IN THE VAST AND VARIED WORLD of advanced military technology, the U.S. Army's proposed Aerial Common Sensor aircraft was neither the biggest nor the sexiest. But it was very important to the U.S. Army. The Army desperately needed the ACS to replace its Guardrails, a fleet of small, piloted reconnaissance aircraft that first began flying in the mid-1970s.

The Army was so keen on the ACS, in fact, that it showcased the program to Congress and the American public as an example of cost-efficient and timely procurement. The service was still smarting from several high-profile failures, including the cancellations of the Crusader howitzer and the Comanche helicopter. And so, in August 2004, when the Army awarded a US $879 million five-year contract for the ACS to a team from Lockheed Martin and the Brazilian aircraft company Embraer, it had high hopes. Lockheed did too: it stood to earn an additional $7 billion once the plane entered production.

Almost immediately, things started to go wrong. Barely four months after signing the paperwork, the contractors revealed that their aircraft, based on an Embraer commercial jet, was rated for only 9 *g*s of force, not the 16 that the Army wanted. Fixing the problem drove up the plane's weight, putting it 1400 kilograms over its safety threshold.

A panel brought in to assess the ACS concluded that the program was "unexecutable" and estimated it would cost at least another $900 million and two more years to get it back on track. So the Army canceled the program 18 months after it formally began, paying Lockheed $200 million for its trouble. The Army is now faced with spending $462 million over the next eight years to keep those old Guardrails flying.

To summarize: a big, basic technological problem emerged long after such an obstacle should have been spotted and resolved, in a program that would have been hugely over budget and behind schedule had it been left to run its course. But those factors aren't what made the ACS unusual. The Government Accountability Office, the U.S. Congress's investigative arm, recently scrutinized 72 major defense programs and found that only 11 of them were on time, on budget, and meeting performance criteria. No, what set the ACS apart was that it was not allowed to linger for years, racking up more costs and delays—it was actually canceled. Less than 5 percent of major defense programs ever suffer that fate, the GAO says.

Problems in defense acquisitions have existed for decades. What's new is the economic scale. The Pentagon now spends about $21 million every hour to develop and procure new defense systems. As recently as the mid-1990s, the largest of these cost tens of billions of dollars. Today, some, like the Army's Future Combat Systems, now range in the hundreds of billions. Topping the charts is the F-35 jet fighter, which is expected to cost taxpayers an astounding $1 trillion to develop, purchase, and operate. That sum is close to what the United States spent to fight both the Korean and Vietnam wars.

The spiraling costs are linked to schedule delays that are equally troubling. In 2007, the GAO estimated that current programs in development were experiencing an average delay of 21 months, with a few programs nearly a decade behind schedule. A 2007 GAO report to Congress noted that because of such delays and cost overruns, "not only is the buying power of the government reduced and opportunities to make other investments lost, but the warfighter receives less than promised."

Behind the deterioration is a convergence of factors, say analysts both inside and outside the Defense Department. New military systems are more technologically complex than ever before, and they rely increasingly on unproven technologies. Defense programs are now "so mas-

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