Row for it!

Two of life's great mysteries. How can you have a World Series when only one nation participates? Why do a large proportion of rowers from the Northern Hemisphere wear cotton t-shirts under their performance fabric one-piece suits? It would be churlish in the extreme to place the first at the feet of wishful thinking and, in any case, the sport concerned is beyond the remit of this feature, but the high incidence of cotton t-shirt wearing among the world's top rowers can only be explained by zero-tolerance with anything other than a natural fibre. Cotton gets wet, stays wet and is subject to heat transmission of some magnitude in even the slightest breeze. Not good for a sport that requires close proximity to water and takes place in wide open spaces that attract air movement.

Part of the reason may well lie in the level of physical output inherent in competitive rowing. We have reports of top rowers being offered shirts in DuPont CoolMax, a mix of cotton and elastane, or Supplex and Lycra and yet not giving any one of them little more than a cursory trial before demanding a return to the comfort of pure cotton, despite the proven textile performance benefits involved. It may be sensibly argued that in the extremes of hard physical output generated over a comparatively short timescale, the question of the fabric content of a t-shirt is of minor importance and therefore guaranteed to generate impatience if questioned closely. Nevertheless, the opposing view would place the undoubted benefits of high wickability, warm air held close to the skin and rapid drying as a major plus to a sport where any physical distraction can regulate personal performance.

Rowing is one of those under-pinning athletic activities which periodically catch the public attention because of the outstanding achievement delivered by one performer or team. Hence the overriding interest throughout Great Britain following on from the achievements at the Sydney Olympics in September last year. Gold medals for coxless four and men's eight, and silver for the women's quadruple sculls are not to be sniffed at and that is without even naming the personal achievements involved.

The training schedules rank among the most punishing. The clothing required to sustain a level of performance must provide protection against several external irritants: cold, wet, and UVR and also offer an alleviation of the personal discomfort caused by strenuous output - chafing, perspiration and heat. Modern performance fibres provide most of the answers, often more than one, and the specialised clothing manufacturers have been more than averagely enthusiastic in their use of textile technology.

Stre-e-e-e-tch

A case in point has been the sector's use of DuPont Lycra. "How did we ever function without it?" asked Judith Godfrey of UK-based Godfrey Rowsports, "Since it first appeared in the 60s (sic) the business of producing rowing clothing that fits closely, but without restriction, has been made so much easier."

In the 21st century we find the fibre being combined with a variety of others to provide much more than just a good fit. Cotton in various weights for next-to-skin comfort, DuPont CoolMax to provide moisture vapour transmission (MVT), Supplex nylon for durability and fast drying. Lycra itself has one of the leading UV protection ratings available from the textile industry. The form-fitting effect of the finished designs using flatlock seaming has virtually eliminated chafing on skin softened by external contact with water and internal perspiration output.

In common with track and field athletes, modern rowers favour the one-piece suit for both training and competition. Godfrey names its product the All-in-one. North America in the shape of JL Designs of California and RegattaSport from Ontario, Canada, use Unisuit as a succinct description. This last company has developed a woman's Unisuit that features the main body panels in CoolMax and Lycra but the side panels in polyester and Lycra to maximise stretch. One version is lined with Intera hydrophilic finished fabric to provide extra MVT. One-piece suits may have mid-thigh, knee-length or full-length in-seams according to personal choice or performance requirements, and a double seat panel is usually a standard feature.



Women's Unisuit from RegattaSport.



RegattaSport's racer shirt and tights. The tights feature a double seat made with Malden Mills Powerstretch fleece.

This is not to say that shorts or tights are not acceptable at the best of rowing clubs. The former garment is increasingly in demand in the longer leg length (mid thigh) and with a relatively high Lycra content. Godfrey makes a feature of its High Back design developed to protect the vulnerable lower back when training on the more chilly of England's waterways, and RegattaSport's Double Seat short supplements the CoolMax and Lycra main fabric with an inner seat panel of Malden Powerstretch fleece. The question of seat comfort becomes paramount when one considers the pressures involved on that part of body as the rowing action transmits force from the water/blade interface, through the arms and down the trunk to where it is imparted to the boat as an impelling force.

Topping

Modesty, comfort and logic demand that protection for the upper body has as great a technical input as it is possible achieve. For example, Joline Esparza of JL Designs uses CoolMax, Drywick (the company's own development) and polypropylene to cater for the variation in operating conditions. The latest product from the Californian company is a zip-neck shirt in Powerfleece that it says will 'provide the ultimate in warmth'. Joline has an amusing comment on the development of one design of the JL shirt:

"The next generation appeared on a not so cold day when I simply sliced the arms off of one of my CoolMax longsleeves. Months later, I took a handy wire cutter from a workbench at the boathouse and made the final pattern change to the shortsleeve shirt when I slashed a v-neck into the collar. Much better."

Fleece plays a substantial part in the clothing for a sport that can entail standing around for hours on the slipway in biting winds as often as it does in summer heat. Judith Godfrey again:

"The most successful, and therefore most useful, outer garment is undoubtedly the fleece gilet. Instant comfort. Free movement for the arms and a small packed volume."

Across the industry, gilet designs vary from full-length to half zip and with or without pockets. RegattaSport uses Huntingdon Mills Yukon fleece in a wide variety of colour ways and features one model with a ripstop nylon back shell which incorporates a retroreflective strip of 3M Scotchlite. JL calls its pullover style the Turtleshell and offers a side entry zip facility if required.

Protection from airborne water - whether from above or below - is particularly relevant. Waterproof breathable laminates play their full part, but, surprisingly to one used to land-borne pursuits, they do not feature heavy weight base fabrics. Supplex or unbranded nylons, often incorporating a technical lining and usually in a pullover design, make up the bulk of the offerings. Design concessions to the sport are restricted to an extended back length and, in the case of JL Designs, polypropylene stretch panels to facilitate the stroke movement.



A form-fitting Board shirt from RegattaSport. Modelled on surfwear in Supplex/Lycra.

Surprise

When reporting on the clothing developed for use in the more esoteric sports, one is often surprised when accepted norms are turned on their heads. In the case of rowing it occurred when looking at the fabrics used for waterproof wear. Much lighter than anticipated and, in one case, making a high point of seam sealing – a feature which no outdoor pursuits garment manufacturer would consider anything other than perfectly normal.

Again, one returns to the question posed at the head of the feature, why on earth would anyone involved in watersports wear a cotton interlock t-shirt under a performance fabric?

Derryck Draper