Testimony of Milton R. Copulos
President, National Defense Council Foundation

Before the House Resources Committee
Subcommittee on Energy and Mineral Resources

September 20, 2006

My name is Milton R. Copulos and I am President of the National Defense Council Foundation. I want to thank the Committee for the opportunity to share my views today. I especially want to commend Chairman Gibbons for his leadership in calling attention to our nation's dangerous import dependence on nonfuel minerals and to the urgent need for a source of accurate timely information on both domestic and international mineral commodity markets.

Although most Americans are now aware of our dangerous dependence on imported oil, most have little conception of our equally dangerous dependence on imported nonfuel minerals. Indeed, while many commentators express concern at our 65.5% oil import dependence, few, if any raise an alarm over the fact that we rely entirely on imports for 16 critical mineral commodities, and for 42 for more than half of our needs. The implications of this dependence for our economy and our ability to defend ourselves cannot be overstated.

For example, we are 100% dependent on imports for our supplies of Yttrium, which is essential to the manufacture of key defense products such as aircraft components, radar and microwave transmitters. We are also totally dependent on imports for our supplies of rare earths which are also essential to the manufacture of radars as well as computer monitors and permanent magnets. Or consider for a moment, our import dependence on some of the key minerals required to manufacture a military jet engine.

One Jet Engine, such as those used in our fighter aircraft contains 2.7 tons of Titanium of which 63% would be imported; 2.6 tons of Nickel of which 54% would be imported; 1,600 pounds of Chromium of which 69% would be imported; 1,000 pounds of Cobalt of which 78% would be imported; 800 pounds of Aluminum; of which 47% would come from imports; 200 pounds of Columbium of which 100% would come from overseas and 3 pounds of Tantalum of which 91% would be imported.

I should also note that the danger our dependence poses is not some theoretical concept. Last April, Major General James Pillsbury, commander of the U.S. Army's Aviation and Missile Command complained that metals shortages are causing long production lead times for critical parts and adding as much as $4.2 million per day in extra costs to some contracts.

In the future, as we increasingly integrate high-tech components into our arsenal as, for example, in the Future Force Warrior program, the need for specialty minerals and materials can only grow and that increased need will bring with it an accompanying need for current, timely information.

Yet, we have failed miserably in ensuring that such information will be available. Instead, we have continued to employ a 19 th century view of information requirements to address 21 st century problems.

At the heart of the issue is the lack of an accessible, credible source of timely information.

This deficiency, however, is not a recent development.

The need to have accurate information on the nation's mineral resources has been recognized from the earliest days of the Republic. Indeed, one of the important assignments given to Lewis and Clark on their journey of discovery was to catalog as much information on mineral deposits as possible. By 1879, when the U.S. Geological Survey was created, among its first actions was to establish the Mining Statistics Division. In 1925, the responsibility for gathering mining data was transferred to the U.S. Bureau of Mines, where it remained until 1996 when it was returned to the U.S. Geological Survey.

In addition to the general need for data on mines and minerals, the advent of the 20 th century created another imperative to collect this information. During the First World War, it became evident that minerals had taken on a new importance in relation to national defense. Until that time, the nation had given little thought to the adequacy of its mineral resource base. But the war changed that. As a result, in 1921, the U.S. War Department m the "Harbord List," of 28 minerals that had been in short supply during the conflict.

Still, little was done until 1939 when conflict erupted in Europe and the potential threat to the United States became clear. In that year, the Navy Department was given $3.8 million to purchase reserves of key materials, and another $70 million

was allocated by Congress for the creation of a strategic stockpile.

The next year, President Roosevelt ordered the Reconstruction Finance Corporation to begin making significant purchases of war materials. The RFC's Metals Reserve Corporation was assigned the specific task of acquiring strategic metals.

Despite these measures, there were shortages of key commodities during World War II occasionally leading to bizarre consequences. For example when copper supplies proved insufficient to meet both military munitions needs and the need for enormous amounts of wiring by the Manhattan Project, the wire was made from silver instead. In fact, copper supplies were so critical that the War Department released 2,800 copper miners from active duty in the Armed Forces in 1942 so that they could return to the mines.

The lessons of the two World Wars, however, were not taken to heart.

By 1949, the U.S. had become heavily dependent on foreign sources for a number of key commodities including manganese and chromium. Unfortunately our source for these imports was the Soviet Union. As a result, when the Berlin Crisis arose, the Soviets were quick to cut off our supplies, and it was only by virtue of the development of alternative suppliers that we were able to fend off the predatory move.

Concern over the Soviet action and the nation's demonstrated vulnerability to import disruption led to creation of the Paley Commission in 1952 with a mandate to analyze our critical materials needs. Little action was taken, however, to act on the Commission's recommendations. Moreover, this would be the last analysis of our strategic and critical materials needs for two decades.

Again, in 1973, in the wake of the OPEC embargo and a renewed interest in natural resource imports, the USGS published an overall assessment of the nation's mineral resources. It would be another decade before the subject was revisited.

In 1986, I had the privilege of acting as a consultant to the White House to draft the National Critical Materials Report, the first analysis of this vital issue in over a decade. During this period, I also conducted classified research on the issue for the Central Intelligence Agency. In the course of this research I was stunned to discover how poorly structured our information systems were in this area.

As I attempted to obtain timely reliable information to conduct my analysis, it quickly became evident that I would have to rely on private sources.

I should take a moment to note here that it also became evident that the lack or data was not the result of a shortage of competent, qualified personnel. The mineral commodity specialists I worked with at the time were of the highest caliber, each a world class specialist in their area of expertise. Moreover, they were dedicated to providing the best possible analysis and information. Indeed, many expressed to me their frustration over not being more effectively utilized.

Rather, at the heart of the problem was a fundamental lack of understanding of the need for timely information and a head in the sand attitude that viewed mineral commodities purely in economic terms with no appreciation of their strategic dimension.

It was, in essence, a bookkeepers view which saw the cost of everything and the value of nothing.

Worse, this problem has persisted to the present. Despite the fact that we are in a shifting and volatile global threat environment, and in a period of rapidly evolving technology that is having a significant effect on the types and volumes of minerals and metals that have strategic importance there is no attempt at real time data collection and dissemination. We are in effect flying blind.

Yet, this need not be the case.

I would contrast our dismal failure to provide adequate information resources in regard to nonfuel minerals with the information resources we provide related to energy.

The Energy Information Administration provides exactly the type of data we desperately need about nonfuel minerals. It routinely publishes information on a daily, weekly, monthly and annual basis on a wide variety of important factors affecting energy markets, production, use and research. During the Gulf hurricanes, it provided daily updates on energy production and transportation within that region. All of this, mind you, was available to any citizen instantly over the Internet.

So, it can be done, and I would suggest, it must be done.

Our failure to anticipate the energy supply disruptions of the 1970s and 1980s arose in part from a fundamental lack of information. While experts might have been aware of the evolving problem, there was no place a citizen, reporter, or for that matter public official could go to obtain current, accurate information. The creation of the Department of Energy in 1977 was soon followed with the establishment of EIA. In the nearly three decades since, EIA has created the capability to meet the energy information needs of all sectors of society. There is no reason why we cannot do the same in regard to minerals.

It should also be understood that providing information is a role that all thoughtful people, regardless of ideology, can agree is appropriate for government. In the case of minerals, it is even more so since such a large proportion of the nation's mineral resources are found on federal lands. Further, the creation of such an entity need not entail undue expense. Individuals with the requisite expertise are already on the government's payroll, and are often underutilized. With the advent of the Internet and personal computers, it is easy to make publications readily available to the general public, the media and government officials at minimal cost as well.

In the final analysis, the question is not whether we should create such an entity, but rather why we have not already done so.