



A government B747-8i was delivered by Boeing 2012. Later it got a VVIP interior by AMAC Aerospace Switzerland during two years. After the completion it was handed over to the customer in July 2015. (Photo Paul Bannwarth)

AMAC Aerospace goes for one-stop-shop

In the market for VVIP planes are a handful of specialised completion companies worldwide. With the levelling out for newly ordered big-and-heavy business jets the companies have to respond to customers demand in the up-coming need of maintenance and refurbishment. AMAC Aerospace Switzerland Ltd. chooses to step in and focus as an all-in-one service provider with own knowledge and not relying on outsourcing work.

Peider Trippi reports from Basle/Switzerland

Within eight years since formation as a newcomer, AMAC became a rising star in the MRO industry for completion, refurbishment and maintenance of large business jets. With the recent acquisition of JCB Aero SAS, the French leader in the luxury design and installation of civil and VIP aircraft interiors, and building a MRO facility in Bodrum/Turkey the company will soon have seven hangars with almost 40.000 m² and over 800 employees.



Four hangars at Basle location can handle up to seven mid size and five wide bodies at the same time. ALL PHOTOS AND GRAPHICS BY AMAC AEROSPACE UNLESS STATED

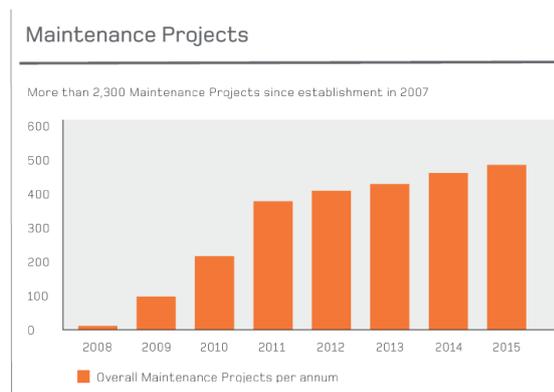
Located at the aviation cluster of Basle/Switzerland, the main competitors are owned by US companies and Lufthansa Technik at Hamburg. The AMAC portfolio covers types such as Boeing B747/777/737, Airbus A340-200, -500, -600/330/310/320, Gulfstream and Bombardier aircrafts. Twenty to twenty five aircrafts are permanently in work at the facility.

For the Pilatus PC12NG and PC24 AMAC Aerospace is the exclusive sales distributor in Middle East and is using its Istanbul facility for maintenance. The first 3 PC12's were sold and have either had delivery or expected delivery to UAE (2) and one in Turkey. AMAC owns one for customer transport or urgent part requests and CEO Kadri Muhiddin owns one himself to keep his pilot licence alive.

Four core services

With a yearly turnover of 180 to 220 Million \$ the business is based on four legs: Two hangars are dedicated to **Completion &**

Refurbishment, including partial design and engineering in-house capability and all workshops for production. In between 2010 and 2015 seventeen VVIP/VIP-aircrafts went through the AMAC hangar doors, from ACJ319 up to B747-8i. **Maintenance** is performed for small and medium sized aircrafts in the first shorter hangar and the “heavies” in the new built hangar IV. It includes airframes, engines and fuselage repair and aircraft skin replacements. The share between C/R and M was in the past 65% to 35%, in the near future changing to an equal level.



Maintenance projects are steadily growing; with more B777 and B747 to come the hours even have a steeper development.

Aircraft Management and Sales is located in Zurich. It covers about 25 3rd party aircrafts. The fourth service is dedicated to **Charter** with own, including the only VIP MD87, or private or commercially registered aircrafts.

Flat organization and Leadership

AMAC Aerospace is owned by CEO Kadri Muhiddin, CFO Mauro Grossi and COO Bernd Schramm. To keep the organization flexible and lean, a flat organization and an open door policy up to the CEO office – that is what AMAC is standing for. A strong bond between management and shop floor is the seed for motivation, trust and quality. During a shop tour, VP Strategic Operations & Business Development, Waleed Muhiddin (son of Kadri) greets employees by first names. This tells a story by itself. Success is not for free and to keep over 40 nations and 800 people on track

in a fast growing company is an outstanding achievement.

In-house production at Basle

Kadri Muhiddin and his crew are strong believers of an in-house competence in craftsmanship. The short delivery, high quality and no supply chain hassles are the bone of success in this highly demanding market. For example, to stay “top of the breed”, wood supplies (12 different species on stock) are bought in directly from local markets. In an ACJ-project about 800 kg of it was needed. 10% was finally installed in the plane, some as paper-thin veneer ... made by AMAC.

During the eight years over 6000 m2 of workshops were built, a workforce of almost 200 was developed. Taking over qualified people from the nearby French car maker industry and redundant Lufthansa Technik specialist was a key success factor in the rapid development. In 2015 436.000 man-hours were involved in the Production Organization. Design Organization was staffed with 113 Engineers and Designers, producing over 230.000 man-hours. With Maintenance and Quality Assurance at 174 employees, a headcount of 118 in Administration and 33 Safety & Security staff the overall ads up to 631, soon more than 650 in Basle.



The idea for the unique wooden structure for its hangar was born out of the steel shortage at the world market when built the first hangar in 2008. The better fire resistance of wood compared with steel, the “cosy” and elegant appearance let AMAC stick at the wood construction for another three hangars to come in an eight years’ timeframe at Basle.

Latest achievements

Like a hurdler, things are one after the other and at a high pace at AMAC:

- First completion of a VVIP B747-8i in 2015. This made AMAC Aerospace the first completion centre in the world to redeliver an aircraft of this size and complexity. 500.000 man-hours, 700 km and 1.5 t of cables (some bundles are over 60 m long) were built in.
- Fifth B777 C-Check accomplished, another order is imminent.
- AMAC is proud, that it is the first completion centre that ever has installed 4K cabin monitors in an aircraft. This went along with 4K capable Flight Information System for a private operated B737-800.
- Another first in the completion world is to design, build and certificate a fully fitted home kitchen instead of a galley in a ACJ319 VIP aircraft.
- It is currently developing the fuselage mounted KA-Band antenna system STC for the aircraft types B777, A340 and BBJ.
- AMAC provided support in the launch of a new Middle East commercial operator with five different aircrafts involved.
- Receiving the FAA Air Agency Certificate in June 2015, this opens the market for N-registered aircrafts. Followed by Part 145 rating for A310 type. The certification for China is pending. AMAC has now in 20 countries the Maintenance Approval Certificate.
- It took position in the Middle East market with opening MRO and Completion Bases in Turkey, first Istanbul and now Bodrum.
- Carbon fiber knowledge and 3D-printing (items in a 30x30x30 cm cube) were started 2014 and are now in standard use.

AMAC Aerospace understands itself as a market driven company and successfully building up its global reach with latest innovation and increasing of capacity. As the **biggest private company** in this field (all other completion centers are government or corporate owned) it can rely on its own

strength. To keep a 1 Billion \$ order book alive, it's not allowed to forfeit any opportunity.



Boeing B777-200LR VVIP Completion: A masterpiece of engineering and craftsmanship.

Outlook

CEO Kadri Muhiddin sees a positive outlook for his AMAC. With strategic goals in mind such as “pushing the boundaries”, innovation, quick market reaction (play out the advantage of a private enterprise – owner driven) and a healthy financial situation with no loans, he sets on several issues:

- Make AMAC through the one-stop-shop the first address for VVIP/VIP aircraft owners.
- B747, as there are 15 VVIP/VIP units operated in the Middle East.
- Maintenance, as VVIP/VIP-planes getting older and customers prefer dedicated MRO services with knowledge of completion and refurbishing. A need for another hangar has soon to be decided.
- The B777 C-Checks and refurbishing have an increasing demand. The same will be for the Bombardier Global Expresses.
- New digital systems, 2-3 Million \$ per aircraft, are in rising demand.
- As an option for end of 2017 is an assembly line in discussion with an OEM.

Asked in this context about the strategic value of the PC12/PC24 distributor decision, Kadri Muhiddin made a frank statement: Why do people marry? It's not always strategic thinking – loving (a plane) can be motivation too!

Profile CEO



The Group Executive Chairman, CEO and co-founder of AMAC, **Kadri Muhiddin** (60), has its family roots in Lebanon. As aeronautical engineer he has over four decades of aviation industry experience. He worked 1979-1990 as aircraft maintenance engineer at Kuwait Airways for line maintenance and aircraft base checks. In 1990 he founded Gamit, an aircraft and aviation consulting company in Stansted/UK. The specific aim of Gamit was and still is to supply professional and technical support for local and international MROs, airlines, private and corporate aircraft owners. In 2004 he was appointed by his former employer Jet Aviation to be executive president for strategic projects in Europe, the Middle East and Asia. In October 2005 he founded Tailwind Airlines in Turkey. Since 2007 he formed the AMAC Aerospace Switzerland to a leading VVIP-full service provider within eight years.

For his life achievements he received the CEO magazine award “**European Best CEO in the Aircraft Management Industry**” in autumn 2015. In his laudation speech he told the audience, that the award goes to all his employees worldwide, which made it all possible. This represents his family oriented management style, the esteem for his co-workers.