ABUDHABI AVIATION

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Abu Dhabi Aviation has grown from an oil industry helicopter service provider to a multifaceted international company. Ben Sansom lifts the lid to find that search and rescue, fire fighting and construction are just the tip of the iceberg

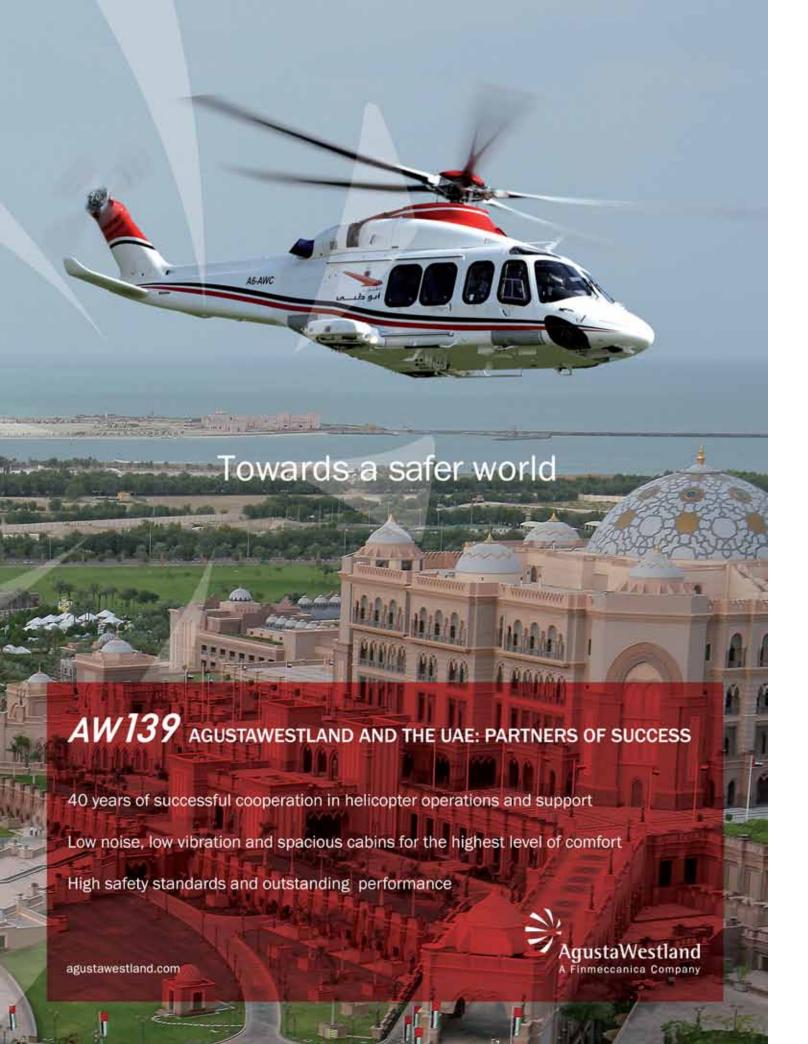
n the 35 years since its inception, Abu Dhabi Aviation (ADA) has established an enviable position as the largest commercial helicopter operator in the Middle East, operating a fleet of over 60 aircraft comprising helicopters and three fixed wing aircraft to provide a range of key specialised services, largely to the oil industry. The company employs over 800 personnel, and of these 150 are pilots and 150 aircraft maintenance engineers.

Formed in 1976 by decree of the Amir of Abu Dhabi, the company's mission was to provide air support services for the rapidly developing offshore oil industry. In 1982, however, ADA became a full public company with 30 per cent ownership retained by the government and the remaining 70 per cent of shares going to Abu Dhabi nationals. The vision for the future was ambitious and growth followed rapidly.

By 1983 the company had increased its fleet size to 34 helicopters flying over 38,000 hours annually, a total that averaged out at more than 100 hours per day. Aware of the benefits fixed wing aircraft could deliver to certain of its oil industry customers, the company obtained authorisation to operate fixed wing aircraft in 1985, and won its first fixed wing contract with the largest oil company in the UAE in 1991—a prestigious service that began with DHC 7 and DHC 6 aircraft and continues today with a fleet of three DHC 8 aircraft.

The main bulk of the company's activity continues to be in the oil industry, and to date ADA has flown almost one million flight hours, transporting personnel and equipment throughout the offshore oilfields in the Middle East. While the majority of this has been on behalf of the offshore sector in the UAE, the company has expanded its operations throughout the region, and now provides services in Saudi Arabia, Qatar, Kuwait, Oman and Yemen. Its expertise has also been called upon by companies operating further afield, and this has resulted in contracts for work in Pakistan, Eritrea, Brazil, Papua New Guinea, Australia, India, Afghanistan and Indonesia.

Abu Dhabi Aviation



AgustaWestland

AgustaWestland boasts a significant and rapidly expanding presence in the Middle East through a number of helicopter types from its comprehensive range of products for both commercial and government applications, particularly in the United Arab Emirates. The company has sold over 70 helicopters of various models in the UAE in recent years, including the AW109 Power and the Grand light twins as well as the AW139 medium twin to perform a range of roles such as offshore transport, VIP/corporate and passenger transport, SAR, law enforcement and government duties. Leading company Abu Dhabi Aviation is a prime customer and operator through its fleet of 20 AW139s,

and one of the largest operators of this type in the world market where it has rapidly become the best selling helicopter in its class. AgustaWestland and Abu Dhabi Aviation also agreed in 2009 to participate in the formation of a limited liability company to carry out certain services and activities in the fields of helicopter repair and overhaul, customisation, modification and upgrading, and the sale of helicopter spare parts and accessories. From its large and modern maintenance facilities located at Abu Dhabi International Airport, Abu Dhabi Aviation is uniquely positioned to support AgustaWestland's remarkably successful AW139 and other models.

ADA has continued to diversify beyond personnel and equipment carrying, and now provides a range of parallel services and operations. Since 1984, when the company's pilots first introduced the concept of long-line vertical referencing to the Middle East, ADA has been carrying out seismic surveys throughout the Arabian Peninsula in search of oil and other natural resources. The work is performed by helicopters specially configured to utilise underslung load techniques that incorporate a long-line of up to 100 feet enabling the helicopter to remain clear of all obstructions. As part of this service the company has completed a variety of contracts in the rugged mountains of Oman and Yemen, using a 40 metre long-line.

The same long-line vertical referencing techniques are also being applied to numerous construction projects in the UAE, Saudi Arabia, Oman and Yemen. Some very successful applications have included the erection of electricity pylons as part of government

schemes to bring electricity to remote areas, and in the construction of microwave towers for data and voice transmission by the telecommunications sector.

The company's fleet perform two critical health and rescue services. The first is a 24-hour medical evacuation service (medevac) which is provided for all the oil companies based in Abu Dhabi, and covers not only the offshore industry but those located in desert regions as well. The helicopters used for this service are equipped for medical use and carry fully qualified paramedics.

The other key service ADA provides is search and rescue support for the Armed Forces of the United Arab Emirates. This is operated out of four strategic bases located within the Emirate, and utilises a dedicated fleet of seven state-of-the-art AgustaWestland AW139 helicopters fully equipped for search

Bombardier

Launched in 2008 and optimized for short-haul operations, Bombardier's fast, large, 70- to 80-seat Q400 NextGen turboprop airliner is the most recent development in the evolution of the Q400 aircraft, and the advanced successor to the Dash 8/Q-Series family of aircraft. The Q400 NextGen aircraft's quiet performance, fuel efficiency and lower emissions position it as a "comfortably greener" solution for airlines worldwide, and its operating costs are among the lowest of any regional aircraft.

The Q400 NextGen aircraft features an enhanced cabin environment with LED lighting, new ceiling panels, dished window sidewalls and larger overhead luggage bins. These features, combined with its Active Noise and Vibration Suppression (ANVS) system, provide an excellent cabin experience for passengers.

Over 300 Q400 and Q400 NextGen aircraft are in service worldwide with more than 40 operators. Some 30 are operating in the

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Middle East and Africa.

and rescue. Each carries a complement of two pilots, a winch operator and a specialist rescue paramedic. The SAR helicopters are in readiness to be called out 24 hours a day and seven days of the week. They operate over both land and sea, and can also be called out to provide assistance to the general public, working in coordination with civilian rotary wing operations. They also undertake inter-hospital patient transfers.

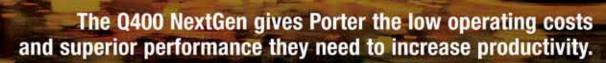
ADA's helicopters can also be configured to perform a number of other specialised tasks. From 1996, for example, the company has been under contract to the Catalonia region of Spain to undertake fire fighting services as and when required. Spain, with its dry climate and wooded terrain, is very vulnerable to wildfire outbursts particularly during the hot summer months. 2009, for example, was a particularly bad year, and fires during the dry season were severe enough to achieve international news coverage.

The helicopters used for this vital task are Bell

212 and 412s fitted with highly effective Isolair ventral tank and snorkel systems for scooping up and delivering water to quench the flames. And these are regularly seen in action in Catalonia.

The company's Bell 212, 412 and 206 helicopters can also be fitted with specialised camera equipment, and these are then contracted to provide coverage for live photo missions. Among the diverse array of missions the company has fulfilled are contracts to provide live local TV coverage of dhow races at one end of the spectrum, through to taking the dramatic 'tanker war' footage that was shown on the major news networks worldwide during the Iran-Iraq war.

On a less perilous note, the company has diversified into a range of services that promote health and productivity. A number of the Bell 206 helicopters, for example, can



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Q400 NextGen

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Anywhere, any time you need support, Pratt & Whitney Canada is there. Around the world, our Mobile Repair Teams dispatch 24/7/365, working on-wing whenever possible to get you airborne, fast. The Customer First Centre, our multi-disciplinary team of experts, is never more than a phone call away, and P&WC's Global Service Network stands ready to provide the maintenance to ensure the dependability to keep you flying everywhere you need to be.



Pratt & Whitney Canada

Abu Dhabi Aviation prides itself on providing the safest and most reliable service to its customers and Pratt & Whitney Canada is a dedicated partner in achieving that goal on every flight. Since P&WC's first engine delivery to Abu Dhabi Aviation, the two companies have worked together introducing and maintaining successive engine deliveries as Abu Dhabi Aviation grew into the largest commercial helicopter operator in the Middle East. Based in Longueuil, Quebec, P&WC is a global aerospace leader, shaping the future of business, helicopter and regional aviation with new generation engines. The company also offers advanced engines for industrial applications.

Our global network offers top-rated engine support, anywhere, anytime and our Customer First Center ensures we respond to your needs, your way. We power the largest fleet of business and regional aircraft and helicopters - more than 45,000 engines around the world - and we boast more than 10,000 operators and over 700 airlines in more than 195 countries. Our long-standing commitment to innovation has made us a key player in the development of the Canadian aerospace industry. Over the past 15 years, we have introduced more than 70 new engines into production, powering a variety of aircraft.

be configured to carry spray equipment capable of applying both insecticides and pesticides. In this role the company regularly carries out extensive spraying programmes in both the UAE and Oman.

Training is a continuously ongoing process, and is not only targeted at the company's own staff, but is offered as an additional service to its customers. The in-house training facility, staffed by experts in the field and equipped with the latest simulation technology, provides structured courses in a wide range of disciplines that include pilot training, engineering and cabin crew training. Many valuable ancillary subjects are also offered, such as customer relationship management, human factors for engineers, dangerous goods, crew fire fighting and first aid.

Training is of particular importance in the search and rescue and medevac fields. Pilots, for example, are given training to convert them to the AW 139 before going on to specialised search and rescue training. All crew, including paramedics who are fully

qualified before joining the company, are put through intensive training that covers all aspects of winching including boat transfers, wet winching, cliff winching and stretcher transfers, as well as providing knowledge and experience in a range of search and rescue scenarios. For the paramedics, this enables them to work both proficiently and confidently while on the winch, and to perform well under any helicopter related situation.

Safety, of course, is of paramount importance to every company in the field of aviation, and it can make or break a company's reputation. At ADA it is treated very seriously. All new staff are given comprehensive safety training that not only covers all aspects of aviation and working in the vicinity of aircraft, but also extends to include working with hazardous materials and heavy machinery.

In recognition of the high levels of safety that







the company has achieved over the years, ADA was awarded the Platinum Programme of Safety Award by the Helicopter Association International in 2006, an accolade that has been renewed every year since. Meanwhile, Bell Helicopters also presented the company with the Safe Flying Award to mark the achievement of 600,000 safe flying hours, making it one of just three Bell Helicopter operators to reach this level worldwide.

None of this, however, would be possible if the aircraft were not maintained to the highest level of operational efficiency. This vital role is carried out at a uniquely designed state-of-the-art maintenance facility located at Abu Dhabi International Airport, which was opened in 2000. The facility consists of two fully air conditioned hangers dedicated to fixed and rotary wing aircraft, and these are linked to an engineering and management block equipped with a full range of workshops.

The facility manages the entire aircraft maintenance process, not only for its own aircraft but also for a growing portfolio of customers including public and private organisations from the Gulf and companies located as far afield as India, Tanzania and Brazil. The maintenance facilities include a dedicated engine workshop offering a wide range of capabilities including full hot section inspection, repair and refurbishing, disc reblading, vane ring shroud grinding, inspection and repair of reduction gearbox, and fuel nozzle overhaul.

The facility is recognised as an industry leader in structural repair techniques. Not only does it have one of the only Bell Helicopter Textron approved tail-boom jigs outside Europe and North America, but it has recently taken delivery of an AgustaWestland AW139 tail-boom jig, the only company in the Middle East to have done so.

The component overhaul facility has the capability to overhaul all Bell dynamic drive train components as well as specialising in the overhaul of fixed wing wheel and brake assemblies. A wide range of non-destructive testing can be carried out on site and includes magnetic particle, fluorescent penetrant, eddy current inspection

and ultrasonic inspection.

Exterior refurbishment is carried out at a dedicated paint stripping bay and two paint shops, while there is also a fully equipped upholstery shop for interior refurbishment. Finally the specialist avionics workshop can tackle specialised custom as well as standard avionics installation and aircraft rewiring.

In 35 years, ADA has achieved an enviable level of operational excellence and service provision, continuing to satisfy its core customers in the oil industry and diversifying into other disciplines. This is matched by industry leadership in training and maintenance services. What is clear, though, is that the company is never content to rest on its laurels. It will be interesting to monitor its development in the years to come. www.adaviation.com



