

Izzy Kington Business Jet Interiors International

goldenjubilee

It had to build a company at the same time as its first cabin interior, but keeping it in the family has paid off for Comlux America

Having conquered the world of VIP charter, aircraft management and sales, cabin design and outfitting management, the Comlux group made the perhaps natural progression into actual cabin completions in late 2008. It did so by acquiring the Indianapolis Jet Center (IndyJet) at Indianapolis International Airport, USA, and renaming it Comlux America.

The new company has just finished its first project – an A320 Prestige named Jubilee. It was truly a family affair. Comlux purchased the brand new aircraft for the client (who is based in central Asia); its Creatives division in Zurich, Switzerland, designed the interior; and now its cabin has been completed by Comlux America it will be managed and chartered by another branch of the company.

In preparation for its charter role, the interior is both versatile and designed to appeal to a broad range of passengers. “It’s made for transporting government or normal charter clients, perhaps a big family; it actually complies with any request,” says Ettore Rodaro, president of Comlux America. “We wanted to cater to many possible tastes around the world. It’s a mix of classical and contemporary.”

Heading up the design was Tim Callies, head of Comlux Creatives. His plan for the entrance area includes a sliding screen finished with artwork to hide the galley, along with a magazine rack and a smart credenza.

From the entrance, passengers enter the executive cabin, which is divided in two. The forward area has two club seats with an L-shaped divan on the opposite side, so passengers can either watch a film or work using the fold-out table. The seats convert to beds, so there is a single bed on each side of the aircraft cabin.

Following on from this is the dining area, featuring a three-place divan and



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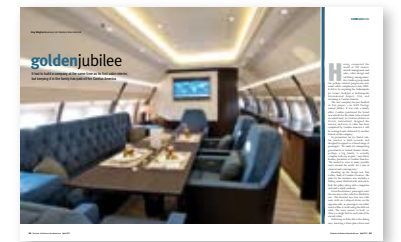


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four seats around a table. There is also a bar with a Hi-Lo top, and a buffet area with plenty of storage space for all the crockery, cutlery and so on.

A narrow corridor on the left-hand side leads to the aft section (which features a 12-seat first-class section and economy seating). A door in the hallway opens into the private lounge. This incorporates another L-shaped divan that can be converted to a 1.3 x 2m bed, as well as coffee table and a 42in TV that is independent of the others throughout the aircraft. There is also a private bathroom with shower. "Providing a shower is a must have in the charter business, even though most of the customers don't use it," says Callies. "We decided from the beginning we needed to have it, especially for the Middle East, where it can be very hot outside and people would like to take a fresh shower before going into their next meeting."

1. An L-shaped divan in the private lounge converts into a bed
2. Seating in the forward, executive section
3. The executive cabin features areas for seating and dining



Callies says design inspiration came from a magazine picture showing a man in a suit on a beach with the sea behind him. "Our goal was especially to attract people in the Middle East, so we tried to use colours which are very welcome in those countries, for example beige colours like the sand and blue colours for the ocean," he says. The picture also reflected the aircraft's dual role – business and pleasure. "This was the guiding idea, the guiding slogan for us to develop the design," he says.

Sand and sea The beach/ocean theme is carried through with the colours. Three main schemes are used – blue for the dining-area seats, private lounge walls and aft-area seats; beige sand tones for the carpets and forward-area seating; and dark brown accents achieved through the use of two wood veneers, Wenge and Zebrano. A rippled

carpet in the private lounge gives way to a blue carpet in the private bathroom, to give the idea of going from the beach into water.

Using the Wenge veneer, which has a very distinctive open grain, presented a challenge for the team at Indianapolis tasked with applying a finish to it. "With the open grain, the lacquer goes inside and appears white when it dries. So it took us some time to find the correct lacquer," says Callies.

It was decided that all the veneers would be finished in satin rather than high gloss, because the aircraft is to be used for charter flights. "With high gloss you always see fingerprints or scratches easily," says Callies. "For a charter aircraft, its more durable to have a satin finish."

This isn't the only aspect to be designed for resilience. For example the walls are lined with artificial leather from Majilite instead of silk or woollen fabric. "It's much more cleanable, especially in the hallway where it's narrow and it's easier to scratch or to damage something," says Callies.

Lounging around Other leathers in the aircraft come from Edelman, Townsend and Spinneybeck. There are fabrics from Anya Larkin, Warwick, Lelievre and Tapis, and carpets by Tiping. Aft seats use fabric, while the forward-area club seats are covered with leather, with Zebrano on the arm and leg rests. Velvet is used for the dining room divan, and in conjunction with leather for the dining room chairs. "I'm kind of proud that our people in Indianapolis were able to develop what I designed in my sketches," says Callies. "Especially with the dining seats, they look more like real lounge seats than aircraft seats and we still have all the functions we need like recline and swivelling."

Another material of interest is Bisazza, a mosaic stone used on the



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Silence is golden

One of the goals with the A320 completion was minimising noise levels in the cabin to below 55dB speech interference level (SIL). This has been achieved, with preliminary test results clocking approximately 49.7dB in the forward lounge/dining area, 48.9dB in the private lounge, and 53dB in the first-class area.

Rodaro credits this success to the team's holistic approach: "You can put as much isolation material as you want into an aircraft, and you add a lot of weight but you might end up with zero results, the same noise level as before. So you really need to attack the problem from different angles to get the end result."

One of these angles was to use a lot of fabric in the cabin. Although comfort was also a factor in the decision to cover many of the seats in fabric rather than leather ("leather is usually a very cool material, it takes time before it gets warm and fabric is usually a little bit more cosy," says Callies), fabric's noise absorption properties were also attractive.

Meanwhile the engineering team completely remade and tested a new riser duct for the environmental control system, reducing noise (particularly in the VIP area) by at least 8-10dB compared to the OEM systems.



4. The dining table is served by a three-place divan and four single seats

washroom walls. "It's about 3mm thick but because we had it only on a small part of the bulkhead it's not too much weight," says Callies.

Record time Looking at how well it turned out, it's surprising to find out how little time Callies had. After getting the contract in June 2009, Callies had just two and a half months to develop the design, then another eight to produce technical drawings for the completion centre and select colours and materials.

The company also eschewed mock-ups in favour of a three-and-a-half minute movie created by Callies and ACA, which was shown to the customer and the engineers after the design had been completed.

Callies acknowledges that he had more freedom than on a conventional project. "Usually with other customers it's the opposite way, you first show the renderings and then you produce the design," he says. "With this project it was very quickly defined what we needed. I was able to do what I liked and of course this is always very easy for a designer. It's always a bit more complicated if you have a customer who wants a very traditional interior design and you need much more time to research and to find out if the design direction you're developing is the one the customer would like."

The aircraft arrived at Indianapolis in March 2010 and is due to go into service (on time) on 3 May 2011. One of the keys to an on-time delivery is

careful supply chain management. On this front Comlux America says it hires "one of the best purchasing managers in the business". He holds purchasing agents responsible to track purchased items. Any outsourced items are managed by the shops themselves – they are responsible for on-time delivery and quality whether it is outsourced or not.

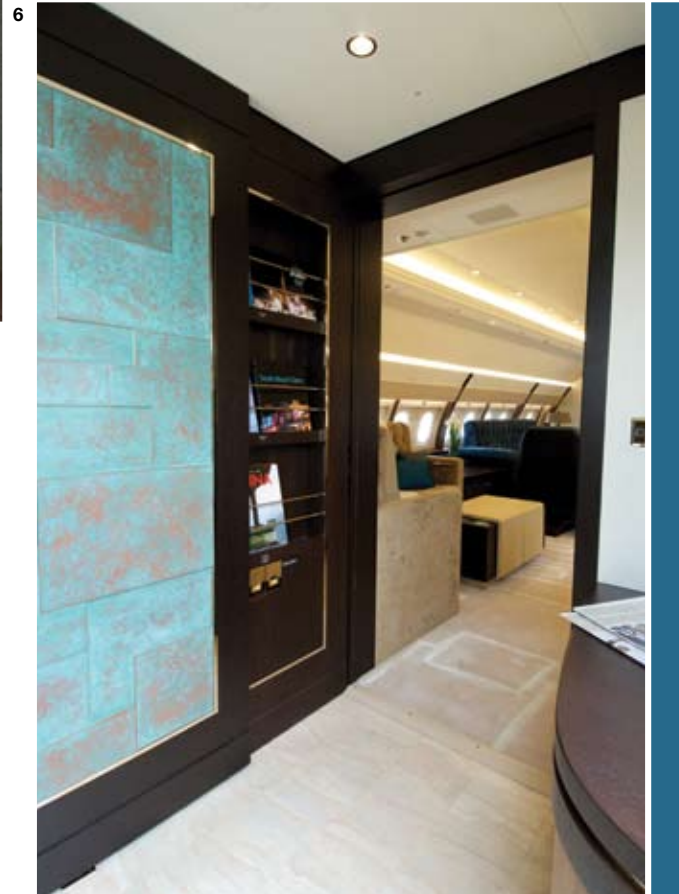
Cabin component suppliers for this project included MSA (window shades), CTT Systems (humidification system), Jormac (interior lining system), PAC (seats and divan), CCC (IFE), Cabin Innovations (galley), Teklam (laminated panels), Carl Booth (veneer) and Jeff Bonner R&D (the shower).

Of course there were certain challenges for Comlux America in performing its first completion. "We had to build up the staff and team at the same time we were completing the aircraft. This on top of developing over 600 procedures, processes and design standards, and developing a relationship and trust with the FAA," says Séverine Cosma, vice president of marketing at Comlux.

Although IndyJet had over 30 years of experience in corporate aircraft refurbishment, the takeover involved more than a simple change of name. Comlux had bigger plans. "We didn't just build a cabin, we built a company," says Ettore Rodaro, president of Comlux America. "IndyJet specialised in small business jets, refurbishments and maintenance. The first thing we



5. The aft of the aircraft incorporates a 12-seat first-class section
6. The entrance area, with galley hidden by a sliding pane



Entertainment options

Comlux specified an IFE system especially for this A320, provided by CCC. “We went through each room and decided what kind of functions customers needed,” says Callies. “I wanted to have a very easy, understandable system, especially for the charter business, where you have many customers.”

One consequence of this is the use of words rather than pictograms on the IFE controls. “Today, more or less everyone speaks English and some customers interpret pictures differently. Also on small buttons it’s more difficult to show a nice pictogram than only a word,” says Callies.

There is a cabin management system, which can be controlled from the principal’s seat via a touchscreen. There are also touchscreens on the walls going from the main entrance into the executive area, offering control over IFE, lighting scenarios, heating and window shades (which are electrical and can be controlled individually).

The executive area boasts two monitors (42in in the dining area and 37in in the lounge); while the rear seating area has 10in in-arm seat monitors.

did was to re-qualify the centre as a Bombardier-approved service facility. But in order to build narrow-body aircraft we had to find a lot of new manpower, specialised manpower coming from outside the state.”

In practise this means the facility has two divisions – with the IndyJet staff (all of whom were retained) performing engineering and maintenance on Bombardier Learjet, Challenger and Global aircraft under the Comlux Aviation Services banner; and a new team for Comlux America’s Airbus Corporate Jet and Boeing Business Jet completions. The completions team is led by CEO David Edinger, whose 30 years in the business have incorporated stints at the Dee Howard company, Reese Design, Associated Air Centre and Airbus. Rodaro, who co-founded Comlux in

2003, was the only Comlux alumni to make the transatlantic move. Around 300 new jobs were created.

As well as the A320, the company has also completed several partial refurbishment projects – including a Global 5000, redelivered at the end of February 2011. A VIP Boeing 767 is to be delivered in July 2011; and a Challenger 850 demonstrator is to be delivered in May 2011.

Currently in the hangar are a BBJ3 (which arrived in January 2011) and an A319 (arrived March 2011), for full completion. In July 2011 the company will begin building a new hangar, which should be ready by mid 2012, and will be able to accommodate four narrow-bodies. The expansion will also mean taking on a further 200 staff.

Rodaro does not envisage the company expanding into wide-body

completions in the near future: “If we can deliver three or four narrow-bodies a year with perfect quality and on time then we have a very valid business case. In the long run you never know, but it’s not on the agenda today,” he says. He also believes the company will benefit from other completion centres being too full and busy with wide-bodies to accommodate narrow-bodies.

“A wide-body absorbs a big number of employees for about two years and it means that they will obviously reduce their capacity on the narrow-body side,” Rodaro says. “So traditionally this frees up more narrow-body positions for many completion centres. That was actually our reason to build up the business.” **END**

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