Because of concerns about the use of depleted uranium in past, current, and future military engagements, Congress directed the General Accounting Office (GAO) to address three specific issues:

- What is the scientific understanding about the health effects from exposure to depleted uranium?
- Are Gulf War veterans experiencing administrative problems with the current medical screening program for depleted uranium health effects?
- To what extent have the services implemented programs to train service members to safely operate in a depleted uranium-contaminated battlefield?

In its Report to Congressional Requestors dated March 29, 2000, the GAO responded to each of these issues. With respect to the health effects issue, the GAO cited the recent expert studies by RAND and by the Agency for Toxic Substances and Disease Registry (ATSDR), which concluded that "current evidence suggests that it is unlikely that inhaled or ingested depleted uranium poses a radiation health hazard, namely cancer." The GAO report further noted that both the RAND and ATSDR reviews cited the kidney as the organ that would show the first adverse health effects from DU's chemical toxicity, and that animal studies had shown that very high doses of uranium may cause kidney failure. Their report also cited the findings of the Baltimore VA's DU Medical Follow-up Program, addressed under TAB P of this report, which indicated no kidney damage was found in the veterans participating in the follow-up program.

The GAO noted that "Some Gulf War veterans experienced problems in fully participating in the medical screening program established to ensure that veterans with higher than normal uranium levels are identified for appropriate monitoring and treatment." Nineteen (14.8 percent) of the 128 veterans concerned indicated they had some administrative problems, ranging from (1) not being contacted by DoD or the Department of Veterans Affairs to arrange an appointment at a medical facility, (2) not receiving the required urine test designed to detect elevated uranium levels, or (3) not being able to understand the test results. However, the GAO stated that the Departments of Defense and Veterans Affairs subsequently corrected or planned to correct each administrative problem the GAO identified.

While the GAO acknowledged that the military services had developed DU safety training for military occupations, they cited problems with training verification. For example, they cited the fact that since the Army and Marines do not monitor DU training status for deployments, the services could not determine if soldiers recently deployed to Kosovo had received the required training. In addition, in its review of general DU awareness training status at 17 Army bases, the GAO noted problems with soldiers who had not received the training because training materials were not available or because they were away from their units when the training was given. The GAO recommended that the "Secretary of Defense ensure, by appropriate monitoring and periodic review of training records, that all servicemembers, including those deployed to Kosovo, receive required depleted uranium safety training."

In response to the GAO's comments on training, Dr. Bernard Rostker acknowledged that the services' implementation continues to fall short of requirements and expectations. As a result, Dr. Rostker, as Under Secretary of the Army, wrote a letter to the Vice Chief of Staff of the Army, calling his attention to the GAO finding and deficiency. In addition, as Special Assistant to the Deputy Secretary of Defense, Dr. Rostker also sent letters to the Chief of Staff of the Air Force, Chief of Naval Operations, and the
Commandant of the Marine Corps reiterating the requirements to ensure compliance with the directives on DU training. With regard to the specific training status of the soldiers in Kosovo, a separate letter was sent to the Director of the Joint Staff. Deputy Secretary of Defense John Hamre also sent a follow-up letter to the Service Secretaries and the Chairman of the Joint Staff emphasizing the importance of DU awareness training.

While these letters will not ensure full compliance with the general DU awareness training requirements, they do emphasize the importance DoD's leadership has placed on this issue. DU training will continue to be one of the major concerns of the Office of the Special Assistant for Gulf War Illnesses and the follow-on Office of the Special Assistant to the Secretary of Defense for Gulf War Illnesses, Medical Readiness, and Military Deployments.

A final area of concern noted by GAO was the reliability of the dose estimates for Level I veterans developed by the US Army Center for Health Promotion and Preventive Medicine (USACHPPM) for servicemembers in, on, or near vehicles when they were struck by DU munitions. The GAO correctly cited ongoing professional disagreements between USACHPPM and the principal author of the critical report used to develop exposure estimates inside the vehicles immediately after impact. As discussed in Tab O, these disagreements centered around the actual sampling time after impact. Even though USACHPPM's latest exposure assessments and health risk characterizations were fully coordinated with the principal author of the underlying research document in a much more complete manner, they do not satisfactorily overcome all of the technical difficulties with the data, in which gaps still exist. However, the additional information derived from medical follow-up of the soldiers involved in these incidents supports more meaningful assessments of their actual exposures. Based on the current results of these health studies, it is clear that the estimated worst-case exposures (including those from the August 1998 Interim Environmental Exposure Report on DU in the Gulf) did not occur. More importantly, to date none of the known clinical manifestations from uranium's radiological or chemical toxicity associated with uranium exposure in other (civilian) exposed groups have been detected in any of the participants in the VA DU Medical Follow-up Program. However, the limitations of the current test data for aerosol concentrations inside a vehicle immediately after impact preclude further refinement of these estimates to fill the existing data shortfalls. Therefore, this office directed the US Army to undertake a testing program to fully characterize DU and its health and safety aspects in combat vehicles struck by DU munitions. As previously noted, this live-fire testing is in the initial planning stages and is expected to be completed in fiscal year 2002.