



I have BS in Physics and worked more than 30 years as Designer Engineer. When I retired in August 2004, I found mistakes in the sciences of climate change, economy, foreign affairs, and sociology. Analysis of these mistakes bring me to solutions how we can create tens of millions of high paying jobs in very profitable directions. I am too old to look for profit; not a member of any party, but I want ask anyone, who can: "please, introduce my proposals to all Congressmen, Senators, and members of Trump's Administration.

I can help to promote these ideas to any Company, or organization like NASA.

We can change our economy and policy with another countries with huge profit for the USA".

Sorry for poor English, but, please, read carefully these proposals and send them to as many people, as you can.

If you are from other countries, please, try to send this proposal to your Government, members of scientific, engineering, and mass media companies.

#### **EXPLANATION OF REASON FOR CLIMATE CHANGE BY TODAY SCIENTISTS.**

When I Google "climate change": 1/1/2016 at 7:50 AM Chicago Time – I found 169,000,000 results; 9/21/2017, 10:19 AM -194 million results. And if you think that these millions of sources provide real millions of new ideas, you are wrong. All information are repeating only three main ideas:

**Idea #1.** Al Gore in 1980<sup>th</sup> was a Chairman of Senate Committee, where under influence from James Hansen - scientist from NASA, name carbon dioxide and other greenhouse gasses, which trapped infrared radiation from the earth surface, as reason for global warming. They are using names of scientists – John Tyndall, Samuel Pierpont Langley, and Svante Arrhenius to promote their ideas.

[https://en.wikipedia.org/wiki/John\\_Tyndall](https://en.wikipedia.org/wiki/John_Tyndall)

John Tyndall put the different gasses in the closed tubes and studied how they absorb different infrared radiation. His main reports of the 1860s were republished as a 450-page collection in 1872

"Contributions to Molecular Physics in the Domain of Radiant Heat.

[https://en.wikipedia.org/wiki/History\\_of\\_climate\\_change\\_science](https://en.wikipedia.org/wiki/History_of_climate_change_science)

*By the late 1890s, American scientist Samuel Pierpont Langley had attempted to determine the surface temperature of the Moon by measuring infrared radiation leaving the Moon and reaching the Earth. The angle of the Moon in the sky when a scientist took a measurement determined how much CO2 and water vapor the Moon's radiation had to pass through to reach the Earth's surface, resulting in weaker measurements when the Moon was low in the sky. This result was unsurprising given that scientists had known about infrared radiation absorption for decades. A Swedish scientist, Svante Arrhenius, used Langley's observations of increased infrared absorption where Moon rays pass through the atmosphere at a low angle, encountering more carbon dioxide (CO2), to estimate an atmospheric cooling effect from a future decrease of CO2. He realized that the cooler atmosphere would hold less water vapor (another greenhouse gas) and calculated the additional cooling effect. He also realized the cooling would increase snow and ice cover at high latitudes, making the planet reflect more sunlight and thus further cool down, as James Croll had hypothesized. Overall Arrhenius calculated that cutting CO2 in half would suffice to produce an ice age. He calculated that a doubling of atmospheric CO2 would give a total warming of 5-6 degrees Celsius. At the same time, John Tyndall, Samuel Pierpont Langley, and Svante Arrhenius **did not pay attention on behavior of different greenhouse gasses in real atmosphere.***

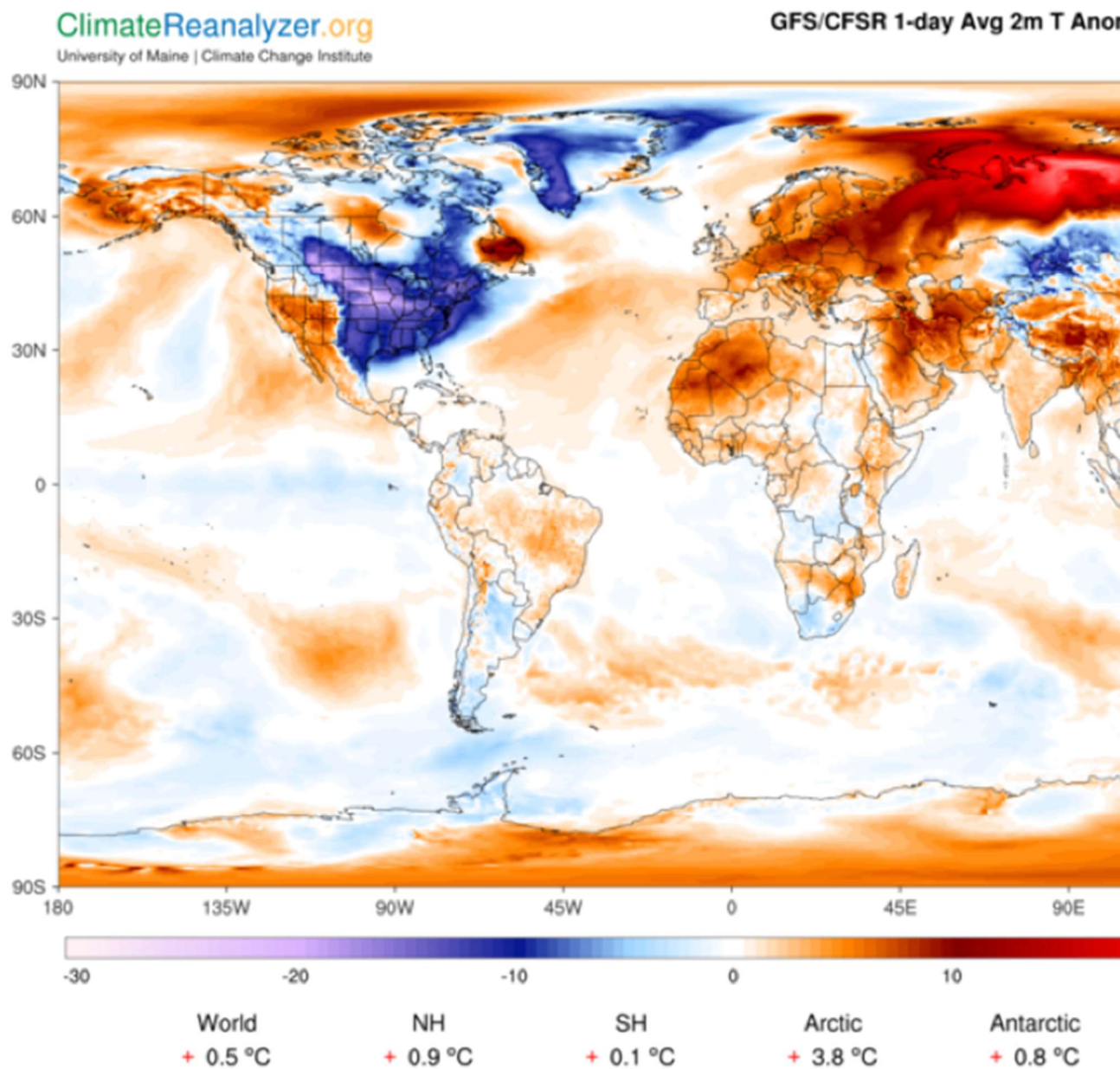
**NO ONE OF THEM!**

No surprise Arrhenius made huge mistake but these mistaken ideas of Svante Arrhenius became a dogma for today theory about greenhouse effect.

**Idea #2.** Some of their opponents, also, promote that greenhouse gasses are responsible for climate change and claim that not human activities, but an eruption of the volcanoes and other natural sources of greenhouse gasses are responsible for climate change.

**Idea #3. The SCIENTISTS FROM** Heartland Institute oppose the greenhouse gasses theories [please, read book: [Craig Idso and Fred Singer, *Climate Change Reconsidered: (200 Report of the Nongovernmental International Panel on Climate Change NIPCC)*, Chicago, IL: The Heartland Institute, 2009]. In Chapter 5. Solar Variability and Climate Cycles they provide alternative theory of climate change: "*variation in the sun's output and magnetic fields, mediated by cosmic ray fluxes and changes in global clouds cover play a larger role in regulating the earth's temperature, precipitation, droughts, monsoons, and other climate features, than any past or expected human activities, including projected increases in GHG (greenhouse gases) emissions.*" Page 207. "...electrons released to the atmosphere by galactic cosmic rays act as catalysts that significantly accelerate the formation of ultra-small clusters of sulfuric acid and water molecules that constitute the building blocks of clouds condensation nuclei." Page 208.

Please look at picture which provide changes in temperatures in different parts of earth:



If changes of temperatures in different part of earth will depend on greenhouse gasses, **WHY THESE CHANGES ARE SO DIFFERENT (IN 38 TIMES) in South Hemisphere and Arctic?**

#### **WHY ALL OF THESE SCIENTISTS ARE WRONG?**

The earth is a lucky planet with two types of the greenhouse gasses:

1. Which are lighter than nitrogen and oxygen - methane, water vapor.
2. Which are heavier than nitrogen and oxygen - carbon dioxide, nitrogenous oxide, ozone, and many others even heavier greenhouse gasses. Please, compare their molecular weight: methane -  $\text{CH}_4=16$ , water vapor -  $\text{H}_2\text{O}=18$ , nitrogen -  $\text{N}_2=28$ , oxygen -  $\text{O}_2=32$ , carbon dioxide -  $\text{CO}_2=44$ , nitrogenous oxide -  $\text{N}_2\text{O}=44$ , ozone -  $\text{O}_3=48$ ...

#### **The molecular weights of gasses are playing the crucial role in nature:**

1. A smoke from a chimney of power plant in not windy condition is going up  $\sim 500$  meters after that it is a horizontal, despite a temperature in the oven  $\sim 1,000$  degrees C. It is cooling with height and, as it full mostly with molecules of heavy gasses, forces of a buoyancy can't lift it.
2. At the same time, the billions of molecules of water vapor are making any parcel of air lighter, than other parcels with lesser numbers of molecules of water vapor, and forces of the buoyancy are lifting it up. When with a height air in a parcel is cooling, part of a water vapor condensed, released energy, which heats air in this parcel and recreates the convection forces. Step by step all molecules of all gases in this parcel together with their kinetic, latent and trapped infrared radiation energy are coming to upper troposphere, where energy is going to space easy, than from ocean (land) level.

#### **The properties of water:**

- As water vapor is lighter than most molecules in air, billions of them help transport huge amount of energy of all gasses from an ocean (land) level to the upper troposphere and helps cool the atmosphere, despite water vapor is a greenhouse gas. (Methane is doing the same).
- These properties cover 1/3 of the earth by clouds, which reflect to space direct sun radiation. Properties of water cover all Antarctica, most of Arctic, most of the mounts on the earth, and huge territories in the winter time by ice and snow. These ice and snow also reflect to space huge energy of direct sun radiation.

#### **PROPERTIES OF WATER HELP COOL THE ATMOSPHERE, DESPITE WATER VAPOR IS A GREENHOUSE GAS.**

How after understanding roles of these properties of water we can agree with scientists about specific role of greenhouse gasses on the earth; about their claim that water vapor and methane even more powerful greenhouse gasses, than carbon dioxide?

Exactly opposite in South Hemisphere less continents and more evaporation of water vapor and it cool South Hemisphere more than North Hemisphere.

#### **REASONS FOR CLIMATE CHANGE AFTER YEAR OF 1800 (Industrial Revolution):**

1. A population of the earth in 1800 was 1 billion, today more than 7.3 billion. To feed the growing population mankind activities created around the world  $\sim 4,000,000,000$  acres of fields of potato, corn, wheat, etc. (area  $\sim$  equal of two areas of the USA). These fields were created instead of the former forests and the virgin steppes. It reduces evaporation of water from a soil over all continents with arable land, reduces the humidity in the air and the probabilities of rains – a real cooling mechanism in the nature.
- 2 As we use mostly a fossil fuel for our energy needs, a black carbon and a dust from it cover a fresh snow, which reduces a reflection back to the space of the direct sun radiation.

Human activities using mostly fossil fuel to create all changes in the world. Of course it increase amount of carbon dioxide and other greenhouse gasses in the atmosphere.

But they are only indicator of human activities in wrong directions: fields evaporated less water vapor, than what was before 1800 year - forests and steppes instead of fields.

**SCIENTISTS FROM** Heartland Institute the same as majority of scientists also ignore changes on continents, which created by human activities. **IN A DRYER AIR OVER ALL CONTINENTS** additional electrons couldn't create more "*condensation nuclei*".

Response of the earth to any sun activities in our times will be different than in medieval times. Only two gasses – water vapor and methane in reality could help people to influence the weather and the climate change, by accelerating or decelerating of movement of energy in the atmosphere to different places on the earth and to upper troposphere.

**Solar cells, windmills are useless in our attempt to influence the climate.**

Let look at graph, which illustrate Temperature anomaly in Global Temperatures from 1880 till today. (All pictures are taken from Wikipedia).

Despite it show global warming in result, it is not so important.

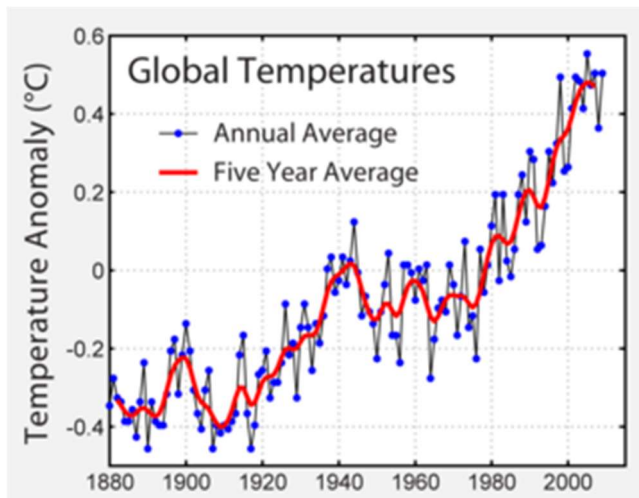
Please, pay attention on really interesting – it showing sharp warming and the same sharp cooling, which occur one after another.

Why is it?

Is it influence of precession of earth orbit?

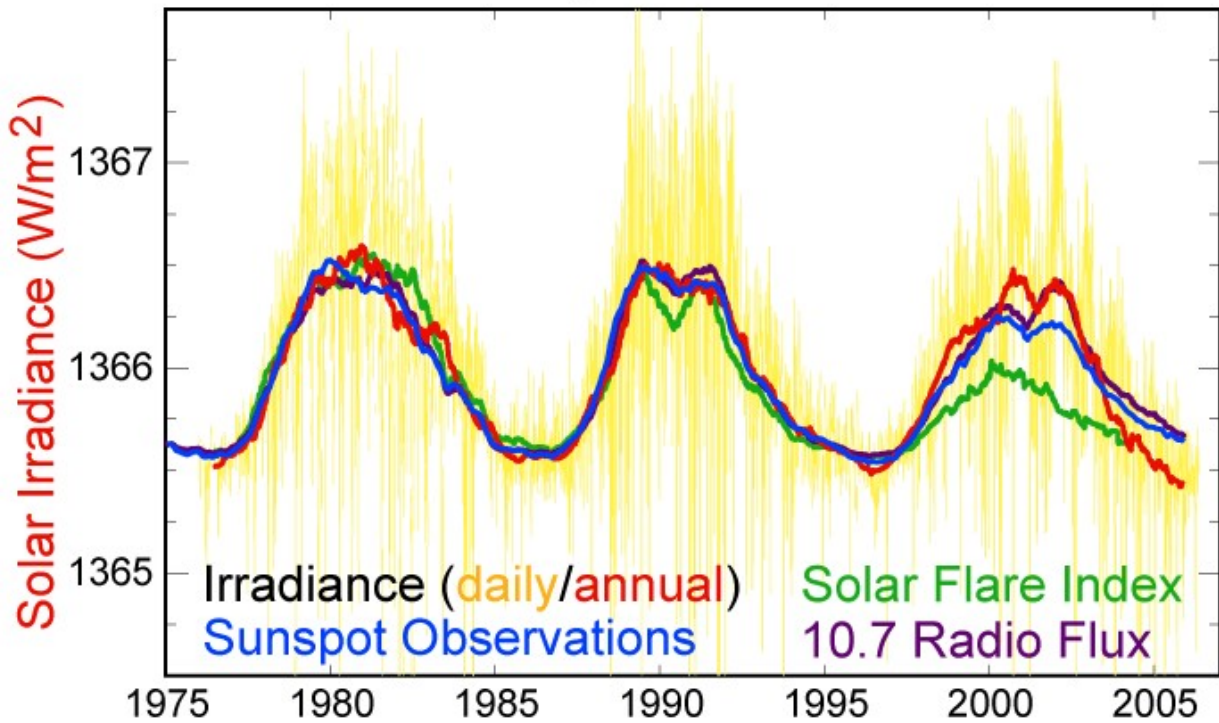
Or, maybe so fast in both directions are changing amount of greenhouse gasses in the atmosphere?

Or we have so fast and regular changes in core of the Earth, which some of scientists are trying to use for explanation of all changes of climate on the earth?



Or, maybe it is close to changes of sun activities? Let look at them:

# Solar Cycle Variations



Simple logic confirm, that all possibilities, which are trying to use scientists supporting the greenhouse gas theories, or some other theories are failing to explain these sharp changes of temperature.

Only processes on surface of Earth: changes in Ocean's streams; wildfires; eruption of volcanoes, which cover by dark dust surface of snow (ice); droughts or flooding; changes of vegetation, which cover ~4,000,000,000 acres of fields on the earth, and many others responses from changing on the Earth can be responsible for so faster changes.

## Wildfires in Oregon.

Every year I'm coming to Portland (Oregon) to see family of my son. I had a week of fresh air from Pacific, to clean my lungs, as I joked, but not in August 22 – 25, 2018. It were wildfires around Portland and quality of air was terrible during these three days. We can't stay outside even for few minutes and stay at homes, where filters of air conditioner keep air cleaner.

## Wildfire Losses in the United States, 2007-2018:

2007 – \$3.9 billion; 2008 – \$2.4 billion; 2009 – \$0.35 billion; 2010 – \$0.4 billion; 2011 – \$1.800 billion;

2012 – \$1.1 billion; 2013 – \$.7 billion; 2014 – \$0.2 billion; 2015 – \$2.2 billion; 2016 – \$1.7 billion; 2017 – \$4.5 billion.

2018 only camp fires in California bring 100 of death, destroyed more than 10,000 houses, and was the costliest at \$16.5 billion in losses, including \$12.5 billion of insured losses.

These losses are completely correlated with **La Niña**/El Niño:

**La Niña** is a coupled ocean-atmosphere phenomenon that is the counterpart of El Niño as part of the broader El Niño–Southern Oscillation climate pattern. During a period of La Niña, the sea surface temperature across the equatorial Eastern Central Pacific Ocean will be lower than normal by 3 to 5 °C.



In the United States, an *appearance* of La Niña persists for at least five months. It has extensive effects on the weather in North America, even affecting the Atlantic/Pacific hurricane in time of El Niño.

We could see how a temperature of water in the Pacific influence evaporation of water from the Pacific and create rains in California.

We can't influence El Niño and La Niña **but we still have possibilities to increase the evaporation of water from shores of Pacific, even if it water is in a cold period.** We could disperse water of Pacific and it will increase a surface of evaporation many times. We, also, could make all beaches wet during a day time, when temperature of the beaches higher than in the ocean. It also will increase the evaporation many times.

We could do it with electrical or diesel pumps, which received energy from a grid or engines moving by oil products.

The engineers could easy evaluate, which methods is cheaper and, maybe offer something better. The huge numbers of dispersed fountains of water from San Diego to the north of state Washington could solve all ours droughts and water problems beginning from 2019 for all the USA.

In the case of the pumps, which will take energy directly from a grid, or the diesel engines we have an advantage to regulate needs for precipitation, as we wish.

It is the cheapest way to solve wildfires, water, and droughts problems in the USA, Canada, and Mexico.

(Length of the Pacific shore in the USA ~1,500 miles. We need ~20 pump/mile, or ~30,000 pump). If someone will suggest that it is not realistic project, because of numbers of pump needed, please, think about millions acres of fields, which we wet by the same methods to increase harvest. Please, think about \$4.5 Billion, which we lost till September 30, 2017 for wildfires and droughts or \$16.5 billion from camp fires in California. Please, think about quality of air, which I feel by myself in Portland in August 2018.

I am sure that only these pumps will reduce temperature of the atmosphere in the world, and will show to everyone, how wrong is today science of climate change. We will save around the globe billions of dollars on stupid and absolutely useless for climate advices from today science: to use windmills and solar cells to reduce amount of the greenhouses in the earth's atmosphere.

Of course, we need to check these ideas in a short area of Pacific ~200 miles beginning from San Diego; find the best solution and step by step increase mileages and every time reevaluate results. At the same time it will be the best confirmation of huge role of properties of water on the earth's weather and climate.

Cost of Cyclone Pump 10300 Gph - (Gallon per hour) ... eBay \$449.99. If we will purchase 30,000 pump, I am sure, that their price will be ~\$ 50.00. All 30,000 of pump will cost ~\$1.5 million.

Together with installation and energy, which they will use, let suggest spending ~\$5 billion.

I am sure that engineers will find the better and the cheapest way to disperse water and increase evaporation; but even this example is showing that it t is almost nothing in comparison with air quality, absence of drought, and possibilities to cool atmosphere around all North America continent, which will reduce global temperature and especially cool the region of Arctic from extra heat exactly when we want.

**Please look at underscore statement. By these pumps we can reduce not only weather and climate disasters. We can prove with profit that properties of water really can cool the atmosphere and show that greenhouse gasses and even sun activities do not influence climate in our days, as claim scientists.**

It will forever stop using windmills and solar cells to reduce greenhouse gasses. These laughable ideas till now are using fanatic Al Gore to fool himself, leaders of all countries in the world, mass media... And madness of these ideas cost wasting billions around the world for nothing. ~\$1 billion spending on dispersing ocean's water could be the best confirmation, **HOW WRONG IS TODAY SCIENCE OF CLIMATE CHANGE**

## NEXT PROFITABLE DIRECTIONS TO CREATE MILLIONS OF JOBS IN THE USA, CANADA, AND MEXICO.

### PREVENTION OF HURRICANES.

In Riga, Latvia, for many years I heat my apartment with stove, which look like at the picture, which (the same as map) I take from wikipedia.



*“The stove is made of masonry such as brick (firebrick), soapstone, tile, stone, stucco, or a combination of materials, rather than steel or cast iron. It is freestanding, and usually requires special support to bear its weight. It consists of a firebox and heat-exchange channels or partitions that provide additional surface area. These absorb heat from the hot exhaust gases before the gases exit into the chimney. The fire in a masonry heater burns much hotter than in a metal stove. Very hot fires reduce emissions significantly. When not being fired, the connection from the masonry heater to the chimney sometimes has a damper to prevent heat from escaping up the chimney; the heat is then radiated from the masonry.”*

Inside this stove heat-exchange channel are going up after that horizontal, after that down, again horizontal, again up and so many times to take all volume of stove. When this stove is still hot enough, gases from it are easy exit to chimney and you have not any problems to fire new portion of wood. But if for some reason you will try to fire wood, when all stove is cool, smoke from stove will not go to the chimney and will go to the room. Creators of this stove know that and in back side of stove on highest level, they put brick inside steel cover. It is more than enough to take this brick off and put fired piece of paper. Hot air from this piece of paper is going to chimney and turn all air from fire place to heat-exchange channels and stop smoke to going in room.

Why I am writing about this, if these stoves are mainly like a history, than realities of our lives?

**Only to show that sometimes very small forces (like in this case piece of fired paper) can save us from very big problems.**

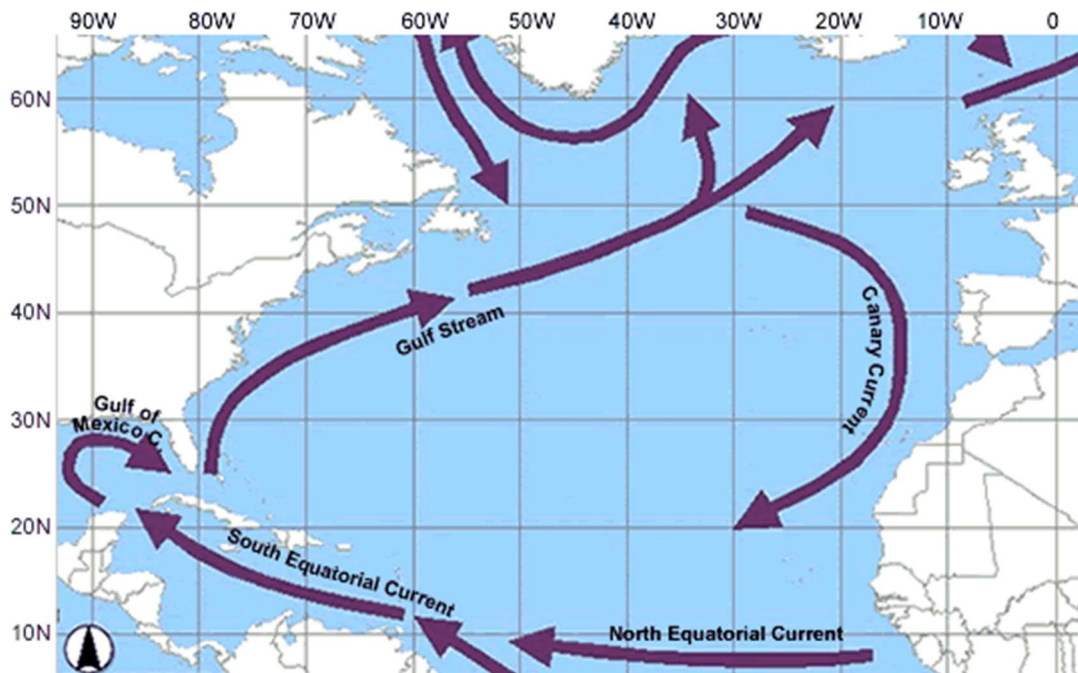
### HURRICANES ARE SIMPLE COMBINATION OF WATER AND AIR.

**Tuesday, September 11 ONE MILLION TOLD TO LEAVE SOUTH CAROLINA.** *South Carolina Gov. Henry McMaster (R) ordered a mandatory evacuation of the state’s coastline ahead of Hurricane Florence’s expected arrival (Hurricane Florence was a powerful and long-lived Cape Verde hurricane that caused severe damage in the Carolinas in September 2018, primarily as a result ...**Formed:** August 31, 2018).*

*. Approximately 1 million people in eight counties have until noon today to evacuate, the governor said. President Donald Trump warned in a tweet that this was "one of the worst storms to hit the East Coast in many years." [HuffPost] The high estimate of \$50 billion would make Florence the seventh-costliest storm in history behind Hurricane Andrew, based on Moody’s Analytics data cited by [The Wall Street Journal](#). Florence is expected to cost less than last year’s three hurricanes.*

*Moody’s estimated that Harvey’s damage hit \$133.5 billion, the Journal said. Maria cost \$120 billion, and Irma’s total was \$84.2 billion.*

Knowing properties of water and air we could significantly reduce effect of hurricanes distraction power in nature.



Please, look at the map and try to remind for yourself the way of hurricanes in Atlantic. All of them are starting in equatorial Africa and taking huge energy along their way of North Equatorial Current, which bring to all Caribbean Isles the warmest equatorial water. This water by evaporation increase power of hurricanes.

Not so deep water around aisles, trees, and vegetation on them only increase evaporation, and because of that power of hurricanes. After that we could only solve a riddle, which small forces will send these natural disasters to Gulf of Mexico, to Florida, or New York.

We know principles of creation of hurricanes, why they rotated counterclockwise in North Hemisphere, and what role in their power are playing Trade winds, the North Equatorial Current, the Caribbean aisles.

Many could explain even role of climate change in increasing of hurricanes power and destruction forces – at least we could read hundreds, if not thousands articles about that.

We can read calculated damages for small Caribbean Nations, which can't afford to rebuild, what they lost.

Even the richest country in the world – the USA have difficulties to rebuild the biggest damages in billions of dollars from these hurricanes.

It is only few naïve questions:

1. Why we do not use possibilities of today's mankind technology?
2. Why, as in biblical times we are afraid compete with nature, when it is so easy and can be done with today technology.

Please, look again at map, or better if you have at globe:

Exactly 30°W longitude and 15° North latitude (in my estimation; scientists could provide better place) we can with help, for example, nuclear submarines (or any other Engineering solutions), which will provide energy for thousands of pumps, which will dissipate huge amount of warm equatorial water, from the same North Equatorial Current. Dissipated water will be evaporated in air. Billions and billions of water vapor molecules will make volume of air there lighter, which will be lifted to troposphere, and under that volume will be created zone of lower pressure, which will take to North coming disasters of hurricanes.

Let them play in Sargasso Sea area, where for that reason all movement of boats will be temporary stopped.



Hundreds of billions of dollar in damages and more than two hundreds of death from hurricanes Maria, Irma, Harvey and like them provide more than enough reasons to check human power against hurricanes.

- We can not only reduce power of hurricanes in directions of Caribbean Aisles, Gulf of Mexico, Florida, New York, or other East Coast Areas of the USA.
- With growing experience in these directions we could learn how to increase precipitation in needed dry areas of Africa, Australia, and other regions on the earth.

Nothing super natural in this project. We are using properties of water and air in most critical place on the way of hurricanes.

It is too late for 2018 year. In 2019 we can try to save North America from hurricanes disasters.

Right now we could make all our ponds, lakes, creeks, and rivers deeper and wider, to save all precipitation as snow, as rains from going in a waste of water to oceans.

We could start constructions of systems for a relocation of water from the flooding areas to the dry.

### **SNOW ON THE BEACH.**



Jeremie Olsen, from Highland Park, Illinois made picture, what happen with 'mount of snow ~10 meters high' which city authority put on parking lot of the beach of Lake Michigan. Water from melting snow go down, putting on surface of snow all big particles. In result surface of snow became dirty and black. As you know white snow reflect back to space direct sun radiation. Than more 'black' will be surface of this 'mount of snow' than less energy will be reflected to space and this snow will melt faster.

### **AMERICA IS A UNIQUE CONTINENT ON THE EARTH.**

The shores as on Atlantic, as on Pacific sides of the North America are inclined to a longitude. These inclination under the influence of the sun's energy from a sunrise in the east, till a sunset in the west helps create possibilities for the directions of winds in a summer time mostly from San Diego to Montreal, only because of differences in energy from the sun, in evaporation from an unit area in warmer Atlantic and colder Pacific and differences of evaporation between different areas of North America and oceans on the same latitude.

These winds help transport a huge energy from equator areas to the North Pole, **which is the main reason for melting ice in the North areas, including Greenland.**

Scientists and management from NASA have fleet of satellites, which measure automatically temperature of earth around the globe.

Computation abilities for NASA can automatically show that average per year temperature of Arctic areas increased during last years 38 times more, than in South Hemisphere.

NASA satellites automatically showing increasing melting of snow and ice in mount's areas of Alaska, Canada, Europe, Russia.

NASA SATELITES ALSO SHOWING HOW DIFFERENT AEROSOLS ARE GOING AROUND THE WORLD from exhaust systems of cars, trains, chimneys of power plants..., from wildfires, from volcanoes activities... These aerosols covers every day surface of snow, which covered by additional fresh snow.

If during many years amount of new snow will be less than amount of melting snow, **WHAT WILL HAPPEN?**

You are right – surface of snow over melted areas will be more 'black'.

**THAT BLACK SURFACE OF SNOW (ICE) HELP MELTING PROCESS.**

Not carbon dioxide, or other greenhouse gasses.

**WHY SCIENTISTS OF CLIMATE CHANGE AND MANAGEMENT OF NASA** could be so blind to omit this kind of simplicity.

**WHY THEY FOOLING** themselves, millions of reporters around the world, and through millions of articles all population on the earth, and their **LEADERS?**

As we are using mostly fossil fuel for our energy needs during years the black carbon and dust from exhaust systems of cars, other sources using the fossil fuel energy, and dust from natural resources – volcanoes, dust in winds from continents covered ice surface every day and could be seen in all thickness of ice, including in mount's areas.

In any NASA report, we can see that areas close to the Arctic Ocean are heated more than many other areas. **It is the real danger, not the amount of carbon dioxide in the atmosphere.** It can helps increase a dangerous speed of melting ice as in a global warming, as in a global cooling condition.

Melting of all ice only in the Greenland will increase a level of oceans on 7 meters - enough to create the needs for a relocation of 500 millions of people on the earth.

If we will create a condition, when average evaporation from a unit of area in all parts of the North America continent will be the same or, at least, close to the oceans in the same latitude, we can reduce an amount of energy, which right now is transported from the equator to the North Pole and reduce possibilities of melting a snow and ice in the mount areas around the Canada, Alaska, Russia and Europe.

Only stripes of forests (between the stripes of fields of potatoes, corn, wheat, etc.), growing in special (**CLOSE TO LATITUDE**) directions, could help mankind to survive as in global warming, as in global cooling condition. We know about the oceans, sea, lakes, and river's breezes. In a case of the stripes of the forests and the fields, we will create the breezes between many of the stripes areas. These stripes of the forests between the stripes of the fields for food vegetation will help us to reduce an influence of drought, wildfires, flooding, tornadoes, thunderstorms, and climate change. These stripes could reduce the transportation of the heat from the equator to the North Pole. We must calculate and create equal to oceans average of evaporation from these stripes. It is not so difficult – unit of forest area evaporate more water from soil, than the unit of ocean area; unit of fields area evaporate less water than unit of ocean area. Scientist will easy calculate condition, when along all stripes (forests/fields average evaporation from their unit area will be close to average evaporation from unit area of Pacific Ocean). As Atlantic Ocean is warmer winds anyway will blow from Pacific to Atlantic. The stripes will force these winds blow close to latitude directions, as we created these stripes. The best inclination of these stripes to latitude will not only keep an energy of the atmosphere close to the equator, but also to preserve the atmosphere from a rotation to prevent the tornadoes and reduce a power of the thunderstorms.

After one article in LinkedIn I wrote suggestion that in many cases all organic waste from towns will be cheaper to put inside ditch and grow there trees. Mr. Thembelani Maphanga from LinkedIn wrote to me: "I stay in a small town with 500 000 people in South Africa. Our municipality collects waste from 25% of the areas and it is estimated that they collect and deliver 12000 tons of municipal waste per month. How would your suggestion work in this case? "

I wrote to him: "12,000 tons/per year mean, that every day you need relocate ~33tons/per day. Let suggest that in average 1 ton of waste have volume 1 cubic meter. If you will make ditch 10 meters wide, 2 meters deep and 600 meters long - you can put there all your waste material for year. Every day you need make SMALL ditch (for 33 tons/per day) - 10 meter wide, 2 meter deep, and 1.65 meters long. After 1 year you will start grow trees on first SMALL ditch, and every next day on next small ditch - It is important to give waste compost at least during 1 year. If, for simplicity, we will suggest that town inside circle with radius 10 km - length of border will be  $L = 2 \times 3,14 \times 10 = 62,8$  km = 62800 meters. Every year you making ditch 600 meters long. After ~105 years your forest with width 10 meters will be around your town and you can cut 105 year's old trees on 600 meters, use them for local needs and repeat cycle again.

For less way for waste transportation you can choose green zone in center of city for example with lakes which will compost all waste waters from town. Numbers of lakes also can be estimated by engineers of waste management. Three lakes, for example, after three years can provide good water for watering these forests."

We have not only waste in towns. We have huge areas of dead forests where trees became dead because of killer beetles or some other reasons. All of these dead trees instead of be a fuel for wildfires can be grinded and put in ditch and mix with soil, where we can grow forests with chosen width and length in needed directions to increase evaporation of water from soil by trees of forests, increase humidity in air and probabilities of rain.

Killer beetles from 2000 till now destroyed more than 100 million of acres of forests in west states of the USA and Canada.

Alive trees in the forests hold in their trunk and branches billions ton of water, which in winter time served as thermostat, which reduce cooling process. Dead trees usually dry. It help create corridor of cold areas from Pacific to Mexican bay and became the main reasons for Arctic Vortex.

Growing forests in right directions could save Canada and the USA from these Arctic Vortex and huge snowfall all around the USA and Canada.

In the flooding areas, we could create fountains of water to disperse it in the air. The clouds created by this methods will be moved by wind to create rains in other more dry areas. It could be a good direction to reduce an energy needed to relocate water from flooding areas to more dry.

We must put all our computation abilities, not in the directions of a useless calculation of average temperature on the earth but in directions how to keep heat of air closer to equatorial areas. We could create real green houses to save energy of sun for food production and heating to reduce needs for energy right now and be ready for global cooling. It will also reduce dependence of our harvest from inevitable changes from year to year of weather.

The North America between the Arctic, Atlantic, and Pacific oceans provide Mexico, USA, and Canada with unique possibilities to challenge the weather disasters and climate change.

We could look at South America as continent, which is close to North America by atmospheric influence on climate. Only there we have movement of atmosphere from Antarctica to equator.

## **LET ANALIZE "HOW WE USE ENERGY AND WHAT WE MUST CHANGE?"**

### **The power Plants.**

All power plants produce electricity and heat from any source of energy.

Usually, a source of energy could be coal, oil products, natural gas, or even wood.

From all energy of fuel ~20% is transform to an electricity and 80% go to a heat energy.

Electricity we could transport on a distance more than thousand miles with a good efficiency ~93%.

The heat energy we could transport only on short distance ~20 miles.

As in the USA we are building the huge power plants, most of heat energy is going to nearest rivers, lakes, or oceans without any use for people.

When the energy was cheap and nobody thought about the climate change, it was good enough. It is not good right now when not only climate change but also our dependence from the foreign sources of energy dictates a new reality.

The more important point to understand is that it is impossible to collect gasses dangerous for health from all exhaust systems of cars and heat energy from them and from huge power plants.

At the same time, it is not so difficult engineering task to collect as gases, as their heat energy from one small power plant, which is big enough to provide a heat, hot water, and electricity for homes and transportation use for a population of 50,000-100,000 people, which are living close to this power plant. If we change power plants to use as heat as electricity, we will use more than 80% of fuel energy.

The economic reasons for growing the forests as sources of wood energy will provide not only possibilities to save our forests but also possibilities of interesting and very profitable jobs for scientists, engineers, farmers, and workers.

The forests could be grown in the directions to influence as the weather as the climate in the world. Woods from growing forests and natural gas could provide all North America's countries with energy, which we need and will need for thousands of years.

### **A TRANSPORTATION SYSTEM.**

The efficiency of the engines in most cars moving by oil products are around 30%. The efficiency of a gasoline production is less than 45%. This means that the real efficiency of car movement is around 13.5%, even if we will omit efficiency of oil production and distribution.

A person (~100kg), mostly alone, is driving in a car (~2,000 kg).

It means that the real efficiency of movement of this person in this car is less than 0.67%.

The mass of the cars is playing a huge role in their movement and amount of energy needed for that. It is less important if we drive on the straight roads without stopping for a long distance. But usually, it is in a traffic or driving in the city with a stopping at every light. We are losing energy in vain. If we analyze the situation with a public transportation - buses, trains, the high-speed transportation, etc., - a situation will be even worse than for the car. These types of the transportation are heavier than the cars and have many people aboard, which will wait for a few people going in and out after every stop.

It will be better to move one person in a small cart with a weight of ~10 kg. (For family and friends we can provide – two, three and more carts or some other combination). The small carts moving automatically by electrical power directly from a grid; moving by a road (under roof); moving on the roads without intersection could provide a new possibility not only to rebuild our infrastructure by cheapest way. They could save needs for energy in transportation; needs for material (instead of car - 2,000 kg, cart - 10 kg; instead of many layers of strong wide roads with many lines to move the heavy cars, - wide as bike trail to move the carts.) The new transportation system could be built step by step right now.

The roads under roofs will save our time, money, and resources from the frustration of today's roads in a snowfall conditions and other weather disasters. The small carts will reduce the energy for transportation by at least ten times.

**Anyway we need to make investment in our infrastructure.** (Around ~1.5 trillion, as proposed our President Trump).

It will be cheaper to move in direction of changing the transportation system. Only electrical energy could completely replace a gasoline and other fossil products in transportation (efficiency of electric motors is around 80%).

A cart moving automatically (without participation of driver) by electrical power from the grid, by the roads (roads could move cart, not engine inside carts, like in cars) will have advantages compared with today's transportation:

- We do not need to refill the tank as it was and is in most of a today's transportation system.
- We do not need to drive them and spend our time and attention on the road, they could be moved automatically.

Even, if we will put these carts under roof, price for every mile of road will be cheaper than of today's highways.

**We have tendency today to create smart technology to move cars without drivers:**

- If the scientists participating in this good directions will pay attention on importance of mass of cars;
- If they will also pay attention that it is cheaper and safer to divide movements of today's cars by drivers and the smart cars on different roads;
- If we will calculate resources needed to repair our infrastructure – in all these cases **we must choose the small carts.**

Today designers of smart transportation are making a huge mistake trying to recreate possibilities of human drivers by smart systems of self-driving cars. They not only use heavy cars with all their waste of energy.

They are using tens of devices to collect data from the road, others cars, huge computations possibilities of today technology, which can't save them from cars driving by normal people, with their human mistakes, sleepiness, and other specific for people influences. All these difficulties could be omit by simple ideas of railroads or monorails, which could provide right directions with minimum distances between small carts, as following each other, as in distances between different lines. And all of that could be done by very simple technology, which was checked on railroads during centuries.

The infrastructure for the small carts is many times cheaper than the infrastructure for heavy cars and trucks.

The cheapest infrastructure for the small carts will significantly reduce traffic on usual roads, which we have right now, and it will help create less lines on the roads, which will be used mostly for a



truck. The resources needed to repair the infrastructure to move only truck will be many times less than we needed today.

### **COMBINATION OF WOOD AND NATURAL GAS AS MAIN SOURCES OF OUR ENERGY.**

It is possible to harvest in the forests five dry tons/acre, year.

The average heating value of wood is 8,000 BTU/lb. (dry) or 89,596,000 BTU/acre, year.

The consumption of energy in the USA in 2010 - 107,870,000,000,000 BTU.

It is easy to calculate how big area of forests could provide this amount of energy -

$107,870,000,000,000 \text{ BTU} / 89,596,000 \text{ BTU/acre, year} = 1,200,000,000 \text{ acres}$ .

If we will change our power plants and transportation system, our needs for the energy will be reduced at least seven times. It means that we will need only  $1,200,000,000 / 7 = 171,000,000$  acres of forest.

In the case of wood as a source of energy, we need 171,000,000 acres of forest to cover almost all the USA energy needs.

This area of the forests could collect sun energy in trees during 100 years and every year we need to harvest and plant all around the USA only 1/100 of this area, or 1,710,000 acres of forests. And we can cut the trees for the energy in any of 365 days in every year (~4,410 acres per day).

In combination with natural gas wood could be the best source of energy for our need.

Natural gas, which we could use in combination with wood will only decrease needs for forests areas.

Changing the transportation system, electricity and heat production creates possibilities to grow forests as a source of wood energy.

The infrastructure for the small carts is many times cheaper than the infrastructure for heavy cars and trucks.

The cheapest infrastructure for the small carts will significantly reduce traffic on usual roads, which we have right now, and it will help create less lines on the roads, which will be used mostly for a truck.

The resources needed to repair the infrastructure to move only truck will be many times less than we needed today.

Wood as source of energy will provide economical reason to grow forests. Stripes of forests and fields will create additional very profitable directions to prevent as weather disasters like drought, flooding, tornadoes, thunderstorms, as climate change.

To make these very profitable changes happen we could create millions of jobs, which will stay in the USA, Mexico, and Canada forever.

As all these changes could save resources many times, all jobs in these directions could be very profitable and, because of that, high paying.

We no need to destroy the infrastructure, transportation, energy production, which we have right now. We need step by step to replace them by new more efficient directions.

### **In North America are living ~560 million of people.**

It is not so difficult engineering task to create jobs for everyone, who want to work.

Only in this article, you could see many profitable directions to create millions of the jobs. We need collect other, maybe even more profitable directions. Possibilities of high paying jobs will unite people, not divide them.

It is also an easy task to stop illegal immigrants along ~100 miles of Panama Chanel, instead of building the thousands of miles of wall in borders with Mexico.

If life in Mexico and other countries of the North America will be on the same level as life in the USA and Canada, we will never have the problems with the illegal immigrants. Nobody worried about illegal emigrants from Canada, where a level of living close to the USA.

Participation in globalization could be more profitable if we will create more possibilities for jobs in the North America. A good economy here will reduce crimes, increase safety and prosperity of all citizens in all North Americans countries.

Jobs will create stabilities between and inside countries better than any walls or military solutions. The Trump's Administration, or better some private companies could create Agency to collect ideas, patent them and implement for the all North America's countries to create profitable directions for new jobs, which will stay here despite globalization.

It must be agency, which work for profit and create this profit by the promotion of innovations. For stability in the USA, we must help Mexico, and all countries in North America to create more jobs. It will be cheaper than to build a Wall and force millions of illegal to move back to Mexico. Give the jobs to illegal and most of them will willingly work in their own countries.

Profit must be the main tool, which evaluate how well or bad are our companies and institutions.

### **WHERE TAKE MONEY FOR NEW REASERCH AND CHANGING?**

We must turn back to idea that "**PROPERTIES OF WATER ARE COOLING THE ATMOSPHERE despite water vapor is a greenhouse gas**". This idea could help fight weather and climate change disasters with huge profit and during few years by only three countries in the world – Canada, the USA, and Mexico – **NORTH AMERICA IS A UNIQUE CONTINENT** and influence the climate and weather in the bigger rate, than other continents.

What we know:

*The National Oceanic and Atmospheric Administration tallied 16 major, billion-dollar-plus storms, fires, and floods in 2017, including Maria and Hurricane Harvey, which devastated Houston. That compares with an average of about six a year since 1980. The weather and climate events wreaked a record [\\$306.2 billion of damages](#), NOAA said.*

*"Renewable energy sources are set to represent almost three quarters of the \$10.2 trillion the world will invest in new power generating technology until 2040, thanks to rapidly falling costs for solar and wind power, and a growing role for batteries, including electric vehicle batteries, in balancing supply and demand."*

Tree quarter of \$10.2 trillion equal **\$7.8 TRILLION**. This amount of money we will spend in the world until 2040 during 22 years (**IN AVERAGE \$354.5 BILLION PER YEAR**), only trying to please scientists with absolutely wrong theory that greenhouse gasses are responsible for climate. In average every year we will spend (**\$660.7 BILLION**) **ONLY** to pleased mistake in the science.

### **Consumption of oil and coal products in the USA:**

- a) Crude Oil **\$65.24**/barrel for time 11:50 AM 6/19/2018. Let suggest that average price for oil in 2018 will be \$50.00. That mean we need spend on oil in 2018 with the same consume as in 2016 – 7.21 billion barrel \$50/barrel X 7.21 billion barrel = \$360.5 billion.
- b) Let suggest that prices for coal in 2018 will be the same -\$95/t and we will consume the same as in 2017 - 470 Mt. In this case for coal we need spend \$95/t X 470 Mt = \$44. 65 billion.

Even without natural gas, windmills, solar cell, hydraulic, and nuclear energy our spending on energy in 2018 will be ~ \$405.15 billion.

- c) President Trump is planning ~\$1.5 trillion dollars to repair infrastructure.

**THESE MORE THAN \$2 TRILLION WE CAN USE TO PREVENT WEATHER, CLIMATE DISASTER, CHANGE OUR HEAT, ELECTICITY PRODUCTION, AND TRANSPORTATION SYSTEM WITH HUGE PROFIT.**

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