

USA lays out aggressive bioterrorism programme

The USA will “use all means necessary” to prevent and protect against biological-weapon attacks that target it or its global interests, according to a directive issued by US President George W Bush. A declassified version of the directive, entitled *Biodefense*

for the 21st Century, was released by the White House on April 28.

“Consistent with this approach”, the directive reads, “we have improved and will further improve our ability to detect and destroy an adversary’s biological weapons assets before they

can be used. We are also further expanding existing capabilities to interdict enabling technologies and materials.”

Based on a review of US biodefence efforts, the directive lays out a comprehensive framework for future programmes, the White House said.

It outlines four “essential pillars” for biodefence: threat awareness—which will include initiatives to improve intelligence gathering on biological weapons, and anyone who might intend to use them; prevention and protection—which includes initiatives to detect and seize weapons technologies and to disrupt weapons trade; surveillance and detection—which includes the development of “an integrated and comprehensive” attack-warning system to detect biological-agent attacks; and response and recovery—which includes new measures to improve mass-casualty care.

To deter potential attackers, the USA will

improve its forensics capability so it can identify and track down any suspects, the directive says.

Thomas Inglesby, deputy director of the Center for Biosecurity at the University of Pittsburgh Medical Center (Pittsburgh, PA, USA), says the directive shows that the administration is taking the threat of bioterrorism seriously, but the document fails to provide specifics about what needs to be done. He also criticised the lack of detail about which agencies should be involved so that “the best ideas and best practices” can be brought to the effort. “We need more clarity and specificity about who’s running which programme”, he says.

Since the Sept 11, 2001, terror attacks on New York’s World Trade Center and the Pentagon, federal spending for biodefence programmes has increased 17-fold, from US\$294 million in 2001 to \$5.2 billion in 2004.

Michael McCarthy

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Emergency personnel respond to the simulated injuries of a victim in an emergency training exercise

Report blames global warming for rising asthma

Global warming and airborne pollution are fuelling asthma rates, especially in inner-city children, according to a report released on April 29 by Harvard Medical School’s Center for Health and the Global Environment.

The report is the first to comprehensively lay out evidence that burning fossil fuels may be partly to blame for the 160% rise in asthma among preschool children during 1980–94, says Paul Epstein, associate director of the Harvard centre.

Inside the greenhouse: the impacts of CO₂ and climate change on public health in the inner city is, according to Epstein, “part of the growing evidence that our public health is threatened by use of fossil fuels”.

He and his colleagues found that both opportunistic weeds and trees like ragweed, maples, birches, and

poplars are stimulated by higher CO₂ concentrations and produce more pollen earlier each spring.

Increasing temperatures also encourage growth of mould and fungi, and stimulate photochemical smog, all of which contribute to respiratory distress, Epstein and co-workers suggest.

Diesel particles are particularly effective at delivering pollen particles to immune cells in the lungs, which means that inner-city children face dual threats.

“These children get hit with a powerful one-two punch: exposure to the worst air and the additional allergen exposure arising from global warming”, says report co-author Christine Rogers, a senior research scientist at Harvard School of Public Health. Noting that poor children and those from minorities already have the highest incidence of asthma,

Rogers believes the problem will worsen.

The Harvard authors advocate local solutions for reducing greenhouse gases, including strengthening public transportation, planting more trees, and other means of reducing the “heat island” effect in inner cities.

On May 6, Epstein will present the report to the Senate Commerce, Science and Transportation Committee. Two committee members, John McCain and Joseph Lieberman, have introduced a bill to cap CO₂.

Epstein and colleagues are also working with United Nations Development Programme, and with a corporate consortium that includes Swiss Re, BP, and DuPont, on assessing climate-related health and economic threats.

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