CLIMATE EMERGENCY GOES THROUGH THE INVERSION OF PRIORITIES

A famous Polytechnician on every television set is calling for a halt to all air travel to save the planet, with only four flights per lifetime. But AIRLINE PILOTS have the opportunity to put an end to the unbearable Climate Change that our planet is experiencing year after year without stopping air travel.

MIT, the Massachusetts Institute of Technology, a research university in Cambridge, located near Boston, defined a schedule in 2023 to **achieve the objectives of sustainable aviation by 2030.** There are five years left to draw up a new future for aviation. (You can see the study carried out on https://report.aiazero.org/). Indeed, they identified that the impact on the global climate of stratospheric contrails from aviation is **an accelerator of global warming** . And there is an urgent need to address this acceleration as a priority. of Global warming without decarbonization by SAF fuels. There is a reversal of priorities first we deals with water vapor and, secondarily, carbon dioxide.

In France and Europe, climate change is on a trend of +3 to +4°C by 2030. And the government has published the PNACC-3 to adapt to a warming of +4°C by 2100.

As early as 2019, I also identified that global air transport is the cause of the climate change we are currently experiencing. In August 2019, I filed a patent with the INPI to combat global warming and excess water vapor. **The title of my invention is, Coastal installation for managing weather phenomena.** On April 21, 2023, the INPI recognized the accuracy of my work and granted me the national patent. On April 3, 2024, it was the turn of the European Patent Office in Munich to recognize my work and I obtained a Single European Patent.

A direct reading of NASA temperature readings by hemisphere shows linear variations at the beginning of global warming and then since 1992 differential variations in temperatures in the Northern Hemisphere compared to the Southern Hemisphere. In mathematics, a linear variation amounts to solving an equation with one unknown and for a differential variation, we must solve a differential equation with two unknowns. Thus we see:

- on the one hand, that the greenhouse gas CO2 is the main cause of the Initial and linear Global Warming (unknown RC) of the two hemispheres. This is visible from 1967 on the NASA/GISS/GISTEMP v4 temperature curve.

- and on the other hand that the greenhouse gas solely responsible for Climate Runaway (unknown EC) is none other than water vapor. What can be seen on the same curve is that Climate Runaway begins in 1992. And this is confirmed by the MIT publication of April 2023.

I proposed a calculation of the PARCEL of water vapor (Power of Acceleration of Global Warming and/or Localized Runaway) as a function of the temperature variation:

Var T +1°C. +2°C +3°C. +4°C. +5°C

Parcel 2.53 5.23 8.97 11.21 14.52

Average simulation plot equal to 10 between 2 and 5°C.

Some figures in 2022, it was calculated that 12,700 billion tons of water vapor were suspended in the atmosphere for a positive temperature variation of 1.21°C compared to the end of the 19th beginning of the 20th century . In 2023 this temperature climbed to 1.36°C and 133.4 billion tons of additional water vapor accumulated in the atmosphere. In 2024, the hottest year of the century, there was a jump in the thermometer to 1.57°C and the atmosphere stored 195.5 billion tons of additional water vapor.

In summary, for the two main greenhouse gases, in billions of tonnes in the atmosphere, we find

Water vapor H2O / Carbon dioxide CO2

	Billion Tons	Billion Tons	Proportion
Greenhouse effect	**60%**	**26%**	**x 2.308**
2022 >	**12,700**	**3258**	**x 3,898**
2023 >	**+ 133.4**	**36.8**	**x 3.625**
2024 >	**+ 195.5**	**37.4**	**x 5.227**

The acceleration in 2024 is phenomenal and in the mass ratio, the annual additional mass of water vapor suspended in the atmosphere is more than 5 times that of CO2. Extreme weather events in the year 2024:

Dry since 1970, the re-watering of Lake Iriqui in southern Morocco by torrential rains in the Sahara. Abundant snow in the Al- Jawf desert in Saudi Arabia has raised questions among climatologists. Climate bombs devastated the northwest of the American continent in November. Closer to home, cold drops at altitude in France and especially in Spain with torrential rains and mud torrents have sowed terror among the population by destroying everything, cities, roads and bridges. We must no longer

hide our faces and say that water vapor is a natural phenomenon and does not influence the climate .

Decarbonizing human activities a little is necessary but is no longer sufficient, we need to DEHYDRATE A LOT and it is much easier and above all, by far the least expensive.

In detail and according to the readings on the NASA temperature curve (see the graph below) we note: The reference period being 1951-1980, we note that over 41 years from 1880 to 1921 the Southern Hemisphere is slightly less cold than the Northern Hemisphere, the coldest year being 1916 with a temperature difference of -0.6°C.

Then over 46 years from 1920 to 1966 we see the beginning of global warming in the Northern Hemisphere with a negative difference until 1930 and then the difference becomes slightly positive on average until 1966, the year of the end of Air Transport with propeller planes and the beginning of jet planes.

From 1967 to 1990, global warming began to be visible, with a difference of between 0.2°C and 0.6°C, with the hottest year being 1990. Furthermore, we can see that the Southern Hemisphere is slightly warmer than the Northern Hemisphere.

While the temperature difference in the Southern Hemisphere follows the same gentle, linear slope, with a difference going from 0°C in 1970 to 0.6°C in 2022. That is a temperature increase of 0.1154°C every 10 years. Both hemispheres have the same carbon dioxide, CO2, content. If this greenhouse gas were the only cause of global warming, both hemispheres would have, on average, roughly the same climate change as they had from 1880 to 1990 over the space of 110 years. We can therefore deduce that global warming in the Southern Hemisphere is essentially of carbon dioxide, CO2 origin.

On the other hand, from 1992 onwards, the temperature difference in the Northern Hemisphere took off and went from 0.2°C to 1.44°C in 31 years, a crazy slope of 0.4° every 10 years . global warming in the Northern Hemisphere is currently undergoing an acceleration of 3.5 times that of the Southern Hemisphere, which will give in 2100 for a temperate country like France a gap temperature between +5.25°C and +7°C. Which is very far from the PNACC-3 (National Plan for Adaptation to Climate Change) Climate) and its 51 measures to adapt to +4°C. We must face the facts: the other greenhouse gas solely responsible for Climate Runaway is none other than water vapor injected by humans into the lower stratosphere.

It was the explosion of the HUNGA TONGA underwater volcano, which propelled 140 million tons of water vapor into the stratosphere of the southern hemisphere on January 15, 2022, that revealed this extremely violent climate event. In 2023, the southern hemisphere warmed by 0.23°C, 20 times more than its historical average.

Human activities generating CO2 through the use of fossil fuels such as coal, oil or gas are identical in both hemispheres. The only human activity that deposits water vapor is 300 million tons between 9 and 13 km. altitude in the lower stratosphere, is Air Transport and the very significant proportion is **93% of flights in the Northern Hemisphere and only 7% of flights in the Hemisphere South .**

Each year in the Northern Hemisphere the deposition of water vapor from high-altitude jet aircraft is more than twice that injected by the HUNGA TONGA explosion.

The only solution to make this water vapor climate-neutral is to absolutely limit the level of World Air Transport Cruise less than 8000 meters.

It should be noted that Regional Air Transport, which uses turboprop aircraft of the ATR 42 or 72 type, whose ceiling is precisely 7,600 metres, does not contribute to climate change and their emission of water vapour

at low altitude is completely neutral, as is the case for the cooling of nuclear power plants.Further evidence of the dramatic influence of water vapor from air transport on climate has been noted.

During the covid 19 epidemic from March 2020 to December 2021, global air transport was brought to a complete standstill and NASA temperature readings over the Arctic show an average temperature drop of more than 2 degrees. Similarly, Arctic ice extent readings on the nsidc.org website show that this ice extent melted significantly from 2016 to 2020 and that since 2021 this ice extent has been reforming as a result of global air transport not flying over the Arctic Ocean. Note that with the war in Ukraine, flying over the Arctic Ocean is prohibited.

In Antarctica in 2021, the ice extent remains within the average observed from 2011 to 2020. In 2022, following the explosion of the underwater volcano Hunga Tonga, we see an accelerated melting of the ice pack with a record minimum in 2023. In 2024, the quantity of water vapor in the upper atmosphere being lower because it is evacuated over time, the ice of the Antarctic ice pack reforms.

According to the surveys of the state of Alpine glaciers provided by the University of Zurich on the Glamos.ch website , during the Covid 19

epidemic and the shutdown of air transport, it can be seen that during 2020 the melting of Alpine glaciers was significantly reduced and, above all, that during 2021 the melting of Alpine glaciers practically stopped. To address the ozone hole in the upper atmosphere that scientists had observed since 1970, twenty-four countries and the EEC signed the Montreal Protocol in 1987. The text banned the use of chlorofluorocarbons (CFCs), used as refrigerants, solvents, and as propellants in sprays. Forty years later, all countries around the world have ratified the agreement, and the ozone layer that protects the planet is recovering. We have a similar problem to solve.

We must realize that PNACC-3 is insufficient. From the moment the cause of runaway climate change is finally identified , it is imperative to lower the cruising altitude of aircraft below 8,000 meters to save the Alpine glaciers, the poles and the High Seas during the United Nations COP 30 (Conference of the Parties)of Belem on November 2025.

To achieve this, in the Europe and Middle East zone, to include the glaciers of the Alps and the Mediterranean Sea, which are overheating at an accelerated rate of +3° to +4°C, the national airline AIR FRANCE and its AIRLINE PILOTS must propose and set up a laboratory from January 2026.

experimental as suggested by MIT *level* limitation *of flight at less than 8000 meters* . Zero water vapor in the stratosphere is thus possible in Europe from 2027 and then in the rest of the world, to achieve the objectives of sustainable aviation in 2030 .

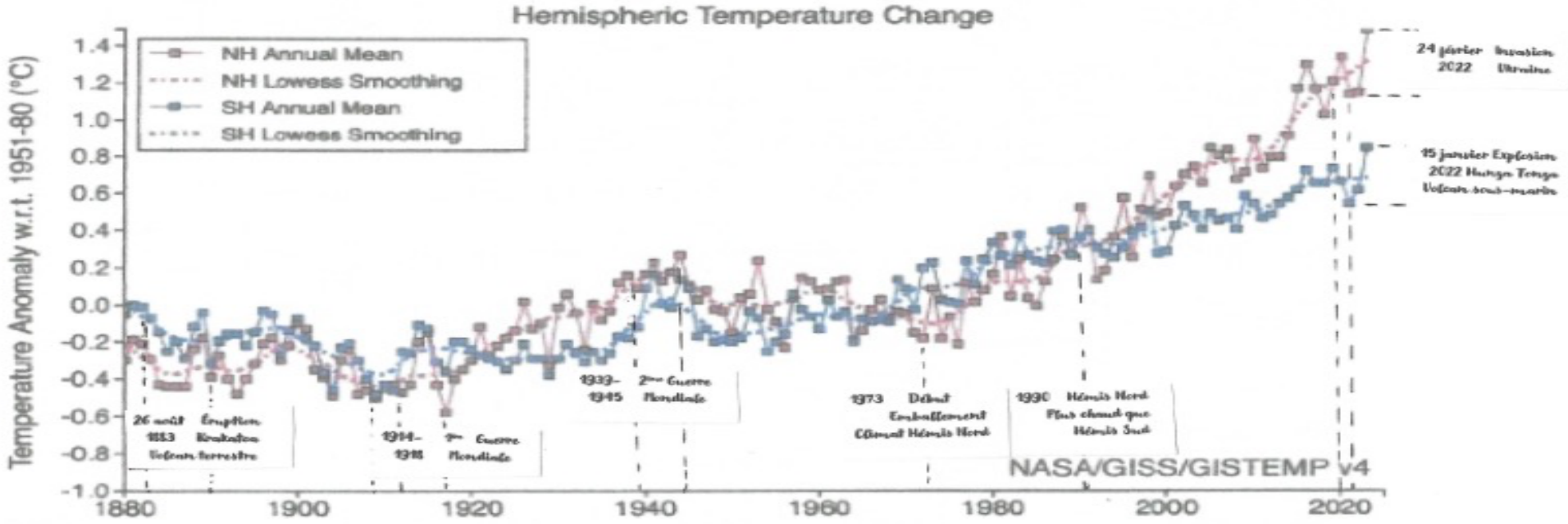
And what's more, we must keep our heads and limit future growth in air transport to between 1 and 2%, with 4.5 billion passengers in 2019 and a forecast of 9 billion in 2050 in 25 years - this is unsustainable for the planet.

And subsequently, by 2050, certain countries listed in my study will have to implement this European unitary patent to combat water vapor and residual global warming, to maintain the bearable temperature gap set in Paris by COP 21 in 2015 between 1.5° and 2°C in 2100.

Hoping to have convinced people of the importance of combating stratospheric water vapor, we can continue to fly our superb machines without shame and satisfy our passengers' desire to travel.

Gino SCATOLIN, retired CDB AF

Site https://www.piufortavi.com/ Patent



Annual and five-year lowess smooth anomalies (vs. 1951-1980) separately for the Northern and Southern Hemispheres based on land and ocean data.

Figure also available as a PNG, PDF, HTML, plain text and CSV (data columns 2, 3), or Generate PNG of the visualization's current state.

Global Monthly Mean Surface Temperature Change

Annual Mean Temperature Change in the United States

Seasonal Mean Temperature Change

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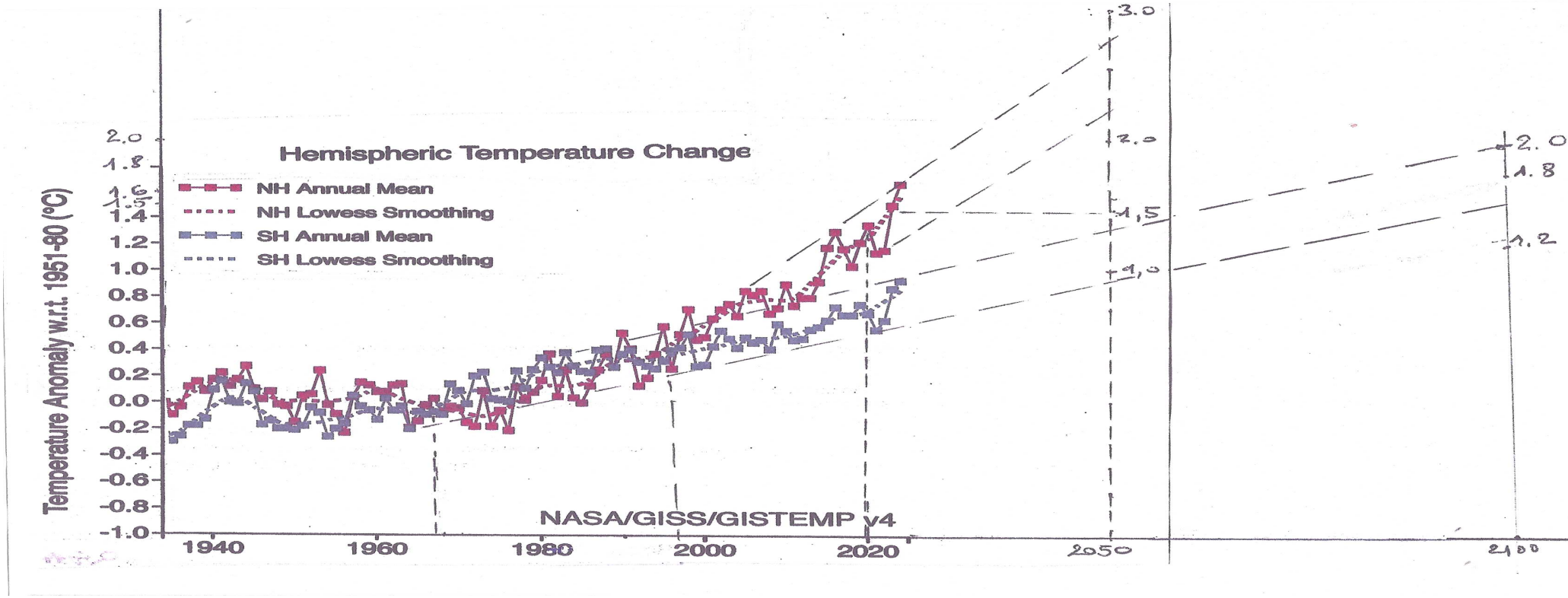
Temperatures of the Northern and Southern Hemispheres, NASA archives



2050 and 2100 projections of temperatures in the two hemispheres if we do not stop the runaway climate

Northern Hemisphere runaway from 2005 to 2025

Remarks

Since the annual low of 10.150 million km2 in 2020, the Arctic ice pack is recovering in 2021 given the cessation of water vapor deposition produced by the non-overflight of the Arctic Ocean by World Air Transport to serve the Far East following the Covid-19 pandemic. But the outbreak of war in Ukraine in February 2022 is once again increasing the melting of the ice pack.

In 2023 and 2024 its extent will return to its 2007 and 2012 value. The year 2025 does not seem likely to increase its extent but a stabilisation around 10.35 million km2 (2018 value) is very likely.

Arctic sea ice extent MKm2

	January	February	March	April	May	June	July	August	Septemb	October	Novemb	Decemb		Annual
2005	13,661	14,373	14,687	14.09	12,911	11,162	8,649	6,301	5,504	7,352	10.22	12,228		10,907
2006	13,466	14,325	14,421	13,906	12,517	10.92	8.46	6,496	5,862	7,541	9,659	11,955		10,773
2007	13,703	14,513	14,542	13,845	12.78	11.22	7,943	5,342	4,267	6.04	9.76	12,034		10,474
2008	13,887	14,953	15,179	14,352	12,974	11,208	8,678	5,913	4,687	7.35	10.34	12,359		10,978
2009	13,914	14,812	14,984	14,496	13,187	11.32	8,465	6,136	5,262	6.92	9,772	12.2		10,932
2010	13,739	14,581	15,137	14,659	12,866	10,585	8,075	5,875	4,865	6,984	9,614	11,831		10,711
2011	13,464	14,363	14,546	14,108	12,681	10,749	7,724	5,503	4,561	6,465	9,772	12,154		10,483
2012	13,729	14,553	15,196	14,626	13,012	10,674	7,672	4,723	3,566	5,886	9,388	12,006		10,406
2013	13,703	14,723	15,032	14,299	12,997	11.36	8,132	6,014	5,208	7,455	9,939	12,184		10,897
2014	13,648	14,418	14,758	14,088	12,701	11,033	8,108	6,078	5.22	7,232	10.12	12,353		10.79
2015	13,602	14,401	14.37	13,893	12,468	10,879	8,378	5,599	4,616	6,966	9,846	12,045		10,566
2016	13,457	14,203	14.4	13,681	11,924	10,413	7,938	5,371	4,528	6,082	8,658	11,459		10,163
2017	13.19	14.12	14.29	13,753	12,631	10,756	7,939	5,481	4,822	6,767	9,493	11,743		10,393
2018	13,077	13,967	14,298	13,696	12,232	10,778	8,268	5,615	4,785	6,134	9,823	11,862		10,355
2019	13,567	14,394	14,574	13,434	12,186	10,594	7,589	5,026	4,364	5,735	9,353	11,903		10,201
2020	13,636	14,642	14.73	13,621	12,343	10,593	7,294	5.07	4,001	5,334	8,985	11,729		10.15
2021	13,501	14.39	14,658	13,792	12,682	10,765	7,647	5,715	4,952	6,816	9.83	12,152		10,552
2022	13,872	14,612	14,586	13,986	12,879	10,875	8,287	5.95	4,897	6,657	9,725	11,892		10,661
2023	13,364	14,189	14.43	13,924	12,822	10,987	8,207	5,514	4,381	6,412	9,682	11,978		10,469
2024	13,917	14,607	14,868	14,041	12,735	10,854	7.87	5.13	4,351	5,934	9,146	11,408		10,391
2025	13.11	13,745	14,119	13,829	12,494	10,405	7.66	5,413	4,747	6,317				10,152

Antarctic sharp warming in 2022 ,

Before 2021, the extent of the Antarctic ice pack fluctuated around 11.5 million km2. Since the explosion of the Hunga Tonga underwater volcano, there has been a sharp decline of more than 1 million km2. (-7.5% in 2022, -15% in 2023). A very marked warming of the southern hemisphere has occurred. This is not due to CO2 from the combustion of fossil fuels but rather to the 140 million tons of water vapor propelled into the stratosphere.

The ice pack will replenish in 2024 and 2025; it will have taken more than four years for the stratospheric water vapor to escape thanks to the polar vortex. We can deduce that the lifespan of water vapor in the stratosphere is more than 1500 DAYS and not between 10 DAYS as in the lower troposphere.

Antarctic sea ice extent MKm2

	Januar	Februa	March	April	May	June	July	August	Septem	Octob	Novem	Decem		Annual
2005	4,752	2,97	4,082	7,032	10,289	13,291	16,158	17,922	18,805	18,477	16,316	9,68		11,695
2006	4,164	2,651	3,215	6,01	9,456	13,345	16,114	18,098	19,094	18,733	16,23	9,854		11,461
2007	4,673	2,905	3,835	6,418	9,648	13,287	15,956	17,682	18,861	18,508	15,892	11,981		11,687
2008	6,414	3,895	5,284	8,242	11,049	14,062	16,095	17,645	18,145	17,994	16,248	11,512		12,239
2009	5,707	2,991	4,441	7,798	10,926	13,908	16,261	18,098	18,96	18,298	15,848	10,739		12,049
2010	4,958	3,106	3,847	6,715	10,639	14,41	16,921	18,607	18,799	18,648	16,755	11,271		12,107
2011	4,512	2,519	3,368	6,097	10,093	13,333	15,752	17,805	18,739	18,218	15,757	11,199		11,501
2012	5,654	3,553	4,55	7,309	10,457	13,547	16,298	18,097	19,208	18,594	16,11	10,394		12,004
2013	5,543	3,836	5,017	7,623	10,92	14,155	16,809	18,664	19,389	19,018	16,872	11,854		12,524
2014	6,327	3,843	4,901	8,343	11,519	14,687	17,106	18,908	19,756	19,003	16,388	11,928		12,776
2015	6,852	3,799	4,964	8,373	11,716	14,475	16,775	17,749	18,444	18,409	16,175	10,655		12,414
2016	4,689	2,79	4,069	7,222	10,102	13,242	16,024	17,892	18,15	17,46	14,223	8,279		11,202
2017	3,784	2,288	2,699	5,436	9,014	12,409	15,297	17,219	17,906	17,776	15,113	9,482		10,749
2018	4,211	2,326	3,54	6,033	9,321	12,885	15,7	17,417	17,961	17,732	15,102	9,188		11
2019	3,868	2,655	3,169	5,718	8,852	12,251	15,302	17,478	18,335	17,937	14,995	9,409		10,876
2020	4,598	2,92	4,003	6,662	9,871	13,275	15,721	17,758	18,838	18,493	16,231	10,575		11,602
2021	4,777	2,892	4,484	7,132	10,401	13,542	16,452	18,194	18,509	17,689	15,042	9,245		11,579
2022	3,935	2,213	2,859	5,948	9,418	12,218	14,986	17,05	18,062	17,474	15,159	8,839		10,726
2023	3,296	1,978	2,838	5,538	8,447	11,115	13,566	15,575	16,891	16,278	14,378	8,765		9,931
2024	4,047	2,187	3,221	6,253	9,363	11,848	14,201	16,414	17,154	16,65	14,312	9,593		10,461
2025	4,693	2,218	3,002	6,173	9,273	12,114	14,665	16,502	17,636	16,965				10,390