## Silver News

#### December 2013

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#### A Q&A with Tom Power



"We're going from having an output of about 1.2 to 1.3 million ounces a week to well over 2 - 2.5 million ounces a week of output." Tom Power is President and CEO of <u>Sunshine Minting Inc.</u> (SMI), a supplier of precious metal products based in North America and a member company of the Silver Institute. They are the primary supplier of silver blanks to the United States Mint and a supplier of mint products to international mints, financial institutions, marketing companies, and corporations around the world. Power has almost three decades of experience in the precious metals and minting fields, beginning his career at Johnson Matthey Ltd. based in Brampton, Ontario. He joined SMI in 1997 as operations manager, eventually becoming Director of Operations and Vice President. In 2007, Power acquired SMI and became its President and CEO.

Silver News talked to Power about SMI's new production facility in Las Vegas, the increasing demand for silver products, and the latest technology for silver security and online 'interactive' coins.

Silver News: Why did the company decide to build a new facility in Las Vegas?

Tom Power: Our facility in Coeur d'Alene, Idaho, has been running at full capacity for over four years. It's been going 24/7, stressing the equipment and stressing the employees. When we looked at our options for expanding our operation the obvious choice was Las Vegas, because we've had a satellite operation there since 2008. The key factors were the availability of industrial space and a ready workforce. The 20,000 square foot facility also gives us a backup in case something catastrophic were to happen to our Coeur d'Alene operation. When we're fully staffed, we will employ 120 people. We have 300 people in Coeur d'Alene. We'll be producing silver products similar to what we now make at Coeur d'Alene. The plant opened November 1, and we began shipping December 1.

Our Las Vegas facility frees up an additional half a million ounces of output per week in the Coeur d'Alene operation, plus it adds a million ounces of output a week to the current Las Vegas operation. We're going from having an output of about 1.2 to 1.3 million ounces a week to well over 2 - 2.5 million ounces a week of output.

SN: How has the popularity of American Eagle Silver Bullion Coins affected your operation?

TP: All of the blank makers, not just us, have had to allocate their product among customers including the U.S. Mint. With our added capacity, we can

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increase our allocations to all of our customers. I've been in the precious metals industry for 29 years. I've seen the ups and downs, the strong cycles and the weak cycles, so you're always cautious about how much you invest in capital to meet a push in demand. You ask yourself: "Is this a temporary thing?" But, as the years have gone by, we've seen a stronger and stronger demand. We've been increasing our output, but sometimes that doesn't come close to meeting the demand. The U.S. Mint has felt this demand problem, too, and they've had to ramp up their capacity. Up until a year and a half ago West Point was the only place producing Silver Eagles. Now they're back producing them in San Francisco and West Point so they can have a supply on the West Coast and a supply on the East Coast.

At every opportunity, we have tried to give a little more output to the U.S. government as they have asked for it. They've also got to balance how much they're buying from their vendors as well, too, so as to keep everybody interested in being a supplier.

SN: What do customers do when there aren't enough Silver Eagles available?

TP: Customers look at other products such as the Canadian Maple Leafs or the Austrian Philharmonic Coins and other products.

SN: Tell us about the other government mints.

TP: We see a huge push lately from the Royal Canadian Mint. They have done a tremendous job being commercially savvy and bringing in new products to help grow interest in silver bullion products. The Polar Bear coin has been a tremendous success for them.

SN: What are you doing in the area of security?

TP: The MintMark SI has been a huge success, and we could sell five times as much if we could produce more. We have an exclusive distributorship with A-Mark Precious Metals [also a Silver Institute member company]. It took us a few years to find the right technology. It's the same technology that was developed for the passport industry and paper products, so the challenge was to take that printed technology and turn it into a metals technology. Right now, we're working on developing second and third generation. You have to stay in front of the counterfeiters because they're always trying to find a way to counterfeit produce despite safety measures. You've got to come up with the next thing that cuts them off at the knees. We were getting 15 to 20 calls a week from people buying old products of ours online that were counterfeit -- gold-plated copper or silver plated copper. This MintMark has really helped to cut the head of the dragon off.

SN: What's next?

TP: We're working closely with several companies to develop a new way to look at coins. For example, if you buy a commemorative piece that's got an image on it, you can download an app, scan the image with your smart phone, and it directs you to websites with additional content about the coin. One of the first products were looking at is for the PGA. [Professional Golfers' Association]. We want to offer customers some additional value so it's not just a coin or a medallion, but it's actually an interactive piece for people to collect and enjoy.

### BMW Adds Silver Accessories and Trim to 760Li

Silver manufacturers Robbe & Berking have teamed with BMW, to produce an even more luxurious version of the carmaker's 760Li (base price: US\$160,000). This 2013 model, officially named *Individual 760Li Sterling Inspired by Robbe & Berking*, offers sterling silver touches on the exterior and interior, including BMW's signature grille and side trim elements. Also made from sterling silver are the tailpipe embellisher, model badging, door handles and the trim strip on the trunk lid.

The trim surfaces also include a punch mark of a crescent moon, a traditional symbol for silver.

BMW has not yet revealed the price, because it will be determined by the chosen interior and the level of equipment and options desired. The car is not yet available for sale in the United States.



BMW and silver manufacturer Robbe & Berking have produced a luxury car with silver trimmings.

### Silver Offers Promise of Simple, Fast Cystic Fibrosis Test

For more than a half century, the 'sweat test' has been the standard diagnostic tool to discover if a person has cystic fibrosis. Although painless, the test takes about an hour and can be tricky to administer to infants, who may not sweat enough, and to others who have trouble sitting in a doctor's office or hospital for a sufficient length of time.

The test seems old fashioned considering today's advanced medical technology. A chemical that causes sweating is placed on a small area of an arm or leg and an electrode is put on the spot. A tiny electrical current produces even more sweat, which is then collected on filter paper. This paper is sent to a laboratory to measure how much chloride is in the sweat and that measurement will indicate if the patient has CF.

Now, researchers in Oxford University, have been testing a new procedure that is quick, cost effective and just as accurate as the sweat test. Silver nanoparticles are imbedded in a special electrode and placed on a patient's skin. Its electrical conductivity is checked. The presence of chloride ions in sweat will change the silver particles' conductivity, which indicates the amount of chloride in the patient, and allows doctors to determine if he or she suffers from CF.

The research was reported in the August 7, 2013, edition of *Analyst*, published by the Royal Society of Chemistry.

# 3-D Printers With Nanosilver Can Build Batteries Into Tiny Electronic Products

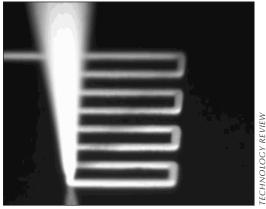
3-D printing is on the cutting edge of industrial technology, and silver is helping to build products that until recently could only be imagined.

Printers that produce 3-Dimensional models – from computer to printer to solid object – have been used to make statues, rocket engines, jewelry and even guns. Now, a Harvard researcher has developed new 'inks' that can be spewed from 3D printers to print batteries and electronic components.

Jennifer Lewis, a materials scientist, has developed inks that solidify and become batteries or printed circuit boards. The ultimate end product might be a tiny device, such as a hearing aid or under-the-skin biomedical sensor, that is produced along with its own battery instead of having it inserted later. This battery would not only be smaller than a conventional cell but rechargeable as well.

To make the dream a reality, Lewis has not only produced special inks – many with silver nanoparticles that allow electrical conductivity -- but also unique nozzles and other extruders that are attached to 3-D printers. Once ejected by the printer, according to a piece of software's design, the inks harden and become wires, batteries and other electronic components. Many nozzles can work simultaneously and produce items in mass batches.

One of the benefits of the new inks over existing 2-D printers that shoot metal inks is that the printing is done at room temperature. This allows printing on low-melting materials such as paper, plastic and Styrofoam. Lewis's group has patents for its inks and hopes to license the technology so it can be commercialized for industrial and hobbyist uses.



Silver nanoparticles can be deposited by 3D printers to produce electronic components.

(Click image)

## **Drones Take to the Skies With Silver Iodide Seeding**

Cloud seeding with silver iodide crystals dropped by airplanes has been used for decades, but using unmanned drones is relatively new and may hold the promise of lower cost and greater safety.

The latest outdoor laboratory is the Lake Tahoe-Truckee area in California where Reno's Desert Research Institute (DRI) hopes to coax more rain out of stingy storms. The extra moisture will not only boost the region's water supply but also help skiers who flock to nearby slopes.

The area has suffered two dry years in a row, and what little snow has been teased out of the passing storm clouds is due to five mountaintop generators spraying silver iodide into clouds, which helps to produce ice particle formation and snow. Three generators are expected to be used this winter along with airplanes deploying silver iodide, but DRI and Reno-based Drone America LLC soon will test the use of cloud-seeding drones, according to Jeff Tilley, director of DRI's weather modification program. "This is the way to move the [cloud seeding] field forward," he said. The company hopes that positive results in this project will prompt others to use cloud-seeding drones. The big disadvantage of ground generators is that they can't be moved to areas where clouds are forming. In addition, airplane operation becomes costly when highly-paid pilots wait on the ground for proper flying conditions and worthwhile storm clouds. Drones overcome both of these problems.

The Phoebus drone, which is slated for the seeding test, costs about \$400,000, is 12-feet long, with a 24-foot wingspan and can stay aloft for up to 15 hours. It can reach speeds of 125 miles per hour.



Mike Richard, president of Drone America, shows off a Phoebus drone slated to seed clouds with silver iodide above the Lake Tahoe-Truckee area of California.

#### Silver Coin Wins Coin of The Year Other Winners Also Feature Silver

A 10-euro silver coin with a blue hand of the artist against a silver background has won the 2014 Coin of the Year Award sponsored by World Coin News. The Monnaie de Paris' Yves Klein 10-ounce coin from France is made of 90 percent silver. It honors Yves Klein (1928-1962), a prime mover of the French artistic movement of Nouveau réalisme founded in 1960. Klein also was a pioneer in Performance art, whose work is often credited as a forerunner of Minimal art and Pop art.



The 2014 Coin of the Year honors French artist Yves Klein.

The winner in the Best Silver Coin category is also from France, the 10-euro Silver Proof *Le-France* coin, which honors the famous ocean liner. The coin is minted in 90 percent silver and is part of a series featuring prominent French ships.



The Best Silver Coin category was won by this 10-euro entry featuring the ocean liner *Le France*.

The award for the Best Contemporary Event Coin, which honors historically important events in the past 99 years, was Great Britain with its issue of the silver 10-pound proof coin celebrating the London Olympic Games. This coin contains five ounces of .999 silver. Queen Elizabeth II is on the obverse and the mythical bird Pegasus is on the reverse. It is the U.K.'s first five-ounce legal tender coin.

Awards for these and other coins in eight other categories will be given at the World Money Fair in Berlin on February 8, 2014. All the coins are dated 2012, and were judged by an international panel comprised of mint masters, artists and numismatists. The Coin of the Year Award was first given in 1984.

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