

A load of spongers

It's often surprising for people to learn that a layer of paint can make a big difference to the performance of an aircraft.

The weight of the paint is an important factor in design: when a Typhoon aircraft needs a new paint job, the spray shop team won't be able to simply spray over the existing layer. The paint will need to be removed, as having two layers could make all the difference to the aircraft's weight and manoeuvrability.

Traditional methods of removing paint are generally aggressive, using things such as ball bearings to attack the paint. But a new method – sponge jet stripping – is rewriting the rule book.

Sponge jet stripping began as a means of removing paint from the inside of fuselages and airframes, but the method has now been further developed to enable teams to remove paint from the outside of an aircraft.

With the deadline for entries to the Chairman's Award for Innovation scheme looming, *Compass* takes a look at a previous winner

"The technique uses small sponges that are impregnated with a special solution," explains Spray Shop Supervisor Paul Clayton. "The sponges are fired at the painted surface at a pressure of about 200 psi, and they slowly remove the paint. It takes around three weeks to strip one aircraft."

Advantages

There are many advantages to this method, not least the fact that it gives the team much more control. In fact, by reducing the pressure, it's possible to remove a single layer at a time.

"There are also environmental benefits," says Paul. "Traditional wet strip methods release harmful chemicals into the atmosphere, whereas this new technique is much more eco-friendly. We also recycle the sponges several times over."

The spray shop team is currently



applying the technique to a couple of Harrier aircraft (pictured below), but it's likely that sponge jet stripping will play a much more integral role on Typhoon.

"Our success with the Harriers is giving us the opportunity to go out and get more work as a strip and repaint facility," says Paul. "That's something we've never had before. Hopefully that will give us the edge on Typhoon: if you want to remove paint so you can do local repairs on a carbon fibre frame, then this really is the way to do it."



The deadline for submissions to the Chairman's Award for Innovation scheme is 1 July

