

الهيئة العامة للطيران المدني
GENERAL CIVIL AVIATION AUTHORITY



United Arab Emirates

Aviation Investment Summit 2015

Brief Investor Pack

Version 0.4



Introduction to the Summit

The General Civil Aviation Authority (GCAA), is organizing an Aviation Investment Summit on November 9th 2015 in Dubai, UAE. PwC is advising on and collaborating with GCAA in the successful planning and execution of this event.

The Aviation Investment Summit will coincide with the Dubai Airshow and is aimed at attracting foreign direct investment (FDI) in the aviation sector in the UAE. GCAA/PwC is reaching out to UAE-based aviation related entities and foreign investors/partners (i.e. global aviation companies and/or financial investors) to facilitate mutually beneficial conversations leading up to the Summit.

Based on ongoing discussions with UAE-based companies in the aviation sector, the following key areas of investment opportunities in the market have been identified:

- Maintenance, Repair & Overhaul (MRO) - engine, airframe, components
- Training and education - vocational and academic
- Ground Services - ground handling (passengers and cargo), catering, FBOs
- Infrastructure - Aircraft Hangar Services, Airport Development
- Aircraft Recycling/Decommissioning

The Summit seeks participation from potential investors interested in the opportunities highlighted above. Further details are summarized in the section below.

Investment Opportunities

Maintenance, Repair & Overhaul (MRO) - engine, airframe, components

Market Landscape

The MRO market in the UAE is set to grow from 4.2Bn in 2013 to 8.8bn by 2023, representing an overall growth of 7.5%. The majority of that growth is to come from engine, component and line maintenance.

Trends and Drivers

Currently, airlines are largely performing the majority of (non-heavy) MRO in-house, with few exceptions. While flydubai outsources maintenance of its aircrafts to JorAMCo, Etihad & Emirates have in-house capabilities.

However, MRO capabilities overall will need to grow in line with the growth of the fleet, whether that be through expansion of in-house MRO or through the 3rd party aftermarket.

Opportunities

While the 3rd party market on the whole is not currently under capacity, there are multiple examples of regional airlines building capacity and capabilities jointly with global MROs. The growth of the region's fleet could see more partnerships created.

¹ ICF International



Additionally, the components segment stands out as having a particularly attractive business case in terms of local positioning. The total cost of delivery is expected to be lower if these components could be serviced locally (reflecting significant savings on shipping costs and some labor costs as well). The major airlines in the UAE typically ship rotables around the world for repair, so, having a presence in a location which is the hub of the fastest growing fleets in the world and being closer to the end consumer could result in a competitive edge. Who you can expect to meet Several entities, including airlines, airports and free zones are seeking investments and partnerships in establishing broader MRO services – including component MRO and associated workshop services.

Training and Education - Vocational and Academic

Market Landscape

The aviation sector makes a substantial contribution to UAE's economy. A study by Oxford Economics estimates that the aviation sector will contribute to around 12-15% of UAE's GDP with creation of ~250,000 direct jobs and another 225,000 indirect jobs. Training and development will become a critical element of support for the growing aviation ecosystem in the region.

Trends and Drivers

Pilots / Crew: The Middle East will require 60,000 new pilots to 2033 (~10% of global demand). Of this, it is estimated that up to 22,000 pilots will be required in the UAE alone based on current orders. Technical: Typically the requirement for technical manpower is solved by sourcing external / expat manpower, however the region has a persistent shortage of skilled manpower. Across the Middle East, 66,000 new technicians will be required. On the other hand, this is dwarfed by Asia Pacific, which requires 224,000 – however with wages rising in APAC, there will be increasing competition with APAC for technical resources. MENA needs to start growing its own talent at a faster rate.

Opportunities

In order to support growing needs across the aviation value chain, there is a strong need for further developing academic and vocational training facilities in the region. Generating a local pool of talent that captive clients such as airlines/airports and other aviation companies can tap into will not only help address current gaps but also minimize reliance on higher wage expats. There is also a need for dedicated flight training centres. PwC/GCAA seeks investors with capabilities in training and education for the following areas: pilots, crew, technicians, mechanics, general management and other skills required to support the aviation industry.

² Boeing Current Market Outlook 2015-2034

¹ Boeing Current Market Outlook 2015-2034



Who you can expect to meet

Local entities looking to develop accredited academic facilities, universities seeking technical partners, and airlines seeking training centres. Given the federal sponsorship the Summit has, involvement from the Ministry of Higher Education can be expected as well.

Ground Services - ground handling (passengers and cargo), catering, FBOs

Commercial ground services airside and gate side – with the prominence, growth, and development of airports across the Emirates, the UAE is an attractive location to bring airside and gate side innovations whether that be in terms of new technology, duty free services, passenger services, hospitality or otherwise. In particular, local entities have expressed an interest in exploring potential partnerships and / or expanding their activities in ground handling and catering.

Fixed Base Operations – GCAA/PwC is working with two specific opportunities to develop new FBO facilities in the UAE and seek investors to participate in these projects. The current market landscape in business aviation indicates that:

- Flying hours increased in the region 12% from 2013 to 2014
- Private aviators are increasing fleet and expanding routes. One private airline plans to invest AED 2.57 billion in order to double its fleet by 2020, and predicts a 6-8% growth rate for 2014 and 2015
- The UAE currently commands 25% of the private jet business

Who you can expect to meet

Investees include air operators who have identified ground handling and catering as an area of interest, as well as private jet air service groups and airports who are seeking investors to participate in the development of new FBO facilities.

Infrastructure - Aircraft Hangar Services, Airport Development

The UAE is home to several airports undergoing massive infrastructure development. Already home to over 100 million passenger transfers, it is also one of the fastest growing hubs in the world. The airports themselves are undergoing development and the additional supporting infrastructure that is going to be installed in the next decade is one of the most prominent drivers to the overall growth of the sector.

Infrastructure (Aircraft Hangar Services, Airport Development) – hangars can be utilized for simple aircraft parking (e.g. private jets) or as specialized MRO hangar space. There is a currently shortage of hangars in the UAE.

⁴ Royal Jet



Airport expansion – multiple airports have plans to expand their capacity and require investment into the surrounding infrastructure and supporting services. There are potential opportunities to invest directly into Tier 2 airports.

Cargo and logistics – cargo traffic in Dubai increased 46% between the years 2007 and 2013. Aside from Dubai, other Emirates are positioning themselves to capitalize on the rise of the UAE as a cargo and distribution hub given the degree of connectivity and its strategic location. This will require investment in cargo processing and handling infrastructure, as well as presenting opportunities for domestic cargo services. There are opportunities in specialized cargo handling such as dangerous goods, live animals, and valuable goods.

Who you can expect to meet

Airports and Freezones are keen to discuss the possibility of developing and investing in further aviation infrastructure.

Aircraft Recycling/Decommissioning

Market Landscape

Estimates suggest the market is set to grow to an annualized value of up to \$500M in the next 10 years in the region.

Trends and Drivers

The market is driven by fuel prices and ageing fleets forcing retirement of older aircraft. As one example: in the past two years, Emirates has announced the retirement of 17 aircraft, including recently, the retirement of its last Boeing 777 200 aircraft to be decommissioned. This represents an estimated value of approx. \$145M through parts out of frame, engine and metal scrap.

Approximately 12,000 aircraft globally are to retire within the next two decades, with retirements reaching an estimated 50 annually by 2025.

Opportunities

The offering in the region is currently underserved and under capacity, growing. There is a healthy pipeline of existing inventory – both, airframes and engines, awaiting decommissioning and recycling. With a presence in the ME and closest competitor located in Spain, one has access to the world's fastest growing airlines and adjacent geographies such as North Africa and the Indian subcontinent. Access to ample desert land and dry/hot weather are factors conducive for setting up a business such as this.

⁵ DWC marketing collateral

⁶ PwC Analysis

⁷ PwC Analysis

⁸ PwC Analysis



Recycling of parts out of frame and metal scrap can fetch healthy double digit margins in most cases, while engine overhauls can be even more lucrative with ~100-150% margins.

Who you can expect to meet

Two existing entities are interested in attracting either capital investment in return for equity stake or then seek JVs/partnerships to boost capacity and recycling capabilities. The types of capabilities being sought include recycling of aerospace quality metals and aircraft interiors, waste to energy, and aircraft engine recycling.

Next Steps

GCAA/PwC would like to hold discussions with interested investors who are seeking further information around the Summit and the investment opportunities themselves. Exploratory conversations can be set up between investees and interested investors immediately with the Summit providing a great opportunity for a face to face meeting.

In terms of the summit itself, interested parties may participate through the following means:

Through confirmed interest or intent

- Attend the Summit in connection with a confirmed interest in a qualified opportunity

Through exploratory visit

- Attend the Summit to network, explore investment options and learn more about the aviation landscape in UAE

For further information and/or to register your interest, please contact:

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