



The UPM Market Informer



Inside This Issue

Surcharge Update..	2
GM Electric Vehicles.....	3
SpaceX Rideshare Satellites.....	3
Airbus to Replace Boeing KC-46.....	4
Semiconductor Tax Credit.....	4
Air Force 6th Gen Fighter Jet.....	5

United Performance Metals Now Offers Custom Engineered Thin Gauge Stainless Steel Strip From New Precision Rerolling Facility in Portland, CT

United Performance Metals now offers custom engineered thin gauge stainless steel strip to meet customers' exacting specifications. The precision rerolling process produces custom engineered thin gauge stainless steel strip with extremely tight tolerance. Stainless steel repeatedly passes through our Sandzimir cold reversing mills to achieve measurable gauge reduction. The result is ultra-light, precision strip custom engineered to our customer's desired thickness as low as .0008". The cold reversing mill is accompanied by a strip cleaning line, bright annealing furnace, and a slitting line. UPM offers a controlled hydrogen atmosphere annealing for a brighter finish.

UPM President and CEO, Peter Neuberger commented, "UPM is excited to build on our extensive capacity to process high performance metals with the opening of our new precision thin gauge facility in Connecticut. This new capability is well aligned with our long term strategy of adding value to the metal we sell and the customers we serve."

301, 302/304, 304L DDQ, 305 DDQ, 316/316L DDQ, 317/317L, 321, and 347 stainless steel can be rerolled to gauge ranges of .0008" - .012". Stainless steel coil widths are offered in 12"-13" with tolerance as tight as +/- .00004". Slit coil width is offered from .250" - 12.5" with #3 slit edge and width tolerance of +/- .005" to .003".

Surface finishes include 1BA and TR (Temper Rolled), with surface cleaning as thin as .0008". Surface roughness is offered from 4-12 RA or as required. Flatness as rolled is 3% of thickness. Tension leveling for thin gauges is available upon request. Custom rolled stainless strip is available in 1/8, 1/4, 1/2, 3/4, Full Hard, and Spring Temper. Custom-calibrated hardening is also offered per customer request.

"The addition of a precision rerolling mill provides UPM the opportunity to offer custom engineered product solutions and tighter tolerances for our customers. It's a terrific complement to our many value-added services," added Curt Gillingham, Director of Sales. For more information on the company's custom engineered thin gauge strip, [view the line card here](#).

United Performance Metals is a specialty metals solutions center offering a broad spectrum of high-performance metals and alloys, FIRSTCUT+® Processing Services, quality approvals, and custom supply chain solutions. Headquartered in Cincinnati, Ohio, UPM maintains ten service centers worldwide.

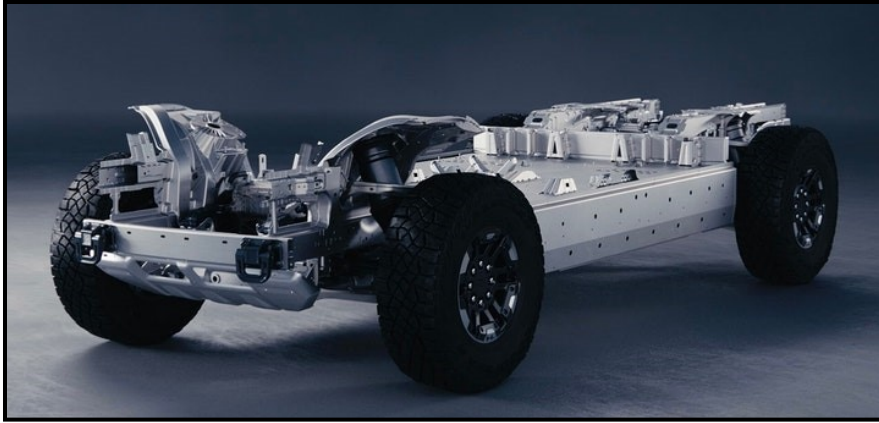
Surcharge Totals April - September 2021



	Apr	May	June	July	Aug	Sept
15-5	0.6913	0.7359	0.7702	0.7951	*	*
15-7	0.9804	0.9847	1.0386	1.1805	*	*
17-4	0.6795	0.7310	0.7650	0.7886	*	*
17-7	0.8325	0.8722	0.9147	0.9459	*	*
201	0.6660	0.7195	0.7451	0.7749	*	*
301 7.0%	0.8214	0.8634	0.9048	0.9356	*	*
302/304/304L	0.8974	0.9389	0.9862	1.0180	*	*
304-8.5%	0.9315	0.9704	1.0206	1.0530	*	*
305	1.1736	1.1965	1.2673	1.3042	*	*
309	1.2016	1.2407	1.3115	1.3475	*	*
310	1.6938	1.7057	1.8179	1.8625	*	*
316/316L	1.2345	1.2298	1.3043	1.4502	*	*
316LS/316LVM	1.6500	1.6200	1.7600	*	*	*
317L	1.4271	1.4133	1.5014	1.7036	*	*
321	0.9607	0.9921	1.0451	1.0785	*	*
347	1.2661	1.2977	1.3509	1.3841	*	*
409/409 Mod	0.2978	0.3472	0.3471	0.3705	*	*
410/410S	0.3011	0.3542	0.3542	0.3774	*	*
430	0.3372	0.4111	0.4111	0.4330	*	*
434	0.4185	0.4825	0.4883	0.5519	*	*
439	0.3496	0.4278	0.4276	0.4493	*	*
440A	0.3372	0.4111	0.4111	0.4330	*	*
2205	1.0744	1.1092	1.1634	1.3576	*	*
263	5.9612	6.6693	7.9946	8.2475	7.7472	7.8493
276	6.1061	6.5901	7.1199	6.5237	6.4275	7.1446
A286	1.9045	2.1129	2.2187	2.0210	2.0153	2.1878
330	2.4934	2.7077	5.4791	2.5437	2.5474	2.7587
400	4.7668	5.1575	5.4791	4.8402	4.8974	5.4125
Custom 455	0.9300	0.9400	0.9900	*	*	*
Custom 465	1.2100	1.2000	1.2900	*	*	*
600	4.9519	5.3688	5.6497	4.8973	4.9049	5.3459
601	4.2284	4.5766	4.8061	4.2425	4.2486	4.6100
617	6.0103	6.5960	7.5248	7.3395	7.0459	7.4162
625	6.6094	7.0245	7.4154	6.8490	6.8007	7.3522
Custom 630	0.7800	.07800	0.8900	*	*	*
718	6.3535	6.6898	6.9441	6.4667	6.4511	6.8313
X-750	5.4757	5.9189	6.1830	5.4539	5.4597	5.8895
825	3.1348	3.4186	3.6277	3.2981	3.2836	3.5974
HX	4.1640	4.5259	4.8964	4.4855	4.4236	4.8922
188	11.1100	10.0000	9.4100	*	*	*
CCM	16.5900	14.2500	12.5100	*	*	*
L-605	12.9700	11.5500	10.6400	*	*	*

*Surcharge currently not available

GM Boosting Electric and Autonomous Vehicle Spending to \$35 Billion, Two New Factories Planned



General Motors is increasing its investments in electric and autonomous vehicles by 30% to \$35 billion through 2025, the automaker said Wednesday giving the shares a lift.

Included in the expanded spending is the construction of two new battery factories in the U.S., in addition to two currently under development in Ohio and Tennessee. The locations of the new factories were not immediately revealed. GM's new plan surpasses Ford's \$30 billion investment in similar technologies announced in May.

"We are investing aggressively in a comprehensive and highly-integrated plan to make sure that GM leads in all aspects of the transformation to a more sustainable future," GM Chair and CEO Mary Barra said in a press release. "GM is targeting annual global EV sales of more than 1 million by 2025, and we are increasing our investment to scale faster because we see momentum building in the United States for electrification, along with customer demand for our product portfolio."

GM is planning to launch 30 EVs globally by 2025, with around 20 of them available in the U.S., where it will also be increasing assembly capacity beyond what has previously been announced. The automaker also said it is developing new electric commercial truck models and will supply hydrogen fuel cell technology to Wabtec Corporation for freight trains.

GM has also extended a \$5 billion line of credit to its Cruise autonomous car subsidiary and has initiated production of the self-driving, electric Origin shuttle for Cruise's planned ride-hailing service. *Source: Gary Gaselu, FOX Business*

Space Development Agency To Launch Five Satellites Aboard SpaceX Rideshare

The U.S. Space Development Agency has five satellites riding on SpaceX's Transporter-2 rideshare mission scheduled to launch June 25. "There's nothing in the space business that gets your blood pumping like the idea of a launch, especially if you've got multiple satellites," a senior Space Development Agency (SDA) official told reporters June 22. "We're really excited about what's going to happen."

Transporter-2 is expected to carry as many as 88 small satellites from commercial and government customers to a sun synchronous polar orbit. SDA's five payloads include two pairs of satellites to demonstrate laser communications links, and one to demonstrate how data can be processed and analyzed autonomously aboard a satellite.

SDA's experiments were done in collaboration with the Defense Advanced Research Projects Agency and the Air Force Research Laboratory. These are SDA's first in-space experiments since the agency was established in 2019. SDA is developing a network of satellites in low Earth orbit for military communications and for missile defense. The first batch of satellites is scheduled to launch in late 2022.

SDA is launching a demonstration known as Mandrake 2 — a pair of small spacecraft equipped with optical crosslinks that was originally scheduled to launch in January on SpaceX's Transporter-1. The satellites were accidentally damaged during payload processing and didn't make the launch.

The satellites were made by Astro Digital with optical links from SA Photonics. Mandrake 2 started under DARPA's Blackjack, a program that began in 2018 to demonstrate the utility of low-cost small satellites in low Earth orbit for military operations. Also on Transporter-2 are a pair of cubesats built by General Atomics for SDA. They will be used to demonstrate optical communications between satellites, and from satellites to a military drone aircraft. [Read More](#) *Source: Sandra Irwin, Space News*

Airbus Responds to Air Force Call for New Tankers to Replace Boeing's KC-46



The U.S. Air Force seeks up to 160 new refueling tankers, according to a contract notice posted this week, as lawmakers are pushing for the Air Force to terminate its KC-46 contract with Boeing. This may be Airbus' chance to win a foothold in the American strategic tanker market, especially after the Biden administration and the European Union called a five-year truce in a 17-year-old battle over manufacturer subsidies.

The Air Force said in the notice, published Wednesday, that it wants to buy 140 to 160 new tankers that are based on commercial aircraft design at the rate of 12 to 15 aircraft per year. "The Commercial Derivative Aircraft must be operational by 2029," the notice states. "The Air Force is still finalizing the

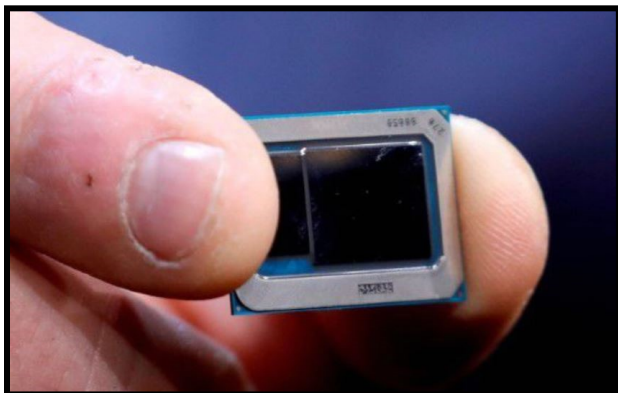
requirements for this acquisition."

Airbus is the only other company that makes new-jet-powered strategic refueling planes. Boeing's KC-46 tanker is based on the 767 airliner, while Airbus' Multi-Role Tanker Transports, or MRTT, is based on the A330 airliner. U.S. defense giant Lockheed Martin and Embraer make smaller aircraft. Airbus partnered with Lockheed Martin and intends to respond to the request.

"We are responding to the U.S. Air Force's Sources Sought Notification for the Bridge Tanker Program, offering a mission-ready solution to meet the Air Force's future tanker requirements," Rob Fuller, a Lockheed Martin spokesman, said in a statement.

Government auditors overturned Airbus' victory over Boeing for a bid in the Air Force strategic tanker market in 2008. Boeing has lost more than \$5 billion on the project to build 179 aircraft and is years behind schedule due to design, technical and quality control problems. The contract requires Boeing, not taxpayers, to front the cost overruns. The Air Force is paying Boeing \$100 million to redesign the refueling boom to refuel all types of military aircraft.

Boeing also has to replace key cameras and software that are part of the refueling system. Air Force has already started using the aircraft for non-combat missions and anticipates it will be war-ready in late 2023. Boeing said it will enter its KC-46 in the new bridge tanker contest. "With 102 aircraft on order and growing international interest, Boeing's KC-46A is proven and matured for the next stage of combat air refueling capabilities and airborne battle management, which will extend the Air Force's ability to deliver critical fuel and information for decades to come," Deborah VanNierop, a Boeing spokeswoman, said in a statement. *Source Zarrin Ahmed, UPI*



U.S. Senators Propose 25% Tax Credit for Semiconductor Manufacturing

A bipartisan group of U.S. senators on Thursday proposed a 25% tax credit for investments in semiconductor manufacturing as Congress works to increase U.S. chip production.

The proposal sponsored by Senate Finance Committee Chairman Ron Wyden and the top Republican on the panel, Senator Mike Crapo, along with Senators Mark Warner, Debbie Stabenow, John Cornyn and Steve Daines, would

provide "reasonable, targeted incentives for domestic semiconductor manufacturing," they said in a statement.

The group did not immediately provide a cost estimate for the measure, which is on top of recent proposed semiconductor funding. Last week, the Senate approved \$52 billion for production and research on semiconductors and telecommunications equipment. That included \$2 billion dedicated to chips used by automakers, which have seen massive shortages and made significant production cuts. The House of Representatives must still act on the measure.

Supporters of funding note the U.S. share of semiconductors and microelectronics production has fallen to 12% from 37% in 1990. The senators said up to 70% of the cost difference for producing semiconductors overseas results from foreign subsidies. *(Continued)*

"The United States can't allow foreign governments to continue to lure companies' manufacturing overseas, increasing risks to our economy and costing American workers good-paying jobs," Wyden said.

U.S. Commerce Secretary Gina Raimondo said last month the funding could result in seven to 10 new U.S. semiconductor plants. Raimondo anticipates government funding would generate "\$150 billion-plus" in investment in chip production and research - including contributions from state and federal governments and private-sector firms. The tax credit could benefit Taiwan Semiconductor Manufacturing Co, which is building a \$12 billion semiconductor factory in Arizona, and Dutch chipmaker NXP Semiconductors NV as well as U.S. firms such as Intel Corp and Micron Technology Inc.

The Semiconductor Industry Association praised the proposal, saying it said would "strengthen domestic chip production and research, which are critical to U.S. job creation, national defense, infrastructure, and semiconductor supply chains."

Source: David Shepardson, Reuters

US Air Force Reveals More On Its Sixth Generation Fighter Jet

The US Air Force has revealed more on its sixth generation fighter jet, the centerpiece of its Next Generation Air Dominance (NGAD) system. The jet, which is poised to replace the F-22 Raptor, will be a multirole fighter, according to USAF chief of staff, General Charles Q. Brown Jr at a House Armed Services Committee.



The air force boss, testifying on the fiscal 2022 budget request yesterday, said the fighter jet's primary role will be air dominance, but will be able to strike ground targets as well. The sixth generation fighter will have "some air-to-ground capability to ensure, one, that it can survive, but also to provide options for our air component commanders and for the Joint Force."

Brown also said the NGAD fighter will have increased range and weapons load compared to the F-22, which will allow it to operate at the great distances required in the Indo-Pacific region. These details match the concept art that was recently published in a USAF biennial report for acquisition, which suggested a larger blended wing airframe compared to the F-22, which would give more

room internally for a larger weapons bay and fuel tank.

Air Force Magazine has reported General Mark D. Kelly, head of air combat command, has said there may be two variants of NGAD: one with long range and payload for the Indo-Pacific and one more oriented to the relatively short ranges between possible battle areas in Europe. NGAD is described as a family of systems, with a sixth generation fighter at its center. Last September it was revealed that the fighter had been designed, developed, and tested in the space of a year and flown.

USAF's top acquisition official, Will Roper, said at the time: "We've already built and flown a full-scale flight demonstrator in the real world, and we broke records in doing it. We are ready to go and build the next-generation aircraft in a way that has never happened before." Brown said in May USAF plans to reduce its fighter fleet to just four types of aircraft, including the F-35, F-15EX, F-16 as well as NGAD. The NGAD fighter will fly alongside the F-35, with the latter "the cornerstone, [the] F-15EX as we come in, and then we'll have F-16 for a while as well," Brown said.

The US Department of Defense has published its budget request for 2022, which included new funding for NGAD. USAF is looking for \$1.5 billion to support NGAD, an increase of roughly \$623 million compared to funding received previously.

Source: Michel Tyrrel, Aerospace Manufacturing.com