

These computer-generated artist's impressions of the Quicksilver craft, viewed from the side and from above, reveal the unique configuration of the striking new World Water Speed Record challenger. Elite Consulting are Technical Associates for the project. See the news item below.

MAIN NEWS

Elite Supports World Water Speed Record Bid

We are pleased to announce that Elite has become a Technical Associate for the Quicksilver World Water Speed Record Challenge. We will be the Official Finite Element Analysis (FEA) Specialist and Structural Consultant to the Quicksilver Team. We will be using Pro/MECHANICA[®] from PTC[®] to analyse the structure of the craft. PTC is also a Quicksilver sponsor.

Ray Ellender, Elite Consulting's Managing Director said, "I am delighted to be supporting a British World Record attempt. After the success on land it is time for the World Water Speed Record to return to its rightful home." See the reverse side of the Newsletter for more information about this exciting project.

Rod Giles is appointed as Technical Director

Rod Giles has been promoted to the position of Technical Director. Rod has worked for Elite since 1997 as Principal Analyst and has taken a lead role in the management of many engineering analysis projects for clients in the automotive, aerospace and rail industries. Rod has previously worked for Rover and Lotus and while he was at Lotus he carried out the structural analysis of the Lotus 'Superbike' that Chris Boardman used to win Olympic Gold in 1992.

Since joining Elite Consulting, he has headed design analysis projects in a wide variety of industries, and gained recognition by PTC as a Certified Engineering Provider.

Rod Giles has been awarded Advanced Registered Analyst Status by NAFEMS

Rod Giles has been awarded Advanced Registered Analyst status by NAFEMS. The Registered Analyst Qualification signifies a high degree of competency and ability in the field of engineering analysis as it is only gained following a rigorous assessment procedure. There are two levels of qualification, standard and advanced level.

Pro/MECHANICA User Group

The next meeting of the user group has been provisionally arranged for Wednesday 2nd May 2001 at the Rand offices in Nottingham. Please see the user group web site at www.promechuser.org for further details.



World Water Speed Record Challenge

The *Quicksilver* team plans to make its record challenge on Coniston Water in England's Lake District. Subject to gaining the necessary approvals, the record bid is scheduled for Winter 2001/2002.

Quicksilver will be driven by Nigel Macknight – the man whose enthusiasm started the project a decade ago. He heads-up Quicksilver (WSR) Ltd., the company formed in 1991 to manage the venture.

Designing and building the *Quicksilver* craft is a major technical challenge, but there is an impressive array of talent to meet that challenge – top-level design personnel and sponsors with not only the know-how and facilities, but also the commitment, to fulfil the team's aspirations.

In common with all high-speed waterborne craft, *Quicksilver* will skim over the water rather than plough through it. Achieving a rapid transition from the "displacement condition" (meaning *in* the water) to the "planing condition" (*on* the water) has been a critical design challenge. Tests of scale models in windtunnels and water-tanks have helped to refine the shape of the craft.

Quicksilver will be powered by a single Rolls-Royce Spey 101 turbofan engine. This variant of the Spey powered the

British Aerospace/Hawker Siddeley Buccaneer.

Quicksilver's structure will be an ingenious marriage of high-tensile steel tubing and honeycomb sandwich panels. The steel tubing, made to aircraft standards, has been manufactured by Accles & Pollock from material supplied by British Steel. The honeycomb sandwich panels will be manufactured by Hexcel Composites, of Duxford near Cambridge. Elite Consulting will analyse this structure for stress and stiffness to ensure that it will have the integrity required for such a demanding job.

For more information about *Quicksilver*, and details of the official supporters' club, *Club Quicksilver*, go to the *Quicksilver* website www.quicksilver-wsr.co.uk

Free *Club Quicksilver* Membership?

We are giving away *Club Quicksilver* membership to the first 10 enquiries received from either our web site at www.elite-consulting.com or by fax at our Milton Keynes office, Fax number 01 908 618233. Please indicate on your enquiry that you would like to take up the *Club Quicksilver* membership offer. The usual cost of joining *Club Quicksilver* is £25 per year.

Project Management

Ray Ellender, Managing Director, spent most of last year acting as Project Manager for a couple of major projects for our clients in the automotive industry.

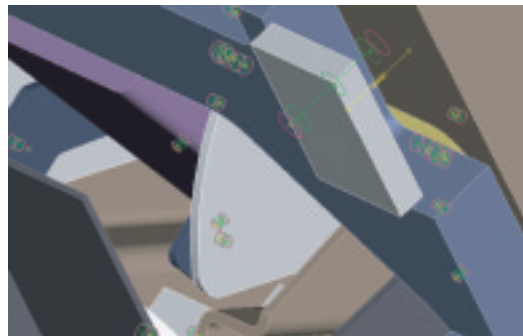
The first was a Feasibility Study for a new vehicle, comprising product definition, market research and strategy and business case projections to determine project viability. The second was as Project Manager for a new vehicle programme to see it through the final design and prototype stages and into Pre-Production. This involved ensuring timing and Project Gateway requirements were met.

Other members of our engineering team have significant project management experience across a diverse range of industries, including major process plant installations and the development of new manufacturing facilities.

If you wish to know more about our Project Management Services contact Ray Ellender in our Milton Keynes office.

Hints and Tips

Pro/MECHANICA® 2000i² and Spot Welds



The use of spot-welds to join large assemblies together in Pro/MECHANICA 2000i² can require some special techniques. See the technical note on this subject at www.elite-consulting.com

Elite Consulting on the Web

Our web site has recently had a make-over and now has a new look with updated content. If you want to keep up-to-date with all our news just keep clicking on www.elite-consulting.com

Elite in the South

Clients in the south east and south west of the country are now being fully supported by consultants based in our Milton Keynes office. Our Southern office is no longer operational.

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