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TIMES ONLINE



“ Like any dictatorship, China is more terrified of its own people than of other nations ” Dominic Lawson

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From The Times

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Sky put wheels in motion to become world's best team



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Team Sky are clearly not shy. Their stated ambition is to become the best sports team in the world. And we are not talking just about the cycling world. All this despite the fact that they have not even ridden a single meaningful race.

The racing starts for real tomorrow in the Tour Down Under in Adelaide — at which point we can judge whether the quality of their riding can match the grandeur of their rhetoric. They say they look at everything and anything that can provide a competitive advantage, that can help their nine riders in this summer's Tour de France find a way to the podium. And so the subject for today is marginal gains.

Team Sky talk a lot about marginal gains. It is like an obsession. So here we present nine gains: nine improvements for nine riders. Nine reasons why Team Sky may indeed have a marginal advantage.

1 Vanity is alive and well in the peloton these days. Mark Cavendish rides a bike adorned with personalised Second World War imagery; Lance Armstrong rode into Paris on the last stage of last year's Tour on a bike personally designed by Damien Hirst. Team Sky? They only want to go faster — so they have gone the other way. Only 25 per cent of the carbon frame of their Pinarello bikes has been painted. This is estimated to have saved 50 grams of weight which roughly equates to half a cup of sifted flour. After 100 miles in the mountains, this is a clear advantage.

2 Weight and aerodynamism are the fixation for those infatuated with speed on a bike. Every piece of kit that Team Sky will wear has therefore been wind-tunnel tested at Southampton University. It has been claimed (though unproven) that Team Sky have the most aerodynamic pair of cycling shorts in the game. The collars on the shirts have been tapered to avoid rubbing the Adam's apple. Yes, Adam's apple rub has been an issue in the past. But it gets better: Team Sky will not put out their wares for all to see; they are holding back certain pieces of kit and equipment. So it is not only a question of having the best shorts, it is the tactics of when you are going to use them.

3 Tactics. When you are out on the road, everyone wants to know what yours are. Some teams have used listening devices to allow them to tune into the radio conversations between the riders and directors of opposition teams. This is simple sporting espionage. So Team Sky are working on a scramble device to ensure that they get a secure network. They have also consulted the military to find ways to improve communication clarity. And they are utilising the advantage of being a new set-up: it provides the opportunity to have a fresh look at accepted practice. To talk on his radio at present, a rider has to move his hand off the handlebars to push the Press To Talk (PTT) button. When you are at high speed towards the end of a race, taking a hand off the bars is not ideal. So expect soon to see Team Sky's PTT button in the obvious place — on the handlebars.

4 In another challenge to accepted practice, welcome to a bike whose frame is not symmetrical. The facts are simple: because the chain and cogs of the gearing system sit on the right of the bike, it is never evenly weighted. So the new Pinarello frame is stiffer and stronger on one side than the other. This is intended to be an advantage when sprinting out of corners on cobbled roads — in other words, on stage three of the Tour de France.

5 When a rider has finished a race stage, he is knackered and his natural instinct is to get to his team bus as fast as possible. But at the finish there are scores of other team buses and similar large vehicles. There is also a mêlée of media and fans and often he will not know where his bus is. But atop a telescopic contraption that rises from the roof of the Team Sky bus will be a powerful strobe light — a flashing beacon for the Sky riders. And every day, every rider from every other team will see that light and think: I wish we had one of those.

6 And if you cannot see the bus, the bus crew will see you. A lot of work was done on the recognisability of the Team Sky kit. Several different versions of the kit were made, with different colours, and riders were sent out one day to do laps of Richmond Park with Sky camera crews filming. The different pictures were then contrasted to see which colour was picked up best. That is why Team Sky wear blue. But let's not pretend there is not another side to this: the ambition in this project is such that, somewhere down the line, it is hoped that kids will want to be wearing a Team Sky replica jersey, the way they wear Manchester United or Chelsea. Recognisability becomes a commercial gain, too.

7 How well an athlete recovers from extreme exercise is a booming science in sport. Team Sky have thus installed "mood lighting" in the team bus. The lighting was designed by Dr Steve Peters, the team psychiatrist, and it can change for different moods. But if a team has a long drive after a race, and because of the lighting the riders can relax more and thus recover better than their opponents, they have made another marginal gain.

8 If it was not already clear, Team Sky love their bus. They do not call it a coach, they call it a "performance vehicle". It is so high-tech that, after a race, nine riders could be simultaneously Skype-ing their families. It has electronic sliding doors to convert it into three zones. The rear of the bus can become a meeting room, and if that meeting is private, with the touch of a button, the glass can be transformed from clear to opaque. Oh yes, in the belly of the bus, there is a full working laundry — so you can relax, Skype and wash your aerodynamic shorts all at the same time.

9 Stitched into the inside collar of the team jersey are the words: "Ride the Line". The "line" is part of the team mantra, it is the line between winning and losing, between success and failure. But why is sewing it into the jersey a gain? The answer is best provided by Dave Brailsford, the team principal and the British Cycling performance director. "It is to remind the guys that this is something that bonds them together," he said. "It is there all the time, on the days when we're struggling, it psychologically reminds us who we are. We are a new team, we are not like Manchester United or Liverpool with years of folklore and history in our identity. So we had to decide on an identity, to give us a sense of belonging — and this is it, The Line, and we'll ride it every day."

Wheels on fire

Probable key races for Team Sky in their build-up to July's Tour de France **March 7:** Paris-Nice (Fra) **March 20:** Milan-San Remo (Ita) **March 28:** Ghent-Wevelgem (Bel) **April 4:** Tour of Flanders (Bel) **April 11:** Paris-Roubaix (Fra) **April 21:** Flèche Wallonne (Bel) **April 25:** Liège-Bastogne-Liège (Bel) **May 8:** Giro d'Italia (Ita) **May 16:** Tour of California (USA) **June 6:** Dauphiné Libéré (Fra) **June 12:** Tour of Switzerland (Switz) **July 3:** Tour de France (Fra)