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Robert A. PATTERSON

Ram Implosion Wing

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http://quantumgravitics.tripod.com/index.html

A hyperbolic-shaped wing mounted on vehicle creates a vortex that push-pulls to greatly increase miles-per-gallon. Kits available.

Vor-Tec Solutions Presents: Ram Implosion Wing Starter Kits

Testamonials & Criticisms

Google Search Results

US Patent Application 20050109879 --- Method and Apparatus for Quantum Vortex Implosion Propulsion and Species

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http://quantumgravitics.tripod.com/id3.html

Vor-Tec Solutions Presents: Ram Implosion Wing Starter Kits

After being rejected as an XPrize contestant for an unproven Gravitic propulsion concept and told repeatedly by the skeptics that my technology goes against fundamental physics, I realized that I needed a way of proving once and for all that I had a viable technology so I decided to install the Ram-Implo-Wing onto the roof of my van

I knew the wing was going to work but what I had no way of knowing was that by placing the Ram-wing onto the roof of my van that it would increase my fuel mileage 2-x above normal. After a little tweaking of the wing I added a set of elevated wing-lets as well as special texture (similar to the texture of golf ball) to the wing and I obtained 3-x above my normal fuel mileage.

After several years of R&D prototyping different types of Ram-Implo-Wings I have developed the technology into a kit for the Do-It-Yourselfer.

I know without a doubt that you will enjoy building this very educational wing kit not to mention the savings in fuel cost by building a unit that will save you money. That's right, this project will pay for itself in no time!

Drag Utilization --- All data collected up to this point came from the original prototype units. Those units were very unrefined and crude to say the least. Despite the crudeness of those earlier prototypes they began delivering extended mpg around the 55-mph range, and increased to, and maintained maximum efficiency between 60-85-mph. Conversely the new kit/plans will reflect all up to date refinements that have been rendered into the design e.g. correct texturing comprising Denticles, Riblets, and V-shaped groove placement, also not present on any of the original prototypes are the new drag utilization slots located near the base of the fuselage. Along with the correct groove and slot placement, which are designed to enhance drag utilization, its an all new and refined wing design.Referring now to the wing-form itself, sporting a new streamlined profile and thus a reduced wake signature is presented to the on-rushing air. Reduction of the wing's wake-signature will translate into greater mpg savings by ultimately reducing the parasitic wake-signature which is attached to the out of phase geometry of your vehicle.The new construction method adopted from kit-car and paper/composite airplane building was careful selected by the inventor for its ease of assembly, cost and use of minimal tool requirements used by the builder. To this end the Ram-wing kit was subjected to a rigorous reductionism that resulted in a kit that can be assembled in as little as a single day, even by a novice builder. All changes combined and cited above will make the Ram-kit an economical investment that pays for itself as well as reducing the speed required to activate the Ram-wing's mpg enhanced mode of operation. To the best of my knowledge this is the worlds first and only modern day working experimental f/e application that can be built by the home-hobbyist researcher and then be pressed into practical use, and pay for itself by extending your current mileage, in most cases two and three fold enhancements have been achieved and reported by those builders experimenting with kit.

Attach foam to the pre-shaped wing... Shape the foam overlay... Apply protective coating... Glass and install the wing-jets... Prepare wing for fiberglass coating..

Ram-Implo-Wing Starter Kit: This kit now ships with your choice of mounting brackets $399.95 plus s/h $65.00 = Total $464.95

This kit now ships with your choice of mounting brackets

Custom built wings $865.95 shipping included... All-new Ram-Implo-wing templates and construction guide (CD for PC Windows only) now $244.95 ; comes with canard and wing-let locking tabs plus, New Quick Install Brackets... CD only! $29.95 Includes several sets of construction plans! CD and Composite patterns only! $99.95 Includes several sets of construction plans! Quick Deck Installation Brackets --- End the hassle of building your own mounting system with these Quick Set Installation Brackets Comes with two wing brackets, two deck brackets and two 12-inch struts --- $29.95 plus $9.95 s/h.

Send check or US money order to:Robert A. Patterson11405 E. Blue Springs Rd. RT-1 Box 66-AWapanucka Ok. 73461

Ram Wing Kit Builders Association:
http://groups.yahoo.com/group/ram_wing/

Testamonials

From: Mark McDaniel<fixitman@simply.net
Date: 8 15 2002
Subject: Mileage

I bolted Robert's Ram wing to my 1994 Chevy S-10 Extended Cab 4.3 Liter V-6 and took it for a test drive, My average gas mileage before the test was 18 MPG. I drove 100 hundred miles averaging speeds of 70 MPH. The vehicle consumed 2.942 Gal. @ $1.399/Gal. of gas over the 100 mile trip. The odometer reading before the test read 162687.2 and after the test it read 162787.4 For a grand total of 34.16 mpg

Mark the fixitman

From: Butch Parnell
Date: Aug. 13, 2003
Subject: Mileage

I drive a van for the Meals On Wheels program for the elderly but with the gas prices the way they are I didn't think I could afford to keep delivering. As you can see I have a Dodge Caravan with a V-6 motor GVW 2726 lb.. I weigh in at 295 lb. After topping off the tank I drove out 10.1 miles and back the same 10.1 miles for a total of 20.2 miles round trip, at 65-mph with the ac unit on. When I came back to the gas station I amazed to find that I could only squeeze .2 tenths of a gallon back into the tank, I even picked the hose up and tried to pour the extra gas from the line into the tank but it all ran back out onto the ground.

20.2 miles 65 mph = .2 tenths of gas

Kudos to you Robert!
Butch

From: Dan MacBolen <daniel.brad.macbolen@us.army.mil
Date: 27 Jun 2004
Subject: Mileage

I visited Robert at his place in Oklahoma in June 2004 the drive down from Idaho cost me $600.0 cash, I have about 1200 hunderd pounds of tools and equipment in the back. I spent about a week there with him learning about his new technology. Still can't believe such a wonderful technology could come out of the crappy conditions this poor man endures caring for his elderly grandmother. Together we built and installed one of his Ram wings on my 87 Chevy Suburban which at the time got around 8.5 to 9 mpg on a good day. After a few test runs and a few tweaks here and there my truck got 23 mpg. The drive back to Idaho was great it only cost me $206.00 !!!

Can't wait to build one of these new starters kits!

HyperTech / Dan MacBolen

Jim Reeves< jim@dellama.co*m
Aug. 23, 2004

"I wrapped the foam covered wing with duct tape. Tested it today. The van historically gets 20 mpg. With the wing, it got 28."

The test was today 8/23/04.

I attempted to control conditions under the following:

Filled up at my local gas station, let the pump handle cut off automatically. Got on I-475 about ½ mile from the gas station. Drove south using cruise control set on 65 for 22 miles. (I-75 at the Byron exit) Turned around and came back to the same gas station. Filled up again letting the pump handle cut off automatically. Mileage traveled 45, gallons used 1.6 This is a very limited first test…more to follow. My wife drives this van to work 2 to 3 days per week, mostly interstate travel. Averages 20 mpg.

I feel sure there are changes that will result in improvements since the construction is based on visual photos posted by Patterson.

I'll keep you posted on any improvements.

Jim

From: "Lawrence Rayburn" <RayburnLawrence@bfusa.com>
Date: Wed Nov 3, 2004 5:23 pm
Subject: Mileage

We have a wing on a 78 Lincoln Town Car with a 400 CID engine that is being driven 109 miles round trip daily to work here at Firestone. We tweaked it and are getting 56 mpg out of it at present.The 78 Lincoln Town Car averaged 17.8 mpg before the wing was placed on it.

I have another one, different plenum induction design, and it seems to be working well on my 88 Chrysler Fifth Avenue. My Chrysler Fifth Avenue (87) with the 318 averaged 20.1 mpg before the wing went on. This is a different wing design and I haven't got it tweaked yet, but I'm getting about 46.6 mpg average at the moment.

We mounted the wing on to the back roof support posts of the Town Car. This put the trailing edge of the wing about 6 inches out over the back glass and the leading edge of the wing 12 inches above the roof in a perfectly horizontal plane.
We have found that a very slight upward pitch of the leading edge of the wing gives the best MPG. We have pitched our wing to 1 and 1/2 degrees above horizontal to achieve 57 mpg. Pitching it up more degrades the MPG and pitching down degrades mpg drastically

Will have more data to relate soon.

Regards,
Lawrence

From: Sal Garza <salgarza@yahoo.com>
Date: Thu Nov 4, 2004 5:47 pm
Subject: Re: Mileage

hey Robert,

so far,we are at 30mpg,67-70 mph runs in our Volvo,to and from the bay area. I am still in process determining optimum wing height,angle,etc. Of the little 36-inch wing you sent me for testing, so far we have seen 10mpg over our usual mileage

all best,
s.g.

More Positive Results:
http://pesn.com/2005/03/08/6900067_RamWingUpdate/

From: "Robert A. Patterson"
Sent: Wednesday, March 09, 2005 2:29 PM
Subject: [ram_wing] Re: feedback: air foil = Ram Implosion Wing Developments?

If a conventional airfoil functioned as envisioned then how come every street racer complains that his/her time to the finish line takes longer and their fuel consumption increased when they added one of these glorified "go fast plastic wings" to their street rod?

The conventional airfoil was designed to push a jet-stream of air out form under it and behind the vehicle in an attempt to brake up eddy currents that trail behind the car as it moves through the air. The problem with this concept is the fact that air has a sticky and elastic viscosity that adheres to the smooth surface of any vehicle and sheds off of the rear of the vehicle in the form of a rotating vortex. The suction head of this vortex is the source of the drag and the vacuum energy that is utilized by race car drivers when they draft off of the displacement created by the lead car.

In most cases the "go fast plastic wings" that I have seen are installed on the cars backwards! That is the leading edge of these wings is the smallest and the trailing edge is the largest. Ironically with the wing positioned in this canard (backward) fashion it cannot do anything but cause drag in the form of an antagonistic vortex. Likewise all vehicles that present a small leading profile in contrast with a larger trailing rear-section are 180-degrees out of phase with natures cyclonic properties.

No animal or egg is birthed with the small end first, its always the largest end first otherwise its breach, this is your basic building block, violate this most basic rule of Bio-engineering and everything you do will be moving antagonistically backwards (out of phase) through the environmental spectrum.

Robert A. Patterson

Wingspan 6'6" cord 3'6" 100-lbs. under went testing mounted to the back of a V-8 Van GVW 5750-lbs. mileage was calculated based on a single gallon of gas in back to back test runs, pilot

195-lbs. Resulted in an increases of mileage 2-3-times beyond normal expectancies, however in an independent test run Aug. 13-th 2003 a Dodge Caravan with a V-6 motor weighing in at GVW 2726 lb.. The driver weighs in at 295 lb. and the copilot 195 lb..

After topping off the tank we drove out 10.1 miles and back the same 10.1 miles for a total of 20.2 miles round trip, at 65-mph with the ac unit on. When we arrived back at the fueling station we were amazed to find that we could only squeeze 0.2 tenths of a gallon back into the tank, we even picked the hose up and tried to pour the extra gas from the line into the tank but it all ran back out onto the ground.

20.2 miles @ 0.2 tenths of a gallon = 101-mpg!

A second trip consisted of a 59 mile round trip but this time we were only able to squeeze 0.1 tenths of a gallon back into the tank.

59 miles @ 0.1 tenths of a gallon = 590-mpg!

http://peswiki.com/index.php/Directory:Ram_Implosion_Wing:Data

Recommendations

More Rigor to Avoid Exaggeration

Some of the data collected is over far too small of a sampling size, prone to a large error margin. This is sloppy science. One cannot go 20 miles and then refill the tank and expect accurate results.

To get accurate measurements you need to do such things as:

1. Go at least 200 miles.
2. Have a control drive without the device over the same terrain and same conditions, as close to identical as possible.
3. Repeat the experiment at least once -- including the control.
4. Use the same gas station, gas, and pump, with nozzle in same configuration.

The "triple mileage" claim will probably be shown to be an exaggeration that Robert will be eating.

It is better to under-state than over-state.

The more solid your test procedure, the more people will believe your results and buy your concept.

Choose a road that is not heavily traveled. Choose a time when you are least likely to hit delays in traffic.

Drive the path twice without the wing. Keep fastidious record of your mileage and gas for both round trips. Use the same gas station and same pump.

Now put the wing on and travel the same road twice; using the same procedure.

That would be much more convincing data, and that would be on the border of scientific. Would barely cut "scientific." If you wanted full scientific rigor, do that times 100.

Do it on another car. Do it with the wing in different positions. Have it done independently.

Then people will pay attention, big time.

Get test done by e.g. federal aero-labs

Email Correspondence from J.D., Monday, August 23, 2004. Posted with permission.

"We should probably get someone to do a basic simulation on this.

"It might be worth contacting Dan MacBolen with his Chevy suburban, to get some data on his results and to have some local technical people structure and validate his tests. His claim of 26 mpg in a gasoline powered suburban, is quite good (and believable, vs. Patterson's claims of 590 mpg!) – the best I've seen is around 20, at speeds below 55mph.

"I'm sure that the Univ. of OK in Tulsa or the Weapons Center Engineering team has some scientists that would be glad to spec and validate Dan's tests

"You should also get someone at one of the federal aero-labs like NASA AMES in CA,. to do an analysis of the basic 'wing' design for estimated drag reduction, and potential for improving overall vehicle efficiency."

Temperature Effects Tank Volume

A very important fact the should be taken into consideration in all these tests and is the temperature of the gasoline.

Gasoline in underground storage tanks is generally cooler than ambient temperatures and expands after it has been pumped. That is why you are advised not to fill a tank to the brim but stop pumping when the pump kicks out automatically. Otherwise the fuel in the over filled tank will expand and leak out the overflow.

If you read the calibration certificate usually posted on gas pumps you will notice that the pumps are calibrated for volume at a specific temperature.

To be most accurate, the test set-up should include an accurately calibrated tank; and the temperature of the fuel in the tank should be rigourously monitored.

(Source: Rob Polley <rob1082002@yahoo.co*m>)

Excerpts from:

US Patent Application 20050109879

Method and Apparatus for Quantum Vortex Implosion Propulsion and Species

(5-26-2005)

Robert A. PATTERSON

Robert A. Patterson
Blue Springs Rd Rt-1
Box 66-A
Wapanucka OK 73461 USA

Abstract --- System for converting high frequency quantum electrodynamic radiation energy and at least one atom through cavity vacuum fluctuations and converting same into a superconductive electrical implosion propulsion energy from zero point energy at a frequency that is amenable to conversion to electrical and implosive propulsion and superconductive energy extracted within an environment having a desired voltage and a reversed waveform such that the emitted energy returns into the system to be recycled. In an externally winged craft comprising a selectively shaped vacuum cohesive fuselage and means for providing lift and propulsion for an aircraft generating an enormous electrostatic vortex lifting force when

energized in conjunction with the quantum electrodynamic vortex implosion propulsion system and power plant maximizing fuel efficiencies including the extraction of usable energy from the vacuum of space. Actually riding on or in the shock waves verses the brute force disruption of the environment's equilibrium, as is the case with conventional modes of transportation or aircraft design.

BACKGROUND OF THE INVENTION

[0001] The vacuum of space contains enormous residual background energy with densities estimated to be on the order of nuclear energy densities. Zero point energy was predicted by quantum theory and verified via experimentation and is known to play a role in large-scale phenomena of interest, including, aerodynamic and/or fluid mechanics, renewable superconductive energy, holographic optical communication technologies. Linear spectral filtering which offers unique potential for future high-bandwidth communication systems. Inhibition of spontaneous emission, the generation of short-range attractive forces (e.g., the Casimir force.) Topics of interest range from space-flight applications to fundamental issues of renewable energy sources to cavity Quantum Electrodynamics (QED) laboratory attempts extracting useful energy from vacuum fluctuations thereby verifying environmental energy may indeed be extracted for practical use.

[0002] Selectively engineered shapes may convey energy via high and low-pressure differentials with emphasis on convergence zones, i.e., when high pressure air flips from underneath a wings surface over onto the upper section of the wing where low pressures abound whereby a vortex is formed via the high and low pressure convergence of two opposing forces FIGS. 17, 18, 19, 20, 21, and 22…. [&c &c…]

[0009] 1. Field of the Invention

[...]

[0010] This invention relates to improvements in aircraft incorporating vortex chamber swirl-vane-designs, mixing of radial and tangential flows and more particularly but not by way of limitation, to means for providing lift and propulsion for aircraft, extracting usable energy from the environment through vortex, action, air passing through an hyperbolic chamber, vortex convergence and swirl zone. Said suction-head or vortex flow gives rise to higher-pressure differential gradients of either-or high or low pressures forming a vacuum so that the pressure difference provides lift and propulsion for the aircraft.

[0011] From the mechanical and geometrical points of view, the invention or aircraft designed and/or otherwise built as a usual or conventional airplane-glider will give rise to long running flight times, limited to landing only by the pilots needs, otherwise describing the human condition. By virtue of the invention's selective shape and interaction with nature said invention becomes a no moving part motor.

[0012] From the electronic point of view, the aforementioned invention may be thought of as a no moving part motor, analogized as an electric motor wherein the invention becomes the stator and thus the air becomes the rotor thereby meeting the definition and criteria consistent with the description of a motor.

[0013] 2. Description of the Prior Art

[...]

[0028] As set forth within the elements of Aerofoil and Airscrew theory an aircraft's wing is designed with a plane of symmetry passing through its mid-point of span, and the direction of relative motion to the plane of resultant action in said plane.

[0029] Generally speaking, a common practice is to shape the wings of an aircraft so that the velocity of air streaming over the top or upper most surface of each wing is greater than the velocity of air streaming over the bottom or lower most or under surface of the wing. This velocity differential achieved by the contour of the wing, results in a pressure differential across the wing so that a net force, lift, is exerted on the wing to support the aircraft in flight.

[0030] Chord-line of an airfoil is defined as the line joining the centers of curvature for the leading and trailing edges and the projection of the airfoil section on this line is defined as the chord length. An airfoil's angle of incidence is defined as the angle between the chord and the direction of motion relative to the fluid through which the body is moving. An airfoil's center of pressure is defined as the point in which the line of action of the resultant force intersects the chord. Said resultant force is resolved into two components, lift, at right angles to the direction of motion and drag parallel to the direction of the craft although opposing the forward motion of the craft.

[0031] A common design flaw inherent within all aircraft of usual design is the aircraft's own geometrical shape design. That is any wing that deviates form the one hundred present efficient elliptical wing shape assumed 100% efficient for purpose of comparison. Wherein the shock wave of parasitic drag is considered unavoidable and a price requiring payment in excessive fuel consumption wrought by incorrectly designed cantilevered wings disposed out from the aircraft's body ending with tapered wing tips.

[0032] Thereby decreasing the relative efficiencies of basic wing plane-forms with each wing inductively inducing parasitic drag according to the wings own geometrical deviation from the perfect ellipsoidal plane-form.

[0033] Experimentation has greatly improved aircraft design, achieving greater flight performance as well as economic efficiencies of operation and construction methods thereof, yet to-date many problems exist within the industry.

[0034] Since the primary shock waves created by an airplane's wings cannot be avoided, the key to solving sonic problems clearly lies in wing design. Shock waves cannot be prevented but their effects can be reduced by several means making the wings thinner, sharper leading edges; shorter and wider designs sweeping them forward taking advantage of the shock wave or shaping the wing rearward in avoidance of said shock wave.

[0035] Unfortunately, the more tapered or swept back the wing becomes the more adversely the wing becomes affected by parasitic shock waves sapping the aircraft's momentum and consuming excessive amounts of fuel conversely an ellipsoidal shaped wing is 100% co-efficient.

[0036] Several combinations of these principles have been built into all modern high-speed aircraft. But all designs are at best compromises; some high-speed capabilities have to be sacrificed to enable the aircraft to be operative at low speeds e.g., take off and landing. This difficulty has been tackled with variable-sweep wings combining the best of both worlds for high-speed operation the wings can be angled in mid-flight, a drawback of the system is the complex equipment needed to move the wings.

[0037] In order to reduce supersonic wave drag further engineers need to study the wings and fuselage as a unit presented to the on-rushing air. Interestingly they found it important that the areas of consecutive cross-section of the plane, increasing from the nose and decreasing towards the tail, should add up to the smallest possible curve. Under this theory, called the "area rule" the perfect shape would be an egg but the necessity for wings forces compromise. Therefore results will be significant not only for the performance but also for the look of supersonic aircraft and beyond.

[0038] Paying particular attention to a design theory called the "compression lift rule" The basic idea here is that surfaces can be so arranged that shock waves will actually reinforce one another to provide lift, as in a planning speedboat or a rock when skipped across a pool of water. Because shock waves so severely affect an airplane's stability, the greatest problem for a pilot at the sound barrier is the changing control characteristics. A wing has a slowly moving layer of air called the "boundary layer" that clings to its surface.

[0039] Near Mach 1 shock waves can interact with the boundary layer to distort the airflow so that lift may be impaired and control surfaces rendered ineffectual. This disturbance also adds to the turbulent wake, which is created by any conventional wing, whatever its speed. Therefore "wing-shape" and "surface-texture" is obviously important to the strategic control of airflow.

[...]

[0063] Vortex Chambers

[0064] C. D. Pengelley published a simplified analysis of two-dimensional vortex fields in 1956. The calculations gave dimensionless pressure and temperature charts and included a numerical example for the two-dimensional vortex flow field. The purpose of the input element of a vortex pressure amplifier is to introduce swirl into the vortex chamber as a function of pressure input. As described above, the input element may be widely different for the various vortex devices: a single tangential orifice in vortex diodes, multiple nozzles located symmetrically to produce the balanced flow required in the Ranque-Hilsch Tube and Swirl Atomizers, and porous coupling elements in vortex inertial sensors to impart the small inertial rotation to the incoming fluid. In vortex valves and pressure amplifiers, the function of the input element includes the noise free mixing of a radial supply flow stream with the tangential control input.

[0065] The simplest design is the two port configuration, where the supply flow enters through a single tangential port mixing of the tangential momentum is accomplished efficiently and uniformly in the annular zone prior to entry into the vortex chamber as long as the annular zone allows free mixing of the control inputs, linear addition and subtraction of any number of pressure inputs is possible in the input elements of a vortex pressure amplifier.

[0066] In general, three basic rotational flow-fields may be encountered in a vortex chamber:

[0067] 1. The solid body rotation or forced vortex flow occurs under high viscous coupling. At extreme tangential velocities the apparent viscosity in gases becomes large; values of the order of a thousand times the normal viscosity have been estimated in experimental reports on the Ranque-Hilsch Tube.

[0068] 2. The free vortex rotation is defined by constant angular momentum. This mode of rotation may be observed in bodies of gases rotating at comparatively low velocities, when the effective viscosity becomes negligible.

[0069] 3. Constant tangential velocity is a unique intermediate velocity distribution between the free vortex and forced vortex rotation. Tangential velocity profiles may be described for all conditions by simple exponential equations.

[0070] For specific velocity distributions, the value of n may be defined:

[0071] =-1 for free vortex velocity distribution

[0072] =0 for constant velocity distribution

[0073] =+1 for forced vortex velocity distribution

[0074] Experimental results describing early development of vortex devices may be found in several of the referenced publications. The 1964 Proceedings of the Fluid Amplifier Symposium at the Harry Diamond Laboratories contain experimental results obtained with vortex fluid amplification [Vortex Physics: Studies of High Temperature Superconductors (Studies of High Temperature Superconductors, Vol. 42) by A. V. Narlikar Publisher: Nova Science Publishers, Inc. (May 2002) ISBN: 159033342X; Implosion The Secret of Viktor Schauberger, Complied by Tom Brown, Translated from German by Jorge Resines; Viktor Schauberger and his discoveries

Implosion vs. Explosion by Leopold Brandstatter; Implosion At First Hand from the 1977 July-Aug Journal of Borderland Research, by Riley Crabb; Viktor Schauberger and his work from the 1979 May-June Journal of Borderland Research by Albert Zock; R. Hilsch, The Use of the expansion of gases in a centrifugal field as a cooling process, review of scientific instruments XYI11, No. 2, February 1947, 108].

OBJECTS AND ADVANTAGES

[0075] It is another object of the present invention to provide a system for converting zero point electromagnetic radiation energy to electrical energy… [&c., &c…]

[...]

[0086] An object of the present invention is to provide but not by way of limitations, an aircraft with a propulsion means for forming a rearward directed air stream as well as an improved embodiment comprising an implosive suction-head so as to propel the aircraft simultaneously. In other words the push and the pull energy contained within the elasticity of the air stream are combined whereby useful work is preformed.

[0087] Another object of the present invention is to enable sustained and accelerated flight duration, too solve these problems without excessive fuel consumption, over heating of the fuselage e.g., applying ceramic materials to the exterior hull section of the craft and eliminating excessive drag common to conventional aircraft design another object is to provide aircraft of the design embodied here with a means of cooling itself.

[0088] Yet a further object of the present invention is to provide an enhanced flexibility in aircraft design.

[0089] Still another object of the present invention is to provide an aircraft with either a low or a high flight speed capability while reducing frictional losses. Another object of the present invention is to provide variable flight characteristics in an aircraft.

[0090] An additional object of the present invention is to reverse parasitic drag into a beneficial energy source doing useful work otherwise caused by the incorrect application of geometrical structures having been applied by conventional designers whereby the present invention overcomes this defect through the proper selection of a functional shape.

[0091] Other objects, methods, advantages and features of the present invention will become clear from the following detailed description of the preferred embodiments of the invention when read in conjunction with the lab report a species embodiment and drawings and in conjunction with the implosion propulsion system as well as append claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[…]

[0108] FIG. 17 is an overhead view of an aircraft embodying the invention and particularly Illustrates the hyperbolic shaped horizontal vortex flow chambers the swirl vanes and eddy current diffusion cells FIG. 17A [22A] there on the surface of the wing and a means for controlling the vortex suction-heads illustrating an operational mode thereof.

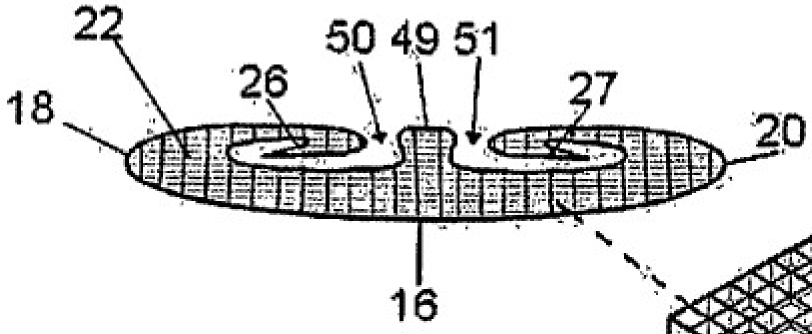

FIG. 17

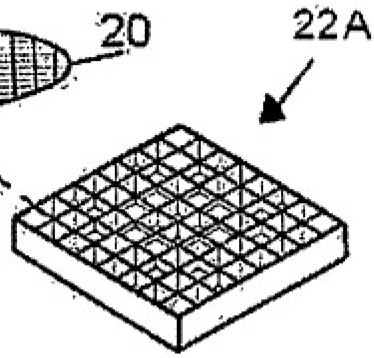

FIG.17A

[0109] FIG. 18 is an overhead view depicting the vortex formations [48] [48A] and [48B] of the aircraft shown in FIG. 17.

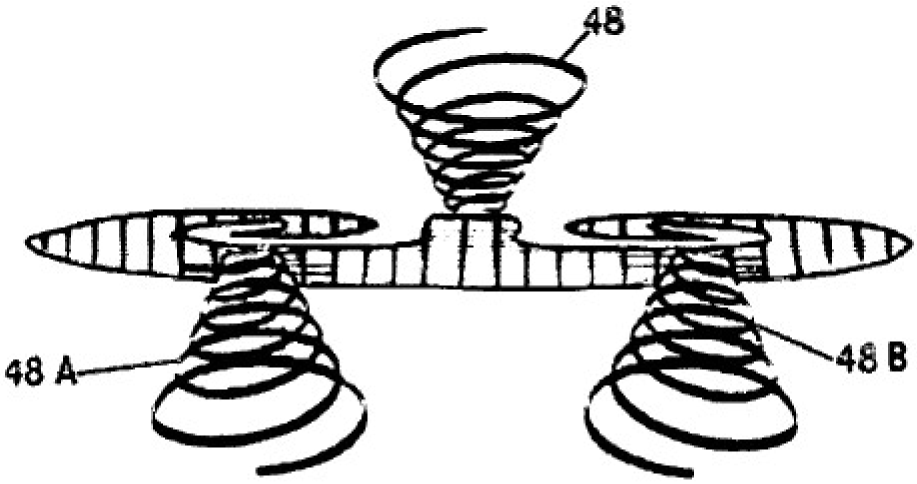

FIG. 18

[0110] FIG. 19 is a rear elevation-al view of the aircraft shown in FIG. 17.

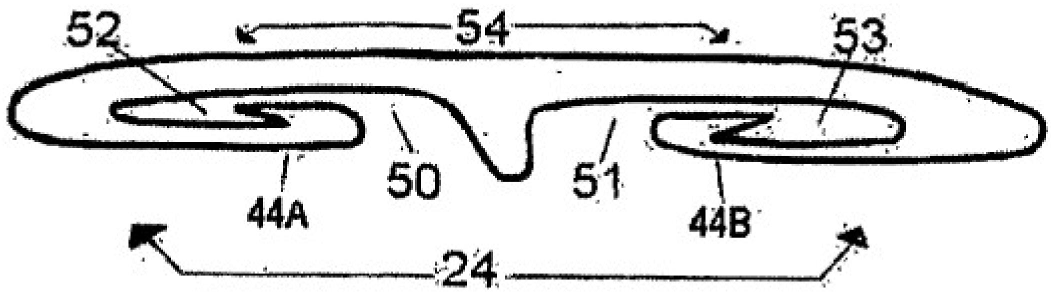

FIG. 19

[0111] FIG. 20 is a front elevation-al view or the aircraft in FIG. 17.

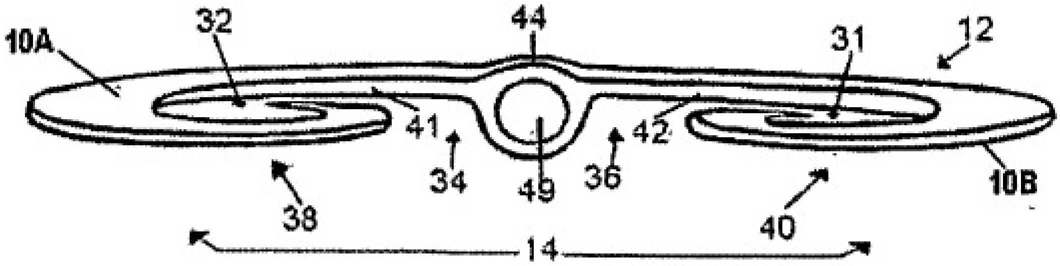

FIG.20

[0112] FIG. 21 is a 45-degree angle view showing (S) or scallop pattern or pinched in shape (optional) of the fuselage and vortex chamber of an aircraft embodying the invention.

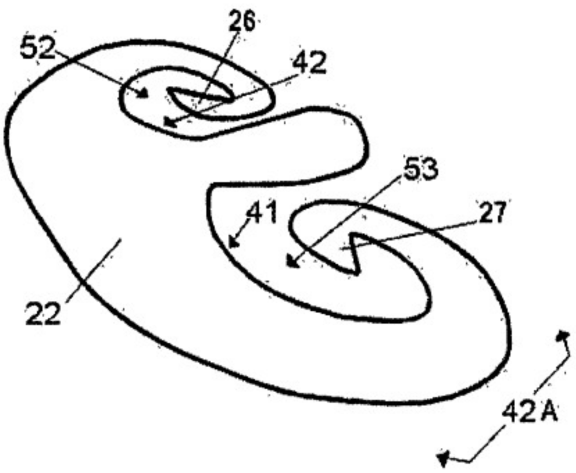

FIG. 21

[0113] FIG. 22 is a side elevation-al view of one fuselage shape embodying the invention also showing a hyperbolic impression there in the nose cone of the aircraft a wave reversal unit, which is an impression, or void of a predetermined shape and depth embodying the invention.

FIG. 22

[0114] FIG. 23 is a side elevation-al view of the preferred fuselage shape and configuration detailing a hyperbolic impression there in the nose cone of the aircraft a wave reversal unit, which is an impression, or void of a predetermined shape and depth embodying the invention.

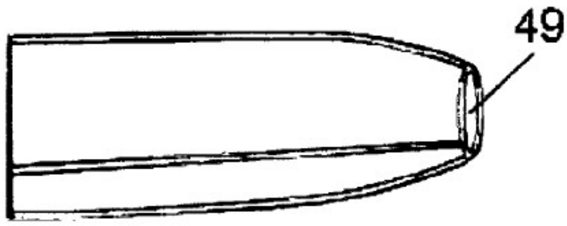

FIG. 23

[0115] FIGS. 24, 24A, 25, 25A and 26 depict species embodiments of the invention herein disclosed via lab reports.

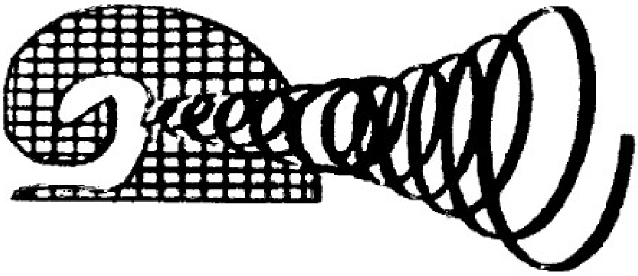

FIG. 24

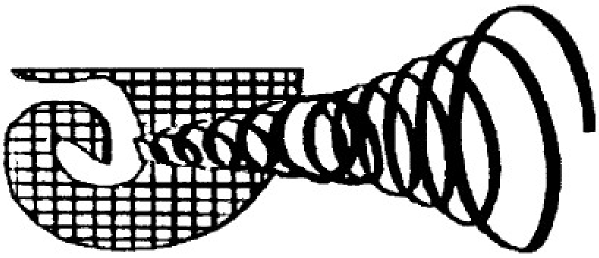

FIG. 24A

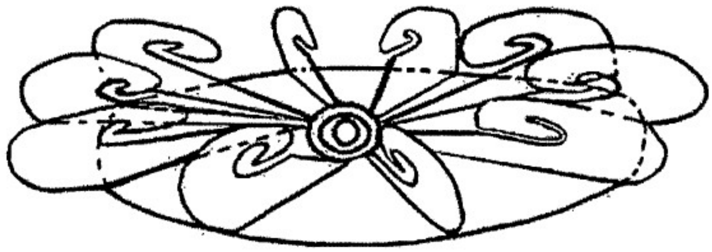

FIG. 25

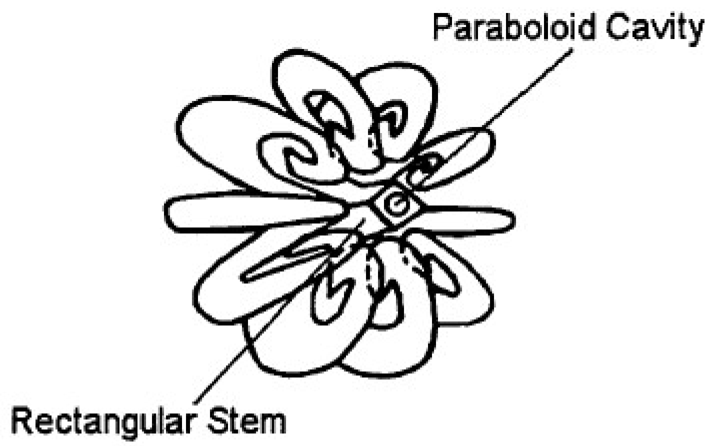

FIG. 25A

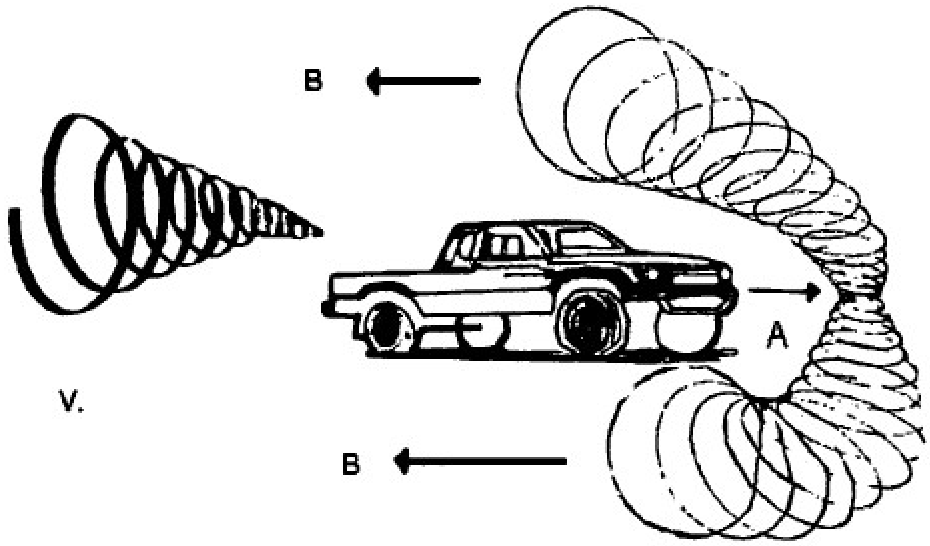

FIG. 26

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[….]

[0145] In the embodiment of FIGS. 17 and 17A [22A] located on all surfaces are two-dimensional waffle-type patterns dispersed on the surface of the wing, that is a quadratic-residue diffuser, a two-dimensional cell that diffuses acoustical energy and (preferably eddies currents) in both the horizontal and vertical planes for all angles of incidence thus forming a vacuum state many times higher in degree then the surrounding environment [The Master Hand-Book Of Acoustics 3-RD Edition "Everest" Diffusion In Three Dimensions pp. 256-262].

[0146] FIG. 17 is a diagrammatic representation of one specific embodiment of a component 1 in accordance with the invention generally indicates an internal wing there disposed within a horizontal vortex flow chamber aircraft comprising a flying-wing fuselage FIG. 20 [12] having a forward end FIG. 17 a rear end [16], a first side [18], a second side [20], an upper surface FIG. 21 and a lower surface FIG. 19 [24], the connotations top and bottom being used to generally indicate the uppermost and lowermost surface of the aircraft FIG. 20 [10A] and [10B] when the aircraft is in substantially level flight, or in a stationary mode. A control surface [26] and [27] are provided at the aircraft's vortex-swirl-vane FIG. 17 and left and right hand control surfaces [28] and [30] are disposed at the front of the craft on opposite sides [28] and [30] and are movable simultaneously, but in opposite directions, to produce a rolling movement about the longitudinal axis of the aircraft [1] and may therefore be rendered optional and may be removed from the craft when controlled or steered electronically (not shown) verses mechanically.

[0147] FIG. 18 is an overhead view depicting the vortex formations of the aircraft shown in FIGS. 17-22 whereby atmospheric vortex action sets into motion a cooling effect which is leveraged from the direct action of the atmospheric harmonics produced by said rotary vortex said vortex rotary which sets up a thermal acoustic effect or thermoacoustic alternative vortex refrigeration powered by standing sound waves caused by a temperature gradient formed there in the convergence zone of FIGS. 17 and 18 there forming vortex suction-heads to occur which may set up a sound wave causing an interaction between the atmosphere and vortex chamber to harmonically sing or whistle this new refrigeration technique is decidedly low-tech however practical for producing ambient temperature superconductive devices a predetermined frequency comprising a standing wave note at just the right frequency to set up a standing wave of sound causing environmental cooling via vortex possessing a predetermined atmospheric pressure the sound waves cause the atmospheric gas to go through cycles of compression and expansion which is a key factor to acoustic cooling because gas heats up a bit when compressed and cools as it expands when a compression phase of the sound wave comes along the gas molecules of the atmosphere collide within said vortex and a vacuum cohesive vehicle VCV hull structure from which it radiates away then the gas expands and cools further than it would otherwise and some of its heat has been drawn off the process a progressive cooling which can be exploited for refrigeration the result is a refrigerant system that uses no ozone depleting CFCs and has only one moving part the environment it is the direct manipulation of said environment that conveys the craft along with its relative motion the only issue keeping the acoustic refrigeration system from producing an ambient temperature super conductor is a lack of interdisciplinary talent.

[0148] The people who apply cryogenics do not apply acoustics maybe this is the reason why there has been so little advancement in the art of ambient temperature super connectivity and when current is applied to the ceramic composition of said VCV aircraft standing sound waves get compressed and heat up nearby atmospheric molecules these atmospheric molecules collide and transfer some of their heat and cool down a bit after expanding the atmospheric molecules end up with less heat energy and are cooler than when they began the cycle.

[0149] Researchers have already built a number of working acoustic coolers some capable of producing temperatures of around minus 100 degrees Fahrenheit and have even been used aboard the space shuttle because they have fewer moving parts than conventional cooling systems acoustic coolers may well be suited to applications on satellites and space vehicles and even for ambient temperature super conductors where efficient maintenance free cooling is crucial.

[0150] An engine or suitable quantum electro-dynamic power plant as shown in FIGS. 4 and 6 mounted in the forward end FIG. 20 of the aircraft [1] in any suitable manner as is well known and the power plant may also be any type which produces a rearward air stream and/or vortex flow or suction-head so as to provide thrust for the aircraft [1]. Of course, suitable conventional landing gear (not shown) may be provided for the aircraft which my therefore be rendered optional and may be removed from the craft when propelled via quantum electro dynamic implosion propulsion FIGS. 4 and 6 verses mechanically and/or conventionally and/or radio or electronic steering control devices (not shown) are provided for guidance and optionally the actuation of the control surfaces in the usual or well-known manner may also be omitted thereby opting for electronic steering (not shown).

[0151] Horizontal hyperbolic vortex chambers FIG. 21 [52] and [53] are provided in the airfoil or fuselage FIG. 20 [12] and [44] of craft [10] with the forward end of the input elements [34] and [36] provided with openings [34A] and [36B] disposed on opposite sides of the fuselage

[44] and on opposite sides of the power plant or engine shown in FIGS. 4 and 6 of VCV FIGS. 17, 18, 19, 20, 21 and 22 craft [10]. In addition, the vortex chambers FIG. 21 [52] and [53] are provided with openings FIG. 20 [31], [32], [38], and [40] disposed on the opposite sides of the fuselage [44] and disposed on opposite sides of the flying wing [12] and on opposite sides of the engine shown in FIGS. 4 and 6. The upper most section [42] FIG. 21 of the chambers [52] and [53] depicted a substantially ellipsoidal egg-shaped configuration and the ports or openings [34], [36], [38] and [40] are separated by a centrally disposed fuselage means FIG. 20 [44] and swirl-vane system FIG. 17 [26] and [27].

[0152] The upper surface of the swirl-vane [26] and [27] provides a floor or bottom FIG. 20 [10B] for a passageway [38] and [40] that communicates between the hyperbolic chambers FIG. 21 [52] and [53] and the openings FIG. 20 [34A] and [36B] and that of [34], [36], [38], and [40] and the upper contour FIG. 21 [42] of the main wing.

[0153] The lower surface FIG. 19 of the vortex swirl-vane means [44A] and [44B] provides a convergence zone or surface at the hyperbolic chambers [52] and [53] at the input elements [38] and [40] and the appropriate configuration of the hyperbolic chamber [52] and [53] and the substantially hyperbolic egg-shaped configuration of the surface FIGS. 17, 19, and 20 [34], [34A], [36], [36B], [41], [42], [50], and [51] converge to provide a reduced area or throat [50] and [51] shown in FIGS. 17, 19, and 20 an input to said hyperbolic chamber [52] and [53] disposed aft of the openings [34], [34A][36], [36B], [50], and [51].

[0154] As the air stream moves through the ports or openings [34A] and [36B] the velocity thereof is increased by the configuration of the forward section of the hyperbolic chamber and vortex swirl-vane, this increased velocity at the exit of the throat [41] and [42] creates a suction at the converging passageway [31], [32], [34A], [36B], [38], [40], [52], and [53] for drawing in ambient air through the ports [34], [36], [38], and [40]. The combined air-streams then move rearward through the hyperbolic horizontal vortex flow chambers [52] and [53] there flowing across the upper surface of the main wing turning vane whereby the rearward jet-stream of moving air is further accelerated and turned down for discharge at the aft-end [16] of the wing thereof.

[0155] At least two movable flap means [28] and [30] (not shown) are hinged or secured in any well-known manner at the front open end [14] of the vortex chambers that are selectively movable by the operator of the aircraft FIG. 17 [28] and [30] and secured substantially in the center of the hyperbolic chamber in spaced relation with respect to each other and movable simultaneously and in the same direction to provide a vertical force along the leading edge of the aircraft FIG. 17 thus changing the attitude of the craft, as is well known and may therefore be omitted when electronically steered.

[0156] Referring now more particularly to FIG. 19 a rear elevation-al view of the under portions of the hyperbolic chambers [52] and [53] view thereof. The cross sectional configuration of the hyperbolic chambers [52] and [53] at the leading edge opening FIG. 20 [34], [36], [38], and [40] are substantially elliptical shown at [52] and [53] in FIGS. 19 and 21. The cross sectional configuration of the vortex chambers [52] and [53] becomes substantially elliptical as the vortex chamber progresses in the direction of the throat or input elements FIG. 20 [34], [36]. FIG. 19 [50], and [51] the elliptical configuration being shown FIG. 19 [52] and [53].

[0157] The cross sectional configuration of the throat or input elements [50] and [51] as shown in FIG. 19 may be configured substantially pinched-in rectangular hyperbolic or other suitable shapes an example may be curved in. This graduation of the configuration of the vortex chambers [52] and [53] controls the movement of the air stream between the openings FIG. 20 [34], [36], [41], and [42] and the throat FIG. 19 [50] and [51] whereby the speed of the air stream is substantially squeezed as it enters the throat as herein set forth.

[0158] The aircraft shown in FIGS. 17-22 are provided with a pair of oppositely disposed inwardly extending relatively small wings swirl-vanes [26] and [27] likewise the aircraft shown in FIGS. 17-22 are provided with external wings there disposed within horizontal vortex chambers. The lifting force in the craft is attained entirely by the main wing section in conjunction with the internal hyperbolic vortex amplification chamber and swirl-vane system FIG. 17 as hereinbefore described. The novel aircraft design lends itself as desired to an efficient glider or single or multiple engine design or a quantum electro dynamic implosion propulsion system as shown there in FIGS. 4 and 6.

[0159] The aircraft as shown herein, may be provided with at least two engines (not shown) or powered by a quantum electro dynamic implosion propulsion system as desired and shown in FIGS. 4 and 6 In addition, the novel aircraft design may be utilized in the construction of large transport or cargo aircraft or spacecraft with equal efficiency and economy of operation and construction.

[0160] The lift for the aircraft [10] is generated by the action of air moving over the main wing section whereby the air is accelerated through the hyperbolic vortex chambers [52] and [53]. The swirl-vane directs the airflow from the underside and forward input elements [38] and [40] to the rearward outlet [16] for discharge at the rear of the craft. The movement of the air stream moving over the contoured section of the floor or upper most surface [12] creates a pressure and velocity change in the air stream. The configuration of the vortex chamber is such that a lower pressure is created on the roof or undermost surface [12] of the main wing than is created on the floor or lowermost surface [24] of the wing. The net difference in the pressure change results in an upward force or lift. The shape of the vortex swirl-vane and/or the configuration of the inner periphery of the hyperbolic chamber and the amount of air that moves through said vortex amplification chamber and across the main wing structure control this force.

[0161] The configuration of the vortex swirl is altered by the mechanical control mechanism [28] and [30] which may be deleted when electronically steered (not shown) which not only varies the configuration or contour of the vortex swirl FIG. 18 [48A] and [48B] of the hyperbolic chambers [52] and [53] and upper surface [10A] of the chamber. As the airspeed is increased through the vortex chambers [52] and [53], and FIGS. 20 [22], [23], [49] a wave reversal chamber composed of a predetermined size and depth there disposed within the nose cone section of the craft said wave reversal unit actually turns the air-stream encountered by the craft away from the aircraft FIGS. 20, 22 and 23 forming a vortex or suction-head FIG. 18 [48], [48A], [48B] requiring less fuel to be expended as opposed to conventional craft that are tapered to a point which actually turn the air stream back antagonistically toward the craft whereby more conventional fuels are required to generate the desired flight parameters Conversely, as the airspeed is decreased, more fuel is required to maintain the usual aircraft's required vertical force or lift.

[0162] Of course the chamber size must be sufficiently great so as to permit the airflow through the contoured section of the vortex chamber without undue restriction of the movement of the air stream with the contoured section configured with the greatest or highest curvature for the contoured section of wing FIG. 21 [22]. Similarly, the size of the vortex chamber cannot be so large that the air stream is allowed to pass through the chambers [38] and [40] without being properly influenced by the contoured sections.

[0163] The actual particulars of the vortex-chamber its shape and size are dependent on the considerations controlling the detailed design of the aircraft for its anticipated mission requirements. The operation of the vortex chamber and the contained contoured section FIG. 21 [42] provide the characteristics necessary to fulfill the fundamental requirements for producing a lifting and/or propulsion force for the aircraft.

[0164] It will be readily apparent from the drawings that the plane of the input elements [34] and [36] of the vortex chambers [52] and [53] are angularity disposed with respect to the direction of the incoming airflow. The vortex chamber inputs [34] and [36] are sensitive to this angular alignment, as is well known in the nature of input elements in general. The larger the angular alignment the larger the airflow properties as the air stream enters the vortex chambers [52] and [53] and begins its movement through said chamber. There are some small practical limits to this consideration, and this is the reason for the incorporation of the usual pitch-attitude control that is much like that of a conventional aircraft's major control device.

[0165] The flaps provide the pitch control [28] and [30] (not shown) and a swept-up or a turned up tail section (not shown) usual to flying wings aft section [16]. When these flaps are operated in conjunction with each other simultaneously and in the same direction, a vertical force is produced along the trailing edge of the aircraft [16], thus changing the attitude of the craft. Of course this attitude change may be computer controlled or otherwise monitored by the pilot in order to adjust the alignment of the aircraft with the airflow.

[0166] Similarly, the pilot of the craft may maintain the directional control of the aircraft [10]. The directional alignment of the control surfaces [28] and [30] their directional alignment play an important role in the efficiency of the aircraft's stability and is fundamental to the maneuvering of the craft to a desired position or place. The horizontal jet-stream turned-up vane or tail section usual to flying wing aircraft (not shown) and the swirl-vane flaps [28] and [30] provide the necessary force to produce a rolling movement or level flight plan of the craft when flow by usual methods.

[0167] The rolling control of the craft is accomplished by the utilization of the flaps [28] and [30] (not shown). It is preferable that the flaps [28] and [30] (not shown) be arranged in co-operating left and right hand pairs, with one of each pair being disposed on each vortex swirl-vane. The flaps or control surfaces of the right hand pair may be moved together, and the flaps of the left hand pair may be similarly moved together but in opposite directions with respect to the movement of the right hand pair.

[0168] This split movement feature produces a rolling movement about the longitudinal axis of the aircraft and modulation of the operation of these control surfaces will enable the pilot to bank, roll, and otherwise maneuver the craft in much the manner as a conventional aircraft. Of course, as herein-before set forth, all of the control vanes and/or surfaces are operably connected in any suitable or well-known manner including radio control or electronically steered (not shown) for actuation by the pilot of the craft optionally all moving parts including flaps of any suitable type that are capable of steering said craft may be deleted or otherwise removed the equation when electronic steering is chosen (not shown).

[0169] The function of the vortex chamber [52] and [53] are based on the amount of air moving through the input element section [34], [34A], [36] [36B], [38] and [40] and swirled by the vortex swirl-vane [26] and [27] thereof to produce the desired vertical and linear force for the particular flight conditions of the aircraft [10]. The movement of the air-stream through the vortex chamber [52] and [53] is the result of energy that is supplied to the air stream by the aircraft and its systems. This energy is supplied by moving the craft through the air ramming or by pumping the air through the vortex chambers by some mechanical means. When the forward movement or velocity of the aircraft i.e. produces the entire airflow ram induced, the performance of the craft will not be dependent solely upon the power available to move the craft through the air. When the air stream is ram induced FIG. 21 through the vortex chambers [52] and [53], the performance of the vortex chamber and the craft are greatly enhanced.

[0170] Similarly, pumping of the air may be accomplished in any suitable manner, such as by utilization of an impeller fan, ionization, quantum electro dynamic implosion propulsion system or the like, as shown in FIGS. 4 and 6 which may be disposed at either the intake or outlet end of the vortex chamber. Under these conditions, more energy is usually available when the fan is utilized to produce both a suction force and too produce a pressure simultaneously. In other words, it may be expedient to place the Impeller fan at the outlet of the vortex chamber rather then the inlet thereof.

[0171] Pumping of the air FIG. 21 through the vortex chambers [52] and [53] may also be accomplished by pumping a percentage of the air stream through the input elements [50] and [51] at higher pressure and entraining the remaining air by viscous action, which is the principle of a jet pump. In the aircraft this is accomplished by diverting the air from the power plant or engine (not shown) of the craft into the input elements FIG. 20 [34] and [36] of the vortex chambers FIG. 21 [52] and [53] and discharge the air stream through the outputs thereof.

[0172] The air stream entering the input elements [34] and [36] moves to the throat or pinched pipe area FIGS. 17 and 3 [50] and [51] where the velocity of the air stream is increased and as the air stream exits through the pinched pipe or throat area [50] and [51], ambient air is pulled into the vortex chambers [52] and [53] through the input elements [38], [40], [50], and [51].

[0173] The generation of a lifting force by flowing air through an internal passage, FIG. 21 such as the vortex chambers [52] and [53], are dependent upon the shaping of the passageway itself, and the utilization of the contoured chambered portion [42A] is much like the upper surface of an airfoil configuration wherein a velocity change is created in the air as it passes over the main wing having passed through the vortex chamber. Since the shaping is primarily contained within the wing [10] of the vortex chambers [52] and [53], the largest velocity change occurs along the floor [12] and a lesser velocity change occurs along the under surface of the wing FIG. 19 [24] of the vortex chambers [52] and 53.

[0174] Proportional to the changes in velocity along the length of the vortex chambers FIG. 21 [52] and [53], the pressure acting on the floor [10B] is increased and the roof [10A] is reduced.

[0175] The pressure along the floor or upper surface of the wing [10A] is reduced more than the pressure along the roof [10B], thereby creating a pressure differential between the two surfaces. This pressure differential acts on the surface area of the contoured portion of the wing FIG. 21, [22] and [42A] to create a vertical force in much the same manner, as does an external wing structure.

[0176] The relationship between the pressure change in the air stream passing through the passageway or vortex chambers [52] and [53] and the shape of the inner periphery [41] and [42] of said vortex generators [26] and [27] are directly related to the co-ordinate dimensions of the contour size and shape, and this relationship is well defined and computable by conventional and well known methods. In the flying of an aircraft, lift has always been conventionally controllable by changes in the angle of attack, coordinated with an airspeed or change in airspeed of the craft.

[0177] In the novel invention a ram implosion wing aircraft [10] the requirements are to produce a change in lift by changing the coordinate dimensions of the vortex generators or swirl-vanes [26] and [27] and their control surfaces [28] and [30] for the given airspeed or change in airspeed, and this is accomplished by the actuation of the control device (not shown). The effects of pitch attitude are the same in the aircraft [10] as in conventional external wing aircraft and are utilized in the production of lift in the craft [10] except when the optional control means (not shown) is by electronic steering said mechanical actuation my be removed from the craft.

[0178] The mathematics and physics surrounding the calculations of the velocity ratios at each horizontal vortex chamber are represented by the Navier-Stokes equations for an incompressible fluid. Because the domain of flow is unbounded and vortex rings are known to diffuse and translate, the equations are expressed in translating, expanding spherical co-ordinate airflow. As an example of the effects of the contour of the floor [42A] on the velocity of the air stream passing over it, a comparison between a low curvature surfaces may be made.

[0179] As herein-before set forth the configuration or contour of the inner periphery of the vortex swirl chamber [52] and [53] is controlled by contour means thereof [52] and [53], and as the airspeed is increased through the vortex chamber, less expenditure of conventional fuels are necessary to generate the desired vertical force or lift. Conversely, as the airspeed is decreased, the greater the fuel expenditures required to maintain the required vertical force or lift for the aircraft due primarily to the decrees in ram inductive forces.

[0180] From the foregoing it will be apparent that the present invention provides a novel aircraft utilizing an internal wing concept there disposed within an externally mounted wing wherein an internal hyperbolic vortex swirl chamber extends through the fuselage of the aircraft and is provided with inlet means at the forward end and passing through the upper and lower section of the wing thereof and outlet means at the top surface and aft end of the wing thereof. The air stream passing through the vortex chamber creates an upward force or lift for the craft and control vanes are provided for achieving the usual or desired operational characteristics for the craft generally similar to more conventional external wing aircraft and optionally said control vanes may be disposed of in favor of electronic steering (not shown).

[0181] The novel aircraft concept lends itself to application for single engine, multi-engine craft (not shown) or super-conductive quantum electrodynamic implosion systems as shown in FIGS. 4 and 6 high-speed operational craft, large transport and or cargo craft, spacecraft, or substantially any other desired in-flight operational requirements.

SUMMARY OF THE INVENTION

[…]

[0254] The use of vortex flow through a horizontal orifice, chamber or duct formed through the fuselage of an aircraft, as in a wing mounted externally of the fuselage, results in a number of benefits. A vortex generating lift system will generally result in a more compact aircraft or wing than can be constructed using conventional wings and the use of a hyperbolic convergence zone offers flexibility in the design of aircraft to meet varying purposes.

[0255] Since the shape of the exterior of an aircraft having a vortex generating lift system and hyperbolic convergence zone can remain fixed while the profile of the swirl-vane is changed, such change can be used to vary the performance characteristics of the aircraft so that the aircraft designer is given a design variation capability that will generally not be available where external wings only are used to lift the aircraft. That is, changes in performance can be accomplished by shaping structural members that provide the longitudinal camber of the floor and the effect of such shaping can be determined independently of other factors involved in the overall interaction of the aircraft with the air through which the aircraft will move.

[0256] Moreover, since the swirl-vane is within the fuselage of the main wing, an aircraft constructed in accordance with the present invention offers the capability of providing mechanisms for shaping the swirl-vanes or vortex generators in flight without affecting the structural integrity of the aircraft as might be the case were shaping attempted in a wing extending in cantilever fashion from the fuselage independently. In addition, the formation of lifting surfaces within said horizontal vortex flow permits a direct utilization for vacuum-cohesion purposes of air streams produced by vortex rotations, (normally thought of as parasitic drag induced by incorrect geometrical aircraft structures) now used to propel an aircraft so as to provide lift from the forward Ram-induction or forced vortex motion of the aircraft through the air. With lifting surfaces formed in an open horizontal vortex flow chamber, such streams can be diverted to provide lift and propulsion so that the aircraft can be flown at lower or higher speeds than would generally be the case for comparable aircraft having external wings alone, primarily due to the natural cooling effects and energy amplification caused by selective geometrical shaping of the wings.

[0257] This section below describes a species and alternative applications and embodiments as used in the present invention as a vortex generator FIG. 24 and also showing a vortex formation as used in the innovation; for use on planes, trains, boats, submersibles and vehicles of any type said invention is also applicable for use on surfboards as an implosion fin FIG. 24 and is also well suited for use as a fan blade comprising radial flow fan blades FIG. 25. Primarily the only aspect of the invention that changes is the application for which said invention is used however the overall geometric shape and function remain unchanged no matter if the invention is used as a wing a fan-blade a surfboard fin a spoiler a wing or the selective shape of a superconductor these are just applications to which the method or technology apply and the general shape and function do not change as described herein the article below as is above and is well known to persons in the art.

[0258] This section below relates to the present invention in a lab report and as a species embodiment configuring the present invention into a surfboard fin FIG. 8a and also showing a vortex formation as used in the innovation.

[0259] Conception and build date Feb. 2, 1997 4:36 PM Calif. I Robert A. Patterson (R.A.P.) did conceptualize and build a prototype consisting of three scaled down implosive vortex fins and one surfboard for use on surfboards by forming a pattern with paper board stock and hand laminating said pattern with glass cloth and resin I did build three implosion fins and mounted each to a scale sized surfboard I did test the design in a rectangular wave tank and through visual inspection and detection I discovered that the usually V-shaped antagonistic and parasitic wave front which adversely affects designs of usual configuration had effectively been reversed and eliminated and was now imploding via suction-head actually pulling in a forward manner on the entire surfboard as well as the implosion fins themselves said implosion fins may be mounted or otherwise attached to any type surfboard in the usual manner e.g. by hard glassing or any type of detachable or snap locking system commonly used in this industry.

[0260] This section below relates to the invention of the present innovation in a lab report and as a species embodiment comprising a radial implosion fan configured from the present invention FIG. 25.

[0261] Date of conception Feb. 2, 1997 4:36 PM Calif. and build date Mar. 31, 1999 I R.A.P. did conceptualize and build a prototype radial implosion fan I built up a first model composed of ten blades by forming a pattern from paper board stock and hand laminating said pattern with glass cloth and resin on the date in question which was not intended for testing I built up a second implosion fan with twelve fan blades using epoxy resin in like manner and mounted each to a suitable hub thus forming an assembly resembling a fan and attached the assembly by set screw to a 12v electric motor capable of at least ten thousand RPM during the preliminary testing seven of the fan blades violently broke loose from the hub assembly and were flung outwardly from the assembly said fan assembly destroyed itself because the epoxy resin had not fully cured and thus was not strong enough to withstand the ten thousand RPM test I built a third and final model Feb. 23, 1997 composed of only ten implosion blades but no further test have been conducted with this species embodiment thereof the present invention.

[0262] This section below relates to the aforementioned invention as a species embodiment configuring the present invention into a superconductor composed thereof a ceramic composition FIG. 17 see also detailed description.

[0263] This section below relates to the aforementioned invention in a lab report and as a species embodiment configuring a wing of the present invention into a ram induction spoiler for the express purpose of increasing fuel efficiencies of vehicles applying a species version of said means to extract from an atmospheric environment useable inductive wing-tip vortex energy disposed there within a horizontal and hyperbolic amplification flow chamber FIGS. 17-22 and 10.

[0264] Lab Report

[0265] Ram Implosion Vortex Generating Systems.

[0266] Amplification and Extraction of Environmental Energies

[0267] Purpose: Increase Fuel Efficiencies.

[0268] Materials: Vortex Generator made of Styrofoam and hand lamination glass resin.

[0269] Procedure: Test Drive.

[0270] Data: Preliminary test dates Mar. 31, 2000. Secondary test date Oct. 15, 2002.

[0271] Approximate weight of the wing is 76 pounds.

[0272] Results: Mar. 31, 2002. 26-mile round trip at 65 MPH resulted in a 25% increase noted in fuel efficiencies. Oct. 15, 2002 100-mile test run at 70 MPH resulted in 34.16-MPG verses the 18-MPG normally consumed by the test vehicle thereby resulting in an increase in fuel efficiencies of 50%.

[0273] Error Sources: No wind tunnel testing available.

[0274] Conclusion: Advances in design plus lighter weight materials may yield even greater fuel efficiencies.

[0275] Purpose: To increase fuel efficiency by applying techniques known as aerodynamic drafting. Actually gaining and/or extracting useful work from the amplification of wing tip vortices i.e. shock waves, (the differential pressures between that of high and low pressures, which cause vortex formations to occur, selectivity). Usual wings or spoilers are designed with only one purpose in mind.

[0276] Which is to create a jet-stream of air pressure intended to brake-up air turbulence by ejection and/or pushing away vortex eddy currents which produce drag via trailing elastically along behind any vehicle in travel through the medium of air or fluids. Otherwise usual spoilers are intended only for their aesthetic appeal, ultimately possessing no practical or purposeful function. It should be noted that the use of a jet-stream concept is indicative of a brute force concept at best. A concept that only employs only half of the available energy contained within the elasticity of the atmospheric medium.

[0277] Embodied within the scope of the present invention is an added and second hybrid dimension. Whereby a powerful multi-cyclonic vortex or suction-head is caused to occur (via a selectively designed vortex generating system) preceding and/or selectively placed ahead of the ejection or jet stream thereby effectively coupling both the push and the pull energies inherent within the fluid dynamics of the atmospheric medium. Said vortex generator or implosion spoiler consists of a strategically designed and elliptically swept forward set of wings. Said wings are routed through hyperbolic curvatures (for the purpose of causing the viscosity or elasticity of the atmospheric fluid to hug a curve against its own centrifugal forces) and in combination with a swirl or vortex-generating vane disposed there in a horizontal vortex amplification chamber.

[0278] Said vortex swirl-vanes are designed and placed at the ends or tips of the elliptically swept forward i.e. hyperbolic vortex amplification chamber. For the express purpose of converging higher pressure air from under the wing and too pre-rotate it over to the lower pressures existing on the top surface of the wing. Whereby the rotation of air is selectively and strategically transformed into a multi-cyclonic vortex and suction-head, thus effectively reversing the parasitic effects caused by drag into a working energy transference and ultimately into greater fuel efficiencies when applied as a vortex generator, wing, fin etc. to any type of vehicle including electrically driven. Said vortex generator effectively eliminates parasitic drag, i.e., on a truck or any other type of vehicle wherever the ram implosion wing or vortex generator is affixed to a vehicle via mounting with standard nut, bolt, torque procedures applicable within the automotive industry.

[0279] Materials:

[0280] Vortex Generator Wing mounted with any suitable type of nut and bolt fasteners. 1 Vehicle e.g., Truck.

[0281] Procedure: Test drive said vortex-generating system mounted and affixed to a motor vehicle, e.g. a truck. A test run consisting of a 1 00-mile distance without the vortex-generating spoiler and once again with the vortex generating system. We will demonstrate how the design of a ram implosion vortex generating system" will create a centripetal vacuum or suction-head as well as a tangential vortex force. Which will detract from the overall parasitic drag that is created by this or any other vehicle in motion while traveling through the air and thereby translate said suction-head into greater fuel efficiencies.

[0282] Data: The forces acting on the truck are in the form of a suction-head FIG. 10 (V) actually pulling backward on the vehicle in an antagonistic manner (B). As the vehicle travels through the air it produces a horizontal and counter clock-rotating wave due to the incorrect adherence to wave geometry (A). At first this horizontal waveform moves out in front of the vehicle. However, as the truck begins to move faster the air becomes stretched elasticity, similar to a rubber band stretched between two-post (B). As the truck gains speed the horizontal wavefront bends backward thereby forming a parasitic vortex (V).

[0283] Odometer: Difference: MPG w/o Odometer: MPG with 100 miles.

[0284] 162687.2 162787.4.

[0285] Results: MPG w/o the wing 18 MPG; w/wing 34.16.

[0286] Drafting is a technique familiar to motorist that venture to close behind big-rig trucks as they encounter the buffeting effects FIG. 26(A) of the horizontal vortex wavefront which is now pulling their vehicle along forward with the vortex motion that is parasitically generated-by the forward travel of the big-rig truck through the viscous elasticity of the air.

[0287] Oct. 15, 2002-6:05 PM

[0288] I fashioned with all-thread and fastened a wing as disclosed herein onto the side rails of a truck thus forming an inductive or implosive spoiler and did depart from Coleman Okla. this morning Oct. 15, 2002 at 8:15 AM with a full tank of gas toped off so that gas was pooling at the intake nozzle. In other words the tank was completely full and could store no more.

[0289] At the start of the trip the odometer read 162687.2. I then proceeded to drive a 100-mile distance with an average speed of 70 MPH to 12958 Coit RD. Dallas Tex. With the Vortex Gen. System functioning and attached to the vehicle owned by Mark McDaniel a 1994 Chevy S-10 Extended Cab 4.3 Liter V-6 Average gas mileage before the test was between 18-20 MPG. Upon arriving I pulled into the FINA gas station on Coit RD. and once again I toped off the tank so that it was completely full.

[0290] The odometer now read 162787.4 a distance of 100-miles and 5 tenths. Attaching the Vortex Gen. System to the vehicle translated into 34.16 MPG effectively doubling the mileage of this vehicle.

1 Witness: Mark McDaniel Inventor: Robert A. Patterson Coleman, Oklahoma. Oct. 16, 2002 Oct. 15, 2002 1:13 PM 7:03 PM

[0291] Error Sources: Inability to accurately measure the volumetric vacuum forces generated via the ram implosion vortex spoiler, fin, wing generating system. Due primarily to the lack of wind tunnel or other such test equipment to measure pneumatic differential pressures.

[0292] Conclusion: Combining aerodynamic principles with those of turbo charging and/or vortex mechanics. Into the form of a ram implosion vortex generating system our spoiler design resulted in and demonstrated an overall increase in fuel efficiency by a margin of 25% to 50% increases for any vehicle fitted with the ram implosion vortex generating system.

[0293] The centrally located centripetal vacuum created by the wing subtracted from the overall parasitic drag of the vehicle. Resulting in the increased efficiencies and overall reduced drag. The quantity of fuel conserved during preliminary testing factored into a (0.5) gallon decrees in fuel consumption. However the secondary test demonstrated a savings of half the fuel normally expended to over come the drag created by the vehicles motion through the air. This means that less fuel was expended to overcome the drag of the vehicle. Thereby translating into savings of fuel and/or dollar-wise the more miles traveled while using the vortex generating system (VGS).

[0294] Vortex Generator Environmental Energy Amplifier FIGS. 17-22

[0295] Date of conception Jan. 22, 1997 11:PM Nevada.

[0296] Construction began: Thursday Jan. 23, 1997 4:15 PM.

[0297] Construction completed approximately Mar. 1, 2000 dimension 6'6" six feet six inches across left to right and 3' three feet in depth front to back.

[0298] Lab Report and Thoughts in General May 1, 2002

[0299] Present marketing strategy based on my findings thus far a 25% savings in fuel cost to the consumer and a 50% savings in fuel as of 10/15/20.

[0300] I have developed an actual test model; the drawbacks were excessive weight of the first unit. Develop light weight versions add diffusion pattern for the purpose of pulling a higher state of vacuum and reduced in size enabling its use on smaller compact cars so that they may enjoy the same fuel savings as any larger sized vehicle.

[0301] Jun. 11, 2002

[0302] I have come to the conclusion that either a mold has to be built, but that is rather involved and expensive so the only other alternative for a good test model may be to get some foam and shape the wing by hand similar to making a surfboard so that it turns out light weight vs. the heavier construction as in the first version.

[0303] Diffusion cells similar to waffle shaped patterns the main idea is to eliminate laminar flow in favor of producing more vacuum.

[0304] Jun. 12, 2002

[0305] Lightened the wing by removing excess material.

[0306] Jun. 23, 2002

[0307] Discovered wing wicking up water facilitated repairs.

[0308] Lightened the wing by removing excess material.

[0309] While particular embodiments of the present invention have been shown and described, it would be obvious to those skilled in the art that changes and modifications may be made without departing from this invention in its broader aspects. Therefore, appended claims are to encompass within their scope all such changes and modifications as fall within the true spirit and scope of this invention method or species embodied by this invention method.

[0310] A method of manufacturing the invention comprising the following steps:

[0311] Resin transfer molding (RTM) may be adopted for the fabrication process of the aircraft. The raw materials required for fabrication of the wing include selective composition of ceramic material, Kevlar, glass fiber, carbon fiber in various forms such as chopped strand mat, cloth surface mat, woven roving & resin (epoxy & polyester), hardener, catalysts, accelerator, pigments, surface treatment agents etc. Or Hand-shaped Styrofoam construction, hand laminated similar to surfboard building, injection molding or by any other method including metallurgy that is common, standard or otherwise accepted manufacturing practices used or applicable within the aircraft or superconductor industries. All the basic raw materials required for fabricating are available indigenously.

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