Michael Waters hpcconcepts@yahoo.com

Michael Waters is an advanced technology consultant, researcher, inventor and sustainable recovery strategist. He has previously owned businesses in, designed and built: multi-axis robotics, adaptive manufacturing systems, experimental aircraft, custom homes, portable housing systems. Michael's automated disaster recovery and library preservation systems are used worldwide at institutions such as the Library of Congress, the National Archives and the Russian Academy of Sciences, instrumental in recovery of the worst library fire disaster of the last century.

In the last twelve years Michael has researched cutting edge science and technologies that redefine current understandings in mainstream physics. He has established a large collaborative network of researchers and breakthroughs that profoundly affect fields of energy, mining, health, food, water, transportation, housing, sustainable economics and environmental recovery. The purpose of this research has been to discover causes of and solutions for the increasing number of global crises we now face.

A primary focus has been energy R&D, working with a diverse group of breakthroughs that combined, uncover new understandings in physics. These discoveries also explain why current global business and environmental models are fundamentally unsustainable. Michael is currently on the board of a number of organizations involved in advanced energy, mining, agriculture and finance and directly involved in developing several paradigm shifting energy breakthroughs. Michael's inventions span diverse fields including energy, robotics, fluidics, aviation, conservation and housing.

Aviation

Michael has built a number of different types of aircraft and also flown over 200 different aircraft including general aviation, experimental, low wing, high wing, midwing, bushplanes, seaplanes, hang gliders, ultralights, paragliders, microlights, biplanes, aerobatic, taildraggers, trikes, twins, autogyros, helicopters. He was also a competition sailplane pilot for 12 years.

Additional

- Designed and built radio controlled (RC) aircraft and rotorcraft for 40 years.
- Developed aircraft in flight simulators for over 10 years.
- Produced and sold competition RC sailplanes that won national competitions.
- Built wind tunnels for several universities.
- Built wind tunnel development models including the US

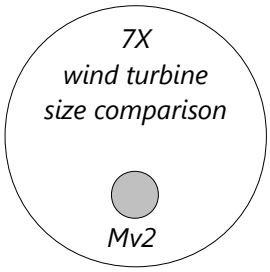
version of the Harrier VTOL.

- Designed models to assess radar signatures for the current US navy fleet.
- Developed several aerodynamic innovations including the 3d valvular conduit, MCAS, microturbulation, high efficiency wind turbine, hydro turbine and peripheral jet turbine.

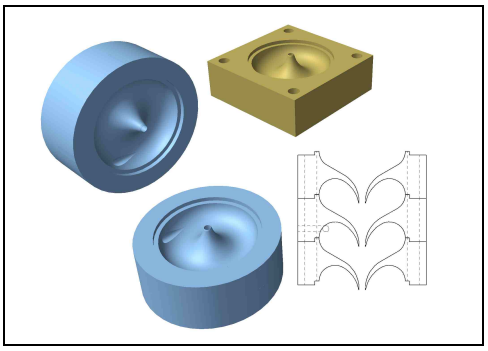
Details

MCAS (Moldless Composite Aircraft System) with advantages over both aluminum and composite manufacturing. This enables many aircraft wing structures to be built lighter, stronger and in far less time than current aluminum or composite approaches.

Mv2 Wind Turbine – Michael developed a high efficiency design that corrects a primary error in wind turbine aerodynamics. Document attached. Two 3rd party tests have been performed. The first calculated the same power output at over 7 times less diameter. This is a gain of over 7000% efficiency which negates the validity of the Betz limit. A second 3rd party wind tunnel test showed a direct performance increase over conventional turbines of over 30 times. The potential market for this wind turbine is global and existing wind turbines can be retrofitted.



3D valvular conduit – an improvement of Nicola Tesla's original valvular conduit design. This one way fluidic valve and combustion chamber has many potential applications. Michael's 3D approach increases effectiveness by an order of magnitude over the original invention.



Microturbulation – wind tunnel tested by a Canadian university. Significant drag reduction was observed at both low and high speed which is unusual.

Michael is currently co-developing an advanced peripheral jet liquid turbine, suitable for both power generation and transportation.

The Vision STOL was designed around a number of recent advances in electric energy storage and power density. Michael realized that these breakthroughs would enable a long range wingless electric vertical takeoff capability, effectively making wings redundant. This results in a significant reduction in complexity and cost while increasing reliability and safety over wings and conventional fuel based power systems.