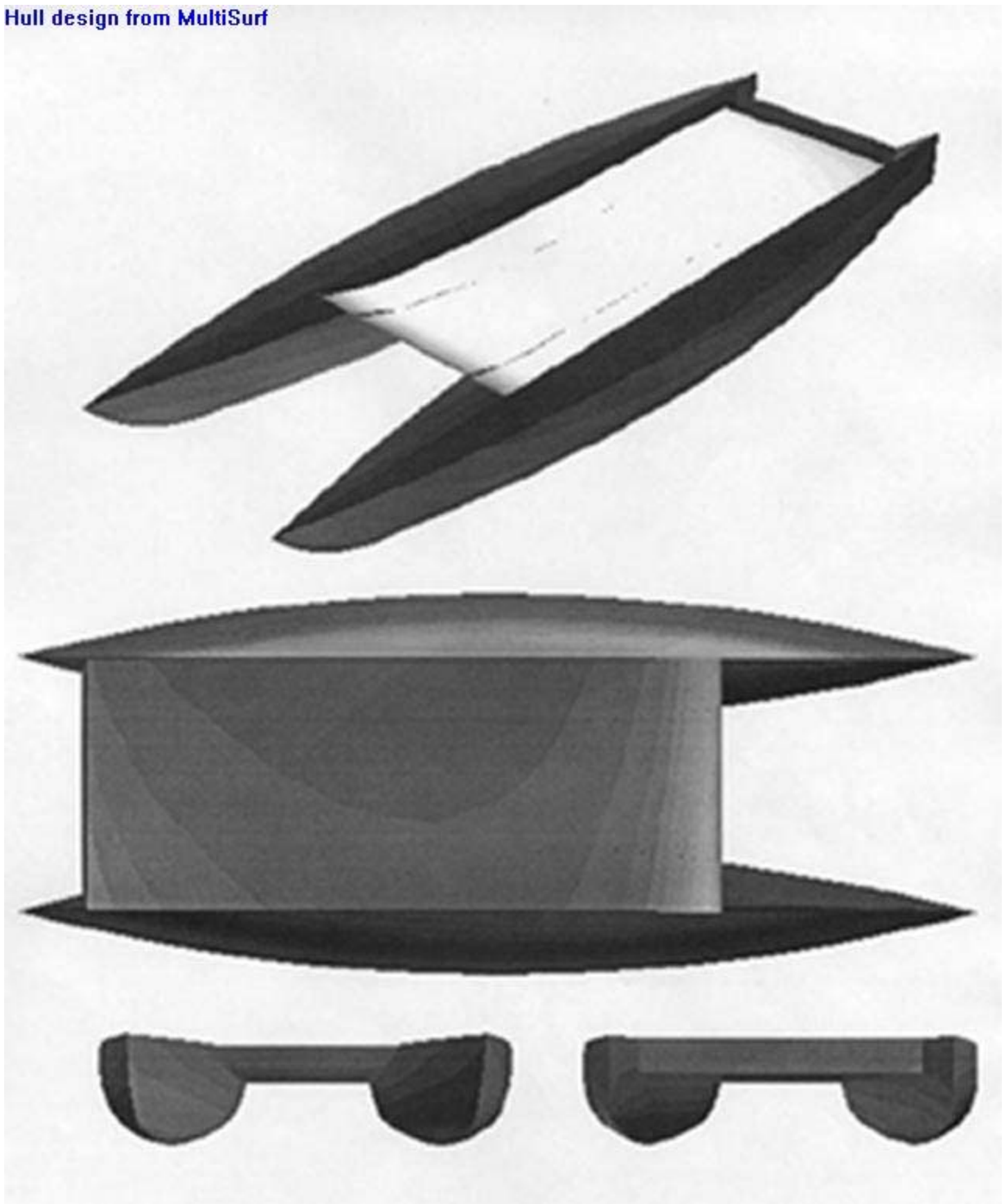


The team from the left: Dr. Norman “Doc” Asper, Tom Batten (soph.), James Zellman (Sr. Designer/Builder), Mandy Newman (2000 team), Michael Yack (Sr. Designer/Builder), Mireille Kimberly (2000 team), Gregg Bonstein (2000 team)

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The following photo gallery chronicles the events leading to The College of New Jersey’s Engineering Department’s initial entry into the 1999 Solar Splash competition in Milwaukee, WI.

Hull design from MultiSurf



The Catamaran Hull Fabrication



Full size CADD plot from MultiSurf



James & Mike Cutting plug keelson profile



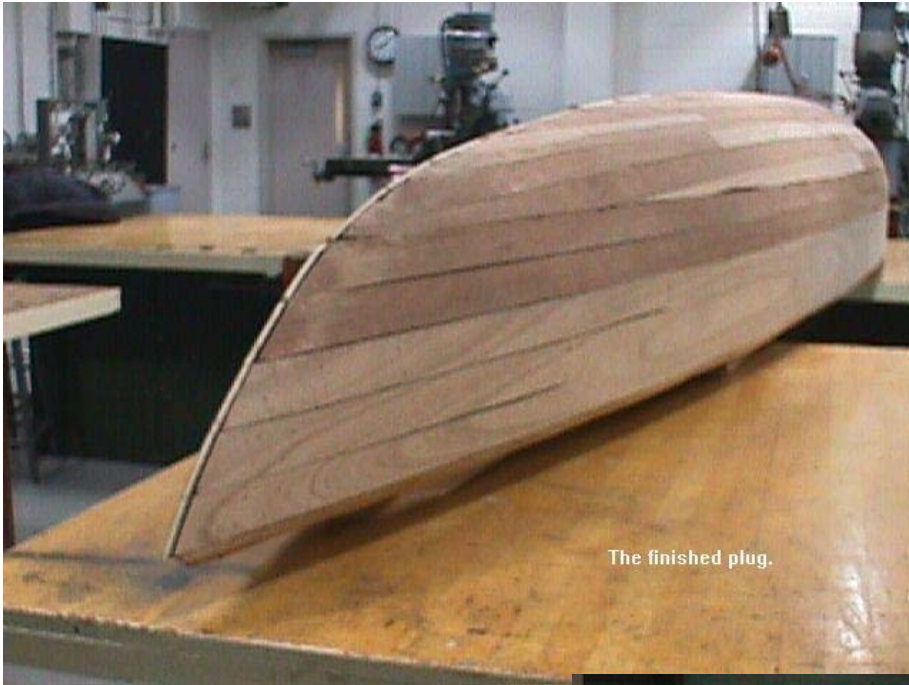
James setting the keelson
for the hull plug.



Plug, viewed from the bow



Final strips being applied to plug



The finished plug.



Plug sealed to accept foam and glass



Applying foam to plug



Foam formed over plug - joints bonded and filled, ready to be glassed



James preping plug to lay-up the platform which will connect the two hulls of the catamaran.



Platform, ready to be bonded to hulls.



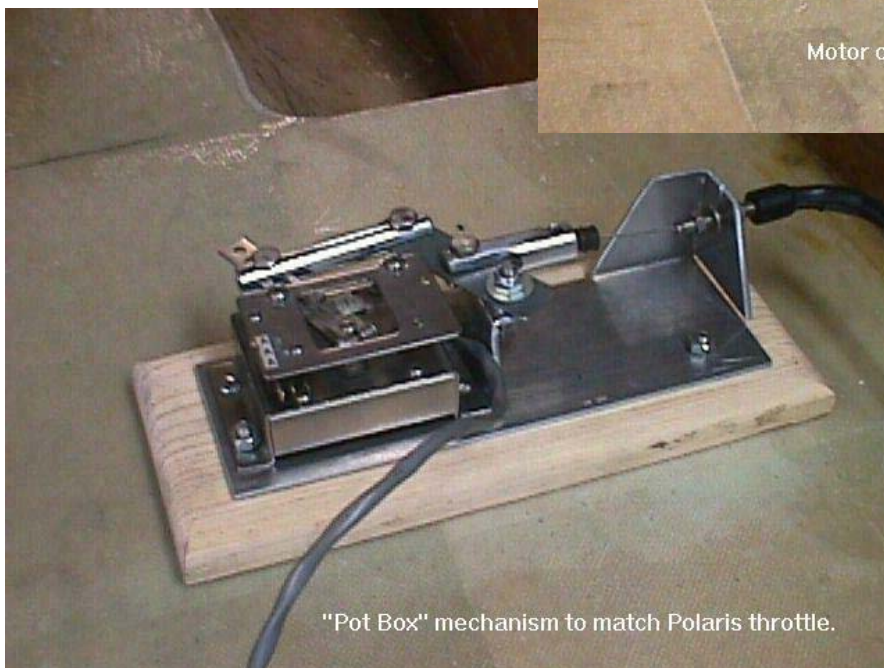
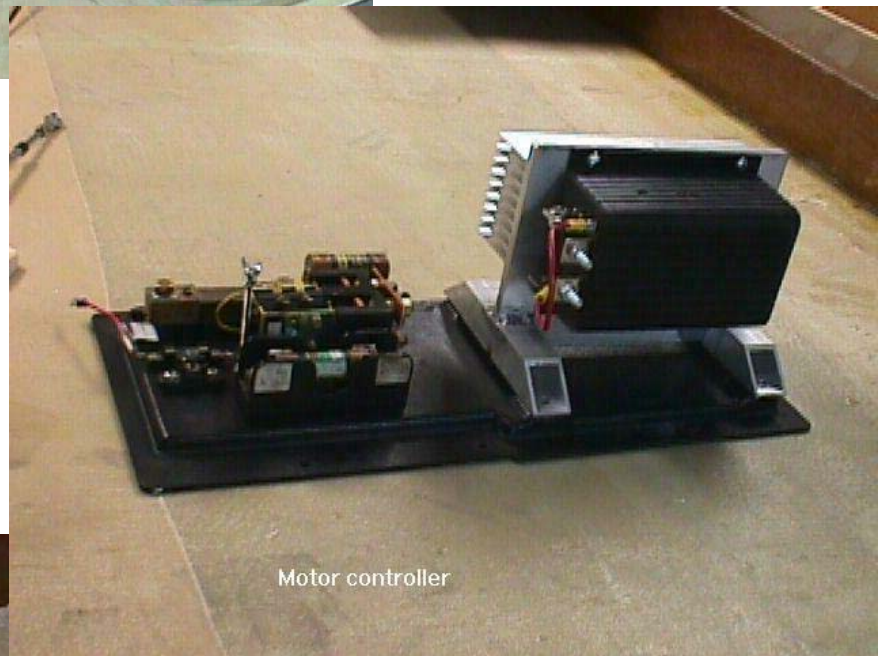
Would you believe 16 pounds?



Both hulls lifted from plug.

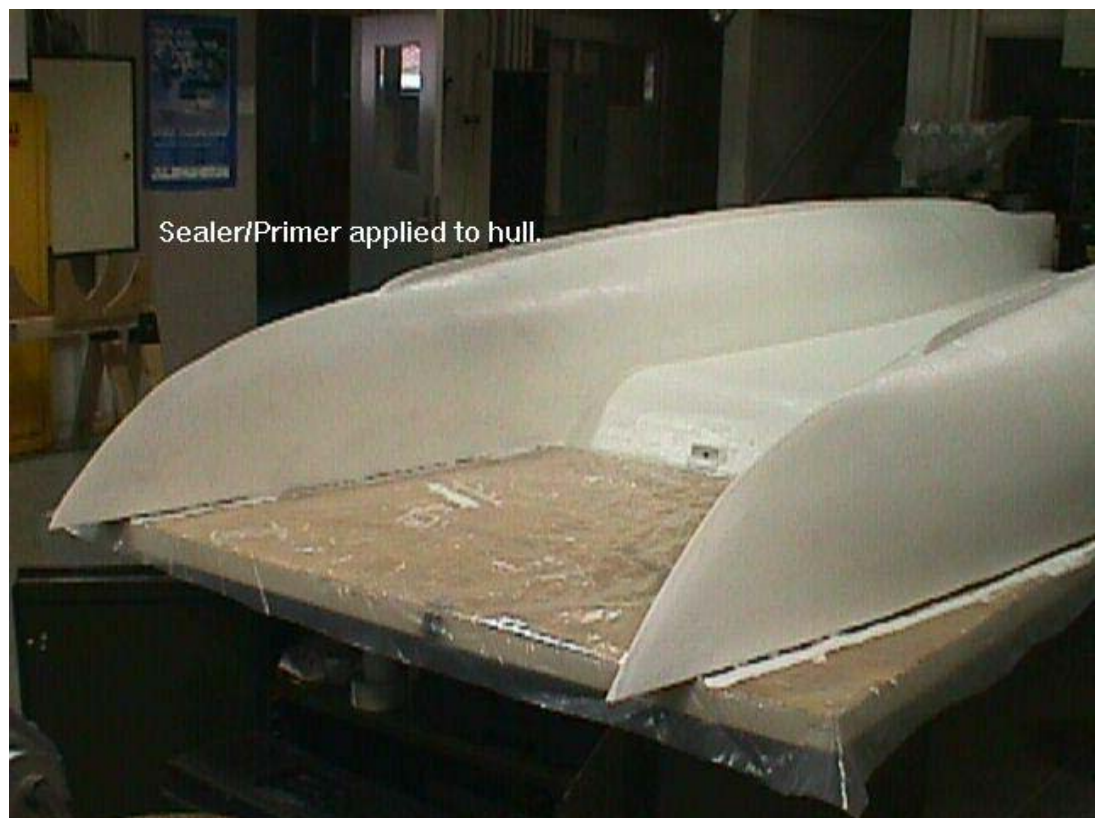


Platform fitted to hulls with bulkheads in place.





Trimming the A/B foam from the filled compartments



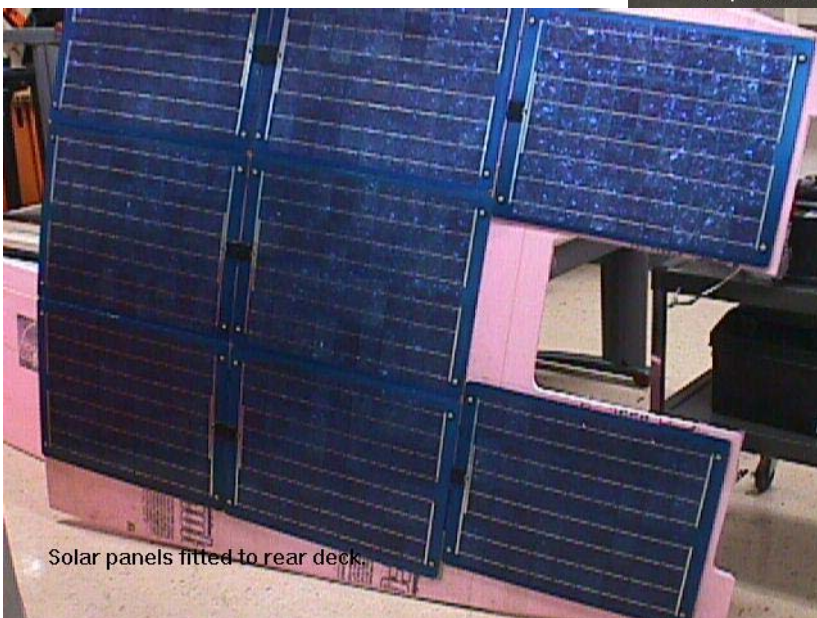
Sealer/Primer applied to hull.



Solar array deck frame in place.



Foam base for Solar Array Deck, glassed, with pads for mounting solar panels.

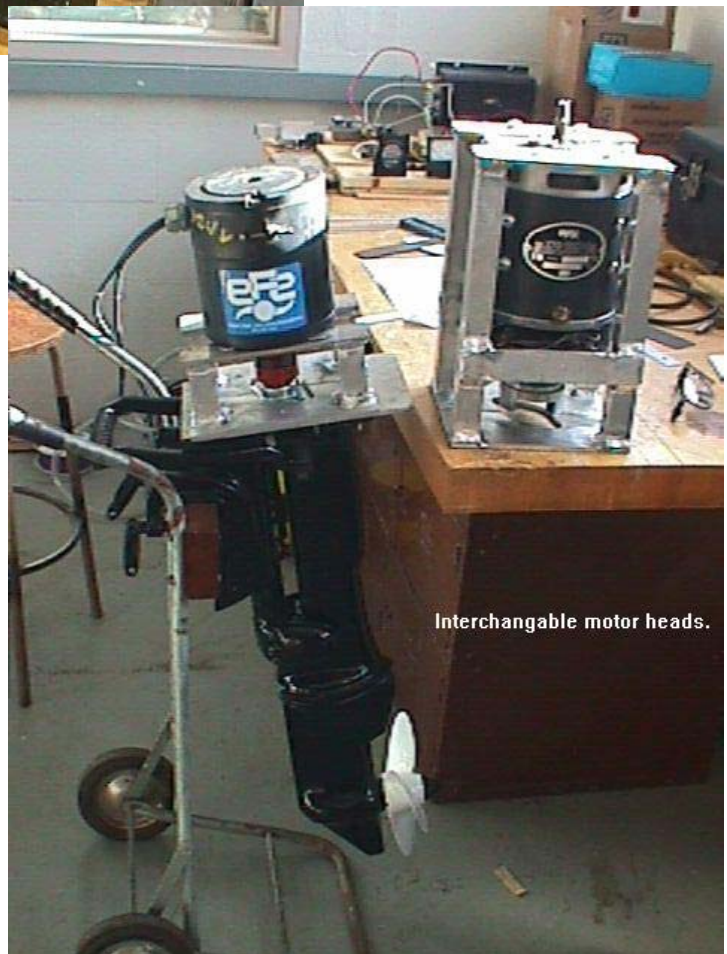


Solar panels fitted to rear deck.

The Power Units



James and Michael dyno testing the endurance motor.



Interchangeable motor heads.



Endurance motor configuration.

The spring motor configuration



Both motors in "quick change" frame w/props.

Final Prep and Testing



Mike and James with Joe Petrella, the freshman designer and fabricator of the "Launching Dolly"



Loading boat on dolly for first water test.



James in the boat for the first time on the water.
Michael pushing off.



Both James and Michael in boat - broken steering, but it runs well!



James in boat - sprint configuration.



Mandy and Tom wiring the solar arrays.



Mireille prepping display boards.

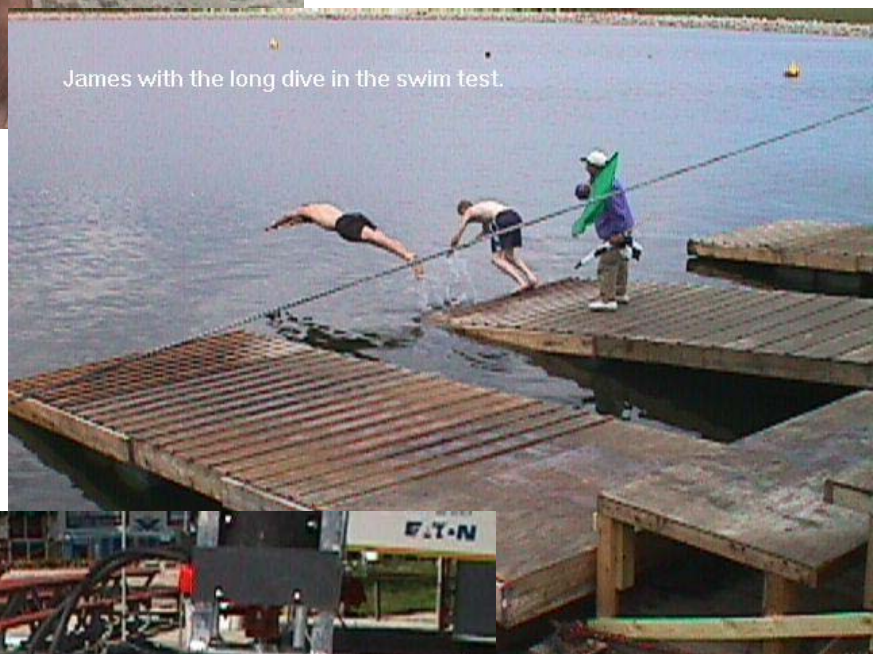
Solar Splash '99 Milwaukee, WI June 16 – 20, 1999



The team in Milwaukee - from the left,
Mireille, James, Michael, Greg, Mandy, and Tom.



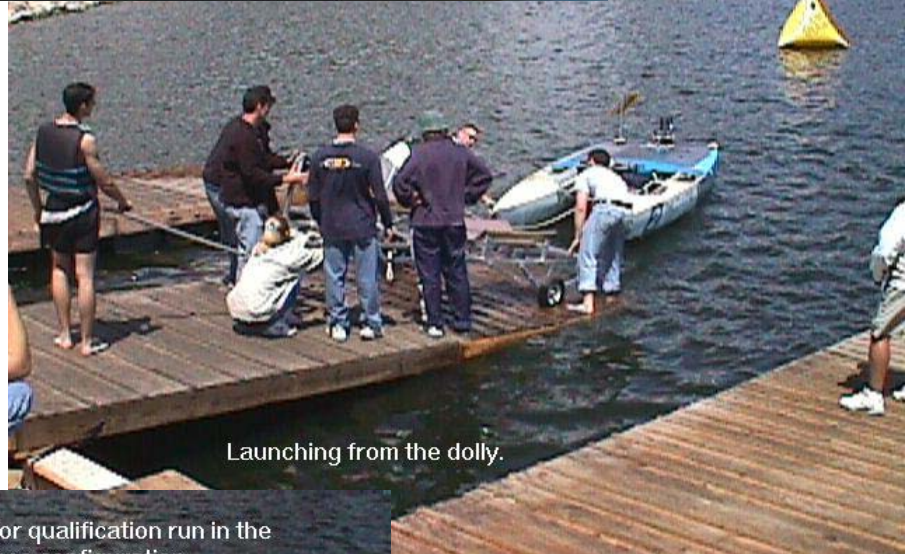
Michael after second fastest time in swim test.



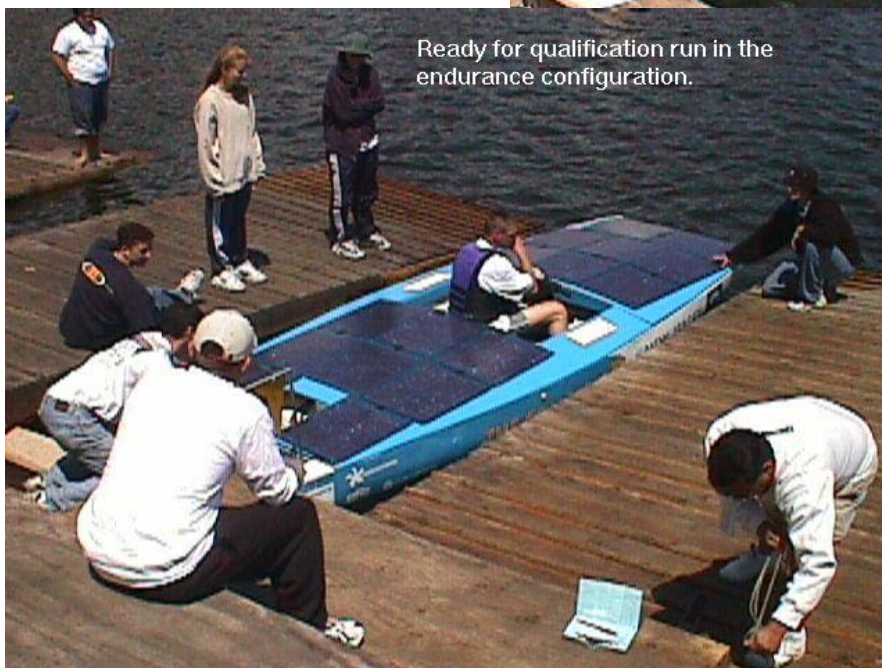
James with the long dive in the swim test.



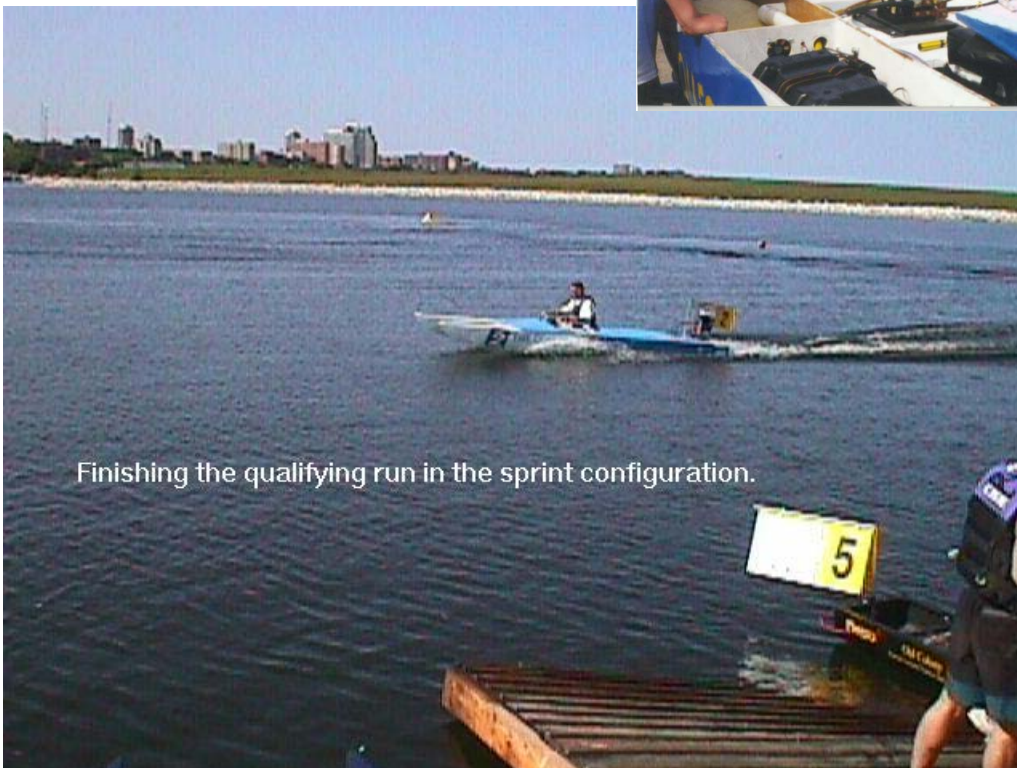
Some of our sponsors.



Launching from the dolly.



Ready for qualification run in the endurance configuration.



Finishing the qualifying run in the sprint configuration.



ASME NEWS

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Designed to Make Waves



Twelve teams from 11 schools took part in the 1999 Solar Splash, the annual solar boat competition. This year, teams represented institutions from the United States, Japan and Puerto Rico (front). For event results, see story on page 4.

Return to Norm Asper's Web Site