

TOXIC AIR: HOW LEADED AVIATION FUEL IS POISONING AMERICA'S CHILDREN

HEARING

BEFORE THE
SUBCOMMITTEE ON ENVIRONMENT
OF THE
COMMITTEE ON OVERSIGHT AND
REFORM

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TOXIC AIR: HOW LEADED AVIATION FUEL IS POISONING AMERICA'S CHILDREN

Thursday, July 28, 2022

HOUSE OF REPRESENTATIVES
SUBCOMMITTEE ON ENVIRONMENT
COMMITTEE ON OVERSIGHT AND REFORM
Washington, D.C.

The subcommittee met, pursuant to notice, at 2:05 p.m., in room 2154, Rayburn House Office Building, and via Zoom; Hon. Rho Khanna (chairman of the subcommittee) presiding.

Present: Representatives Khanna, Tlaib, Herrell, Fallon, and Flood.

Also present: Representative Lofgren.

Mr. KHANNA. The committee will come to order.

Without objection, the chair is authorized to declare a recess of the committee at any time.

I now recognize myself for an opening Statement.

Thank you to the panel for being here, both in person and virtually. I am honored to welcome two residents of San Jose today: Maricela Lechuga and County of Santa Clara supervisor, Cindy Chavez. Maricela lives in East San Jose, blocks away from Reid-Hillview Airport. Her Mexican-American family has lived in the area for generations, and you will hear her powerful firsthand testimony about how leaded fuel impacts her family and her neighborhoods' day-to-day lives. It really is a heartbreaking story. Supervisor Chavez is a powerhouse who is a national leader in the fight to get lead out of aviation fuels. She is a fighter for the working class and cares deeply about the most vulnerable in our community. She has been a leader for decades. I am also happy to welcome Ranking Member Herrell to her first subcommittee hearing as ranking member, and I am looking forward to working together. And we are going to have our Ranking Member Comer give you a formal introduction.

I am holding this hearing today because I am outraged that our Federal agencies have failed to prevent lead poisoning near their small general aviation airports. There are 20,000 such airports across the country, mostly sited in communities of color and low-wealth communities. Not only is this historic injustice, but, worse, it is still ongoing. The Federal Aviation Administration has chosen a path of delay, holding up the approval of a lead-free alternative fuel for no Stated reason. Worse, in similar tactics to those we have seen in our committee's investigation of climate delay and disinformation, the fossil fuel industry and other special interests have also sought to delay the phase-out of leaded aviation fuel.

Lead in aviation fuel, or avgas, is an urgent, little-known health crisis. A study last year found that children living in my district in East San Jose have blood lead levels higher than kids had during the height of the drinking water crisis in 2014 in Flint, Michigan. It is a disgrace. We have with us today Congresswoman Zoe Lofgren, who has been highlighting, and leading, and fighting on this issue for decades, and so honored for her leadership and her joining us here today on our committee.

What happens when kids ingest lead from the exhaust fumes of private planes or flight schools near their homes, or lead dust that has settled on surfaces, airborne lead penetrates deep into the lungs and nasal passages before crossing into the brain and bloodstream. Lead poisoning is devastating. It damages every organ and slowly severs neural connections. Kids struggle with seizures, learning disabilities, and low IQ. Lead exposure can predict differences in a child's future income, health, and educational attainment.

Though lead was banned from cars and trucks over 25 years ago, the aging piston engine aircraft fleet still uses lead. These are mostly hobbyists and private planes, and aircraft for emergency response, and flight schools. Sixteen million people in the U.S., including 3 million children, live within 1 kilometer of an airport facility that uses avgas. Six hundred schools are located within a half a kilometer. One study in Michigan showed starkly how blood levels in children rise and fall in close tandem with local air traffic patterns.

Despite this toxicity of lead, the Federal Aviation Administration and EPA have not acted with the urgency to phase lead out of aviation fuel. Viable unleaded alternatives have existed globally since the 1980's and currently include our witness, Chris D'Acosta's company's Fuel 94 UL, which is approved for two-thirds of the piston engine aircraft and common motor gas. Neither of these work for the whole fleet, however. Our witness today, Mr. George Braly, has a fuel that he says is commercially ready and can be used by the entire fleet. Even though FAA engineers said that the fuel is safe, FAA headquarters has not signed the last piece of paper.

For years, oil companies and aircraft interest groups have worked together to prevent this fuel from getting FAA approval and spread disinformation about its qualities. Industry groups appear more concerned about disrupting business than about kids. In a recent hearing, the head of Aircraft Owners and Pilots expressed opposition to local bans on leaded avgas, saying, "We are concerned about the terrible precedent that Santa Clara county in California has pursued by preventing the sale with 100 low-lead planes at their two airports." However, the FAA's public-private partnership to phaseout leaded fuel by 2030, the EAGLE Initiative, doesn't formally involve the communities that are facing lead poisoning from aviation fuel.

The FAA must immediately commit to a faster timeline to reach a lead-free aviation future. They should stop deferring to powerful industry interests. They should help, rather than obstruct, communities that want to ban leaded fuel and bring innovative alternatives. The FAA just received \$15 billion from President Biden's infrastructure laws to improve airports. Why not use a portion of

that funding on new infrastructure for unleaded fuel? The EPA also has a role to play by ruling as soon as possible that leaded avgas is a danger to public health and safety.

Quickly phasing out leaded aviation also fits with the broader climate goals of the aviation industry to phaseout fossil fuels by 2050 by making aviation cleaner and safer. The FAA and EPA must not repeat past injustices and should instead exhibit the leadership we need to repair mistakes and protect kids and adults from these toxic fumes.

I now recognize Ranking Member Comer for an opening Statement and any recognition.

Mr. COMER. Well, thank you, Chairman Khanna, and I want to thank our witnesses today for joining us. I want to congratulate our new ranking member of the subcommittee, Congressman Yvette Herrell from New Mexico. She is a very effective policymaker. She has moved up the chain very quickly in Congress because she is very effective, she is prepared, and I know that she will do a tremendous job leading this subcommittee. I also want to thank Congressman Ralph Norman for his service as the previous ranking member of the subcommittee. So we look forward to great things from Congresswoman Herrell in the future.

And, Mr. Chairman, I will yield back to you to where Congresswoman Herrell can deliver the opening Statement.

Mr. KHANNA. Thank you. Ranking Member Herrell?

Ms. HERRELL. Thank you, Chairman Khanna. It is very exciting to be here, and thank you, Ranking Member Comer. I want to also thank the witnesses for appearing today, and I am honored to participate in a subcommittee hearing for the first time as ranking member, and I am excited to lead my Republican colleagues on the subcommittee.

I would like to first thank Chairman Khanna for inviting the administrators of the EPA and FAA to testify today on such an important issue. Republicans have been calling on Democrats to invite Biden administration witnesses for over a year and a half so that we can conduct the important work of the Oversight Committee and hold the Federal Government accountable to the American people.

As Mr. Khanna correctly noted in his letter to EPA Administrator Regan and FAA Acting Administrator Nolan, it is unconscionable that each official refused to testify at today's hearing. That is why I, along with Ranking Member Comer, called upon Chairwoman Maloney to issue subpoenas to EPA and to the FAA to compel their testimony. The American people deserve to hear testimony from senior-level Biden administration witnesses.

Mr. Chairman, I ask for unanimous consent to submit this letter to Chairman Maloney into the record.

Mr. KHANNA. Yes.

Ms. HERRELL. I pledge to work with Chairman Khanna to ensure that administration witnesses appear before us in the future to answer our questions on behalf of our constituents.

General aviation is an important industry that serves many purposes throughout the United States. In my home state of New Mexico alone, the general aviation industry contributes billions of dollars to the economy and supports tens of thousands of jobs. General

aviation aircraft connect small towns across the country with the outside world, transporting blood supplies, vital transplant organs, and other lifesaving elements, and treat millions of acres of crop land each year. The industry plays a vital role in the protection of our environment by conducting wildfire surveys, patrolling parklands, and mapping soil erosion and wetland losses. General aviation aircraft also fight wildfires, mitigating their spread into towns and saving millions of acres of land.

New Mexico is currently battling the largest recorded wildfire in the state's history. Aerial firefighting has played a critical role in its containment. The Hermit's Peak Cap Canyon fire have burned over 340,000 acres of land and damaged hundreds of buildings. Although I am encouraged that the fire has reached a 95-percent containment level, I will continue to advocate for relief assistance and work to ensure that New Mexico is better prepared in the future. The people of New Mexico are resilient, and we will get through this tough chapter in our history.

The general aviation industry is in the middle of a transition from leaded fuel to unleaded fuel, a transition that the car industry made a few decades ago, as mentioned. The exposure to lead can have devastating health effects on humans, and this committee would be hard pressed to find someone who did not want to find a solution to this complex problem. Private companies are working toward this success. Swift Fuel sells 94 unleaded fuel alternative to 100 leaded fuel that can be used in over 60 percent of single-engine piston planes. I would like to thank Swift Fuel CEO Chris D'Acosta for appearing as a witness today and for his company's commitment to finding a replacement fuel for the entire fleet of single-engine piston aircraft. The private sector will innovate as long as the public sector removes red tape and helps implement the transition.

I am grateful that the industry, relevant stakeholders, and despite the refusal to testify today, the FAA are working together to find a solution through the EAGLE Program. And with that, thank you, Mr. Chairman, and thank you to today's witnesses.

Mr. KHANNA. Thank you, Ranking Member Herrell.

I ask unanimous consent that the gentlelady from California, Representative Zoe Lofgren, be allowed to participate in today's hearing and have an opening Statement.

Ms. LOFGREN. Well, thank you, Mr. Chairman. I will be brief. I want to first express my gratitude to you and the ranking member for allowing me to participate. Reid-Hillview Airport is located in the district I represent, and, of course, the constituents who are being adversely impacted are also in your district and in Congressman Panetta's district. I am outraged, honestly, that the EPA and the FAA would refuse to come and testify before you. Unfortunately, that is in keeping with their lack of response to the letters and the communications that we have directed toward them. It is shocking and unacceptable that the administration would refuse to engage in this serious health issue, and I am hoping that this hearing will help us advance the cause of saving children from the scourge of lead poisoning. And I yield back with gratitude.

Mr. KHANNA. Well, thank you, Representative Lofgren. Thank you for your participation today and for your leadership on this issue.

I would now like to introduce our panel of witnesses. Our first witness will be Cindy Chavez, Santa Clara County supervisor. Our second witness will be Maricela Lechuga, who is a resident of San Jose. Our third witness will be Dr. Bruce Lanphear, a professor of health sciences at Simon Fraser University. Our fourth witness is Chris D'Acosta, CEO of Swift Fuels. Our final witness will be George Braly, CEO of General Aviation Modifications. Mr. Braly has a hard stop at 3:30.

The witnesses will be unmuted so we can swear them in. Please raise your right hand.

Do you swear or affirm that the testimony you are about to give is the truth, the whole truth, and nothing but the truth, so help you God?

[A chorus of ayes.]

Mr. KHANNA. Let the record show that the witnesses answered in the affirmative.

Without objection, your written Statements will be made part of the record.

With that, Supervisor Chavez, you are recognized for your testimony.

STATEMENT OF CINDY CHAVEZ, SUPERVISOR, COUNTY OF SANTA CLARA

Ms. CHAVEZ. Thank you very, very much. I wanted to start with just to say to Chairperson Khanna how really honored I am to be joining you and, Ranking Member Herrell, at your first meeting as ranking member—congratulations—to the committee and to Congresswoman Lofgren.

We are here today because childhood lead exposure from lead in aviation fuel we know is a national public health crisis. The government mobilized over 40 years ago to ban lead paint. It mobilized nearly 50 years ago to ban lead in automobile fuel, but lead in aviation fuel remains virtually unregulated. In fact, it is the Nation's last major unregulated source of airborne lead. I know that my colleague, Maricela Lechuga, and I'm so excited she's here with us, is going to talk more about the community that is impacted, and I am going to talk a little bit about how the County of Santa Clara is approaching this.

Reid-Hillview Airport and East San Jose is an important example of the environmental injustices posed by leaded aviation gas. Reid-Hillview is one of the highest lead-emitting airports in the country, and it is of the most densely populated neighborhoods of any airport in the Nation. In 2017, Reid-Hillview was in the top 1.5 percent in annual lead emissions out of all landing facilities in the national airport system. It is located in the east side of San Jose, surrounded by over 52,000 people and 13,000 children within 1.5 miles of this airport.

Sadly, situations like Reid-Hillview are far too common. Nationally, over 60 percent of the 50 highest-emitting airports are located in communities with largely racial minority populations than the national average. In absence of the Federal Government taking ac-

tion on leaded avgas, Santa Clara County had no choice but to take action itself to better understand the crisis and its impacts on our children and families.

The board supervisors commissioned a study on the effects of lead exposure from leaded avgas on the blood lead levels of children in the neighborhood surrounding Reid-Hillview Airport. The peer-reviewed study was conducted by Dr. Sammy Zuron, a leading expert in lead exposure. The study examined over 300,000 blood lead-level tests from children living in the neighborhood surrounding Reid-Hillview Airport. Among sample children less than half a mile from Reid-Hillview, there was an increase in blood lead levels twice as high as the increase caused by the Flint system failures during the height of the Flint, Michigan water crisis.

But this situation is not like Flint because there is no way to stop lead exposure from avgas without Federal Government action. Our residents in east San Jose live with this exposure day after day, and they have for over 80 years. It is important to note the study found a clear correlation between the sale of leaded avgas at Reid-Hillview Airport and elevated lead blood lead levels in children in east San Jose. The results are consistent with multiple studies done across this country.

With these facts in hand, we had a duty to protect children in our community. On January 1st, Santa Clara County became the first airport operator in the country to fully transition to the sale of unleaded gas at our airports. The transition has provided immediate protection to surrounding communities, preventing the emission of hundreds of pounds of lead in the air in just six months. Aircraft operators are using the unleaded avgas available, even though they have the option to fill up with leaded avgas elsewhere. In the six months since the transition, fuel vendors at Reid-Hillview have sold 90 percent as much leaded avgas as they sold in the first six months of 2021.

Santa Clara County's transition virtually had no impact on airport operations. The total operations at Reid-Hillview are actually up by four percent in the first six months of 2020 relative to 2022. There has not been a single incident, a safety incident, related to the unleaded avgas reported in the past seven months. While the county maintains an emergency protocol for aircraft operators who need access to leaded fuel, the county has received zero requests to access it.

Tragically, there are aviation industry interests who have submitted complaints to the FAA seeking to force the county to sell leaded avgas. The FAA for its part has initiated an investigation into the county. Any attempt by the FAA to compel the county to sell leaded avgas would be morally reprehensible. We cannot turn a blind eye to the facts, and the facts are that our children are being poisoned, plain and simple.

Thank you for the opportunity to testify.

Mr. KHANNA. Thank you, Supervisor Chavez. Ms. Lechuga, you are now recognized.

**STATEMENT OF MARICELA LECHUGA, RESIDENT, REID-
HILLVIEW AIRPORT BUFFER ZONE**

Ms. LECHUGA. Dear Honorable Chairman Khanna, Ranking Member Herrell, and member of the Subcommittee on the Environment. My name is Maricela Lechuga. I live five blocks away from the Reid-Hillview Airport. I have 3 siblings and about 30 first cousins just on my mom's side, and we mostly all grew up in this area. It's not a coincidence that roots of East San Jose are deep with Mexican-American families like mine as well as newly arrived immigrants from all over the world. In the 1940's, when my grandfather, Gustavo Perez, arrived in San Jose as a bracero, there was only one area in the city that welcomed him to make a home. East San Jose was reserved for the undesirable class of Mexican peons like him and global labor leader, Cesar Chavez.

A 1937 official area description of the neighborhood below the flight path of what is now Reid-Hillview Airport described it as extremely undesirable from a racial standpoint as it had the largest concentration of Mexicans in the community, as well as Italians and Portuguese of a lower social stratum. In 1939, the airport was relocated to its current location where planes continue to fly over a community that is predominantly Latino and immigrant. Within the 1.5 mile area surrounding the airport, 61 percent of the population is Latino. Seventy-nine percent of residents primarily speak a language other than English at home.

It's also densely populated. The area is home to approximately 52,000 residents, including 12,800 children, and 21 schools and childcare centers. While redlining was officially in effect between 1936 and 1939, we know how racism continued to influence land use decisions well after that, especially before the Voting Rights Act when our community's political voice was completely washed out by at-large elections. It wasn't until 1978 that East San Jose residents had the opportunity to vote for a city council member from a pool of candidates living within our district. The councilmember's name was Blanca Alvarado. Happy birthday, Blanca. She happens to be turning 91 years old today.

Land use decisions of the past continue to influence all aspects of our everyday lives, from the quality education we receive to the air we breathe. Studies show that Latinos, recent immigrants, and low-income communities in the U.S. are far more likely to live, play, and work in places that expose us to toxic chemicals, including lead, increasing our risk for cancer and other serious health conditions. For decades, the planes from the Reid-Hillview Airport have used lead-based fuel, poisoning our neighborhood. In 2021, a Mountain Data Group study confirmed that those closest to the airport experience a lead increase in excess of what the children in Flint, Michigan, experienced during the Flint water crisis.

No amount of lead is safe. Airborne lead exposure is a literal injustice that seeps into our bodies through our lungs into our bloodstream and bones, where it becomes unextractable. As a woman in childbearing age, I should not have to worry about how the lead in my bones might impact a future pregnancy or health of the baby. I happen to be an attorney, but I hate that I have to be an exception amongst family and neighbors, many of which struggled

in school and opted for vocational training as opposed to higher education.

Families and teachers should not have to wonder whether lead exposure is to blame for a child's learning or behavior issues. Children, kids should not have to play in the hot sun and experience nosebleeds from the dry hot air. We have requested trees for shade, but pilots need fields clear in case of emergency landings. The Little League baseball fields were closed because pilots refused to use unleaded fuel. Instead of a rose garden, like the white neighborhood has, we got a lead garden. Our children are just as worthy as the children living in more affluent neighborhoods, and we also deserve roses.

In the words of the wise poet, Amanda Gorman, "Being American is more than the pride we inherit. It is the past we step into and how we repair it." This is the chance for Congress to help right a historical wrong by banning the use of lead-based fuel and allowing us to close the Reid-Hillview Airport to repurpose the land in a way that will repair the injuries committed against East San Jose families. Thank you.

Mr. KHANNA. Thank you. Thank you for that moving testimony.

I have been informed that votes have been called. To accommodate members voting, the committee will take a short recess. We just have one vote, and so we can reconvene approximately at 3 p.m., and that would give everyone a chance to cast their vote.

The committee stands in recess.

[Recess.]

Mr. KHANNA. The committee is reconvened. I appreciate the witnesses' patience. We had an important vote, actually a vote on the CHIPS bill to fund a lot of the semiconductor manufacturing. We may have one more vote coming up. It is unclear, but I wanted to at least get the committee's testimony to proceed because I know you all have been very patient, so I appreciate that.

So why don't I recognize Dr. Lanphear? You are recognized for your five-minute testimony.

STATEMENT OF BRUCE LANPHEAR, M.D., MPH, PROFESSOR OF HEALTH SCIENCES, SIMON FRASER UNIVERSITY

Dr. LANPHEAR. Thank you very much. It's an honor to participate on this panel and in this hearing. I'm a physician with expertise in public health. I've conducted studies on the sources of lead exposure and the health impacts of lead poisoning for over 25 years. I've served on science advisory committees in the EPA, the CDC, NIH, and the American Academy of Pediatrics.

Lead is a cumulative poison. Children, especially low-income children in minority communities, are often heavily exposed to lead from paint and house dust in older, poorly maintained rental housing, soil in smelter communities, lead service lines, and aircraft emissions. Hundreds of studies have shown that exceedingly low levels of lead diminish children's reading abilities and cognitive abilities. What is more striking, for a given exposure, the decrements in reading and intellectual abilities are larger at the lowest measurable levels. This video that you will see, which measured lead in parts per billion, shows how lead harms children's brains. Hopefully, the video is playing.

[Video shown.]

Lead-associated IQ deficits extend beyond childhood. Children with higher blood lead levels were less likely to achieve the same social standing as their parents. Let's go to the next.

[Video shown.]

Let's go to the next slide. Lead increases a child's risk of developing ADHD. In a national study, we found that the fraction of children with ADHD increased from 5 to 13 percent as blood lead levels increased. One in 5 cases of ADHD in American children, representing 600,000 children, were due to lead exposure.

Next slide.

In 2013, the EPA concluded that lead is a causal risk factor for coronary heart disease, the leading cause of death worldwide. Fifteen studies conducted in the United States and Europe all showed that lead increased the risk of heart disease.

Next slide.

[Video shown.]

Next slide.

We're going to go quickly here. Airborne lead increases children's blood lead levels beginning at the lowest measurable levels and well below .15 microgram per cubic meter, the EPA's existing air lead standard. The EPA estimated that over 450 tons of lead were emitted by piston engine aircraft every year, 70 percent of all lead emissions.

Next slide.

We can see that lead particles from aircraft exhaust are exquisitely small, small enough to go directly up the olfactory nerve into the brain.

Next slide.

I want to just show a couple quick slides of the Reid-Hillview Airport study.

Next slide.

Here you can see as air traffic increased, we see children's blood lead levels increase, but only for those children who live near the airport.

Next slide.

We can also see that as the number of risk factors for children increase, we can see that the percent of children that exceed 3.5 microgram per deciliter, the action level set by CDC, the percent of children increases sharply from 2 percent of children in the study to 5.7 percent who live near the airport, and up to 13.9 percent who live near the airport during maximum traffic, who live downwind and our lower SES.

Next slide.

In summary, we can say that low-level lead poisoning is a major risk factor for cognitive deficits, ADHD, and coronary heart disease in Americans, affecting children and adults. And lead exposure from aircraft emissions is a major source of lead exposure for the 16 million people who live near airports. The recent report on Reid-Hillview Airport has confirmed that lead exposure from aircraft emissions is an urgent public health problem. Fortunately, lead poisoning is preventable.

Thank you.

Mr. KHANNA. Thank you. Thank you for that powerful presentation, and I want to recognize Mr. Braly. I know you have to leave at 3:30. So, Mr. Braly, you are recognized.

[No response.]

Mr. KHANNA. Mr. Braly, I think you have to unmute.

Mr. BRALY. Testing. OK.

**STATEMENT OF GEORGE BRALY, CHIEF EXECUTIVE OFFICER,
GENERAL AVIATION MODIFICATIONS**

Mr. BRALY. My name is George Braly. I'm an aerospace engineer. We operate a very high technology, but small aerospace engineering company in Oklahoma. And we decided we had the capability and the infrastructure with one of the world's state-of-the-art engine test facilities, and after watching the frustration of no solution for 20 years, we decided in 2009 to tackle the problem and see if we could find a solution. We adopted a historically, fairly common scientific approach to the problem that had not been followed previously, and, frankly, within a matter of months, we had a workable solution. And we started in to get it approved by the Federal Aviation Administration.

That has been an exercise in enormous frustration. However, after over 12 years of effort, enormous amounts of certification activity involving over 100—and I'm not kidding—over 100 senior-level FAA engineers and managers, last March, the Wichita Aircraft Certification Regional Office, or branch office, their certification team, which has more experience certifying fuels than every other FAA aircraft office in the country put together, everybody else put together, they made a finding, sent us an email saying that we had completed all of the regulatory requirements to authorize the issuance of Federal Aviation Administration Approved Model List supplemental type certificates that cover all of the spark ignition piston engines in the FAA's data base. That is every single, without exception, aircraft piston engines, spark ignition piston engine, and the associated aircraft in the United States, and they were simply waiting on permission from headquarters to do something really hard: pick up a ballpoint pen and put a signature on a piece of paper.

Yes, go ahead. I mean, laugh. I mean, I laugh with you, but it's just amazing the bureaucratic mumbo jumbo that has gone on since March the 4th. Literally, I can't imagine how embarrassing this ought to be to somebody responsible in the FAA. Every single day for, I believe, the last 147 days, the FAA has been in defiance of its own regulations, which require them to sign and issue their certificates. And with respect to the chairman and the Members of Congress, in 2018, you have passed an act, and that act mandated, ordered, directed the FAA to sign and deliver those certificates when all of the required certification matters had been accomplished.

The emails we have from the FAA Regional Office in Wichita says we have done that. So they are not only in defiance of their, you know, Administrative Procedures Act regulatory requirements to sign and hand us those certificates, they are actually in defiance of Congress. And Congress can hold them in contempt from that.

And this a complete solution. If those certificates had been signed in March as the law required them to be signed, I feel fairly confident that by some time in the month of August or the month of September, there would be railroad cars of high octane unleaded aviation gasoline in California going to airports like Reid-Hillview, and San Martin, and the flight school in Bakersfield, and, you know, Robinson Helicopter in Los Angeles, which is at risk of losing their production if 100 low lead is banned in Los Angeles. It is not a solution in 8, or 9, or 10 years, like the FAA has proposed to spend another \$115 million taxpayer dollars if they can talk Congress into funding a search for a solution to a problem for which the solution has already been found and approved by the cognizant FAA engineers.

One very senior FAA engineer that was involved in the whistleblowing on the 737 Max project made the observation that the 737 Max problem happened because FAA management was not listening to their engineers. Well, this is exactly the same problem. FAA management is not listening to their highly experienced engineers that have told them this project is ready for signature.

Mr. Chairman, I thank you for your patience and your close attention.

Mr. KHANNA. Thank you so much, Mr. Braly. Now I would like to recognize Mr. D'Acosta.

**STATEMENT OF CHRIS D'ACOSTA, CHIEF EXECUTIVE
OFFICER, SWIFT FUELS**

Mr. D'COSTA. Thank you, Chairman Khanna and Ranking Member Herrell. Thank you very much for giving me the opportunity to be here today. My name is Chris D'Acosta. I serve as CEO of Swift Fuels, LLC, which a privately held firm that's based in West Lafayette, Indiana, in the Purdue Research Park there. I was raised in Texas. I graduated from Texas Tech. I worked and traveled, really, over the world over a number of years. All of my experience the last 42 years is in the oil and gas industry, and I came to Swift Fuels in 2012 as CEO, so I have been there just over 10 years.

At Swift Fuels, our firm specializes in developing and commercializing fuels and fuel process technologies to resolve critical challenges that typically arise in the oil, gas, and chemical industry. Regarding 100 low leaded aviation gasoline used in piston aircrafts, Swift is the chief architect and the sole provider of UL 94 unleaded avgas, today used across the United States, which is FAA approved with ASTM International certification of the Fuel D7547, and OEM endorsement from a number of the major air frame and engine providers, allowing it to serve more than 68 percent of the U.S. fleet, soon to be 75 percent of the U.S. fleet.

My firm is also working to provide the full fleet-wide replacement to remove toxic lead from avgas in the months ahead. We have been working on that diligently for over two years in earnest, and that product will be 100 motor octane fuel with a 10 percent renewable component. It will be clean burning and cost-effective for the U.S. fleet.

So, you know, what can be done to streamline and accelerate the progress? Swift Fuels is actively working full throttle with the Proprietary Certification Program for 100 octane replacement of low

lead. We collaborate daily with the FAA. There are no obstacles, there are no obstructions from our ability to deliver on projects on specific work. We have a large number of active people and experts that are not just FAA experts, they are oil and gas industry experts, they are OEM, you know, engine and airframe experts that are all working together on what I would consider state-of-the-art processing technologies that are going to make the fuel resilient in the marketplace across America and the rest of the world where leaded fuel is used. So our methods are unique, and proprietary, and, you know, robust to say the least. That is our intent as we deliver our fuel.

In the last, I guess, five months, the industry announced the organization called EAGLE, which was directed by Steve Dixon, at the time, the head of the FAA, in collaboration with Pete Bunce from Gamma and Mark Baker from AOPA, with the intent to lay out a plan, timetable, or, I would call it, a worst-case time line to 2030 where unleaded fuel would be addressed. What drove that timeline was the congressional mandate on public communication with, you know, with communities about how the lead endangerment would work. So in my mind, that is a worst-case scenario timeline.

Swift Fuels is working toward a three-year timeline for full fleet-wide approval of our highest octane fuel. In the meantime, UL 94 was implemented in 2015, and I want to thank Cindy Chavez and her kind comments a few minutes ago regarding the fact that we worked diligently to get unleaded avgas to fully replace low-lead at Reid-Hillview when they made that decision. And we did that in an environment where there was wildfires, supply chain disruptions, still impacts from COVID with a lot of shortages of labor. And we were still able to fully replace low lead, you know, virtually overnight. You know, there were airports that held out until the end of the calendar year, but since that time—not airports—FBOs that had held out to the end of the calendar year. But anyway, we have fully replaced all the leaded fuel of that airport, and it has been very successful. There are four flight schools at those four FBOs. They are all actively using our fuel, and it is serving its purpose.

So pilots, the reason they value our fuel is because it is a premium quality product, and, you know, communities love it because it doesn't have toxic lead. And I appreciate the comments also that Ms. Lechuga also mentioned. We have strong ties to the Latin community. You know, we are passionate, working with people all over the world from a missional standpoint to try to serve the needs of, let's call it, the impoverished and people that are maybe not as advantage as others. So that is a core in my heart. But our fuel is out there. It is actively being used. As a matter of fact, yesterday the University of North Dakota announced in a public press release that they have made the decision to convert all their flight training fleet, more than 150 airplanes, to unleaded 94.

So thank you for giving me the opportunity to speak, and I am happy to answer any question.

Mr. KHANNA. Thank you very much. I now recognize myself for five minutes of questions.

The Reid-Hillview Airport near my district in California is the 25th-highest lead-polluting airport in the country. It is an overwhelmingly Latino community. Ninety-seven percent of people living near the airport identified as non-white, and 79 percent primarily speak a language other than English at home. Supervisor Chavez, would you say that lead in aviation fuel is an environmental justice issue?

Ms. CHAVEZ. I think, as evidenced by, frankly, by the 80 years of inaction, really yes. And, you know, one thing, and I just wanted to acknowledge what Ms. Lechuga said, is that we are already in an area that has a high level of Alzheimer's disease, a high level of heart disease, high level of cancer. And so when you add lead onto a community that is already struggling and suffering, what you get is a community that really, under the weight of all of these externalities, is really being crushed. And this is an opportunity really to be part of dismantling what has taken generations just to push this community down.

Mr. KHANNA. Thank you, Supervisor Chavez. Ms. Lechuga, do you feel your community has historically received the concern and action it has deserved on aviation fuel?

Ms. LECHUGA. No, I think we have not. This is a clear injustice against our community. You know, when my grandfather was bracero, he was sprayed with DDT pesticides and suffered Alzheimer's in his later years as a result. Similarly, our community is continuing to be sprayed with toxic chemicals, and unless we make noise about it nobody's going to care.

Mr. KHANNA. Currently, the most widely used fuel for piston engine aircraft contains tetraethyllead, a compound containing lead that increases a fuel's octane level and prevents engine damage and failure. The FAA and Environmental Protection Agency have delayed phasing out lead avgas for decades. Viable alternatives have existed globally since the 1980's, but most of them aren't acceptable to roughly 30 percent of piston engine planes that need high-octane fuel. Our witness, Mr. George Braly, says he has developed just that. Mr. Braly, how many engineering reviews has FAA completed for your fuel?

[No response.]

Mr. KHANNA. Mr. Braly, you have to just unmute.

Mr. BRALY. Yes. Prior to two years ago, we had gone through approximately seven complete high-level reviews of the status of the project and where we were that involved almost every single senior FAA engineer manager and director of various ones of the Aircraft Engine Power Directorate and the Aircraft Directorate. And then just in the last four months, five months, well, since December, we have gone through five more. And, you know, it is a review, of a review, of a review, of a review, on and on and on. Clearly, there is some reason why they won't simply allow the Wichita manager to pick up the ballpoint pen and sign their certificates that are printed and sitting on his desk waiting for a signature. He could literally sign them today and drop them in the mail or PDF them and email them to them.

And tomorrow we have large, capable refinery producers that have been in touch with us diligently over the last year. For instance, one of them happens to be Exxon, and they are prepared

to start shipping us components, literally, two weeks from today to make finished fuel with. This is not a giant mystery. Not hard. It is easy. We can do it. All we need is a pair of signatures.

Mr. KHANNA. Thank you, Mr. Braly. Supervisor Chavez, the FAA is currently working with the county on a permanent ban on leaded fuel at Reid-Hillview Airport. You led the supervisors to pass a unanimous resolution on this. What recommendations do you have for the FAA for how they should work with communities choked by toxic lead emissions, and what they should be doing with Reid-Hillview?

Ms. CHAVEZ. Thank you for that question. I will say that the FAA came out to meet with the county a few months ago to look at how Reid-Hillview could be a pilot project. And I think one of the things that we really need is that we need the FAA to affirm the ability for local agencies to promote access to unleaded fuels, really by prohibiting them. That would be significant. And then we would like the FAA to provide resources for agencies seeking to expand their infrastructure and availability of unleaded fuels, and that way we can mitigate the harms of leaded avgas. They should prioritize the development and certification potential unleaded fuel that could replace leaded avgas on the market.

And, you know, there are solutions, as you heard from Mr. Braly and from Mr. D'Acosta, that exist today that really just need a little more support to be available for aviation, you know, regional airports across the country. And so given what we know, the real question in my mind is how do we move quickly because we know what the harms are, and we actually have available solutions right now. How fast can we move?

Mr. KHANNA. Thank you. Thank you, Supervisor Chavez. I now recognize Ranking Member Herrell.

Ms. HERRELL. Thank you, Mr. Chair. I would like to ask for unanimous consent to enter into the written testimony today from the Aircraft Owners and Pilots Association.

Mr. KHANNA. Sure.

Ms. HERRELL. Thank you.

Ms. HERRELL. And thank you to the witnesses. I mean, just hearing different stories, different approaches on this. And I know, Mr. Braly, you must be so frustrated to not be able to see those signatures come fast enough.

I want to go to Mr. D'Acosta, and you kind of touched on this, but what is the most difficult hurdle in finding an unleaded alternative to the 100 low lead fuel?

Mr. D'ACOSTA. Well, it requires much more than just FAA certification. It requires industry collaboration, ASTM International consensus, which is a body of probably about 150 people that represent all the major oil companies, engine and airframe OEMs, and other major constituents of fuel around the world, not just U.S. That group is very, very critical as well as the OEMs themselves who care about their engine warranties and things of that nature. It requires the consensus of all those groups. It is not just an FAA certificate requirement.

Ms. HERRELL. So, you know, it is obviously a very robust process, so to bring all the players—

Mr. D'ACOSTA. Just if I may clarify that, UL 94 has all those.

Ms. HERRELL. OK. And just to kind of give everybody kind of a mental mindset of this, I mean, if you got all the players to the table and you got all the stakeholders there, what is the timeline on that certification process? I mean, are you going to be stonewalled, do you think, or do you think there is an appetite to move quickly on this?

Mr. D'ACOSTA. Ma'am, are you asking me?

Ms. HERRELL. Yes. I'm sorry. Yes, sir.

Mr. D'ACOSTA. Yes. I would tell you I use the words "we are working full throttle." We are working toward having our 100 octane fuel being ready to deploy by middle of next year, 2023, and then going through a transition period that will probably take 1 to 2 years before all the fleet-wide airplanes are in a position to use it at every single airport. There are 19,000 or so, you know, landing points around the country. It is a rather involved thing, but we are working with all the major distributors that are willing to step up and do their part. So we believe that we can manage an orderly transition to a lot of places, yes, ma'am.

Ms. HERRELL. And then I just want to kind of stay on this vein for a moment, Mr. D'Acosta. It is resource intensive. I get that. What conversations are you having, or have there been any in terms of what would it be like to try to retrofit every general aviation airport with the needed tanks and equipment for drop-in fuel replacement? Have those conversations taking place?

Mr. D'ACOSTA. Well, we are not trying to retrofit any tanks. You know, the infrastructure of the airports stands currently with the low lead fuel. There may be some airports that have, I don't know for certain. They might have inferior tanks. You know, there has been work on something called leaking underground storage tanks which has been regulated by the EPA for a long time, and everybody has got to shore up their tanks. And there is a preference to get rid of underground storage tanks, preferring above-ground storage tanks.

So, you know, things can be done like that are really not in the purview of any of the people that I talk to other than the airports that have their own duty and responsibility to make those kind of improvements happen. Those could be accelerated. Those could be heightened in terms of, you know, care and concern. You know, somebody mentioned earlier there are 50 communities that have struggles with lead emissions, you know. We could choose a list of 5 or 10 or 50 and say, hey, we want to focus on those. We could do that, but what we don't want to do is throw into jeopardy full momentum toward getting a fleet-wide solution for every single airport, not just a subset, you know?

Ms. HERRELL. Right.

Mr. D'ACOSTA. So if we can do things simultaneously, that is fine if we have the resources and personnel to do it. It has challenging, you know. Some of the Federal Government agencies, they have been understaffed, partly because of COVID and retirements. Our investors have augmented that with specialty contractors and involving people at different jurisdictions around the country to help expedite things. So, you know, private investors are making up for the shortfall to make sure that we can get all this done.

Ms. HERRELL. That is great, Mr. D'Acosta. I think everybody is at the same place in terms of understanding the importance of this and wanting to find swift resolution in terms of any kind of retrofit and everything. It is a case-by-case, airport-by-airport kind of a situation. And then just one final question for you. Are you confident that there will be a single option to fully eliminate leaded fuel by FAA's Stated goal of 2030?

Mr. D'ACOSTA. Yes. Yes, ma'am.

Ms. HERRELL. Great. Thank you. Thank you, Mr. Chair. And I just want to say hi to the students that are here listening today. Thank you for joining us.

Mr. KHANNA. Thank you. Representative Tlaib?

Ms. TLAIB. Thank you so much, Chairman Khanna, for holding this incredible hearing. I am actually learning for the first time how our country is in the middle of a lead crisis. I always think of water. I think of Flint. I think of my communities in Detroit as well as some Western Wayne communities that are impacted by lead-contaminated pipelines. But, you know, bringing attention to this is incredibly important, you know. We started a bipartisan Get the Lead Out Caucus with Congressman Myer, of course my good colleague from Michigan, Dingell, and, of course, Lisa Blunt Rochester, because I think we need to move with more urgency in regards to this.

While lead pipes and paint are well-known contributors to this mass poisoning of the American people, especially our children, leaded aviation fuel is not. So I want folks, especially in Southeastern Michigan, to know this. This is a wake-up call. I actually looked this up because of this committee hearing, Chairman, so thank you. I found out that the Detroit City Airport, Willow Run, Ann Arbor's Municipal and Oakland Troy Airports are just some of the local airports using leaded fuel. When planes from these airports fly over our communities, they are crop dusting our neighborhoods with lead poisoned air. I know folks don't want to think of it that way, but it is. It is happening. But one of the interesting things about this is the impact on especially children. There was a study published, and the University of Chicago found that blood lead levels are higher among children closer to airports and flight paths of aircraft. I know one of our folks testified to this.

You know, Dr. Lanphear, I used to actually say to people no amount of lead is safe. They would say a little bit amount of lead, but I know now and more folks know now more than ever that no amount of lead is safe. Can you talk to us what it really means because FAA plans to phaseout lead aviation gas by 2030, but that simply isn't fast enough. So our children are already being poisoned now. I have read that it can stay in their DNA. It cannot only impact how they learn, but really how they thrive in other kinds of cases. And I even heard how it impacts pregnant women, Chairman. And so Dr. Lanphear, can you talk about out how urgently we should be moving, and what are some of the direct impacts? I mean, you talked about it a little bit in the slide, but I think people need to know some of the things that you found out looking at this more carefully.

Dr. LANPHEAR. Yes. Thank you for the question. We have seen from NASCAR studies, we have seen from other studies that if you

take lead out of gasoline, within a year, you see a decline in preterm births. You see a decline in cardiac events. So we know that these have dramatic impact. If you think about the impact on children, it is lifelong, so each gallon of gas has been estimated to lead to \$10 downstream costs on children's lifetime earnings—\$10 per gallon. So these have huge ripple effects, starting with preterm births, going on to learning problems in school, down to behavior problems. It is so wide reaching that it is an absolutely urgent problem.

Ms. TLAIB. You know, Supervisor Chavez, I do not envy you. I read that the Reid-Hillview Airport was the 34th highest emitter of lead in 2022. I am sure you heard from the residents. You know, folks don't get to study this but, you know, I hear about nasal cancer in my district now and all these respiratory issues, and folks have never heard of these things, never been in their family. And I am wondering if you could take some time, you know. I know as soon as the county discovered the lead exposure among children living in that area, that the airport was comparable to Flint, Michigan, and the county immediately banned the use of lead aviation gas at its airport. Can you talk about what your residents told you?

Ms. CHAVEZ. Yes. Thank you so much, Congressman, for the question. You know, our community has been crying out for years for us to do something swift to protect them. And what happened is that we brought a vote to our board to stop accepting airport improvement grants so that, in fact, we could close Reid-Hillview Airport by 2031. And what happened out of that was that a number of the pilots said to us, look, we don't really think that lead is as significant an issue as you think it is, and the EPA studies weren't specific enough. So that is why we invested in our own local study to be able to determine whether or not lead was actually impacting the health of our community.

So what we learned was the answer to that was, yes, that if you live close or you are downwind, you are going to get a higher level of lead. And as Dr. Lanphear so elegantly explained to us, what are all the impacts that happened to our communities. After that study came out, I really cannot tell you the number of people who live in that area who came to me and asked whether or not miscarriages or developmental disabilities in their children could be attributed to that.

What that told me is that generations of people have been seeing poor health outcomes, and they wanted to know how much it was connected to lead. So the study was critical because what it helped us understand is what we can do at a local level to protect our communities, and that we did by banning leaded gas sales at our airports.

Ms. TLAIB. Thank you, Chairman. I yield.

Mr. KHANNA. Thank you. I want to formally thank Mr. Braly and excuse him. I know he had a prior commitment, so thank you, Mr. Braly. And I now want to recognize Representative Fallon.

Mr. FALLON. Thank you, Mr. Chairman. Witnesses and colleagues, thanks again for being here today and discussing the lack of transparency our current administration is displaying and the need for the private sector take the lead on and innovating our aviation industry. I would like to second the chairman's remarks

in stating that this is unconscionable for this administration to ignore an entire branch of government by refusing to allow Cabinet-level witnesses—EPA, FAA, that kind of thing—to testify today. Despite Mr. Biden’s promises of transparency and despite the committee’s request, we have yet to even have one cabinet-level witness attend any oversight committee hearings this year. The American public deserves access not only to this institution, the People’s House, but also their chief executive branch, and we need to hold Mr. Biden up to his promises during the campaign of transparency and show some respect to a co-equal branch of government, and, more importantly, show some respect to the American people. Even though we do lack critical insight from the heads of the FAA and the EPA, I believe we have had a really constructive hearing today, so I do thank all for being here.

Mr. D’Acosta, I am aware that the FAA convened an aviation rulemaking committee in 2012 that brought about no results in terms of identifying a viable alternative to low-lead 100. In 2013, they launched the Piston Aviation Fuels Initiative, which, again, resulted in little actionable items and no fleet-wide unleaded avgas alternatives. Then earlier this year, the FAA, EPA, and a litany of private stakeholders convened the Eliminate Aviation Gasoline Lead Emissions, or EAGLE initiative—that is, as far as I know—and ongoing cooperation with the private sector in search for alternatives to leaded fuel.

Mr. D’Acosta, can you tell us more about the Swift Fuel’s role in these FAA initiatives?

Mr. D’ACOSTA. So the PATHE structure that you described which ran from 2014 to 2018, a five-year program, there were 17 applicants, or 17 fuel formulas, brought forward. They down selected four. Two of those were from Swift, then they down selected two. One was from Swift. And the program was entirely FAA driven, which ensued some of the challenges because you are dealing with people that is not their core thing. And, you know, they did their best. They really architected some tremendous, insightful ideas and concepts, but it didn’t fulfill what it should have fulfilled, which is why it ended, and now it has morphed into something else.

So what happened from that from a Swift Fuel standpoint is we took our learnings from that experience, and we have basically stepped away from PATHE, and we put it into an industrial program of our own, still with entire FAA involvement and oversight. They have to approve everything that you do, the FAA does, but that it is business driven. It is not FAA driven. So we have designated FAA participants. We have designated OEMs, like, you know, engine OEMs, like Licome, and Textron, and other people that are forming in various factions here to make sure their perspectives are brought into the deal. So we call it an enhanced PATHE, OEM-endorsed, robust test plan that is signed by the FAA as we go down this path, so that when we get to the end, everybody in industry that I mentioned a few minutes ago endorses that outcome. And that is unique. There is no one else that is doing that. Swift Fuels.

Mr. FALLON. And, sir, just two quick questions during the time we have remaining. Do you believe the Federal Government needs to be involved in researching and developing a fleet-wide replace-

ment for leaded avgas? And the second is, what alternatives to leaded avgas are currently in production and available to consumers?

Mr. D'ACOSTA. Did you ask the FAA? The Federal Government is interested in all sorts of research concepts, which is, I guess, their privy, but really the research comes from industry. So if the engine makers come up with a new way to do engine processing that is more efficient and maybe requires less octane, then we all benefit from that. If the FAA or if the regulators want to play some role there, that is fine, but most of the creative engineering comes not from the regulatory body. It comes from the entrepreneurs that are in industry.

And the FAA wants to participate in that, and that is fine, and EAGLE has an R&D phase or component platform that they envision, but that is because they are tied to the industry gamut. General aviation manufacturers is where all those industrial players are. They are part of the trade association. They have all sorts of ideas that have been discussed for the time, you know, as possible additional features above and beyond just the fuel.

Mr. FALLON. Thank you, Mr. Chair. I yield back.

Mr. KHANNA. Thank you. I would know like to recognize Representative Zoe Lofgren.

Ms. LOFGREN. Thank you Mr. Chairman, and, once again, thanks to the subcommittee for allowing me to sit in and participate. It is very important to our community, as you have heard from our witnesses. And I would just like to thank Maricela Lechuga for her wonderful testimony, her commitment to her children, to her neighbors, and to her community, for standing up for them. It is very important. And certainly, Supervisor Cindy Chavez, who is just a champion for children, not only in the case of trying to keep lead out of their blood and keeping them from being poisoned, but in so many other ways in her public service. There is no one that I can think of in local government who has done more for the children of our community than Cindy Chavez. So thank you also for your testimony.

I would like to ask one question of Professor Lanphear. Supervisor Chavez has entered into the record the blood level study that has been discussed, and it was a shocking thing. I read the whole thing, and you can see the impact of the aerosol lead on these children. I mean, the closer you are, and if there was COVID, and there were less flights, I mean, it was compelling, and it was terrifying, frankly. There was another study done about whether there was lead in the soil, and that came up with a negative finding. And I had a scientist tell me, well, the two are not inconsistent because the aerosols are floating in the air and being inhaled by the children. That doesn't necessarily mean you would have a buildup in the soil. Do you concur with that?

Dr. LANPHEAR. Well, you can have both. What we can say going back to the studies that were done when leaded gasoline for cars was being used is that probably about 30 to 40 percent of the exposure the community experienced was from inhalation. Much of what drives the higher exposure to toddlers are the mouthing behaviors, where they contaminate leaded dust that settles in their home.

Ms. LOFGREN. Right.

Dr. LANPHEAR. So it is really a combination of inhalation and exposure, ingestion from contaminated dust. You are also going to see contaminated lead in the soil, but it may not be so striking, for example, that you would see it like in a smelter community.

Ms. LOFGREN. Correct. Well, I just want to say that this is an important hearing, and the idea that we would continue to poison the children in East San Jose for another 5 or 6 years is completely unacceptable.

I would like to ask unanimous consent to put into the record a couple of pieces of information that I think are key. First, a letter sent in December 2021 from the FAA to the county after the county acted to ban the sale of leaded fuel. I mean, they own the airport. They own, you know, the tanks with the fuel, basically threatening them, telling them they had to continue to sell and poison these children—outrageous—along with the letter that the county sent in return.

I would like to also put in the record a letter sent February of this year by all four members who represent Santa Clara County—Mr. Khanna, myself, Mr. Panetta, and Anna Eshoo—to the Secretary of Transportation. He never answered the letter. I would like to note also that we tried to call the Secretary of Transportation, the four of us, and he refused to take our phone call.

Ms. LOFGREN. I would just like to say the idea that this administration would try and force the county to poison children is outrageous. It is outrageous, and it really needs to stop. We also need to do a nationwide transferal of for non-leaded gas, because right now the county is selling unleaded gas, but you can fuel up in another our airport and land in. So, yes, we need to do nationwide, but we need to protect the children of East San Jose right away.

And I thank you so much, the chair and the ranking member, for holding this hearing, and hopefully we will get some action from this administration that has been sorely lacking and reinforced when they even refuse to send people to testify here today. Such a disappointment. Not what I expect from this administration.

Mr. KHANNA. Thank you, Representative Lofgren, and thank you again, which is evident, for your passion on this issue and for the children in your district for decades, and your fight on this. I appreciate very much your leadership.

I now want to recognize Representative Flood for questioning.

Mr. FLOOD. Thank you, Mr. Chairman, members. Mr. D'Acosta, thank you for joining us today.

I think it is important to remember that single-engine piston planes are used for more than just passenger flight. Crop dusters, commonly used on farms across the country, like the AT 802, are also single-engine piston planes, and there are a lot of agricultural applications that are performed by these planes across the state of Nebraska. If we are serious about addressing the issue, we do need the innovation and we need the industry to lead the way toward finding solutions away from leaded fuel for single-engine piston planes. But I do fear that a top-down regulatory decision from the EPA to ban these leaded aviation fuel options would have some serious ramifications.

Imagine the effects of grounding crop dusters and much of rural general aviation. It would be devastating for both ag communities in Nebraska and for the prices of corn and other crops across the country. The last thing we need right now at a moment of uncertainty and already historic high gas prices is bad rulemaking that drives Americans' grocery bills even higher.

To the witness, I would ask Mr. D'Acosta, Swift Fuels is working to develop an unleaded alternative fuel for small planes. I know that you have described kind of where you are working. Can you reiterate for me the timeline with which you think you could be successful or that the industry could be successful so that we could allow the market to work here?

Mr. D'ACOSTA. So just to clarify, the EAGLE Program put a 2030 deadline on the timeline to have unleaded fuel, but Swift Fuels is working on a three-year deadline. So we believe will have fleet-wide approval of our entire 100-octane solution within three years. And, in fact, we believe that sometime next year, 2023, we will have introduced the 100-octane fuel into specific locations across the country to further kind of a transitional stepping-stone process to get the fuel into the hands of people where they can experience it as a part of the rollout process.

So Swift Fuel says 100-octane fuel in 2023 with a full fleet-wide envelopment of the United States by 2025. And we think it would be a global two years after that.

Mr. FLOOD. So when you list those deadlines, does that also mean the certification of those fuels and the regulatory burden that you—

Mr. D'ACOSTA. That is the certification. Yes, sir, that is the certification along with the industry endorsement of the ASTM specifications and the OEM endorsements of the fuel from all the major OEMs that I have given examples of. All of those have to happen for the fuel to get into the market. If they don't, what will happen is the industry will step up and stop it because they can tell their pilot, the people who own their engines and their air frames, don't do that. And no pilot wants to fly if the industry says don't do that.

Mr. FLOOD. Thank you very much for your testimony. The National Academy of Sciences released a report in 2021. I think it is important to note it found there was no single option that could guarantee lead's full elimination from aviation fuel. So I do believe we need to rely on innovation, technology, and our robust system of private enterprise to help solve the problem. We also need to ensure that we do what we can do to reduce the regulatory burdens on firms trying to develop the next generation of these fuels will have it impact on how far we can go. So this is not the time for top-down, sweeping Federal bans. This has ag applicators in my state concerned. I certainly understand that lead exposure poses serious health risks to human beings, but we have to find solutions, and I appreciate your time, Mr. D'Acosta, and your testimony.

I yield back.

Mr. KHANNA. Thank you.

Mr. D'ACOSTA. Thank you. Can I just make one clarifying comment? May I?

Mr. KHANNA. Sure. Go ahead.

Mr. D'ACOSTA. So several people have mentioned today the term "single-engine type aircraft." The aircraft we are talking about fleet wide spans many different types of engines that have an 80-year legacy. So there are big radial war birds. There are twin engine aircraft. There are helicopters. There is single-engine aircraft. There is a whole mixture of things, and that does add to the complexity. But nevertheless, all of that is within the scope of what we call, fleet wide, a fuel that will address the entire piston aviation fleet. Thank you.

Mr. KHANNA. Thank you. Well, thank you to all of the panelists for their remarks. Thank you, in particular, for your leadership on this issue and for the personal testimony that many of you shared about the impact of lead in the community. I want to commend my colleagues and thank them for participating. Congratulations to Ranking Member, Ms. Herrell. I look forward to working with you for the rest of this Congress and beyond.

With that and without objection, all members will have five legislative days within which to submit additional written questions for the witnesses to the chair which will be forwarded to the witnesses for their response. I ask our witnesses to please respond as promptly as you are able.

Mr. KHANNA. This hearing is adjourned.

[Whereupon, at 3:51 p.m., the subcommittee was adjourned.]

