

2021 in Review & What to Expect in 2022

ALTEA's perspective on the business aviation market

Completion & Design

> Active market despite supply-chain issues

Whilst the pandemic has certainly 'contained' design and completion activities it has not stopped the likes of AMAC, Comlux and Jet Aviation's projects in this arena. To some extent the pandemic has led to increased MRO activities with the storage of aircraft and owners taking advantage of the downturn in flying to bring bigger maintenance checks forward, however supply-chain difficulties and resourcing issues badly impacted some of the regular centres. Despite these constraints the actual completion side of these businesses has continued. Such programmes normally last between one and two years, so whilst some were hindered, the interest to initiate or continue these activities appears not to have been affected given the following announcements throughout the last 12 months.

Having delivered the first Boeing BBJ 787-8 back in in 2016, Safran owned Greenpoint Technologies in Seattle USA delivered the world's first WWIP Boeing BBJ 787-9 interior completion to an undisclosed client. The power of teamwork resulted in Greenpoint modifying the aircraft eight months faster than the first WWIP Boeing BBJ 787-8. Quite an engineering achievement. The interior design was undertaken by Greenpoint's own experienced design team.

In the run up to Christmas Jet Aviation announced the on-time redelivery of its first WWIP Boeing BBJ 787-8 interior completion to an undisclosed customer. The aircraft is notable for its low weight and low cabin acoustic values and it would seem Jet Aviation have made some gains to further enhance the cabin's acoustic calm.



This aircraft was delivered green to Jet Aviation's completions centre in Basel in October 2019 so it was a two-year project for them – no doubt due to some pandemic impacts. The cabin interior was designed by an external design studio.

Not to be out-done by its neighbour on the Basel airfield, AMAC Aerospace have completed multiple maintenance projects this past year on VIP aircraft from Boeing BBJ 737s to ACJ320neos not to mention a plethora of Bombardiers and Gulfstreams notably mid-size models to fill AMAC's new Hangar 5 facility.

> Airbus fleet chosen for German Government and Air Force

Back in April of this year the German Government kept Lufthansa Technik on its toes with the second of three Airbus A350-900s of the German Ministry of Defence's Special Air Mission Wing arriving at Lufthansa Technik in Hamburg for cabin completion. After the first aircraft was initially equipped with a transitional cabin last year to ensure an early entry into service, the second aircraft will now receive the first full government cabin for an aircraft of this type. Delivery to the Luftwaffe is planned for Autumn 2022.

The German Government also awarded LHT the contract to convert **the first Airbus A321LR for the German Air Force**. The cabin modifications will be for troop transport and MedEvac roles. The German Air Force will receive a future-proof, modern passenger aircraft which can be deployed on short-, medium- and long-haul flights. With the installations made by Lufthansa Technik, the aircraft can be used in four different interior configurations. Such capability is worth noting for similar air forces and governments within Europe.

> Design concepts continue to inspire

LHT also raised awareness of their Airbus A350 prowess by utilising their in-house design team to come up with several interesting design concepts for ACJ350s (or presumably similar sized wide body aircraft). These concepts could be construed as ‘figments of the imagination’ and quite often send engineers into a tailspin however they *are* thought provoking and allow potential customers some insight into the possibilities of cabin interior design. All too many VVIP cabins go from one extreme (neutral, safe, inoffensive) to the other (over-indulgent, gaudy, idiosyncratic) – so guiding a client’s vision can be a minefield. Such concepts subtly steer potential customers in a more exciting, stylish direction.

Moving back to stateside, Comlux Completion goes from strength to strength, having announced it would be Airbus ACJ’s completion centre of choice for the ACJ TwoTwenty programme back in late 2020, with a potential pipeline of 15 ACJ Two Twentys. The first green aircraft has arrived for outfitting at Comlux’s US based facility in Indianapolis. The world’s first ACJ Two Twenty will be re- delivered with its new VIP interior to FIVE Hotels Group based in Dubai, UAE which is anticipated early 2023.

This is a bit of a landmark aircraft for the business aviation sector as it creates its own niche, bigger, and thus arguably more comfortable than a traditional long range business jet, yet more affordable and as capable as a narrow body bizliner. Not to mention its environmental impact appeal. No doubt this ‘new-style’ VIP aircraft will have great interest in the launch customers’ region.

Another noteworthy launch possibly for its interior design alone is Dassault’s new flagship, the Falcon 10X. The interior design team at Dassault should be commended, the launch of the aircraft concept showed off a simple, attractive interior with some unique innovative features. One hopes they make it to production.

> Sustainable design

Back here at our London HQ and design studio, the ALTEA design team unveiled a custom Global 7500 interior in the Autumn and jumped in with Bombardier on their Global 7500 tour meeting up with the aircraft and potential customers in Stockholm. We started the design looking at the



1950s. This heralded the birth of industrial design – the recognition that design wasn’t just an add-on aesthetic, but it could and should be the backbone of the idea generation. ‘You can have a great piece of

engineering but if it doesn't 'appeal' no one will buy it. You can have an attractive aesthetically pleasing product but if it doesn't work it's just an ornament'. ALTEA's philosophy is that good design needs to blend the two in tandem with considerations in the best maintenance, the best materials, the best assembly, and design for manufacture. As aircraft interiors seek to become more 'things' to their owners ALTEA believes the simplicity and good practice of the industrial design process will be key. Especially as the private jet ownership becomes more accessible to younger aircraft owners who bring a natural awareness towards more design-savvy requirements.

On that vein the ALTEA design team continuously researches sustainability in luxury interiors. We look to alternative markets such as furniture production, automotive interiors, and innovation with 'new' sustainable materials for inspiration and knowledge.

> **eVTOL innovation**

We are also investigating the eVTOL market and what implications urban mobility will have on business aviation, design trends and aircraft ownership. This niche area of innovation seems awash with investors keen to take a punt on what 'vehicle' or technology will become the mainstay for the future. The truth is that it will be slower than people want it to be, and no doubt a hybrid of several innovations and alternative power sources. In the immediate future sustainable aircraft fuel will play a bigger part in the aviation industry than perhaps many first thought.

> **Air-cruising takes off**

The outlook for design and completion in 2022 in our view will undoubtedly continue to grow so long as the aircraft are there to convert. However, one area which may be of particular interest to watch is the increase in luxury hotel and 'air-cruising' market. Such markets can utilise an array of aircraft platforms from older wide bodies such as Boeing 767's to re-positioning and re-configuring aircraft previously thought as regional jets – Embraer E2 for example, to create a niche between a First-Class airline experience and private jet charter. Hotel and luxury travel groups are taking notes.

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