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## Island Hopping with Trans Maldivian Airways

Article & Photos Contributed by Trans Maldivian Airways

The Maldives has the largest number of Twin Otter seaplanes in the world. Trans Maldivian Airways has a fleet of 21 Twin Otter aircraft operating on Wipline 13000 floats. TMA currently owns 23 sets of floats and has an additional three sets of floats on order in preparation for the delivery of the three new 400 series Twin Otters.

TMA specializes in transferring guests from Male' International airport to the island resorts scattered through many of the beautiful atolls that make up the Maldives. The Wipline 13000 float plays an integral role in enabling TMA to operate in the way it does as it enables TMA to operate a door-to-door service from the international airport right to the resorts doorstep. It also enables the passengers to experience landing on the sea which adds to the thrill of the transfer.

The Maldives is a very unique destination, made up of over 1190 islands. The scenery is breathtaking and to fly across the many islands, atolls and turquoise sea is an experience of a lifetime.

Though the scenery is beautiful, the environment is very corrosive due to the fact that it is humid and the sea and air has an extremely high saline content, but the corrosion issues on the Wipline floats are the least of our worries due to the treatment that Wipaire carries out on the floats during construction.

If you wish to know more about TMA please visit our website at [www.tma.com.mv](http://www.tma.com.mv) using Internet Explorer here you can view the 13000 floats in action on the TMA live web camera that points to the water runway. (Maldives is GMT +5)



# FEATURED WIPLINE FLOAT OPERATORS

## Empire Aviation Group

Contributed by Steve Hartley, Executive Director, Empire Aviation Group, Dubai, United Arab Emirates



### Meet Empire Aviation Group

Empire Aviation Group, a young aviation company based in Dubai (United Arab Emirates in the Arabian Gulf) has become the Middle East's leading private aviation specialist, and operator of the largest fleet of business jets in the region, with more than 20 aircraft under management.

In little more than two years of operation (EAG was launched in 2007 in response to the fantastic opportunity for private aviation in the Middle East) we have built an experienced team of more than 100 international aviation specialists, offering a one-stop shop for private aviation services, including aircraft sales, aircraft charter, air ambulance services, aircraft management, aircraft financing and insurance.

We take an 'aviation asset management' approach to our business, which is flexible and tailored to each aircraft owner's specific personal needs and demands. This flexible model helps us adapt to any aircraft, from the Cessna 208 amphibian to the latest addition to our managed fleet – a Hawker 4000. And this approach is equally effective with aircraft management and aircraft operation, as our experience with managing float planes clearly shows.

### Taking to the Water

Empire Aviation Group works with Tourism Development & Investment Company (TDIC) in Abu Dhabi (the capital of the United Arab Emirates), a master developer of cultural, residential and tourism destinations, to operate two Cessna 208 Caravan planes between Abu Dhabi and destinations in the emirate.

The two eight-seater single prop aircraft operate a scheduled service to Sir Bani Yas Island in the emirate's Al Gharbia Western region. The aircraft can also be chartered on demand as part of the accommodation package offered by Desert Islands Resort and Spa by Anantara, on the island.

EAG selected and sourced the Cessna 208s for the operation, on behalf of TDIC; we also acquired the permissions for this, including approvals for water landings.

### A Unique Destination

Sir Bani Yas Island is home to thousands of free roaming animals (it is also known as the 'Arabian Ark'), as well as luxury resorts. The new scheduled flights from Abu Dhabi make it easier, quicker and cheaper to visit the island for guests who are looking for adventure and scenic experiences – as well as those who just want a quick transfer. All flights depart from Abu Dhabi International Airport and land at the new regional airport on Sir Bani Yas Island, where on approach the pilots take guests on a beautiful scenic flight around the island before landing (all passengers have a window seat and are free to take pictures). All flights have their own catered VIP lounge with TV and internet access, and all passengers receive a VIP gift bag.

The transfer service takes around 50 minutes, covering 170km, and gives visitors to Sir Bani Yas a great and seamless travel experience and allows them to spend more time on this remarkable island.

Of course, operating amphibious planes with daily and weekly schedules is very different from our private jet charter operations. But, EAG is proud to be working on this unique project and to support the development of tourism in the UAE.







## *MEHAIR Launches the First Amphibian Service in India*

Contributed by MEHAIR, Maritime Energy Heli Air Services Pvt. Ltd

India was added to the amphibian aircraft map of the world when the first Cessna 208A took to the air on 29th Dec, 2010. Introduced by Maritime Energy Heli Air Services (MEHAIR), a company incorporated in May 2009, the service promises to change the way tourism will develop in the remote tourist destinations of India.

MEHAIR was started by first generation entrepreneurs who collectively have two decades of experience in aviation, specifically offshore helicopters services. To them, it seemed like a natural progression into this niche segment and one which promises huge potential in a country endowed with a long coastline. The peninsula of India spreads across the Bay of Bengal in the east, the Arabian sea in the west and the vast Indian Ocean (with its coral rich archipelagos of Lakshdweep and Andaman & Nicobar) presents a big opportunity for seaplane operations.

For India, the amphibian segment is a 'sunrise' industry and one which offers a huge potential for growth, as tourism is a major thrust area for the Indian government. In fact, the country's first seaplane has been contracted by the Union Territory of Andaman & Nicobar to give a fillip to local tourism.

The service was inaugurated by Mr. Praful Patel, the former Minister of Civil Aviation, Govt. of India and currently the aircraft is operating regular flights between the waterway of the island of Havelock and Port Blair airport, the capital city of Andaman & Nicobar. The service is shortly being extended to Diglipur in the north and is likely to become busier as more destinations across north and south of Port Blair are added to the network. The Govt. is also planning aerial flights around Barren Island located to the northeast of Port Blair, which is home to India's only volcano.

Plans are afoot to launch similar amphibian operations in Goa and Lakshdweep, which are the other popular destinations on every tourist's itinerary.

MEHAIR has selected the Cessna 208A as its launch vehicle in India based on the aircraft's reputation of a maintenance friendly, sturdy aircraft. The 9-seater configuration allows for an easy fill and the low cost-per-mile helps in keeping the operation viable. The aircraft comes equipped with Wipline floats and a retractable undercarriage to allow for amphibian operations successfully. The company is planning the induction of its next seaplane by middle of 2011 and expects to have three operational aircrafts before the end of the year.



# Single Point Fueling for the Quest KODIAK

The Wipaire Single Point Fueling System is now approved for the Quest KODIAK. The system can be installed on the aircraft in either landplane or seaplane configuration. The Wipaire Single Point Fueling System enables the aircraft to be filled from the ground, eliminating the need for ladders and enabling the Quest KODIAK to be fueled more safely and expeditiously. In aircraft equipped with a TKS anti-ice system, the risk of damage resulting from over the wing fueling is eliminated. Wipaire's electronic monitoring ensures that the aircraft is reliably topped-off and an all new digital display with touch screen controls ensures an easy interface for the user.

The Wipaire Single Point Fueling system offers convenience and safety and is fully compatible with the G1000 avionics suite in new Quest Kodiak aircraft. The system features a modern touch screen display. Fuel quantity is displayed on the screen and all desired fuel entries are accomplished using the touch screen. The controller is conveniently located in the step area of the baggage compartment near the aft left-hand door. The refueling adaptor is located just aft of the left-hand aft door. Another benefit of this system is that the aircraft can be fueled without the Aircraft Master Switch being in

the "ON" position. The refueling controller switch, when activated, powers the refueling system without aircraft power being on.

To compensate for any lag in the fuel quantity system, the controller reduces flow to the tank ten (10) gallons before the desired fuel quantity, and closes the refueling valve two (2) gallons before the desired fuel level is achieved. The fuel quantity will continue to rise a little after valve closure but the resulting quantity will be plus or minus 1-2 gallons of the set value. [Learn more about Kodiak mods.](#)



The Single Point Fueling adaptor is located just aft of the left-hand aft door for easy access by refueling personnel.

## Engineering Expertise Still Growing at Wipaire

Wipaire's engineering department is a team of professionals, 12 in all, whose experience comes from a broad spectrum and includes aerospace engineers, a mechanical engineer, tool & die expert, DAR (Designated Airworthiness Representative), DMIRs (Designated Manufacturing Inspections Representative), EASA Certification Expert, Structures DER, Flight Analyst DER, Acoustics DER, and a plethora of designer/drafter talent.

In order to make the department even stronger, several employees have sought additional certifications. Dan Garrett has recently become a DER (Designated Engineering Representative). This status, given by the FAA, allows Dan to approve certain engineering data on behalf of the FAA, allowing us to work more efficiently and quickly on engineering projects. Specifically he is allowed to approve structural aspects of major repairs and alterations to fuselage and landing gears. Wipaire relies on DERs like Dan, Rich Adler, Kyle Taylor, Bruce Barrett and Mike McCaslin to help get products approved with the FAA.

Kyle Taylor has been granted extensive additional authority to his existing DER appointment. He now has full approval authority for static structural strength of fuselage, wing, and tail components, including major alteration and repair approval authority. This means that Wipaire has the internal ability to approve structural

data on behalf of the FAA for R & D programs and in support of repairs and alterations within our maintenance department and FAA approved repair station for all airframe components.

This wealth of expertise and experience in Wipaire's engineering department ensures that we will continue to bring top quality innovations to the aviation marketplace.



Bob "Wip" Wiplinger and three members of our engineering department, Mike, Ryan & Kyle, inspect the results of a recent structural test.



# *New Developments for the Cessna 182*



## **Lycoming 580 Engine Installation**

This modification features the Lycoming 580 cubic inch engine developing 315 horsepower right out of the box. The aircraft is being tested with a Hartzell 84 inch diameter "Top Prop" and a Hartzell 80 inch wide chord composite prop. Thrust measurements exceed the stock engine by almost 500 pounds!

This installation will be available for Lycoming powered 182 airplanes and pretty much bolts right in. Wipaire has had a prototype aircraft flying for well over two years while our engineering team addressed intake, exhaust and cooling issues. This modification will be the ultimate end for those who want the mightiest 182.

## **Gross Weight Increase for Seaplane/Amphibious Aircraft**

Wipaire engineers have been developing a series of upgross modifications for the 182 since 2008. The three kits will support gross weights of 3250 lbs, 3370 lbs and 3500 lbs. The 3250 lb kit will require no airframe or engine modifications and will apply to all existing Wipline float equipped 182 aircraft. The 3370 lb and 3500 lb kits will require structural modifications to varying degrees. All structural testing is complete for all three kits and flight testing for the 3370 lb and 3500 lb kits will be completed during the summer of 2011. All testing is complete for the 3250 lb kit and it will be available in spring of 2011.

## **Improved Engine Mount and Forward Float Attach**

During the development of the high gross kit options (3370 lb and 3500 lb), Wipaire engineers developed a new engine mount similar to the Seaplanes West mount and float attach fittings similar to those of the Seaplane West kit. This method provides a more direct load path to the fuselage side skins, which is desirable for the significantly higher bow loads for the 3500 lb kit. Also, the new mount provides for a center of gravity (CG) envelope two inches farther forward. This is a distinct advantage since most 182 amphibians are very "nose heavy" and require ballast in the tail to fly within the normal CG limit. Another reason to adopt this mounting system is so that our high gross options will be compatible with aircraft that already have the Seaplanes West engine mount. This method is more complex and therefore more costly than the original Wipaire "center mount" method, but the advantages are distinct.

One windfall of this effort was that our engineers developed a method of transferring the compressive load between the lower float attachment, that is permanently affixed to the lower firewall, and replaces the lateral tube that must be removed and reinstalled every time you remove and reinstall your floats. This one feature will save the owner many man hours a year associated with the float removal and reinstallation process. Another advantage of this design is that because the cross tube is no longer necessary while your floats are installed, you no longer need to remove your lower firewall cooling fairings. This allows your engine to cool much more efficiently, using all of the cooling apparatus that Cessna designed into the cowl flap system.

The final advantage of the Wipaire engine mount attach system is that it accommodates the lower cowl Dzus fasteners, as opposed to the Seaplanes West design, whereby they discard the lower fasteners, thereby leaving the lower cowl unsupported. Wipaire manufactured engine mounts will be available for not only the 182, but also the 180 and 185, and all have been tested for engines up to 350 horsepower.



The Wipaire engineering department puts all of our new modifications through strenuous tests. To the left is our 182 GWI wing loaded with tons of weight bags. To the right is our newly developed engine mount undergoing testing.



# Wipaire Becomes a Texas Turbine Installation Center

Wipaire is proud to announce our appointment as a Texas Turbines installation center for the popular new power and performance enhancement STC for the Cessna Caravan aircraft. Wipaire has installed three kits to date and has delivered them as far away as Australia.

The Cessna Caravan outfitted with the Texas Turbines Conversions TPE331-12JR Honeywell power plant is called the Supervan 900. This installation can be combined with Wipaire's floatplane firewall modifications, Wipline 8000A floats, Single Point Fueling system, and the 8360 Gross Weight increase for the ultimate Caravan.

The Texas Turbine modification is certified for both standard and Grand Caravans, as well as the float-equipped version. Wipaire's full service installation center can provide customers with paint, interior and avionics upgrades during the installation process, as well as other Caravan STCs, including the newly redesigned single point fueling option.

## Texas Turbine SUPERVAN 900 Benefits\*

- Increases the TBO from 3600 hours to 7000 hours
- Shorter Takeoff
- Quicker Climb
- Increased Fuel Efficiency
- Increased Horsepower from 675 shp to 900 shp

\*All data from [www.texasrubines.com](http://www.texasrubines.com)



Cessna Caravan with Texas Turbines Supervan 900 conversion installed by Wipaire.



# First Factory Approved Quest KODIAK Service Center

Wipaire, Inc. is excited to announce that we have been selected as the first factory approved service center for the Quest KODIAK. Wipaire has a long tradition of providing quality services to turbo prop powered aircraft and is well equipped to provide the highest quality of service to KODIAK owners and operators.

"We are pleased to have been chosen by Quest Aircraft as an approved service center for their KODIAK 100," stated Jason Erickson, Wipaire Director of Maintenance. "In Wipaire tradition, we will provide KODIAK owners with the highest standards of service, quality and safety."

Wipaire has vast experience with the Quest KODIAK, achieved through the certification program of the aircraft on Wipline 7000 Floats. We have also received certification on the Single Point Fueling and a convenience package for the interior. In addition, the Wipaire engineering group is currently working on other performance and convenience modifications.

"We know how important quality service is to maintain an aircraft properly and how important excellence in providing that service is to customer satisfaction," said Keith Anderson, Quest Director of Customer Service. "We are pleased that KODIAK owners will have access to a proven provider like Wipaire."



[Click Here to See Our Offerings for the Quest Kodiak](#)

Eight Quest KODIAKs on Wipline 7000 Floats lined up outside Wipaire.



# CHUCK WIPLINGER NAMED PRESIDENT OF WIPAIRE, INC.

Wipaire is proud to announce that we have appointed Chuck Wiplinger as President. In a meeting with employees on December 23, 2010, Gene DePalma, Assistant to the CEO, announced that the Board of Directors has elected Chuck to the new post. "Chuck is now ready to begin taking on more responsibility," stated Mr. DePalma.

Chuck Wiplinger began working for Wipaire in 1996 in the aircraft maintenance department while attending school. He has held various positions in Wipaire since graduating from the University of Minnesota in Aerospace Engineering. Most recently, he has served as Executive Vice President in charge of operations. Chuck is the third generation of Wiplingers to lead the company.

In addition, Chuck has established his executive team to be Pat Garfield, Vice President of Operations; Rich Adler, Vice President of Engineering; and Fred Vagts, Vice President and Chief Financial Officer. "Pat, Rich and Fred bring a wide range of experience and expertise to Wipaire and will provide the company with excellent leadership," stated Chuck Wiplinger.

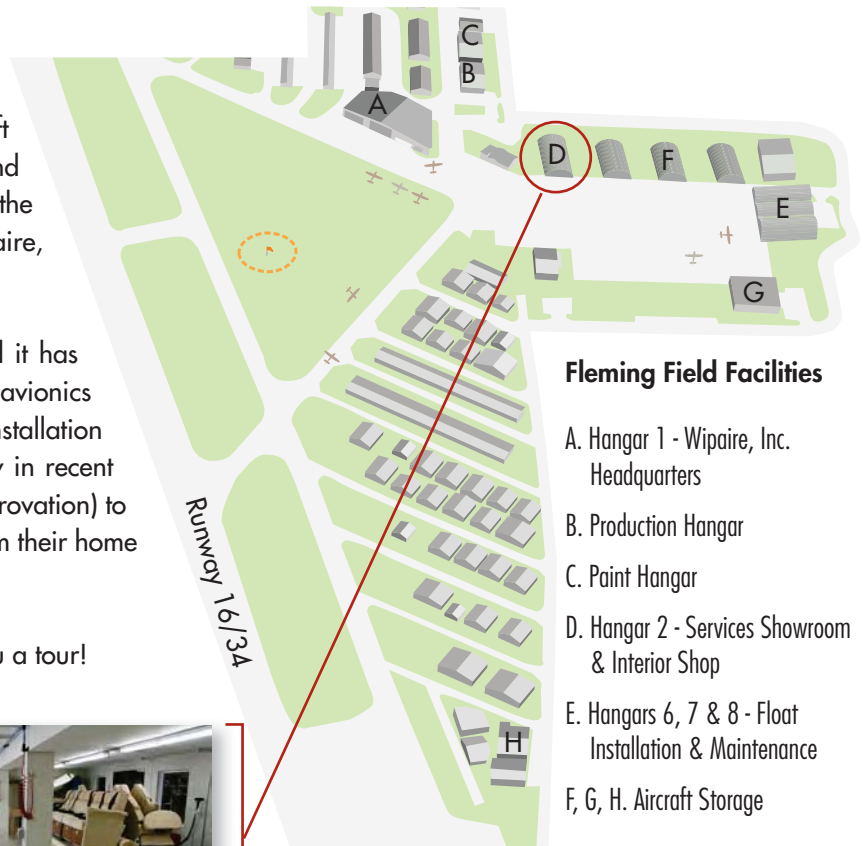


## New Showroom & Interiors Shop

Wipaire has been based at Fleming Field, in South St. Paul MN, since the 1940's. Wiplinger Aircraft Service began converting military aircraft into executive civilian aircraft in Hangar 2, built during WWII. As the company grew and moved its focus to floats, we moved to new facilities across the airport and down by the Mississippi River. Currently Wipaire, Inc. occupies 10 hangars and rents space in several others.

After many years Wipaire has re-acquired Hangar 2 and it has been freshly renovated and modernized to house our paint, avionics & interiors showroom and interiors fabrication and installation facilities. Our interiors department has grown dramatically in recent years, including the addition of Todd Owens (formerly of Airovation) to our team. Because of this growth it was time for a move from their home in Hangar 7 to an expanded space with a showroom.

Next time you're at Fleming Field stop by and we'll give you a tour!



### Fleming Field Facilities

- A. Hangar 1 - Wipaire, Inc. Headquarters
- B. Production Hangar
- C. Paint Hangar
- D. Hangar 2 - Services Showroom & Interior Shop
- E. Hangars 6, 7 & 8 - Float Installation & Maintenance
- F, G, H. Aircraft Storage



The interior of our newly finished facility in Hangar 2.

# Alaska Airmen's Association is Giving Away a Super Cub on Wipline Floats!

Win a Dan's Aircraft Repair Super Cub – Piper PA18-160 on Wipline 2100 floats, Alaskan Bushwheels and Landis 2500 Skis!

The drawing will be held May 1, 2011 at the Alaska State Aviation Trade Show at the FedEx Maintenance Hangar, Ted Stevens Anchorage International Airport Road, Anchorage, Alaska.

Tickets are five for \$225 or one for \$50 and available for purchase at the show!

Visit their website for more details: [www.alaskaairmen.org](http://www.alaskaairmen.org)

Visit [www.wipaire.com/wipline](http://www.wipaire.com/wipline) to learn more about Wipline 2100 Floats



PA-18 Super Cub on Wipline 2100 Straight Floats

## Trade Show Schedule

Dates	Show	Location
April 30 - May 1	Alaska State Aviation Trade Show & Conference	Anchorage, AK
April 30 - May 1	Canadian Aviation Expo	Mt. Hope, Ontario
May 6 - 8	MN Seaplane Seminar	Baxter, MN
June 11	New England Seaplane Safety Seminar	Naples, ME
July 6 - 7	Canadian Business Aviation Assoc. Convention	Calgary, Alberta
July 25 - 31	EAA AirVenture	Oshkosh, WI



Thank you to all those who stopped by to visit at Sun 'n Fun 2011

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