MANUFACTURING & TECHNOLOGY NEWS

COVERING INNOVATION, GLOBALIZATION & INDUSTRIAL COMPETITIVENESS

Publishers & Producers, P.O. Box 36, Annandale, VA 22003 Phone: 703-750-2664 Fax: 703-750-0064 URL: WWW.MANUFACTURINGNEWS.COM

Friday, December 30, 2011

Volume 18, No. 20

New Acquisition Regs Will Be Written

Stiff Fines And Jail Time For Those Convicted Of Selling Counterfeits To The Military

Any company or individual who knowingly sells counterfeit electronic parts or components used in military weapons systems had better beware: the Department of Defense is no longer going to sit back and let it happen.

In the 2012 Defense Authorization Act, Congress has imposed stiff fines and jail time to anyone found guilty of trafficking in electronic parts that knowingly use a counterfeit mark, "including labels, patches, stickers, wrappers, badges, emblems, medallions, charms, boxes, containers, cans, cases, handtags, documentation or packaging of any type or nature, knowing that a counterfeit mark has been applied thereto, the use of which is likely to cause confusion, to cause mistake or to deceive."

The penalties are stiff. An individual will be fined \$2 million and faces a jail term of up to 10 years, or both. A company will be fined \$5 million. "For a second offense an individual would be fined up to \$5 million or imprisoned for up to 20 years, "or both." A company will be fined up to \$15 million.

If a defective counterfeit part causes a personal injury or death, an individual found guilty of supplying the product will face a \$5 million fine and up to 20 years in prison. A company will be fined up to \$15 million. "In a prosecution, the defendant shall have the burden of proof, by a preponderance of the evidence of any such affirmative defense," says the Defense Authorization bill under section 818 "Detection and Avoidance of Counterfeit Electronic Parts."

A new era of regulations will soon be promulgated to reduce the risk of counterfeits. DOD is directed by Congress to assess all of its acquisition policies and systems for the detection and avoidance of counterfeit parts. This assessment will be conducted over six moths and will include revised guidelines for dealing with counterfeits, including training personnel to find them and creating a system to trace, inspect and report on fakes. DOD will develop rules to deal with a supplier "who has repeatedly failed to detect and avoid

(Continued on page four)

More Of The Same: Treasury Dept. Says China Is Not Manipulating Its Currency, Then Says That It Is

In keeping with almost a decadelong tradition, the Obama administration says that China does not manipulate its currency. Yet, in the report to Congress in which it is required to make such a determination, it states that China in fact does manipulate its currency. The biannual assessment from the Department of Treasury has come to the same conclusion since 2003.

"Based on the ongoing appreciation of the renminbi against the dollar since June 2010, the decline in China's current account surplus, and China's commitments at the G-20 and the U.S.-China Strategic and Economic Dialogue asserting that it will continue to promote faster RMB exchange rate flexibility, Treasury has concluded that the standards identified in Section 3004 of the [Omnibus Trade and Competitiveness Act of 1988] during the period covered in this Report have not been met with respect to China," the

(Continued on page nine)

Congress Orders Pentagon To Assess Health Of Defense Industrial Base And Consider A Rare-Earths Stockpile

Tucked deep within the 2012 Defense Authorization bill are programs aimed at reversing the decline of the U.S. defense industrial base and dependence on China for rareearth minerals. Congress expresses concern about the rise of China's military and its cyber attacks on DOD. It also calls for the Pentagon to create and deploy a strategy to reverse the loss of U.S. capability to produce night vision systems.

Congress has directed the Pentagon to provide it with a "tier-by-tier assessment" of the defense industrial base. It tells the Defense Department to identify all of the sectors of the industrial base that are critical to national security and, within each sector, "to identify items that are critical to military readiness, including key components, subcomponents and materials." DOD will examine the structure of the industrial base "including the competitive landscape, relationships, risks and opportunities" and create a "map" of supply chains for critical defense items "in a manner that provides the Department of Defense visibility from raw materials to final products.'

The assessment (as ordered in section 852 of the authorization bill) will be completed by March 1 and be updated yearly. It will include a risk assessment of the supply chains for critical items and a determination as to whether those supply chains are "subject to disruption by factors outside the control of the Defense Department and whether such disruption would adversely affect the ability of the Department of Defense to fill its national security mission."

Based upon this study, DOD is directed to develop a "defense supply chain and industrial base strategy to ensure the continued availability of items that are determined by the Secretary to be critical to military readiness and to be subject to significant supply chain risk." The strategy

will describe DOD's plans to mitigate vulnerabilities in the industrial base and the need for "timely mobilization" to avert the loss of important sectors.

In the area of rare-earth minerals (section 853), Congress directs the Defense Logistics Agency's Strategic Materials Division to determine if it is feasible to establish a Rare Earth Materials Stockpile Inventory Program. Such a program might be necessary "to ensure the long-term availability of such rare earth materials," says Congress.

DLA will identify and describe the steps required to create an inventory of rare earth materials that would include oxides metals, alloys and magnets "to support national defense requirements and ensure reliable sources of such materials for defense purposes."

DLA must determine the impact such a stockpile would have on commercial markets and pricing of rare earths; whether there is a cost-benefit of creating an inventory; and how the Pentagon would go about selling rare earth materials to contractors needing them for producing weapons systems. It wants to know how the DLA would go about selling excess materials; how it would "identify and describe the steps necessary

to develop or maintain a competitive, multi-source supply chain to avoid reliance on a single source of supply"; and determine what sources of rare earths can be considered "reliable."

Based on its assessment, Congress asks DOD to develop a strategy to deal with rare earths, including regulations and policies and recommendations for legislation "needed to ensure the long-term availability of such rare earth materials."

Elsewhere in the 2012 Authorization Bill, DOD is directed to beef up its annual report on China's military capability (section 1238), stating that the analysis should include an assessment "of the nature of China's cyber activities directed against the Department of Defense and an assessment of the damage inflicted on the Department of Defense." Congress wants to know if cyber attacks originate or are suspected of originating in China, "and shall include government and non-government activities believed to be sanctioned or supported by the Government of China.'

In section 941 of the bill, the Chairman of the Joint Chiefs of Staff is directed to submit an assessment of the "critical deficiencies and

(Continued on next page)

China Becomes World's Supplier Of Basic Pharmaceuticals

China's pharmaceutical raw material manufacturing industry is booming, with growth in 2011 expected to top 20 percent, to \$46 billion. China has become the supplier of the world, accounting for 90 percent of global penicillin output, 90 percent of vitamin C output and 70 percent of citric acid output. Almost half of China's production is exported, according to market research firm IBISWorld. Exports account for 52 percent of China's pharmaceutical raw material revenue, and will increase by 8 percent in 2011 to \$20 billion. "With billions of dollars' worth of pharmaceutical patents set to expire in the next few years, China's industry revenue is forecast to grow at an average annual rate of 11.9 percent to \$80.87 billion in 2016," according to IBISWorld.

China's Counterfeit Industry Is Out Of Control, Costing U.S. Economy Billions, **According To Federal Intelligence Unit**

"The threats to United States intellectual property interests are immense and growing both in size and scope," says the first sentence in a new report from the federal government's National Intellectual Property Rights Coordination Center based in Arlington, Va.

Foreign theft of intellectual property is undermining the U.S. economy through lost profits, dilution of brands, enforcement costs and the loss of jobs and tax revenues. "Some counterfeits such as pharmaceuticals and aircraft and automotive parts pose threats to the public's health and safety," says the study. Most of the

fake goods are coming from China.

Foreigners are stealing software, trade secrets, movies, music and books. They are hacking into computer networks. They are expanding out of luxury goods and clothing to include counterfeit food, electronics, health care and "products in every industry," says the center. "Law enforcement officials have to date seized over 600 different categories of infringing goods in the United

Counterfeiters are becoming more sophisticated in reproducing brand-name products that are being sold by retailers. "Counterfeiters increasingly are finding ways to exploit supply chain vulnerabilities or develop alternative supply chains to evade standards that ensure supply chain integrity," says the study. They are making a lot of

The Internet helps to fuel the plague, "giving counterfeiters increased access to customers, facilitating deception regarding the nature of the goods offered, and altering the ways in which infringed goods move from their sources to the consumer," says the center.

Counterfeiters are motivated by the lack of criminal charges brought against them and the low risks compared to criminal activity such as drug trafficking. "The role of criminal organizations, including organized crime gangs, has expanded along with the increasing sophistication of the counterfeiting business and easy access to profits," according the Intellectual Property Rights Cen-

Most of the fake goods are being produced overseas, with the majority of them being shipped from China, which "dwarfs all other international threats," the report states. "Offenders in China pose an evolving, large-scale threat to the United States IP interests. China-based companies produce counterfeits of every type of product. Many of the offenders in China-linked theft of trade secrets cases are Chinese-born, naturalized United States citizens or possess various visas to work or study in the United States. Many of the defendants in these cases are engineering, science or research professionals contributing to development of new products or technology.

Fake products arrive via shipping containers, mail packages and air cargo. "In an attempt to avoid detection by customs officials, offenders are shifting from shipping infringing goods in large containers to using smaller, discrete packages," says the center. "This change is particularly noticeable with counterfeit pharmaceuticals.'

(Continued on page eight)

Defense Industrial Base...(Continued from page two)

strengths in force capabilities" that exist in each geographic zone in which DOD commanders operate. The report will accompany the annual National Military Strategy. The intent, according to the House Armed Services Committee, is to "encourage a holistic approach in evaluating our global force structure and resources in light of China's rapid military modernization and to ensure Congress is aware of the most critical needs of our combatant commanders in executing their mission."

Congress asks the Pentagon's Under Secretary of Defense for Acquisition, Technology and Logistics to undertake an assessment of the U.S. industrial base for night vision imaging systems (section 854). It wants to know if the United States is dependent on foreign suppliers for equipment, components and subcomponents including lenses, tubes and electronics. It wants a full description of the supply chains for all components making up night vision systems, including a risk assessment associated with the loss of industrial capability in the United States. It wants to know the night vision components that are purchased by overseas suppliers, and it asks DOD to "describe and assess current and future investment, gaps and vulnerabilities in the ability of the department to respond to the potential loss of domestic and international sources that provide" all of the items that constitute the final product.

In its report to be delivered within 180 days after the President signs the authorization, DOD will "identify and assess current strategies to leverage innovative night vision image intensification technologies being pursued in both DOD laboratories and the private sector for the next generation of night vision capabilities, including an assessment of the competitiveness and technological advantages of the United States night vision image intensification industrial base.

Congress Kills The Only Civilian Tech. Program

Congress has decided it will no longer fund the only federal program aimed at turning innovative technologies into commercial industries.

In its final 2012 budget for the Commerce Department, Congress has eliminated funding for the Technology Innovation Program (TIP) and provides no funding for the proposed Advanced Manufacturing Technology Consortia (AMTech) program at the National Institute of Standards and Technology.

TIP was an offshoot of the Advanced Technology Program created in 1987. It made investments in "transformational R&D" aimed at ensuring "our nation's future through sustained technological leadership," according to TIP's website. The program was a public-private research venture that provided 50 percent of the funding for high-risk, high-reward projects in areas such as robotics, intelligent automation and advanced manufacturing.

NIST is in the process "of an orderly shutdown of the program," according to NIST spokeswoman Gail Porter. "Appropriations previously received by NIST for TIP awardees will continue to be provided until these funds are exhausted." Some of the projects already funded "will have to be shut down prematurely due to the lack of funds in FY 2012," according to Porter. "These projects include research topics in civil infrastructure monitoring and repair as well as advanced manufacturing."

The program employs about 38 people at NIST. The agency is trying to place as many TIP employees as it can throughout NIST or at other federal agencies. "A RIF has not been implemented at this time," says Porter.

The Obama administration requested \$75 million for the program in its fiscal year 2012 budget submission. When the program was first created, Robert White, President George H.W. Bush's first assistant secretary at the Technology Administration, which has also been eliminated, said ATP should be a \$1-billion a year program, given that it leveraged private-sector funds and that at least one civilian commercial technology program was needed in order for the United States to compete globally in advanced technologies.

Unfortunately, the United States no longer competes globally in advanced technologies, running a trade deficit in advanced technology products of \$275 billion in 2010. Last year, the United States imported \$49 billion in computers and computer components from China, and exported less than \$1 billion in computers and computer components to China.

In printed circuit boards, the foundation of a high-tech industry, the United States industry accounts for only \$3.4 billion (or 6 percent) of the total \$54.7 billion in global circuit board production. Asia accounts for 87.5 percent of global production of printed circuit boards (at \$47.9 billion), according to IPC — the Association Connecting Electronics Industries. Growth in PCB output last year in Asia was 21 percent, compared to U.S. growth of 7 percent. In 2000, the United States printed circuit board industry generated \$11 billion worth of output, accounting for 26 percent of global production. In the past decade, more than two-thirds of the U.S. PCB industry has disappeared.

Counterfeiters...(Continued from page one)

counterfeit electronic parts or otherwise failed to exercise due diligence in the detection and avoidance of such parts, including consideration of whether to suspend or debar a supplier until such a time as the supplier has effectively addressed the issues that led to such failures."

DOD will create a reporting system for military personnel to enter suspected counterfeit parts into a database called the Government Industry Data Exchange Program. Within 270 days of the passage of the Authorization Bill, DOD is directed to write new regulations under the Federal Acquisition Regulation (FAR) to address the detection and avoidance of counterfeits. These regulations will cover all contractors who supply electronic parts, including products that contain electronic parts.

Contractors will be "responsible for detecting and avoiding the use

or inclusion of counterfeit electronic parts or suspect counterfeit electronic parts in such products and for any rework or corrective action that may be required to remedy the use or inclusion of such parts," says the 2012 Authorization bill. The contractors will have to pay the cost of remediation.

DOD is further directed to purchase parts from original manufactures or their authorized dealers "or from trusted suppliers who obtain such parts exclusively from the original manufacturers."

If the parts are no longer being made by the original manufacturers, they must be purchased from "trusted suppliers." DOD is told to create regulations that "establish requirements for notification" to the DOD when a contractor or subcontractor obtains parts from "any source other than" the original manufacturer or trusted distributor.

DOD will also become more active in the trusted supplier program, by establishing qualification requirements, policies and procedures to identify "trusted suppliers that have appropriate policies and procedures in place to detect and avoid counterfeit electronic parts and suspect counterfeit electronic parts."

Trusted suppliers will be subject to reviews and audits from DOD. They must assume responsibility for the authenticity of parts provided. And they must adhere to industry standards for identifying trusted suppliers.

The Department of Homeland Security will also get involved. It will create a new system "for the enhanced targeting of electronic parts imported from any country."

The National Defense Authorization Act for Fiscal Year 2012 (Conference Report to accompany HR 1540) is located at www.rules.house. gov/Media/file/PDF_112_1/legislativetext/HR1540conf.pdf.

Government Efficiency Mandates Have Made U.S. More Dependent On China For Rare Earth Minerals

The United States renewable energy industries — including wide turbines, photovoltaic thin firms, fluorescent lighting and electric vehicles — use rare earth materials from China that are "at risk of supply disruptions in the short term," according to the U.S. Department of Energy. These disruptions "may affect clean energy technology deployment in the years ahead."

Over the past year, production of rare earth materials has not kept pace with demand, which is being fueled by their use in consumer products such as cell phones, computers and flat panel televisions, according to the Energy Department in its new "Critical Materials Strategy." Lack of capital, long lead times, trade policies and the market's "lack of transparency and small size can affect its ability to function efficiently," says DOE. "For many key materials, market response is further complicated by the complexities of co-production and by-production."

As prices rise and supplies are constrained, manufacturers of products using rare earths are taking matters into their own hands. Wind turbine producers that use permanent magnets containing neodymium and dysprosium "are currently making decisions on future system design, trading off the performance benefits of neodymium and dysprosium against vulnerability to potential supply shortages," says DOD. Electric vehicle producers are pursing the development of induction motors and switched reluctance motors as alternatives to permanent magnet motors.

The growing market for compact fluorescent light bulbs is increasing demand for phosphors made with europium, terbium and yttrium. As prices of these materials increase, there is more focus on developing light-emitting diodes, "reducing the pressure on rare earth supplies,' says DOE.

The Energy Department says its

role in the issue includes "taking steps" to facilitate extraction, processing and manufacturing of rare

earths in the United States. It will fund research on substitute materials and new processes that "will help make recycling economically viable over time.'

China controls almost the entire world output of phosphors used in compact and linear fluorescent light bulbs. Demand for the rare earths used in these lights is expected to nearly double by 2015. "There has already been some indication of tightening demand leading to higher prices," says DOE. "Several lighting manufacturers have introduced rare earth surcharges this year (General Electric and Sylva-

The U.S. Department of Energy's lighting energy efficiency standards, mandated under the Energy Independence and Security Act of 2007, led to a rapid increase in consumption of compact fluorescent bulbs that are now produced only in China. Demand for the Chinese made bulbs will soon explode as the standard is phased in starting in 2012.

"Compact fluorescent lamps meet these standards, whereas the most common incandescent lamps do not," says DOE. Further, new standards for incandescent reflector lamps and fluorescent lamps using linear fluorescent lamps take effect in July 2012. "In most cases, the energy efficiency requirements under these standards necessitate a move from traditional halophosphors to triband phosphors, which contain rare earths," says DOE.

The Energy Information Administration ran a model on projected demand for the new bulbs and found that demand will peak in 2014 after

the first phase of the standards take effect. "After that point, demand for compact fluorescents will decline somewhat as these efficient bulbs last longer than the incandescent bulbs they are replacing. After that, demand for CFLs will decline as halogen-type incandescent bulbs will be able to meet the standard." The total rare earth phosphor for each bulb is about 1.5 grams, of which 60 percent is rare earth oxide.

If prices spike for the rare earth elements in the new fluorescent bulbs, demand for halogen incandescents, light emitting diodes and organic light emitting diodes, which use little or no rare earths, could spike. These bulbs "have the potential to be manufactured in the United States," says DOE. "For example, Sylvania is producing halogen incandescent lighting at a converted incandescent bulb manufacturing facility in Pennsylvania. Philips was recently awarded DOE's "L" prize for developing the best LED replacement for a standard 60watt incandescent bulb. The company has stated its intentions to begin domestic manufacturing of bulbs based on the winning design by 2012.

"Regardless of manufacturing and assembly location, major U.S. lighting manufacturers continue to hold the intellectual property rights to formulas for fluorescent lighting phosphors and invest significantly in R&D related to lighting manufacturing," says DOE. This allows U.S. firms to retain control of the value chain, despite the large role of Chinese firms in the manufacturing process."

DOE looked at how 16 rare earth materials are used in the U.S. renewable energy sector. It labeled five of them (yttrium, neodymium, dysprosium, europium and terbium) to be "critical" in the development of the industry, and four to be "nearcritical" (indium, cerium, lanthanum and tellurium).

"In the past year, the prices of many of the elements assessed have been highly volatile, in some cases increasing tenfold," says the Energy Department in its 2011 "Critical Materials Strategy," located at http://energy.gov/sites/prod/files/DOE CMS 2011.pdf.

NAM Says Russia Deserves PNTR

The United States has been running chronic, growing and large trade deficits with Russia, but that country's entry into the World Trade Organization should be good for American industry, according to the National Association of Manufacturers. "Russia is agreeing to reduce trade barriers and increase transparency and accountability, which will benefit manufacturers in the U.S. and help increase exports to this large market," according to Frank Vargo, NAM's vice president for international economic affairs.

The United States buys four times more from Russia than it sells there. During the first 10 months of 2011, the United States imported \$28.5 billion worth of Russian goods. That is more than the United States imported from Russia during the entire 2010 (\$25.7 billion). Yet U.S. exports to Russia are only a fraction of that amount: \$6.8 billion during the first 10 months of 2011, leaving the United States with a trade deficit with Russia of \$21.7 billion for the first 10 months of the year, up from a trade deficit of \$19.7 billion for the entire year of 2010.

The U.S. trade deficit with Russia has doubled since 2009, when it stood at \$13 billion, up from \$6 billion in 2003. The last time the United States held a trade surplus with Russia was in 1993. Over those 18 years, the United States has accumulated a total trade deficit with Russia of \$148 billion, according to the U.S. Census Bureau report "U.S. Trade in Goods by Country," http://www.census.gov/foreign-trade/bal-ance/index.html#R.

NAM says that in order for U.S. manufacturers to "truly benefit" from Russia's entry into the WTO, Congress "must pass legislation that provides Permanent Normal Trade Relations for Russia." NAM has created a task force to "educate members of Congress about the importance of passing PNTR to help grow exports which will create jobs," says Vargo. The task force will be chaired by Daniel Cruise, vice president of global public and government affairs at Alcoa Inc.

New Leader Assigned To Mfg. Partnership

The Advanced Manufacturing Partnership (AMP) initiated by President Obama's Council of Advisors on Science and Technology in June has a new federal leader: Michael Molnar, the recently named Chief Manufacturing Officer at the National Institute of Standards and Technology.

Molnar, who joined NIST from Cummins Inc., and served as a White House fellow during the George W. Bush administration, will head AMP's National Program Office. He will help bring together industry, academia and the federal government "to drive investments in the emerging technologies that will create high-quality manufacturing jobs and enhance global competitiveness," says NIST.

The AMP initiative plans to present policy recommendations in the spring in areas related to technology development, manufacturing policy, education and workforce development, and shared facilities and infrastructure.

The AMP National Program Office will coordinate the activities of all federal agencies involved in manufacturing "and provide a link to the growing number of private-sector partnerships between manufacturers, universities, state and local governments and other manufacturing-related organizations," according to NIST.

The organization will "convene and enable a significant number of AMP private-public partnerships and create an integrated 'whole of government' advanced manufacturing initiative to facilitate ongoing collaboration and information sharing across federal agencies." Says Molnar: "By moving ahead today with the formation of the National Program Office, we will be ready to act on the upcoming AMP recommendations and vision for a new era of technology partnerships."

Growth Industry: Food

Food production is going to be a lucrative business over the next 40 years, according to the National Academy of Sciences. Global food demand will increase by 70 percent by 2050 in order to feed 9.3 billion people. But the way in which food is produced must undergo a radical change. "Producing the amount of food needed could significantly increase levels of carbon dioxide and nitrogen in the environment and may cause the extinction of numerous species," says the study.

Greenhouse gas emissions from agriculture could double by 2050, constituting a "major problem since global agriculture already accounts for a third of all greenhouse gas emissions," according to report author David Tilman of the University of Minnesota. Countries must adopt a more focused "nitrogen efficient intensive" farming system rather than an "extensive" farming system used in poor nations of clearing more land to produce more food. The intensive system produces a 300 percent higher crop yield.

"If poorer nations continue current practices, they will clear a land area larger than the United States (two and a half billion acres) by 2050," says the study. "But if richer nations help poorer nations to improve yields, that number could be reduced to half a billion acres." Adds Tilman: "Our analysis shows that we can save most of the Earth's remaining ecosystems by helping the poorer nations of the world feed themselves."

Two California Companies Are Forced To Manufacture Their Products In China

BY JUDY PETERSON Los Gatos Weekly Times

This is a story about two little Los Gatos, Calif., companies that were producing products in the United States, only to find their creations cloned by people in China who they say ultimately forced them into manufacturing there. The first is the venerable Macabee Gopher Trap company, and the second is the lesser-known FlairHair.

FlairHair was founded in 2006 by Los Gatos, Calif., Central Avenue resident Dave Nance who, to cover his head while he was golfing, designed a visor with spiky artificial hair coming out of the top. Nance applied for a patent and began marketing FlairHair at trade shows.

But in 2007, FlairHair knock-offs began showing up on the market — the idea stolen by a Chinese businessman who saw Nance at a trade show. "I hired an attorney and we filed suit against them in Santa Clara County court," Nance said, "but the Chinese kept producing and selling the hats."

À local judge ultimately told the Chinese manufac-

turer to quit producing the knock-offs.

"We came to a settlement with them, whereby they'd shut their operations down," Nance said. "We thought that would stop it, but even then they continued selling the knock-offs."

No wonder. Nance was able to obtain licenses from colleges, the NFL, MLB, NBA and NHL to produce visors sporting their teams' logos. More than a million FlairHair visors have been sold.

At one point, Nance employed seven people, with FlairHairs being manufactured in Missouri. Now, Nance has three employees and the visors are manufactured in China. "There's no way with the knock-off people in China continuing that could we afford to manufacture anywhere but China," Nance said. "They're just driving business to their homeland."

The original Flair Hair visor sells for \$19.99. Nance thinks the Chinese knock-offs are now selling for \$9.99. "They're crap," he said of the imitators.

The Chinese cloner got around the court settlement by making the spiky hair detachable from the visor, whereas Nance's hair is sewn in. "They got their own patent, where they made some minor changes and are continuing to sell full bore," Nance said.

The Macabee Gopher Trap story is quite similar. Invented in 1898 and patented in 1900, the Macabee traps became a staple among farmers in California and elsewhere. Even as Silicon Valley paved over the fertile "Valley of Hearts Delight," Macabee traps re-

mained on top, in part, Macabee general manager Ronald Fink said, "because our name is extremely valuable."

At the beginning, the traps were produced at the Macabee family home on Loma Alta Avenue in Los Gatos, which remains the company's headquarters today.

But in 2004 a Chinese importer came knocking. "He had made some traps and had test-marketed them at Ace Hardware in Marin County," Fink said. "He knew it was marketable and he sent us a letter saying, 'This is what we make in China.' He knew we were a family business and he thought he'd give us the opportunity [to manufacture in China] before he gave it to our competitors."

Fink took the letter to the Macabee family, saying, "There's no way we can ignore this." He likened the letter from the Chinese importer to "extortion."

"They came to us with a product. They didn't say, 'This is what might happen.' They said, 'This is what will happen.' It was a case of do or die," Fink said.

So Fink began testing the Chinese-manufactured traps to see if they were up to snuff. "We probably threw away thousands of traps, but there were no failures," he said. "The steel is just as good."

His only complaint is that when the traps arrive in town, the boxes are damaged from shipping. "We have to rebox everything," he said. "We still operate with pride, but we no longer have pride of manufacturing."

The last "local" Macabee Gopher Trap was produced in Los Gatos in May 2008, and six Cambodian refugees that Fink had hired were laid off. "They're like family," he said. "They're all legal aliens who worked for us for 20 years."

Fink says one of the men, who was making about \$40,000 a year at Macabee, is now close to being homeless because he's been unable to find a job. The other five former employees remain unemployed as well.

Fink blames Congress for the fall of U.S. manufacturing.

"Maybe we should have been a little stronger when we let China into the World Trade Organization because the dirty little secret is that Americans like cheap products and now we're beholden to the system," Fink said. "How do you bring the jobs back? I don't know. The dogs are out and they're running wild."

— Judy Peterson is a reporter for the Los Gatos Weekly-Times, 408-200-1038 jpeterson@community-newspapers.com

IP Theft...(From page three)

It is hard to measure the economic impact, but the recording industry alone estimates that 63 percent of music sold to end users in the United States is pirated. "It is estimated that approximately 50 percent of the pharmaceuticals on worldwide illegal websites are counterfeit," says the study. Many of the counterfeit drugs don't contain the proper dosages or are not what they say they are. Counterfeiters are selling cholesterol drugs, cancer drugs, AIDS drugs and anti-malarial medicines.

"Counterfeiting is a highly profitable crime and it is likely to become even more lucrative with the shift to the higher priced primary market," says the study. Counterfeiters are using "sophisticated factories that are nearly identical to the legitimate manufacturers to produce the same products," according to the center. "A raid of a factory in China known to be producing counterfeit products uncovered a nearly identical factory to the legitimate one, including floor plans and assembly lines. Another company found counterfeiters who had copied seemingly every aspect of the company, including employees' business cards with the name of the genuine company on them, licensing agreements for factories to make goods with the genuine company name on them, signs at the factory with the genuine company's name, and an entire line of counterfeit products. These factories indicate a high level of technical expertise and investment in the manufacturing process of infringing goods. These factories also indicate potential security breaches and theft of trade secrets from rights holders as these factories could not have been coincidentally constructed so similarly to the legitimate facto-

The Department of Defense is beset with counterfeit parts. One counterfeiter sold 59,000 fake integrated circuits made in China and Hong Kong to the military and falsely labeled them as "military grade." Another U.S. citizen imported more than 13,000 counterfeit integrated circuits from China and re-marked them "military grade" and sold them to the U.S. Navy. "A series of investigations of counterfeit products bought by government agencies and contractors as of May 2010 had uncovered over 94,000 counterfeit Cisco Systems network components," according to the center.

The 99-page report "Intellectual Property Rights Violations: A Report on Threats to United States Interests at Home and Abroad," is located at http://www.iprcenter.gov/reports/IPR%20Center%20Threat%20Report%20and%20Survey.pdf.

In The Simplest Terms: Why U.S. Debt Was Downgraded

U.S. tax revenue: \$2,170,000,000,000
Federal budget: \$3,820,000,000,000
New debt: \$1,650,000,000,000
National debt: \$14,271,000,000,000
Recent budget cut: \$38,500,000,000

Remove eight zeros and pretend it's a household budget:

Annual family income: \$21,700
Money the family spent: \$38,200
New debt on the credit card: \$16,500

• Outstanding balance on

the credit card: \$142,710

• Total budget cuts: \$385

MEP Is Getting Engaged

The Manufacturing Extension Partnership program is going to help the Department of Transportation find American companies to supply equipment for the government's investment in the nation's rail system. MEP centers around the country will identify American companies so that the Transportation Department can meet strict "Buy American" requirements in the recent transportation appropriations bills. The centers will help find American companies to bid on the upcoming \$782 million order for domestically-built passenger rail trains that will travel in California, Oregon, Washington, Illinois, Missouri, Michigan, Indiana and Iowa. The centers "will also help DOT assure that American companies and workers benefit from the state of California's request for information (issued on October 18) for new bi-level passenger coaches," says the Commerce Department. A request for proposals will be issued this winter with winning bids selected next summer.

The Manufacturing Extension Partnership program has also started a new "Make It In America" campaign highlighting companies that manufacture products in the United States. The agency will select one U.S. manufacturer each week describing what they do on a new website along with Facebook and Twitter feeds. "Our featured companies are 'ordinary' in the sense that they represent small- and mid-sized businesses in America," says NIST director Roger Kilmer. "What's extraordinary about these companies is that they have embraced a forward-thinking business approach. These organizations have worked with the MEP network to invest in innovation."

The first company featured was Wyoming-based Cliff Outdoors, a maker of fly fishing products. The latest is Xuron Corp. of Maine, a manufacturer of ergonomic hand tools. The Make It In America website is www.nist.gov/mep/america.cfm.

Treasury Is Fine With China's Currency...(From page one)

Treasury Department declared on December 27.

As in previous years, the Treasury Department then states exactly the opposite in its analysis of China's currency policy: "China's long-standing pattern of reserve accumulation, the persistence of its current account surplus and the incomplete appreciation of the renminbi, especially given rapid productivity growth in the traded goods sector, indicate that the real exchange rate of the renminbi is persistently misaligned and remains substantially undervalued."

China held more than \$3.2 trillion in foreign exchange reserves at the end of September 2011, up by more than an order of magnitude over the past decade. For the first nine months of 2011, China increased its foreign exchange reserves by \$373 billion, which is more than the total foreign reserves it held in 2002 (\$243 billion). Foreign reserves and massive trade surpluses are the two most important indicators of a currency that is being manipulated for unfair competitive global advantage, according to the U.S. Department of Treasury. Yet, every year since 2003 in every report, the Treasury Department notes foreign reserves are increasing at unprecedented rates; that China's trade surplus continues to grow; and that the imbalance is leading to global economic insecurity.

"The underlying factors that distort China's economy and constrain global growth remain," says the Treasury Department in its latest currency report.

For years, the Treasury Department has called on China to restructure its economy away from exports to domestic consumption. In every currency report since 2003, Treasury states that it is in China's interest to do so. It quotes China's senior leaders as saying that this is the course they intend to follow. In subsequent reports, it notes that China has never kept is promises.

In 2006, the Treasury Department claimed that "China's leaders have begun a fundamental realignment of the Chinese economy to reduce its balance of payments surplus, boost domestic consumption, and reduce domestic inequality." It didn't happen. Here is what this year's report states: "China continues to increase its global export market share, it remains heavily dependent on exports and it has made little progress in making the required shift to domestic consumption. China's large foreign reserve accumulation has prolonged the misalignment in China's real effective exchange rate and hampered progress toward global rebalancing, including among economies that compete with China for exports."

This year's report again notes that China has promised American politicians and Obama political appointees that it intends to change its currency policies, citing yet another "official" international meeting with China's top leaders. "The Chinese leadership has identified shifting away from growth driven by exports toward a greater reliance on domestic consumption as a critical goal for sustaining growth in the medium term," says the December 27, 2011 report. "At the G-20

Leaders Summit in Cannes in November, G-20 members, including China, committed to 'move more rapidly toward more market-determined exchange rate systems and enhance exchange rate flexibility to reflect underlying economic fundamentals, avoid persistent exchange rate misalignments and refrain from competitive devaluation of currencies.'

Such promises have been made every year since 2003. In 2006, the Treasury Department wrote: "China's leadership has made a clear commitment to rebalance the sources of growth in the Chinese economy. President Hu Jintao, in his meeting with President Bush on April 20, 2006, stated that China does not want a large current account surplus and would take steps to reduce it, relying on domestic demand to boost growth." Since then, the U.S. trade deficit with China has continued to grow. In 2010, the U.S. trade deficit with China reached \$273 billion, up from \$243 billion in 2006 and \$103 billion in 2001. In 2011, it is on track to top \$300 billion, and is running at almost \$1 billion per day.

Below are some quotes from previously issued Treasury Department reports to Congress on "International Economic and Exchange Rate Policies," starting with the May 2003 report. In each of the reports, the agency states that China did not manipulate its currency, using virtually the identical sentence every year in its determination: "China did not meet the technical requirements for designation under the terms of Section 3004 of the [Omnibus Trade and Competitiveness Act of 1988] during the period under consideration." The reports, along with the current version issued December 27, 2011, are located at http://www.treasury.gov/resource-center/interna-

tional/exchange-rate-policies/Pages/index.aspx.

May 2003: "China's exports accelerated to a 30 percent growth rate, up from a 14 percent growth rate in the previous half-year. Imports also accelerated to a 31 percent growth rate from a 10 percent rate in the previous period, so that China's surplus of trade in goods rose modestly to \$17 billion (2.5 percent of GDP) from \$15 billion (2.4 percent of GDP) a year earlier. As a result of the higher current account surplus and higher capital inflows, gross foreign reserves grew 18 percent in the period to \$243 billion. The JP Morgan index of the real trade- weighted renminbi stayed fairly stable, depreciating only 0.7 percent, during this period. China continues to maintain wide-ranging controls on both capital outflows and inflows."

April 2004: "Given the Chinese exchange rate peg, balance of payments inflows into China are absorbed by the Chinese central bank and reflected in an increase in Chinese reserves. China's official foreign exchange reserves grew by a net \$57 billion during the

(Continued on page 10)

Treasury Is Fine With China's Currency...(From page nine)

last half of 2003, or by 16 percent of end-June foreign exchange reserves, to reach \$403 billion. The renminbi remained pegged to the dollar throughout the reporting period and in the first three months of 2004 at 8.28 renminbi per dollar, the same rate that China has maintained since 1995.

"Since 1994, when it unified its exchange rates and adopted its current pegged exchange rate system, the Chinese economy has grown rapidly, as has China's participation in world trade. A pegged exchange rate policy is not appropriate for a major economy in the global system such as China, and the Chinese government has indicated publicly and at senior levels that it will move to a flexible exchange rate regime. The Administration has urged China to move as soon as possible toward greater flexibility.

"President Bush, in his meeting with Premier Wen in December 2003, raised the issue of China's exchange rate policy as well as liberalization of trade and capital markets. At the September 2003 G-7 meeting in Dubai, the ministers and central bank governors endorsed flexibility in exchange rates for large economies. This position was reiterated at the February 2004 G-7 meeting in Boca Raton. A regular series of talks between senior financial officials from the G-7 and senior financial officials from China has been established. During discussions last month with the Chinese central bank governor, [Treasury] Secretary Snow stressed that a flexible market-based exchange rate regime and reduced controls on capital flows are the best system for China and all major world economies. Secretary Snow will meet also with Vice Premier Huang Ju in Washington in the next few months on this topic.

"The United States is actively assisting the transition to flexible rates. Treasury has appointed a senior financial expert to serve as Secretary Snow's emissary in Beijing. The financial expert will ensure close communications on exchange rate and other pressing financial issues. Under the leadership of the Secretary of the Treasury and the governor of the central bank of China, a technical cooperation program was launched last year.

"China will need to lay the groundwork for a shift to a floating exchange rate. In this regard, China has taken many steps to prepare for a flexible exchange rate regime."

May 2005: "To maintain the fixed exchange rate, the Chinese authorities supplied renminbi for net inflows of foreign exchange, accumulating foreign exchange reserves in the process. This accumulation of foreign reserves accelerated in the second half of 2004. China's official foreign exchange reserves grew by a net \$139 billion to \$610 billion during the second half of 2004, with over two-thirds of the increase taking place in the fourth quarter.

"China kept its fixed exchange rate of 8.28 to the U.S. dollar throughout the reporting period, a rate it has maintained since 1995, through periods of both upward and downward pressures on the exchange rate. While the benefits of China's ten-year-long pegged currency regime may have at times served well the Chinese economy, this is no longer the case for the large, increasingly market-based economy that China has become. China's fixed exchange rate is now an impediment to the transmission of price signals and international adjustment, and imposes a risk to its economy, China's trading partners, and global economic growth. China has clearly stated that it intends to move to a market-based flexible exchange rate, and has undertaken the necessary and appropriate preparations. It is now widely accepted that China is now ready and should move without delay in a manner and magnitude that is sufficiently reflective of underlying market conditions.

"China has committed to push ahead firmly and steadily to a market-based flexible exchange rate, and is taking concrete steps to bring about exchange rate flexibility. Chinese Premier Wen said on March 14, 2005 that China would 'create a market-based, managed and floating exchange rate.' Chinese Central Bank Governor Zhou has said recently that 'rigid exchange rates present huge risks.'"

(Continued on page 11)

MANUFACTURING & TECHNOLOGY NEWS (ISSN No. 1078-2397) is a publication of

Publishers & Producers, P.O. Box 36, Annandale, VA 22003. On the Web at: www.manufacturingnews.com.

PHONE: 703-750-2664. FAX: 703-750-0064. E-MAIL: editor@manufacturingnews.com.

Annual Subscription Price: \$495. Frequency: Twenty times per year.

Editor & Publisher: Richard A. McCormack (richard@manufacturingnews.com)

Senior Editor: Ken Jacobson, 202-462-2472 (ken@manufacturingnews.com)

Web Technical Coordinator: Krishna Shah (krishna@manufacturingnews.com)

Business Manager: Anne Anderson (anne@manufacturingnews.com)

Electronic distribution of a PDF version of this publication within an organization is available at a reasonable rate.

Subscribers have access to the Manufacturing & Technology News Web site, which includes a keyword searchable archive of the past 13 years of Manufacturing & Technology News. PDF versions of the publication are available for download. Register in the "Subscribers Only" section at www.manufacturingnews.com for electronic delivery.

COPYRIGHT 2011, PUBLISHERS & PRODUCERS: "Newsletters Are The Purest Form Of Journalism."

Currency...(Continued from previous page)

May 2006: "China's leaders have begun a fundamental realignment of the Chinese economy to reduce its balance of payments surplus, boost domestic consumption, and reduce domestic inequality. China's most recent five-year plan places strong emphasis on consumption and rural development to spur domestic demand.

"The Governor of China's central bank, Zhou Xi-aochuan, announced a five-point plan on March 20, 2006, to reduce China's current account surplus and raise domestic consumption. This plan involves actions to boost domestic demand, reduce Chinese saving, accelerate removal of trade barriers, grant greater market access for foreign firms, and achieve greater exchange rate flexibility.

"China's leadership has made a clear commitment to rebalance the sources of growth in the Chinese economy. President Hu Jintao, in his meeting with President Bush on April 20, 2006, stated that China does not want a large current account surplus and would take steps to reduce it, relying on domestic demand to boost growth.

"China is acting to implement this strategy. A flexible exchange rate is an essential component of this rebalancing program, and China's leaders recognize that flexibility is essential."

June 2007: "China has achieved exceptionally rapid growth. However, its growth has become severely unbalanced — dependent on exports and investment and characterized by very high savings, weak consumption, and an inflexible exchange rate.

"Heavy foreign exchange market intervention by China's central bank to manage the currency tightly has led to excessive accumulation of foreign exchange reserves (\$1.2 trillion by March 2007) and a quick increase in domestic liquidity. Rapidly expanding domestic liquidity increases the risks of overheating, a build-up of new non-performing loans leading to banking sector stress, and asset bubbles. These trends clearly increase the risk of a renewed boom-bust cycle, which would be quite harmful for the global economy.

"In the 11th Five-Year Plan launched in early 2006, Chinese authorities set forth policy priorities aimed at curbing China's domestic and external economic imbalances. Chief among these policy goals was bringing about a shift in the composition of China's aggregate demand to rely less on investment and exports and more on domestic consumption. Despite this high level attention, the outcome for 2006 shows that the role of consumption continued to diminish and the shares of national saving, investment and net exports in GDP further increased.

"China should not hesitate any longer to take far more vigorous action to rebalance its economy, promote immediate RMB movement to tackle the currency's undervaluation, and achieve far greater flexibility in the exchange rate regime." May 2008: "China needs to intensify its efforts to rebalance its economy: boosting domestic demand and consumption-led growth; reforming its financial system; and achieving greater monetary policy autonomy through rapid RMB appreciation and greater flexibility of the foreign exchange regime.

"China's economic imbalances — domestic and external — continue to increase. Inflation has risen above 8 percent, which may be in part due to excessive creation of liquidity in view of China's rigid management of the renminbi. China's current account surplus increased by an estimated \$111 billion in 2007 and is now roughly 11 percent of GDP. Official reserves increased by \$462 billion in 2007 and by an additional \$154 billion in the first quarter of 2008 (to \$1.68 trillion).

"The People's Bank of China intervenes in the foreign exchange market to limit movements of the RMB exchange rate."

April 2009: "In the reporting period, as the global economic outlook worsened, China returned to a policy of maintaining a largely-stable renminbi-dollar exchange rate. Nevertheless, the renminbi was the only emerging market currency discussed in this report that strengthened against the dollar during this time period.

China's continued large current account surplus of \$440 billion for 2008, and accumulation of foreign exchange reserves (to \$1.9 trillion, equivalent to 45 percent of its 2008 GDP or 26 months of its imports) suggest the renminbi remains undervalued. To limit the pace of renminbi appreciation, the PBOC buys foreign currency in the foreign exchange market, adding to China's stock of foreign reserves. Chinese authorities have stated that they recognize the need to address the imbalances in their domestic economy and have made "rebalancing" growth a key feature of China's 11th Five-Year Plan. Limited progress has been made and household consumption growth remains weak.

"Shifting China's growth to a more sustainable, domestic-demand driven path will require policy measures of a scale sufficient to bring about marked changes in the pattern of saving and investment."

July 2010: "To solidify the recent progress in reducing China's current account surplus, the government must implement exchange rate reform to complement other structural reforms. China reformed its exchange rate regime in 2005, moving off of its peg to the U.S. dollar and gradually to a more market-determined exchange rate. In July 2008, as the global financial crisis was growing, China temporarily returned to a policy of pegging the renminbi to the dollar, which it said was in response to growing volatility in global financial markets.

"In order to limit renminbi movement against the dollar, the PBOC purchases and sells foreign exchange

(Continued on page 12)

Currency...(Continued from previous page)

reserves on a daily basis. Cumulatively, China has been a net purchaser of foreign exchange over the last ten years, as China has acted much more often to limit renminbi appreciation, rather than depreciation. These foreign exchange purchases reflect the PBOC's efforts to resist renminbi appreciation against the dollar. Although the pace of reserve accumulation has declined slightly over the past year, China continues to purchase large amounts of foreign exchange, adding to its reserves. In 2009, China's net purchases of foreign exchange reserves totaled \$398 billion (8.1 percent of GDP).

"Under its heavily managed exchange rate regime, China's reserve accumulation is in large part a reflection of resisting full appreciation that reflects market demand for the renminbi. China's central bank held \$2.4 trillion worth of foreign reserves at the end of the first quarter of 2010, equivalent to 54 percent of China's 2009 GDP, or over 27 months of imports.

"China's continued rapid pace of foreign reserve accumulation; the limited appreciation of China's real effective exchange rate relative to rapid productivity growth in the traded goods sector; and the persistence of current account surpluses even during a period when China's trading partners are in deep recession – together suggest that the renminbi remains undervalued.

"As during the 2005-08 period, it will take time before we can accurately assess whether China's recent exchange rate change will produce a sufficiently market-determined exchange rate to correct the undervaluation."

May 2011: "The continued rapid pace of foreign reserve accumulation in China; the broadly unchanged level of China's real effective exchange rate, especially given rapid productivity growth in the traded goods sector; and the projected widening of current account surpluses, all indicate that the real effective exchange rate of the renminbi remains substantially undervalued. It is in China's interest to allow the nominal exchange rate to appreciate more rapidly, both against the dollar and against the currencies of its other major trading partners. By trying to limit the pace of appreciation, China is not allowing the exchange rate to serve as a tool to counter inflation in its own economy. The policy complicates the adjustment needed for broader financial sector reform. It works against China's stated goal of strengthening domestic demand. And it places an undue burden of adjustment on other emerging market economies that maintain more flexible exchange rate systems and that have already seen substantial exchange rate appreciation.

"In 2010, China's foreign exchange reserves rose by \$448 billion, and they have increased by a further \$197 billion in the first quarter of 2011. In total, the PBOC held \$3 trillion worth of foreign reserves at the end of the first quarter of 2011, equivalent to 52 per-

cent of China's 2010 GDP, over 27 months of imports, and more than \$2,000 for every Chinese citizen.

"There has been increasing recognition of the role of exchange rate appreciation in addressing inflation in China. On April 19, People's Bank of China Deputy Governor Hu Xiaolian stated that China should 'increase exchange rate flexibility to ease imported inflation pressures,' and in comments to China's State Council in April, Premier Wen noted that 'strengthening the flexibility' of the exchange rate can serve as one of the tools available to control inflation.

"During the recent Strategic and Economic Dialogue (S&ED), China stressed that it 'will continue to promote RMB exchange rate flexibility.'

"It is a high priority for Treasury, working through the G-20, the IMF, and through direct bilateral discussions to encourage policies that will produce greater exchange rate flexibility."

December 2011: "The Chinese leadership has identified shifting away from growth driven by exports toward a greater reliance on domestic consumption as a critical goal for sustaining growth in the medium to long term. Actions by China . . . to shift toward greater reliance on domestic demand for growth are also fundamental to the success of the G-20 goal of assuring strong, sustainable and more balanced global growth in the future.

"Exchange rate adjustment is an inherent part of the rebalancing toward domestic demand growth that China hopes to achieve, something the Chinese acknowledge. At the November G-20 Leaders Summit, Chinese authorities stated, 'These [rebalancing] actions will be reinforced by ongoing measures to promote greater exchange rate flexibility to better reflect underlying economic fundamentals, and gradually reduce the pace of accumulation of foreign reserves.'"

"China continues to increase its global export market share, it remains heavily dependent on exports, and it has made little progress in making the required shift to domestic consumption.

"The People's Bank of China held more than \$3.2 trillion in foreign reserves at the end of September 2011, equivalent to 54 percent of China's 2010 GDP, or about \$2,400 for every Chinese citizen.

"China's real effective exchange rate (REER) — a measure of its overall cost-competitiveness relative to its trading partners — has appreciated only modestly over the past decade. China's large increases in productivity in export manufacturing, improvements in transportation and logistics, and increased investment in its productive capacity all suggest that the RMB should have appreciated significantly on a real effective basis. Yet, after China joined the WTO in 2001 the RMB REER depreciated substantially, falling over 17 percent from December 2001 to January 2005. The REER gradually began to reverse this decline as China initiated currency reform in mid-2005, but was still at a similar level in early 2010 as it was at end-2001."