## **Rotor X Aircraft Press Release**

## 29 June 2021

Rotor X Aircraft announces they are entering the electric vertical takeoff and landing (eVTOL) Air Taxi market with their world's most efficient helicopter known as the RX eTransporter



The Rotor X Aircraft Manufacturing Company (RX), makers of the Rotor X Phoenix A600 Turbo helicopter which is renowned as the world's most affordable and reliable 2-seat kit helicopter, announces they are entering the electric Air Taxi market with their revolutionary *world's most efficient helicopter*, called the RX eTransporter. RX is now operating the former RotorWay International factory in Chandler, Arizona which made kit helicopters for 53 years. The patent pending RX eTransporter is dramatically more efficient and less expensive than all other eVTOL concepts being proposed or developed today. RX is working in collaboration with its partner company Advanced Tactics Inc (AT) of Torrance, California. This 4-rotor (or quad-rotor) helicopter named the RX eTransporter, is the first of its kind for civilian and industrial use. This 6-passenger helicopter provides plenty of leg room and comfortable charter-jet type interiors, and the open-interior version is ideal for air taxi operations, package delivery, search and rescue, personnel recovery, and MEDEVAC operations.

Typical eVTOL Air Taxi aircraft use small inefficient propellers for vertical lift, have very complex and expensive geometries, complex engine drive-systems and tilt-mechanisms, inefficient wings, and less payload capacity – even with the extensive use of expensive carbon-fiber construction. The RX eTransporter will be the world's most efficient and cost-effective helicopter for civilian use.

The RX eTransporter is unique among other eVTOL Air Taxis. Instead of relying on a large wing to make the aircraft more efficient after takeoff the RX eTransporter uses a smaller wing that only enhances the natural lift of this helicopter. It does not require a tail rotor; this greatly increases the efficiency of the RX eTransporter. The RX eTransporter can takeoff and land vertically and fly for over 1.5 hours, or hover for over 45 minutes on a single charge. Typical eVTOL's that are in the news today can only hover for a few minutes before needing to land. Having this outstanding eVTOL hovering capability

makes the RX eTransporter ideal for commercial cargo and personnel flights immediately after completing FAA air worthiness testing next year.



Rotor X Phoenix A600 Turbo helicopters in front of the Rotor X Aircraft Manufacturing facility in Chandler, AZ. Website: <u>www.rotorxaircraft.com</u>

The RX eTransporter technology has been in development for over a decade, with many heavy lift multi-rotor prototypes completed by partner company Advanced Tactics Inc (AT). AT is considered the world's pioneer company of heavy lift multirotor aircraft. The 8-engine "Black Knight Transformer" flew in 2014 and its gross takeoff weight was in excess of 4,500 pounds. What's remarkable about this is that at the time this was developed, "heavy lift" multi-copters weighed about 1/10<sup>th</sup> of this weight. The Black Knight Transformer carried an automobile engine and drivetrain as part of its payload and could drive on the ground and fly. It had an overall payload (including the automobile drivetrain) in excess of 1,500 pounds.

Rotor X Aircraft is partners with Advanced Tactics Inc. in developing and pioneering heavy lift multi-rotor technology and is the prime manufacturer for both the civilian and military Transporter configurations. AT is the primary rapid prototyping and design arm of this partnership. AT works with the US Air Force on two current contracts related to the RX eTransporter.



The AT Black Knight VTOL flying/driving pilot-optional technology demonstrator

## See the Black Knight Transformer Flying and Driving Aircraft video:

OFFICIAL: Incredible First Flight of the AT Black Knight Transformer - Bing video

and

Marine's Black Knight Transformer: The Flying Truck - Bing video



The joint RX/AT RX eTransporter



Cockpit components for the RX eTransporter being checked at the Rotor X facility.

The RX eTransporter will start testing in Alaska as an experimental aircraft during the summer of 2022. Mining companies have shown strong interest in purchasing the aircraft to carry mining equipment in the rugged terrain of the Alaska Range. As the growing mining operation expands, the RX

eTransporter helicopter would greatly reduce costs. The new battery and quick charging systems are also uniquely adapted to cold weather operations.



The RX eTransporter helicopter flying over the Alaska Range

Across the mining industry, drones are already demonstrating exceptional results by enabling much greater data collection, enhanced safety and improved productivity. The heavy-lift RX eTransporter, which can be made in a pilot-optional version and still carry over a ton of cargo, would be a game-changer for the mining industry. That capability will support essential tasks like fuel delivery, rig transportation, spare parts delivery, dust control and core-sample transport. This capability will improve productivity and operational safety, while lowering logistics costs by a third. Mining companies are already showing serious interest in purchasing or leasing the RX Transporter and RX eTransporter helicopters as soon as they become commercially available next year.



The RX eTransporter providing direct support to a Nova Minerals platform.

Nova Minerals CEO Christopher Gerteisen commented "As Nova develops the large 4.7Moz Korbel gold deposit whilst unlocking the greater Estelle Gold district, we must see and understand technologies and their potential application in our business quicker, more clearly and what it means for sustainability more so than years gone by, supported by incremental developments that transform our underlying exploration and mining processes from potential to application in the shortest possible timeframe to drive rapid growth. This is one of many such applications we at Nova believe in. Innovation is in the DNA of the likes of Amazon, Google and Tesla and we are pleased to have RotorX pick this innovation up for us while we can maintain our focus on our core of developing our gold asset. As a 9.9% shareholder in RotorX, Nova is positioned to benefit massively from the development and growth of RotorX, as well at our flagship Estelle Gold Project as we employ these perfectly designed aircraft to achieve our objectives on our path to production."



The RX eTransporter providing direct support to a coring operation at the Estelle Gold District

The Transporter type aircraft are designed to use all electric, gas, diesel or hybrid propulsion systems.

Specifications for the fuel-powered RX Transporter:

Max Air Speed: Over 160 mph TAS (10,000 ft) High Speed Cruise: 140 mph TAS (10,000 ft) Empty Weight: 4,000 lb. Max Takeoff Weight: 8,000 lb. Max Payload (fuel+ passengers and pod, or cargo and pod): 4,000 lb. HOGE: Over 20,000 ft with 6 passengers and 2 hours of fuel. Range: Over 300 nm with 2,500 lbs. of cargo. Ceiling: Over 20,000 feet altitude because of turbo charged engines Passengers: 1 Crew, 5 Passengers (FAA Experimental Rated, 1-2 crew & 10 passengers when fully certified) Max endurance unmanned: Over 12 hours Max Range: Over 1,200 miles

## Specifications for the all-electric RX eTransporter:

Max Air Speed: Over 160 mph TAS (10,000 ft) High Speed Cruise: 140 mph TAS (10,000 ft) Empty Weight: 6,400 lb. (including batteries) Max Takeoff Weight: 8,000 lb. Max Payload (passengers, or cargo): 1,600 lb. HOGE: Over 20,000 ft Range: Over 200 nm with 1,600 lbs. of payload. Ceiling: Over 25,000 feet Passengers: 1 Pilot, 5 Passengers (FAA Experimental Rated, 1 pilot & 6 passengers when fully certified) Max endurance: Over 1.5 hours Max Range: Up to 200 nm

The Rotor X Aircraft Manufacturing Company's partner company, AT, is working on developing this type of multi-engine rotorcraft for the US Military through two contracts under the US Air Force AFWERX program which is part of the US Air Force Agility Prime program. This revolutionary program is focused on bringing the most advanced air transportation systems with the greatest efficiency to the Department of Defense.

Because of its high efficiency, the RX eTransporter can have a maximum hover for over 45 minutes on a single charge while also being able to conduct forward flights exceeding 1.5 hours. At a maximum cruise speed of 140 mph and utilizing its wing for even more energy conservation the aircraft would fly over 200 miles on one charge. On military missions, an additional 50 miles of range can be achieved.

The aircraft has a wing attached for long distance flights which increases its range by over 50%. Unlike most typical eVTOL aircraft the RX eTransporter does not require a wing for long range. The edgewise lift and counter rotating rotors yield stability and long range without the need for a wing. The wing is used to enhance long endurance flight and does not hinder the (record long) endurance hover times of this eVTOL.

With electric hover times over 45 minutes, it becomes the ideal package delivery helicopter. The first fuel-powered version (Transporter B), slated to begin flight testing in the fall of 2021, would be able to fly well over 12 hours due to the higher energy density available with existing fuels, however the electric version is much more efficient compared to other electric helicopters since it requires no tail rotor.

The RX Transporter and RX eTransporter are also safer than conventional helicopters because of their multiple-independent-engine design. All Transporter type aircraft can continue flying or land with one engine out, which dramatically increases the options for achieving a safe landing. Also, there is no tail rotor which can cause catastrophic loss of control in a conventional helicopter.

Through a partnership with AT, Rotor X Aircraft Manufacturing Company (RX) will make civilian versions of the aircraft being developed for the U.S. Air Force. The eVTOL Air Taxi is our goal. We are seeking FAA air worthiness certification later this year, and we plan to have the first flight in the Fall of 2021 with expected commercial FAA air taxi certification by Fall of 2024.

KEYWORDS/TAGS: commercial off the shelf (COTS), low-cost, personnel recovery, medical evacuation, search and rescue, long-endurance, electric, low heat signature, low acoustics, low disk loading, mining, logistics, rural, passenger, USAF, AFWERX, Agility Prime.