Boys in the Hood

DHS S&T Program Manager Jalal Mapar with the Avon EH-15 - a hood that offers protection for 15 minutes from chemical and biological particulates. Credit: Paul Wedig

When first responders and security guards came to the DHS Science and Technology Directorate's " *Tell Us What You Need*" table, heading their list was an emergency escape hood worthy of James Bond: a "one size fits all" concealable hood weighing under a pound, folding to the dimensions of a DVD case, and donnable in ten seconds.

Furthermore, the hood must be maintenance-free, filter nerve, blood, and blister agents, remove toxic industrial chemicals, and fit two-to-a-breast pocket – one for the protectee, the other for the protector.

It was a pretty tall order.

Unlike Kevin Costner's *Bodyguard*, the typical bodyguard finds his daily routine, well, *routine*. For the possible scenario when it's not, however, that guard needs tools that are convenient, stealthy, and swift. Chemical and biological attacks can be accidental, but if a particular protectee, is in a particular place, at a particular time, and comes under attack, it's usually not a coincidence. Chances are good that those in the business and those they are protecting are not carrying around those undeniably unglamorous heavy masks or hoods for the possibility.

Perhaps the DHS Science and Technology Directorate (S&T) might come up with something better?

Done. In less than a year.

Through S&T's open procurement process, Avon Protection Systems of Wiltshire, UK (with offices in Cadillac, MI) was selected in early 2007 to develop and produce a mask with some very tight specifications. Designated the EH-15 (for Escape Hood-15 minutes) this innovative mask, when packed, is only ¾" thick. It provides at least 15 minutes of protection against chemicals and biologics, has a three-year shelf life, and highly efficient particulate filters.

In October 2007, it successfully passed S&T's Design Review. In February, the EH-15 completed its Critical Design Reviews followed by a rigorous test process in March. To date, 10 prototypes have been made and the first batch of EH-15 masks is to be produced in April/May timeframe.

"Crime in this country has indeed included weapons of mass destruction… witness the anthrax attacks in 2001," notes Jalal Mapar, S&T's Program Manager for the EH-15 program. "A concealable escape hood like this will provide protection for both the guard and his protectee until both can get out of a dangerous situation. It was one tough assignment, but I'm glad that we here at S&T were able to develop such a unique mask technology in such a short time."

Source: US Department of Homeland Security