

UNITED STATES DEPARTMENT OF THE INTERIOR AVIATION MANAGEMENT

AVIATION ACCIDENT PREVENTION BULLETIN

No. 05-04

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September 21, 2005

Subject: Use of DEET and Permethrin on Nomex Flight Uniforms

Area of Concern: All Aviation Operations

Distribution: Aviation Operations

Discussion: The Missoula Technology and Development Center (MTDC) has published a *Fire Tech Tips* titled “*DEET Mosquito Repellant Reduces the Flame Resistance of Firefighter’s Nomex Clothing*”, July 2005, which documents the increased risk of injury to personnel wearing wildland firefighter Nomex clothing that has been treated with the insect repellent DEET (<http://www.firefighterclosecalls.com/downloads/DEETconcern.pdf>).



Although MTDC tested Nomex clothing worn by wildland firefighters, the message for aviation personnel is clear; DEET mosquito repellant reduces the flame resistance of Nomex clothing. The MTDC Tech Tips states:

MTDC recommends that DEET not be applied to flame resistant clothing. DEET could be applied to the skin so long as the application follows the manufacturer’s instructions. Other products meant to repel mosquitoes also can be used on the skin, so long as the manufacturer’s instructions are followed.

Tests indicate that permethrin products can be used on flame-resistant clothing without diminishing the protective performance of the clothing. Permethrin is to be applied to clothing following the manufacturer’s instructions and allowed to dry before the clothing is worn. Permethrin should not be applied directly to the skin.

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Discussion: (Continued)

Therefore, until publication of a change to the DOI Aviation Life Support Handbook (351DM1), DOI aviation personnel should avoid applying DEET mosquito repellent to Nomex flight uniforms.

DOI aviation personnel may apply DEET mosquito repellent to their skin, following manufacturer's recommendations.

DOI aviation personnel may apply permethrin insecticide to Nomex flight uniforms without destroying the clothing's flame resistance. However, permethrin should not be applied directly to the skin.

/s/ Robert Galloway
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