

AM Craft Enables Lightweight Cabin Upgrades in Finnair's A320 Fleet with Additive Manufacturing

To remove heavy outdated flip-down video monitors from Passenger Service Units, Finnair used AM Craft to redesign and 3D print certified replacement panels.

RīGA, LATVIA, May 14, 2024 /EINPresswire.com/ -- AM Craft announced today that they have completed a Finnair project to produce blanking panels to replace existing flipdown video monitors within the Passenger Service Units (PSUs) of Finnair's Airbus A320 fleet. AM Craft is delivering more than 300 of these components on a just-in-time basis to provide the install-ready, airworthiness-certified parts that Finnair needs at the moment they are needed in the cabin upgrade for 17 individual aircraft. This efficiency is results from AM Craft's expertise with additive manufacturing, or 3D printing, which enables rapid production timelines and zero tooling costs, ideal for low-volume/high-mix manufacturing. Finnair's Totti Pekonen, Manager Cabin & Payload Engineering stated, "Since starting the



3D printed PSU in-fill panel installation within the aircraft cabin interior.



Front and back of the PSU In-fill panel showing both the 3D printed nature and the cosmetic finish.

installation campaign of the printed panels as a fleet-wide solution during the fourth quarter of 2023, the work has been progressing smoothly and on schedule thanks to the support from AM Craft."

To address the Finnair challenge, AM Craft helped conceptualize a solution and turn that concept into reality based on AM Craft's experience designing, producing, and certifying airworthy parts for the aviation industry. By using additive manufacturing, the AM Craft blanking panel solution could be designed to optimize weight, be produced and delivered exactly when needed, and meet all Finnair operational and airworthiness requirements. Because they hold an EASA 21G Production Organization Approval, AM Craft is also able to certify the airworthiness of the part they manufacture. Thus, Finnair was able to turn to them for end-toend support from project initiation



With the flexibility of the design and certification approach, fill panels can be printed to the needed size.

through to delivering install-ready parts complete with Form 1 airworthiness certificates.

"This project is a great example of how well additive manufacturing fits within the aviation sector. As the average age of the commercial fleet continues to grow, there are many opportunities where it makes sense to redesign a part and produce only the quantity needed rather than try to leverage the long lead-times of the original source. With additive manufacturing, we can realize great low-volume, high-mix economics, and we can often reduce part count and weight in the process," said Janis Jatnieks, AM Craft's Chief Commercial Officer. "Without additive manufacturing, this could have been a much slower and more expensive project, but because AM Craft can manage the entire project to design and certify a printable solution, Finnair saved time and money."

Through AM Craft's flexible production model, blanking panels can be delivered to Finnair on a just-in-time basis, which minimizes excess inventory and eliminates costs associated with the traditional supply chain. "Now that this part has been developed, certified, and added to our digital catalog, it will be available to Finnair, or any other airline that requires this solution for an A320, again at any point in the future," added Jatnieks, "and because of our network of approved production facilities, if the next part is needed in Dubai or Singapore, we can produce it locally and have it ready to install wherever it is need without stocking or shipping." AM Craft's novel approach to the part design and certification allows the panels to be printed in multiple lengths, tailored to the need of the specific installation yielding maximum flexibility for future customers.

With multiple shipsets installed, and the rest slated for installation within 2024, Finnair and AM

Craft see continued opportunities to work together on future projects. Totti Pekonen noted, "The parts we received from AM Craft were of high quality and delivered on time. Though they were a new supplier for us on the PSU project, we have been very impressed by their expertise and professionalism and look forward to continuing to work with them."

AM Craft utilized Stratasys FDM technology and ULTEM 9085 filament to produce the PSU replacement panels for Finnair, and finished the panels in AM Craft's certified paint shop.

About AM Craft

AM Craft is an EASA Part 21G aviation supplier that leverages expertise in polymer additive manufacturing, design, airworthiness certification, and distributed a production network to ensure customers have the right part, at the right time, in the right location. AM Craft's distributed production network combines in-house manufacturing and independent local production partners under a unified certification umbrella to bring flight part production to the point of need.

Headquartered in Riga, Latvia, AM Craft operates in major MRO hubs in Europe, the Middle East, and Asia and serves a global customer base. For similar blanking panels or to meet your own challenging redesign and fast production needs, explore AM Craft's innovative solutions at <u>www.am-craft.com</u> or connect on LinkedIn.

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