Penny Wise, Pound Foolish

The U.S. avoided one catastrophe this summer when Congress raised the debt ceiling and averted default. But another calamity is waiting in the wings. If Congress does not intercede following the failure of its “Super Committee,” nearly $1 trillion in cuts will fall on the military—most of them mindless across-the-board automatic reductions that Defense Secretary Leon Panetta says will “devastate” national security.

Reining in the budget while preserving battlefield supremacy will not be an easy circle to square. But it is something America has done before. After the Vietnam War, Washington was similarly looking to cut spending during a weak economy. But even as they cut spending overall, Pentagon planners were careful to preserve the research and innovation funding that has been the foundation of U.S. national security strength for decades.

Research and procurement funding is already low—just a quarter of defense spending, which itself is only 16% of the federal budget, compared to 40% in the 1970s and well below the post-World War II average of 21%. At just over 1% of GDP, this is an area that cannot absorb more cuts without putting our long-term battlefield edge at risk. We have just seen the benefit of having the world’s most advanced military as U.S. firepower led the campaign that drove Moammar Gadhafi from power in Libya without a single U.S. casualty—and at a cost of just $1 billion.

Other countries understand the value of aggressive research and innovation. China graduates 10 times the number of engineers that America does and, due to restrictive U.S. immigration policies, is keeping more and more of that talent at home; applications to U.S. engineering schools from China have plummeted almost 50% in recent years. It is no surprise that China just rolled out 25 new drone systems, launched the core of its first space station and plans to sail its first home-built aircraft carrier by 2015.

In the last two years, more than half of all U.S. patents have been awarded to foreign companies. This spring, U.S. bidders lost to Europe in a competition to supply new fighters to India. That means jobs and manufacturing work exported to Europe and a weakening of what is left of the U.S. defense-industrial base. That will only accelerate the brain-drain problem as design work follows commercial manufacturing overseas. Exports add billions to our national bottom line each year, but American companies cannot win foreign sales if they do not have the best products and the most advanced technology.

The state of aerospace and defense is already fragile. We are losing too many experienced engineers as the Apollo generation retires, and our schools are not producing enough qualified engineers to replenish the ranks. Attracting talented young people to science and engineering careers grows more difficult as marquee programs like the space shuttle are mothballed and inspiring new ventures like the James Webb Space Telescope face a constant threat of cancellation.

Now, the Defense Department is warning that the automatic spending cuts will add another full percentage point to the unemployment rate, costing more than a million jobs. That will only accelerate the erosion of the aerospace industry, a national crown jewel that drives both our military and economic strength. Cuts to R&D that erode our long-term military strength and put hundreds of thousands of Americans out of work simply do not add up. Congress needs to find a better way.

—Dwight C. Streit

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That is why, even as the budget shrank, the nation remained a step ahead of its enemies. It was during these years, for example, that stealth technology was invented. And when Iraq invaded Kuwait, the F-117A stealth attack aircraft was ready to slip past enemy radar and devastate Saddam Hussein’s military within weeks.

The pattern was repeated after the Cold War: Research into unmanned aircraft continued despite the 1990s procurement holiday. Because of that sustained effort, the Predator was ready after 9/11. A decade later, unmanned systems have redefined modern combat and enabled the U.S. to take on enemies wherever they operate, as terrorist leaders from Pakistan to the Horn of Africa have learned.

But the terms of the debt-ceiling agreement make it very difficult to repeat this wise approach. The law requires deep cuts beginning in the next fiscal year, while the savings from activities such as winding down combat deployments and rooting out waste take time to realize. That means R&D and investment funding will be squarely in the crosshairs.

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