CHALLENGE! –

To the membership of BASM

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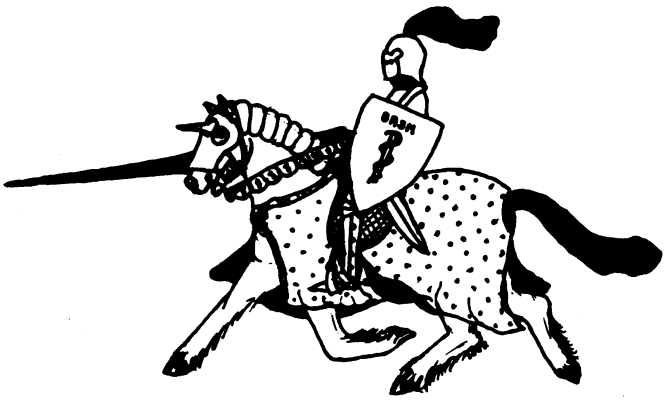

SPORTS SCIENCE & MEDICINE AND PUBLIC SECTOR RECREATION IN THE UK

Over the last few years I have talked with a large number of sports scientists as well as the technical managers of at least 500 companies with products relevant to the improvement of sports training, diagnosis and research. I have also "ploughed" through over 2,000 relevant papers from all over the world and I do not believe that National and Olympic Coaches and top players from some 80 sports in the UK would have understood much of the contents or been able to translate them into practical effect.

In short there is a communications and credibility gap – very few of these players have been tested using gas analysers, computerised isokinetic workstations, two or three dimensional high speed videorecording or film, digital television and/or computerised biomechanics.

At the finish of the 1984 Olympics I wrote to a large number of National and Olympic Coaches and their Associations suggesting that our performance had been poor but had been obfuscated by a few track athletes and our few Gold Medallists. In addition the Olympics are a poor indicator of International Standings as the numbers per country are both limited by the IOC and the moneys available to support their visit to the site of each Games.

A considerable number took the trouble to come back to me but it was clear that they were both unhappy but too far removed from their Associations and sources of finance to implement any practical action and also, almost without exception, they did not know what to do. I received requests to cost "total scientific programmes" whatever these might mean which would have had no guarantee of acceptance by a single squad member!

I have also contacted virtually every University and College Sports Science and Physical Education Department in the UK and always the cry was that "we have no money". Well to be blunt that is your own fault – Public Sector Recreation, to which you belong, requires a £2,000 million annual subsidy each year so it is the distribution of those funds which should be altered and you are the group who should be qualified to produce the evidence and back it up technically, statistically and morally.

When you sit back and allow enthusiastic amateurs on local councils to take decisions involving five, tens and now even hundreds of millions of pounds at a single stroke, then you can hardly complain when you are kept short. University swimming and related research in this country is poor and recent Gold Medallists have had to go to the States to train. £500 million goes literally down the drain in public sector swimming pools each year and perhaps 3% of the adult population regularly swim in Local Authority Pools when there is clear evidence that swimming is the safest and most efficient (in terms of time and expended energy) form of exercise for almost every sedentary businessman and woman aged 30 or over.

Much of your research is into the minutae when the basics have not been established. Again taking swimming, what one needs is a completely controllable environment – a transparent thermoplastic tube which is hydro-dynamically contoured to reduce shock-waves within which the depth, temperature and even the density of water is variable to create the optimal "fast" water. Unlike the extremely expensive static flumes already available, it should incorporate series of steam/water jets to provide both a resistance and direct thermal comfort. Air, friction and elastic resistance options should also be available.

There is a British company with worldwide leadership in waterproofed and pressurised robotics who is prepared to develop simulation of the complete upper torso today. This would have the capability of variable limb breadth and length and repeat movements to within a one millimetre precision in all three dimensions. At present we are having to negotiate with overseas sources for its construction and involvement in defining crawl swimming.

One sports journal editor said to me at our first meeting – "Oh you're the person who thinks he knows everything – we throw your letters into our waste basket." Many sports officials say "What did you play for England at and where is your Loughborough Sports Science Degree?" These statements are understandable but may also indicate why almost every aspect of British sport is in a total financial mess.

It is feasible to construct a completely controllable environment for running with a synthetic surface whose rebound characteristics could be altered every 0.2 metres *after* it had been erected. The Americans do not have this and yet the Government has seen fit to disband the GLC Polymeric Science Unit next year and their expertise may well be totally lost to this country. Many of you have access to synthetic tracks but almost no relevant diagnostic equipment and yet you are sitting back and letting this happen.

I have built at my own expense a series of prototype launchers which fired most sports balls at any speed up to their breaking point – footballs up to 600 metres or down to dropping out the barrel – 300 mph shuttlecocks and table tennis balls when the

manufacturers said it was impossible. We have swung cricket balls 1½ metres over a pitch length and could fire golfballs two miles when the existing RAPRA/R & A test unit could have been built by Heath Robinson. What do you sports scientists say – "We'd love to be given a unit for our research work."

Companies like CYBEX, HydraFitness, TYGR and many others are developing more and more dependable and sophisticated isokinetic workstation assemblies and many of you are still messing about with "MultiGyms". Why not get units installed into vans and share them between many local units to reduce the capital costs as well as getting the companies to co-ordinate research in the same areas so that the massive worldwide duplication of research is reduced?

Companies like Hughes and Hitachi are building very sophisticated real time thermographic units and we all know that many squash courts are operating at incorrect temperatures and with inadequate air changes and that their historical dimensions are quite possibly dangerous for certain categories of players. The SRA takes a sizeable levy per court but no one is making them research these areas.

There are highly developed digital image processing systems into which real time fluoroscopic X-rays, thermographics and many other visual systems can be integrated but no one is using them as you are frightened off by the capital costs which still represent less than 1% of some of the capital follies which you are allowing to be perpetrated such as the Brixton Recreation Centre. Some of your Institutions run Recreation Management departments which are simply not digging deeply enough into the wastages generated within local Authority Recreation Departments. I have just spent 50 hours going through the ledgers of Birmingham City Council's Recreation & Education Departments exercising my rights under the provisions of the Local Government Finance Act 1982. My Report will be made available to relevant Birmingham Ratepayers who have paid a 40%+ increase this year. Copies can probably be made available to interested parties attending the BASM Congress in Birmingham in November. This work was totally self-financed but should be done for the major cities as a matter of course by the Sports Recreation Council and its Regional Offices (265 staff) assisted by Recreation Management Tutors from the major Universities and Colleges.

Many of the major sports equipment manufacturers in the world have almost no scientific test programmes and many more make pseudo-scientific claims for new products each year. Very few test programmes are undertaken in the UK so that few of these claims are ever contested so that the consumer finds the available range totally confusing. Consequently most UK manufacturers of sports equipment, clothing, footwear and facilities or agents are undercapitalised, hold inadequate stocks and have poor technical capabilities.

The finances for this work is not going to come from the manufacturers – it should come from the Sports Council but many of their permanent staff are simply going through the motions until they retire and many of the senior Sports Association Committee members are more involved in the power and status. Those of you with the necessary enthusiasm, expertise and conviction should organise a programme to examine just what could be done to assist each sport by question-answers with those who actually have to do the achieving and guiding.

Those few television programmes which have examined how sport science can help have tended to lose credibility by claims being made which could not be backed up. There is a wide gap between theory and practical implementation and this needs to be closed as the first priority.

I have talked to many immediate Sports Science Graduates with absolutely no knowledge of robotics, high pressure pneumatics and kinetic launchers and the related aerodynamics of sports balls (except for reading the "Physics of Ball Games"), image and array processing, lasers, fibre optics, thermoplastics and literally hundreds of other relevant areas.

One leading sports scientist said to me "when our graduates achieve high places then things will change." Many of his and other graduates are now well placed within Local Authorities and commercial companies but things are not improving. Only by you getting together and deciding priorities for a course of action are things going to change. You cannot complain about lack of funds or the conservatism of those providing them if you are not prepared to stand up and be counted. I have put my own money where my mouth is and I invite you to do the same or accept the situation as it stands and allow myself and other persons to take our complementary expertises abroad for the benefit of your future competitors.

The rest of the world sports industry is not as advanced as you would like to think. Many major companies are virtually insolvent and most associations are still controlled by people with no business, economic or scientific training. The dynamic ones are the agents and the top players and they are taking large sums of money out of sport each year and quite reasonably not investing back into it. The only action which can halt this trend will be to either produce many more players of a much higher standard for deflationary wage movements and/or get more television (satellite, cable and network) interest and therefore finances directed to the grass roots of each sport including practical research with far greater worldwide co-operation around standardised equipment and controllable environments. It really is up to you!