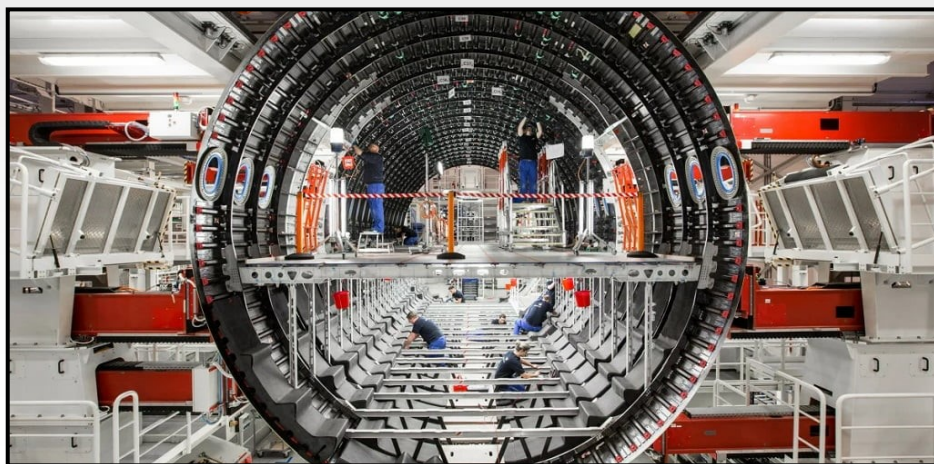




The UPM Market Informer



Inside This Issue

Surcharge Update..	2
Medical Minute.....	3
Outokumpu Price Adjustment.....	3
GM and LG Battery Plant.....	4
Doncasters In Alabama.....	4
U.S. Power Use to Rise.....	5
Boeing Launch Site for NASA.....	5

Airbus Launches Shake-Up of Aerostructures Activity in Europe

Airbus has provided more details of its industrial shake-up in Europe, primarily regarding aerostructures activities in France and Germany. The aircraft manufacturer has reaffirmed its intention to build a stronger aerostructures assembly value chain across its industrial system to its social partners and considers aerostructures assembly as core to its business.

Airbus presented its plans to create two integrated aerostructures assembly companies at the heart of its industrial system in order to reinforce its value stream management and prepare the company for its short- and long-term future. As part of these plans, and upon successful completion of the ongoing social process, the new company in France would bring together the activities currently managed within Airbus in Saint-Nazaire and Nantes together with those of STELIA Aerospace worldwide.

Another company in Germany would bring the activities of Stade and Structure Assembly of Hamburg together with those of Premium Aerotec in Nordenham, Bremen and partly in Augsburg, while rebalancing activities towards the upper part of the value chain and reviewing its involvement in the manufacturing of detail parts.

These two new aerostructures assembly companies, both wholly owned by Airbus, would no longer be suppliers to Airbus but become integrated within the Airbus perimeter, simplifying both governance and interfaces in a new industrial setup. Their distinct status would also enable them to focus on their industry segment and be leaner and more agile, fostering competitiveness, innovation, and quality to the benefit of the Airbus programs of today and tomorrow.

Airbus also intends to create a new global player in the detail parts business, anchored in Germany. Born out of today's Premium Aerotec, this new entity, with its scale and advanced technologies, would be empowered to capitalize on the significant long-term growth prospects with Airbus as well as external customers, on both civil and military platforms.

In Spain, Airbus continues to work on solutions with its social partners to optimize the current industrial and aerostructures set-up in the Cádiz area in order to ensure its viability, resilience and competitiveness for the future. [Source: Aerospace Manufacturing and Design](#)

Surcharge Totals February - July 2021



	Feb	Mar	Apr	May	June	July
15-5	0.6546	0.6720	0.6913	0.7359	*	*
15-7	0.9098	0.9716	0.9804	0.9847	*	*
17-4	0.6393	0.6553	0.6795	0.7310	*	*
17-7	0.8178	0.8472	0.8325	0.8722	*	*
201	0.6366	0.6650	0.6660	0.7195	*	*
301 7.0%	0.8063	0.8350	0.8214	0.8634	*	*
302/304/304L	0.8842	0.9170	0.8974	0.9389	*	*
304-8.5%	0.9189	0.9538	0.9315	0.9704	*	*
305	1.1665	1.2156	1.1736	1.1965	*	*
309	1.1956	1.2447	1.2016	1.2407	*	*
310	1.6987	1.7765	1.6938	1.7057	*	*
316/316L	1.1697	1.2459	1.2345	1.2298	*	*
316LS/316LVM	1.6200	1.7600	1.6500	*	*	*
317L	1.3374	1.4354	1.4271	1.4133	*	*
321	0.9486	0.9868	0.9607	0.9921	*	*
347	1.2543	1.2911	1.2661	1.2977	*	*
409/409 Mod	0.2704	0.2716	0.2978	0.3472	*	*
410/410S	0.2741	0.2741	0.3011	0.3542	*	*
430	0.3115	0.3115	0.3372	0.4111	*	*
434	0.3728	0.3860	0.4185	0.4825	*	*
439	0.3242	0.3260	0.3496	0.4278	*	*
440A	0.3115	0.3115	0.3372	0.4111	*	*
2205	0.9757	1.0520	1.0744	1.1092	*	*
263	5.4636	5.6679	5.9612	6.6693	7.9946	8.2475
276	5.4743	5.7359	6.1061	6.5901	7.1199	6.5237
A286	1.6546	1.7379	1.9045	2.1129	2.2187	2.0210
330	2.1668	2.2771	2.4934	2.7077	5.4791	2.5437
400	4.0608	4.3137	4.7668	5.1575	5.4791	4.8402
Custom 455	0.9500	1.0000	0.9300	*	*	*
Custom 465	1.2200	1.2900	1.2100	*	*	*
600	4.3195	4.5458	4.9519	5.3688	5.6497	4.8973
601	3.7014	3.8872	4.2284	4.5766	4.8061	4.2425
617	5.4271	5.6616	6.0103	6.5960	7.5248	7.3395
625	6.0267	6.2530	6.6094	7.0245	7.4154	6.8490
Custom 630	0.7200	0.7700	0.7800	*	*	*
718	5.8770	6.0513	6.3535	6.6898	6.9441	6.4667
X-750	4.8600	5.0801	5.4757	5.9189	6.1830	5.4539
825	2.7475	2.8876	3.1348	3.4186	3.6277	3.2981
HX	3.6791	3.8686	4.1640	4.5259	4.8964	4.4855
188	7.9400	10.0500	11.1100	*	*	*
CCM	9.5700	14.8400	16.5900	*	*	*
L-605	8.7700	11.4100	12.9700	*	*	*

*Surcharge currently not available

United Performance Metals' Medical Minute with Dennis Rahill



UPM is a well-known and respected source for high quality stainless, nickel and titanium mill products for the aerospace, power generation, and industrial markets. Did you know that we have also been servicing the global medical implant and device markets for several decades? We offer a full line of titanium, cobalt, and stainless bar, sheet, and plate stock for these critical medical implant and instrument markets.

UPM is ISO 13485 registered. Our raw materials are produced by world class mill sources and are approved by all OEM suppliers.

Additionally, we offer our patented FIRSTCUT+® Processing Services such as water jet cutting, sawing, deburring, slitting,

cut-to-length processing, and precision blanks to give customers what they need, when and how they want it. Our lead times are considered best in class within our industry.

United Performance Metals' diverse customer base includes a broad array of medical OEM's and machine shop sub-contractors that produce implants and instruments all over the world. We are also involved with new and exciting applications such as the robotics market. Reach out to UPM with your next medical requirement. Our experienced customer service and supply chain team provide the medical market with the solutions it requires to support their complex needs. We welcome the opportunity to work with you.

Dennis Rahill is the Business Development Manager for United Performance Metals and has over 32 years of experience in the metals industry, with 22 of those years devoted to the medical implant and device market. Look for more Medical Minutes in future issues of the UPM Market Informer.

United Performance Metals' medical grade materials include Titanium CP Grade 2, CP Grade 3, CP Grade 4, Ti-6AL-4V, Ti-6AL-4V ELI, Cobalt Chrome Moly (CCM), Custom 455, Custom 465®, Stainless Steel 17-4, 301, 303, 316/316L, and 410. Contact us with your medical device and implant material requirements.

Outokumpu Price Adjustment

Outokumpu made the following announcement regarding their U.S. and Canada business. Effective with shipments beginning May 1, 2021 Outokumpu Stainless USA, LLC will implement the following price adjustments for all Non-Contract items.

- An Extra \$5.00/cwt will be applied to Light Gauge Adder
- An Extra \$7.00/cwt will be applied to Single Cast Product
- An extra applied to CTL Extra By Gauge

This increase is incremental to all other previous announcements. [Source: Outokumpu](#)

GM and LG Energy Plan A \$2.3 Billion Electric Vehicle Battery Plant



Ultium Cells LLC, a joint venture of LG Energy Solution and General Motors, is planning a more than \$2.3 billion investment to build a second battery cell manufacturing plant in Spring Hill, Tennessee.

Ultium Cells will build the new plant on land leased from GM. Construction on the 2.8 million-square-foot facility will begin immediately, and the plant is slated to open in late 2023. Once in service, the plant will supply battery cells to a nearby GM assembly plant. In March, LG Energy Solution said it planned to invest more than \$4.5 billion over the

next four years to expand its battery production capacity in the U.S. by 70 GWh. The expansion will give the company a total production capacity of more than 110 GWh in the U.S.

GM's Ultium battery technology use a large-format, pouch-style cell that can be stacked vertically or horizontally inside the battery pack. This allows engineers to optimize battery energy storage and layout for each vehicle design. Energy options range from 50 to 200 kilowatt hours, which could enable a GM-estimated range up to 450 miles or more on a full charge. GM's future Ultium-powered EVs are designed for Level 2 and DC fast charging. Most will have 400V battery packs and up to 200 kW fast charging capability; GM's truck platform will have 800V battery packs and 350 kW fast charging capability.

In late January, GM said that it planned to become carbon neutral in its global products and operations by 2040. The company worked with the Environmental Defense Fund to develop what GM called "a vision of an all-electric future" as well as "an aspiration to eliminate tailpipe emissions from new light-duty vehicles by 2035." To reach its goals, GM plans to transition to battery electric vehicles or other zero-emissions vehicle technology, source renewable energy, and leverage "minimal offsets or credits." *Source: David Wagman for [PW Magazine](#)*



Doncasters Invests in Alabama Facility

Doncasters, a manufacturer of high-precision alloy components and superalloys for the aerospace, energy, and automotive sector, is making a multi-million-dollar investment at its Southern Tool facility in Oxford, Alabama.

The 160,000 ft² precision casting facility is to benefit from an approximately \$3.5million capital investment to expand its manufacturing capacity with the introduction of a new 300 lb. Equiax vacuum casting

furnace. Once operational, the new furnace will realize a significant immediate increase in capacity, enabling Southern Tool to serve the increasing demands of its key customers in the aerospace industry. It will also bring new casting technology capability to the site, enabling new market opportunities and increased revenue streams.

As well as the increased capacity brought by the new furnace, the operational efficiencies of newer, more advanced furnace and ancillary equipment technology will reduce carbon footprint and waste while increasing operational efficiency at the site. Jason Mays, managing director of Doncasters in the USA said, "Not only is this \$3.5 million investment going to significantly improve our capacity at Southern Tool, it is also a massive vote of confidence in the facility's position in the marketplace, our future prospects, and the abilities of our highly skilled workforce.."

"The new capacity will allow us to maximize every opportunity, using the very latest in technology to offer more products and services to our global customers and confidently satisfy their ever-growing requirements. Furthermore, it helps us maintain our position as a leading manufacturer of vacuum and air melt castings in the sector."

The investment at Southern Tool is one of the first projects to be announced following the announcement in January of a group-wide \$137 million+ investment plan as the Doncasters Group pursues long-term growth opportunities across its 11 manufacturing facilities located in the U.S., U.K., and Germany. *Source: [Aerospace Manufacturing & Design](#)*

U.S. Power Use to Rise in 2021 as Governments Ease Lockdowns: EIA



U.S. power consumption will rise 2.1% this year as state and local governments ease coronavirus lockdowns, the U.S. Energy Information Administration (EIA) said in its Short Term Energy Outlook (STEO) on Tuesday. The EIA projected power demand will rise to 3,883 billion kilowatt hours in 2021 and 3,935 billion kWh in 2022 from a coronavirus-depressed 11-year low of 3,804 billion kWh in 2020.

That compares with an all-time high of 4,003 billion kWh in 2018.

The EIA said the share of natural gas-fueled power generation will slide from 39% in 2020 to 36% in 2021 and 35% in 2022 as gas prices increase, while coal's share will rise from 20% in 2020 to 22% in 2021 and 23% in 2022.

The percentage of nuclear generation will ease from 21% in 2020 to 20% in 2021 and 19% in 2022, while renewables will rise from 20% in 2020 to 21% in 2021 and 22% in 2022.

The EIA projected 2021 power sales would rise to 1,496 billion kWh for residential consumers, which would be a record as continuing lockdowns cause more people to work from home, 1,285 billion kWh to commercial customers and 958 billion kWh to industrials. That compares with all-time highs of 1,469 billion kWh in 2018 for residential consumers, 1,382 billion kWh in 2018 for commercial customers and 1,064 billion kWh in 2000 for industrials.

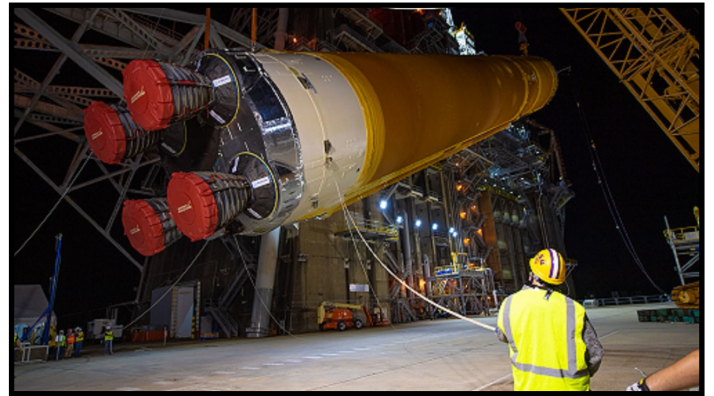
The EIA also projected 2021 natural gas sales would rise to 13.23 billion cubic feet per day for residential consumers, 9.18 bcfd to commercial customers and 23.91 bcfd for industrials, which would be a record, but fall to 28.83 bcfd for power generation.

That compares with all-time highs of 14.36 bcfd in 1996 for residential consumers, 9.63 bcfd in 2018 for commercial customers, 23.80 bcfd in 1973 for industrials and 31.74 bcfd in 2020 for power generation. *Source: [Reuters](#)*

Boeing's First Core Stage for NASA's SLS Ready to Travel to Launch Site

Boeing begins delivery of the Space Launch System (SLS) rocket cryogenic core stage to NASA today in preparation for launch of the Artemis I mission, the first moon mission in nearly 50 years.

Boeing refurbished the stage after it successfully completed hot fire testing last month at NASA's Stennis Space Center, closing out the Green Run campaign on the B-2 test stand. The flight hardware will now go to Kennedy Space Center in Florida for integration with the Orion crew spacecraft, Interim Cryogenic Propulsion Stage upper stage and solid rocket boosters in preparation for launch.



SLS will launch NASA's Artemis I mission that will send an uncrewed Orion crew vehicle around the moon and back. That test flight will be followed by Artemis II, the first crewed lunar fly-by for the Artemis program.

Boeing is the prime contractor to NASA for the SLS core and upper stages and avionics. The company is joining major elements for the Artemis II core stage now at NASA's Michoud Assembly Facility in New Orleans.

Boeing also is working on evolvable capabilities for the rocket system such as the Exploration Upper Stage (EUS), which is entering production at Michoud. The more powerful SLS with EUS will be able to lift three times as much mass to deep space as any other rocket, enabling sustainable, crewed and uncrewed exploration, science, and security missions. SLS' evolved capability to transport massive payloads in a single launch reduces mission complexity and risk while increasing safety, reliability, and probability of success. *Source: [Intelligent Aerospace](#)*