A Versatile Solution:

A truly flexible flyer, the Ae270 is set to give the business executive a slice of everything.

By Mike Taylor

Why have a $100 hamburger when you can have cordon bleu? This is the question many individuals in the U.S. should be asking when the Ae270 Propjet from Ibis Aerospace makes its first touch-down there. The dynamic owner/operator market that comprises successful business owners in need of more flexible means of transportation will devour the new single-engine turboprop.

A similar phenomenon is taking shape in Europe for a number of reasons including, but not limited to, this new airplane's size and performance.

The Ae270 is a uniquely positioned airplane, featuring a large, pressurized cabin and designed to carry up to ten people (including crew), but it can also be configured for bulk cargo, with ample access to its cabin through an oversize main door. As a six to seven passenger executive transport the Ae270 has been designed to provide the ease of operation, safety, economy and comfort only available in larger and more expensive aircraft.

The Ae270 is clearly redefining mission capability and economics of general aviation aircraft for today's travel needs, and will appeal to large numbers of pilots and frequent travelers in the U.S. and Europe, both clamoring for the same kind of flexibility and convenience. Then, of course, the aircraft carries an attractive payload-price combination.

Solid Foundation

Digging around the history of Ibis Aerospace unearths a company formed, in 1997, as a partnership between two international leaders in the design, manufacture and support of aircraft for business, commercial and government markets.

Partner number one was Aero Vodochody. As early as the 1980's, engineers from the Czech-based company embarked on a mission to create an original and compelling new alternative for light aviation. This aircraft later evolved into the high-value, high-performance single-engine turboprop Ae270 Propjet. The company brought an eighty-year history of skilled aviation workers to the project, having produced significant numbers of bombers, fighters, trainers, commercial transport aircraft and airliners down the years from its factory near Prague.

Aerospace Industrial Development Corporation (AIDC) of Taiwan forms the other half of the partnership. AIDC brought with it a distinguished history of successful development programs that includes trainers, helicopters, fighters, engines and attack aircraft. Their experience, advanced facilities and unique technical know-how have brought capacity in aircraft design, development, testing and manufacturing and logistic support to the partnership.

Both Aero Vodochody and AIDC are known for their innovative design, precision engineering and quality craftsmanship. Ibis Aerospace, with the Ae270, supports this long reputation through a unique partnership offering a versatile aircraft built with the highest quality materials, finishes and craftsmanship. The joint venture company, Ibis Aerospace, was established expressly to market the Ae270 Propjet, a state-of-the-art cabin-class transport aeroplane that offers unrivalled flexibility for a variety of missions.

The Competition

One of the biggest questions asked about the Ae270 concerns what exactly its role is within the crowded markets of general and commercial aviation? For a definitive answer to this question, let's look at comparable aircraft.

First, the Ae270 has been compared to the venerable An-2, a "flying tractor" produced by Antonov. The Ae270 shares the An-2's rugged, utilitarian characteristics. A legendary workhorse, the An-2 yields a reputation for robust handling and rough field finesse to the modern day construction offered by Ibis.

In stark contrast to the An-2, the Beechcraft King Air defined cabin-class accoutrements for prop-driven aircraft in its time. The Ae270 has been considered a cost-effective replacement for an aging King Air. With its capacious cabin and corporate transport functionality, the Ae270 provides a contemporary solution to suit the needs of small business owners with short to medium range travel requirements.

Much like the King Air, the venerable Cessna Caravan has played an important role in business aviation. Considered a utility vehicle with wings, Caravans are found in the most remote locations of the world. The Ae270 is designed to fulfill many of the same operational requirements. Though a more streamlined aircraft with retractable landing gear and low wing, the

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A Versatile Solution: The Ae270

Ae270 can satisfy even the most discriminate business traveler with its comfortable cabin.

Then there's the Piaggio Avanti, a turboprop pusher that targets the executive air transport market. However, with a high price tag, higher costs of operating two engines, and its small cabin door the Avanti does not provide the utility of the Ae270.

Conceptually, the single-engine turboprop arena is sound. The 'on hiatus' Farnborough F1 introduced this configuration as well suited to a charter-on-demand system for Europe and other travel savvy geographies. Closely resembling the Piper Meridian in size, with PC-12 winglets and styling, the F1 positioned itself fulfilling a role that could be served equally well by the Ae270. However, instead of seating for a maximum of six, the Ae270 can accommodate up to ten.

When compared to light jets the Ae270 is a clear standout in terms of acquisition and operating costs. Since the Ae270 is appointed as an executive class aircraft it brings this assimilation into the realm of affordability to a much wider market. Operationally, the Ae270 delivers nearly the same time-to-destination performance on the majority of a CitationJet's mission profiles. And the Ae270 is particularly well suited to short field landings.

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Perhaps not a direct object of comparison to the Ae270, but in terms of operational capability a likely one, many twin-turboprop commuter and cargo aircraft lend themselves as replacement candidates by a new Ae270. Aircraft like the Fairchild Metro, Embraer Bandeirante, the unfulfilled concept Ayres Loadmaster, Beechcraft 18 and a host of others have served short-haul passenger and cargo roles for decades. There are also a number of pure utility aircraft designed to serve dual-role passenger and cargo transport functions. Little more than Caravan alternatives, these aircraft lack the speed and sophistication of the Ae270 with its advanced avionics and cabin-class comforts.

Unique Fit

With its single-engine turboprop, Ibis Aerospace has created a spirited alternative to commonplace turboprop twins and cramped light business jets. Ibis has positioned the Ae270 Propjet as a blueprint for flexibility. It's now more than a blueprint though, with three prototypes flying. And the flexibility refers to its multiple mission capabilities and its designed-in features that provide a spacious, comfortable and capable vehicle for moving both people and payload in any combination. The Ae270 will, no doubt, be used in a variety of roles.

The Ae270 Propjet features a large cabin designed to haul almost anything an individual owner may need to carry—from passengers to bulk cargo. This flexibility really makes it hard to compare to other aircraft in its class, because what defines that class is so new. As a corporate commuter, the Ae270 can accommodate up to nine passengers (plus pilot) in two-abreast seating. A nearly standup cabin and roomy center isle ensures that each passenger is treated as though first class. With a useful load of up to 3,300 pounds and a four-by-four-foot cabin door, the Ae270 Propjet can accommodate large items while delivering high performance and flexibility in a pressurized aircraft.

Integrating a single 850 SHP turboprop engine into a solidly designed aluminum airframe, the Ae270 combines excellent economy, reliability and safety. A four-bladed, full-feathering reversible propeller swings from the reliable and proven Pratt & Whitney Canada turboprop PT6 engine. It is well known that single-engine safety outpaces that of twin prop-driven aircraft. Coupled with the inherent reliability of the airframe and engine, a state-of-the-art cockpit will be standard equipment on the Ae270.

Current specifications call for pilot side EFIS instrumentation as well as GPS, airborne radar and digital autopilot. The aircraft will be certified in the U.S. for single-pilot operation and subsequently will assume that status in Europe when approved.

Egress/ingress is accomplished via the aforementioned large cabin door, along with a separate pilot door, and right hand emergency exit door. The main door however will see most of the action. The unique design on the Ae270 incorporates a split-action function. This allows passengers to enter and exit without ingesting bad weather while at the same time enabling bulky items to be loaded a la cargo aircraft.

Many other features beckon operators to look at the Ae270. With integral wet-wing fuel tanks, a fully certified de-icing system, fixed supplemental oxygen system, an aft baggage/storage compartment and separate pressurized cabin stowage it resembles bizjet class travel. In addition, a cabin freon-based environmental control system will provide ground relief in warm climates. The Ae270's low wing configuration makes for easier fueling and the trailing-link landing gear helps smooth out landings and taxiing on rough fields.

Cruise, range, stall, climb, takeoff, landing, altitude, payload and single-engine efficiency all contribute to an aircraft that was designed for this century. Cruising up to 270 knots, and providing optimal economy on short to medium range trips the Ae270's range is up to 1,610 NM with fuel reserves. Stall speed is unlike typical executive class aircraft allowing for more flexibility in reaching remote destinations. Landing is possible in as little as 1,650 feet with payload, and the Ae270 will be certified to 30,000 feet while pressurized to less than 6,000.

Finally, cost of acquisition, operation and most importantly, trip parameters of the Ae270 are closer to piston-powered aircraft than their executive jet counterparts making this Propjet one of the most versatile and cost-effective general aviation aircraft available.

Flexibility

With its large cabin, the Ae270 provides an optimum platform for executive or commuter transport. In addition, it is well suited for special mission operations including medical evacuation and a variety of government and military applications.

The Ae270 delivers high-speed climb, altitude and endurance performance under all weather conditions, plus the ability to operate from short and unprepared fields. The aircraft is unique in that it redefines single-engine productivity.

The Ae270 will be configured predominantly for the executive. Delivery aircraft will be well appointed to transport business professionals on scheduled shuttle or quick notice transport. In its executive configuration the Ae270 seats five passengers plus pilot in a club arrangement, with an aft lavatory. The Ae270 is a spirited performer that provides a spacious, pressurized cabin comfort on long or short trips. Ultimately, Ibis makes a perfect business aircraft for travel within the U.S., Europe and beyond.

■ More information from IBIS Aerospace; Website: www.Ae270.com