

**The Writings of Prof. Bailey**  
**Repulsion Energy,**

**VACUUM PROPULSION VEHICLE**  
**WR 5272010**

Kim, sorry I have not written sooner, been cleaning up my yard for the Memorial Day lake crowd.

Now that it is nice and warm again, everyone is back at the lake!

I of course was here all year through the 20 below zero weather systems, these "FAIR WEATHER" lake goers can happily avoid.

Kim, "I NEVER STOP WORKING ON THESE PROBLEMS"!

You have no idea the threats I have made to my greedy relatives to let me have that vertical wind tunnel I have forever wanted for my aircraft engine research.

I am demanding a 10 to 16 feet in diameter vertical wind tunnel with a minimal sustained 40 to 75 mile per hour wind.

This wind will simulate the terminal velocity of an aero-shell in free fall.

The maximum sustained free fall velocity used in sky diving is from 120 to 140 miles per hour.

I do not feel I need that much velocity of vertical wind to complete my research.

A wind tunnel capable of that velocity requires from 800 to 1,200 horsepower.

I have studied this subject very carefully and determined there are several distinct types of vertical wind tunnel.

One made by "SKY VENTURE" in Austin, uses multiple "SUCTION" turbines to induce wind through a long tower.

This means less noise and less turbulence for the indoor skydivers. As many as 5 upper suction turbines draw air into the base of the skydiving tunnel. You really need to visit Sky Venture in Austin someday! I have asked my brother who lives there to, but he often ignores my E-mails.

The next type which began in the 80's is based on an 800 horsepower propeller beneath the skydiving chamber. There is a return channel around the chamber

and the wind is completely enclosed. It's rather noisy in there and has gaps where the wind drops off sharply.

The final method of vertical wind tunnel uses an "OPEN AIR" system. It requires excessive power levels in the 1,200 to 3,500 horsepower range do to it's lack of a return channel.

The advantage of course is that a skydiver can fall out of the air stream and drop on a giant trampoline. There is no "VERTICAL WALL" to smash into like in the previously mentioned enclosed designs.

A 10 foot diameter skydiving tunnel usually has a 12 foot vertical wall above it. Again the wind velocity top sustain a man in free fall is from 120 to 140 miles per hour!

The reason I want a 16 foot diameter vertical wind tunnel is so that I will have enough space to maneuver and turn a small convection powered aircraft. This allows me to evaluate stability and control systems. That would be impossible in a smaller vertical wind tunnel with a completely restrained test model.

Kim a vertical wind tunnel of the Sky Venture design is 1,000,000 dollars just for the sight license and another 1,500,000 to 3,000,000 dollars for the facility itself.

I would have to be far more economical then that!

There is a company called "SUPER FLY" that builds a mobile 10 foot diameter propeller, 900 horsepower diesel open air skydiving tunnel with 12 foot Plexiglas walls for only 250,000 dollars. So you can see the 4,000,000 dollar price tag for the "SKY VENTURE" VWT is not set in stone.

Anyway, I also looked into purchasing a Mosquito helicopter this summer, but have now concluded it would drain my finances and I still have yet to get my 20 hours of helicopter dual time to fly it safely.

I told you years ago I wanted a one man helicopter, to learn how to control a convection powered aircraft like the type we have discussed for so long.

I really wanted that helicopter, but the Mosquito "AIR" kit was very time consuming to build (not for you) and did not come with proper assembly jigs.

The Mosquito XEL was a lot faster building, but was well into the 30,000 dollar range just for the kit, finished would be 38,000 or more! All of that money and it is still not an F.A.A. certified helicopter, just an ultralight...

I still want a Mosquito helicopter , but could not justify the expense without the 6,000 dollars worth of dual time I need from Roy Harding in Grove in his Schwiezer 300-C.

Look Kim, the vertical wind tunnel takes precedence above all else!

I have even looked into spinning the VWT's propeller with compressed air from the blade tips. That way, you do not require a drive shaft or any gear losses!

No, I will get this done this year or else!

Kim, I was very interested in the flying "EPAULETS" our friend mentioned. You know the ones that Coanda used to fly a wooden dummy.

Imagine Kim, using compressed air from bellows on your jump boots to spin up those "EPAULETS" and briefly rise above the ground. Talk about walking on air!

However I long ago determined the best way to lift a man off the ground is by his "FEET".

Alright Kim, why is that?

Because shoulder mounted "EPAULETS" or Coanda discs, require a parachute harness to wear.

When you place "DUSTER'S" or flying boxes under your boots, you no longer require a parachute harness!

It is the simplest way to lift a man from the ground.

There is also the perforated convection belt around your waist, but have always believed that was to be used in conjunction with the convection boxes on the bottoms of your boots.

Kim, I absolutely promise you a means exists to levitate a man from the ground that uses no fuel and has an indefinite operation sustained flight period.

It is said to smell like "HOT IRON" and cause heavy radio interference. It is also said to sound like a large vacuum cleaner in operation.

When someone is seen taking off with these "FLY BOOTS" on their feet, they tend to "STEP" into the air like they are going up a flight of stairs. They also display a "DANCING" motion while near the ground.

The boots or boxes on their feet always give off a dull red glow.

Kim why is this all important to us?

Because it means the devices I have told you about over the years do "NOT" have to be the size of a Cessna to be man carrying!

No Kim, just a box attached to the bottom of a jump boot is enough to lift a man!

The real problem with this fellows diagrams is that it would require tens of millions of dollars just to build one prototype!

Kim, there are several Chinese model helicopter companies that will set you up with a complete 6 channel RC electric helicopter in the 450 engine size for under 300 bucks. The problem is they are boiler rooms and not hobby shops. You may not get what your ordered or any after purchase service!

A good "T-REX" 450 to 500 class 6 channel RC electric helicopter from Heli-Proz with radio is over 1,200 dollars! But, at least you deal with an America based hobby shop that wants your future business.

The reason I state these facts to you, is to demonstrate just how expensive even a "MODEL" helicopter is!!!

Kim, putting a man in a helicopter is 32,000 to 38,000 dollars easy!

Therefore the best we may be able to do here is market a 200 to 800 dollar "MODEL" convection powered aircraft.

Building a man carrying convection aircraft jumps us well over 20,000 to 50,000 dollars before we even leave the hangar.

Yes, you could do it for less, because you have a life time of experience with kit building, but most people do not have that kind of experience with purchasing aircraft grade metal or control systems.

Kim, if all we ever do is sell a working "MODEL" of a convection powered aircraft, then we have still won a great victory here!

Alright, I have also looked into building a demonstration "CLEM" engine and came to one important conclusion.

If your purpose is to pump oil through a reaction turbine into a 2 foot tall tank, you need to do one primary thing.

Yes Kim, I have looked into cooling that 2 foot tank containing our reaction turbine with crushed ice, or heating it with solar energy, but came to this conclusion.

You "MUST" both heat and cool the tank!

Why? Kim heat a tank containing a reaction turbine and it will pressurize, this allows waste oil to be pumped out of the tank!

Cool the tank and it will implode and this allows oil to be pumped into the tank through our reaction turbine.

Yes Kim, the tank must first get very hot and then very cold to function, never just a static temperature or it will stop working.

Kim, I understand how a conventional steam turbine works. You first boil the water and send the steam through a nozzle against your turbine, then the steam is cooled and turns liquid again, this pumped out with a small water pump and fed once more to the boiler.

A "CLEM" engine uses a static bubble of air above the heated cooking oil. This cycle is very different than a conventional steam turbine.

**"THAT IS WHY CLEM DOES NOT USE WATER IN HIS CAR ENGINE"!**

He wants the cooking oil to remain a liquid and uses the static air bubble in the reaction turbine tank to resonantly pump the oil through the system.

I know this can be done, but am still working on a Clem engine prototype. I need a machine shop to do it right.

Kim, standard steam turbine design has been around for over a century. We must use the "SAME" things Clem used in his car engine, which is air and cooking oil, not water. That way we may be able to reproduce his engine, in-spite of the fact a standard steam turbine requires a gas fired boiler.

I have a lot more confidence in our convection powered aircraft engine working then Clem engine at this time.

My designs "ALWAYS WORK", since they are not in a closed system.

It is simply a question of how much power we can get from how small a unit. Not if they work!

Thank You for all of the drawings!!!

I have seen many of them before.

In hope this fellow can live to see these designs all come to fruition, but he will have to be extremely wealthy to build any of them larger then a hub cap.

I will keep updating you about my planned vertical wind tunnel facility.

Kim, it has been 35 long years since I asked my family to help me build a vertical wind tunnel building.

My family is greedy and only thinks "THEIR" investment ideas are important, so I am always the last on the list!

I will build that vertical wind tunnel facility this year if it is the last thing I ever do!

Yes Kim, I have met people on the Internet who own vertical wind tunnels, but they showed only limited interest in letting me use their facility. After all Kim, they just spent 4,000,000 dollars building their vertical wind tunnel and have little interest in letting someone play with model aircraft inside them, when there are sky diving students willing to shell out hundreds of dollars a day to fly in them.

Again thanks for the great drawings you sent me, I wanted to wait until I went over them more carefully, before I gave you an opinion of their scientific merit.

As you can see Kim, to build one of these machines in the drawings you sent me larger then a hub cap would require millions of dollars in funding!

I think that is the real problem this over seas fellow faces, not any fundamental design flaws in his proposed machines, but funding.....

I have not given up on you Kim! I just need that vertical wind tunnel facility.....Trust me, the wind tunnel is essential to completing my work. I am a scientist, not a garage inventor. I need real world empirical results to justify my convection energy claims that can only come from systematic experimentation in a large wind tunnel.

Yours in Aviation research, Mr. Bailey