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Ronald Reagan said it many times: "Trust but verify."

When Americans buy pet food for their dogs, tooth paste or toys for their kids, they trust that those products will be safe. We assume our federal government is verifying that the products moving into our country from abroad and onto our store shelves are safe. But Americans have learned recently that while we have trusted, our government has not always verified.

More than ever, our federal government must insure that imported goods meet the same safety standards that U.S.-made goods do. American producers and American workers cannot compete against Chinese manufacturers who use hazardous materials. Moreover, our government should verify that foreign competitors operate by the same fair trade standards.

Pet food, tooth paste and children's toys are three reasons why the United States ran a \$230 billion trade deficit with China last year. Besides failing to verify that overseas products are safe, our federal government has failed to verify that the playing field is level for American producers and American workers.

China is not only interested in selling us low-tech products. Today they — and the rest of the world — are challenging our leadership in the quintessential American enterprise: aerospace. Specifically, China wants to be a global leader in rocketry and spacecraft. Today they buy their commercial communications satellites on the world market, but also give preference to satellite manufacturers willing to give preference to their rockets — something U.S. government policy makes difficult, if not all but impossible because of national security concerns.

Today, commercial space ap-

Fix ITAR to Protect our National and Economic Security

◀ LT. GOV. BRIAN DUBIE ▶

plications are growing worldwide. Satellites have become essential for distance learning, telemedicine, television and radio broadcasting, forecasting weather and monitoring climate, executing search and rescue, navigation, communications, transportation, agriculture — in short, in virtually every realm of life. But satellites can't get into orbit without rockets and a launch.

To advance their own national interests, the Chinese are giving preference to manufacturers willing to use their commercial rocket, which is cheaper because of their low wage rates and willingness to offer predatory pricing compared to the prices of the rockets sold by other countries. Their rockets originally were developed by the Chinese government for military purposes. Now, they are being used for commercial space applications at a time when commercial space is booming.

A U.S. pet food producer cannot compete against a Chinese producer who uses substandard ingredients. Nor can a U.S. commercial space company compete when the Chinese government prices its Long March rockets at half the price available from other launch providers.

This situation was recently compounded when French aerospace company Thales, which sells commercial satellites built by the French-Italian satellite-maker Thales Alenia Space, teamed with

the Chinese government. Together they are determined to dominate the commercial space industry by offering the combination of a below-market Chinese Long March rocket and a satellite that contains no U.S. parts so that they can avoid applying for U.S. export licenses — something just about every other satellite manufacturer in the world must do.

So, why don't U.S. space companies team with Chinese launch providers? The answer is simple: It runs counter to current U.S. policy. In 1999, Congress rewrote the U.S. export regulations, known as International Traffic in Arms Regulations (ITAR), transferring the authority for regulating satellite export licenses from the U.S. Department of Commerce to the U.S. State Department, which has been much tougher than Commerce was on satellite exports to China. In fact, since the shift, very few satellite exports to China have been approved, especially satellites to be launched aboard Long March rockets. The impact of this law has fallen hardest on U.S. satellite manufacturers and their U.S.-based suppliers.

The consequence is that by denying U.S. satellite companies full access to Chinese customers that want launches aboard Chinese rockets, the United States government actually has encouraged collaboration among the builders of Chinese Long March rockets, Chinese-owned satellite service companies and Thales, which builds commercial commu-

nication satellites through Thales-Alenia, its French-Italian satellite manufacturer.

This European-Asian marriage could result in even greater loss of market share for the U.S. space industry and American workers, particularly among satellite component makers — and not just in the market for Chinese customers. Compliance with ITAR, while faster than it was five years ago, remains very time consuming. Even for commercial satellite buyers based in countries that are staunch U.S. allies, time is money and many would prefer to avoid time delays whenever possible, especially considering the uncertainty about how ITAR might be applied to a particular project.

It is ironic that at the same time the U.S. Department of Defense (DoD) rewards Thales, a DoD supplier, with new American contracts, Thales explicitly and publicly disregards U.S. policy on sharing satellite technology with China. Congress must take action to certify that companies doing business with the DoD abide by U.S. defense and security policies. Our government should not contribute to the profits of foreign companies that exploit our own laws at the expense of the American worker.

One positive step would be for Congress to approve legislation that would prohibit the Defense Department from giving contracts to companies that use Chinese launch vehicles.

However, ITAR is a problem even when Chinese rockets are not involved. The law actually has encouraged other countries to go into competition with U.S. satellite component makers by building factories to make satellite parts they once had to buy from U.S. companies. Instead of discouraging the spread of these technologies, ITAR is speeding it up. That hurts U.S. security and U.S. companies.

On a panel at the 58th International Astronautical Congress held this fall in Hyderabad, India, Ray Williamson, a research professor at George Washington University's Space Policy Institute in Washington, stated, "In the long run ITAR is going to be destructive of U.S. industry."

Congress must act to reform ITAR regulations to strengthen our commercial space industries. The current regulations allow export licenses to be granted when a part is available commercially elsewhere in the world. In fact, the very existence of what Thales calls its "ITAR Free Satellite" suggests most satellite parts no longer belong on the list of prohibited exports. A re-evaluation of the ITAR-controlled technologies is critical to ensure U.S. competitiveness and jobs.

Congress would do well to heed the words of Ronald Regan: "Trust but verify."

It takes more than trust to ensure that laws written to strengthen the United States are actually doing so. Congress needs to verify that U.S. laws are working as intended. Today ITAR is not working as intended and must be reformed in order to produce a stronger America.

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For more than a decade, the Search for Extraterrestrial Intelligence (SETI) Institute has had to fund its experiments with donor dollars, not government largesse. As a recent example, private philanthropy has accounted for most of the monies used to build the first stage of the Allen Telescope Array, a new instrument that will speed up SETI efforts by hundreds of times. Unfortunately, ever since 9/11, garnering contributions to such "intellectual" enterprises as SETI has been a tough slog. Philanthropy has shifted in the direction of projects that are seen to directly help people. Allow me to explore why this trend — as understandable as it may seem — is myopic.

SETI is a risky long shot that burns up money and might never, ever pay off. So is searching for intelligent creatures on unseen worlds worth the candle? After all, aren't there better ways to use our monies and technical talents than trying to find something that's only posited to exist: sentient beings in the dark depths of space?

This is a question that surfaces more often than dead fish: "Why should my precious dollars be used for SETI when there's so much suffering in the world?" It deserves an answer.

To begin with, allow me to get a tech-

SETI: Is It Worth It?

◀ SETH SHOSTAK ▶

nical misunderstanding off the table. As many readers know, SETI is not paid for with your tax dollars. At least, not if you're in the United States, where most SETI work is conducted. Since 1993 when Congress killed NASA's SETI program, the search for signals from other societies has been funded by private donations. To be candid, even before that date, the amount of tax that was SETI-bound was only about three cents per year per citizen. But let's not argue whether that was a heavy burden or not: the facts are, it's currently zero. If you don't want to contribute to SETI, then it costs you nothing.

That small truth hardly silences critics, however. They look at SETI donors and wonder aloud why these folks don't write those checks for medical research, foreign aid or other humanitarian programs. In other words, the critics' plea is that we put all our money where our collective mouths are.

Well, such a circumstance has never

been the case — and never should be.

A cursory glance at history shows that, even when people are routinely dying of hunger in the streets, some fraction of any civilized nation's resources have gone to seeking new things or creating new things.

Donors and patrons will always spend some monies on activities that, when analyzed on the most crass, basest level are "useless for society."

They do that for lots of reasons — bur-nishing their image, love of Bulgarian ballet or maybe just a desire to save fresh-water otters.

But that's beside the point: If you give money to the local heart association, maybe it's because you're thoroughly altruistic. Or perhaps, deep down, you figure it might help you or your family in the long run. Either way, it's a good thing from society's standpoint.

But isn't "good" relative? Shouldn't there be a cost-benefit calculation here? Shouldn't philanthropists opt for the most

effective project, in terms of societal improvement? That may sound good, but even aside from issues of free will, that argument leads to a terminally murky battle on what is important and what isn't. And sometimes what's unimportant today can become very important tomorrow.

Consider the following examples. In Italy at the start of the 17th century, Ferdinand and Cosimo Medici proffered a regular allowance to an ambitious academic from Padua — Galileo Galilei. The guy found spots on the Sun and moons around Jupiter. They could have bought some meals with that money instead. But Galileo's work turned our worldview upside down by showing that Copernicus was right. I'm glad he got the florins.

Two hundred years later, Emperor Joseph II of Austria ponied up some coins to fund Wolfgang Mozart. Was this a good idea? Mozart was just writing music, for goodness sake. You can't eat music (unless you're a goat). But I can feast on it, and I do.

Then there are SETI's analogs from the first years of the 20th century: the multiple attempts to pierce the heart of Antarctica and reach the South Pole. The principal men who led these forays into the lethal

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