

HB

194



Alaska State Legislature

Representative Peggy Wilson
House District 2
Putting Alaska's Families First

FAX TRANSMITTAL SHEET

TO: Leg Legal FAX# 2029

DATE: 3-27-09 FROM: Buckey Rooney - 3759

SUBJECT: 26-LS0715\5

Total Pages (including cover sheet) 1

page 2 line 5

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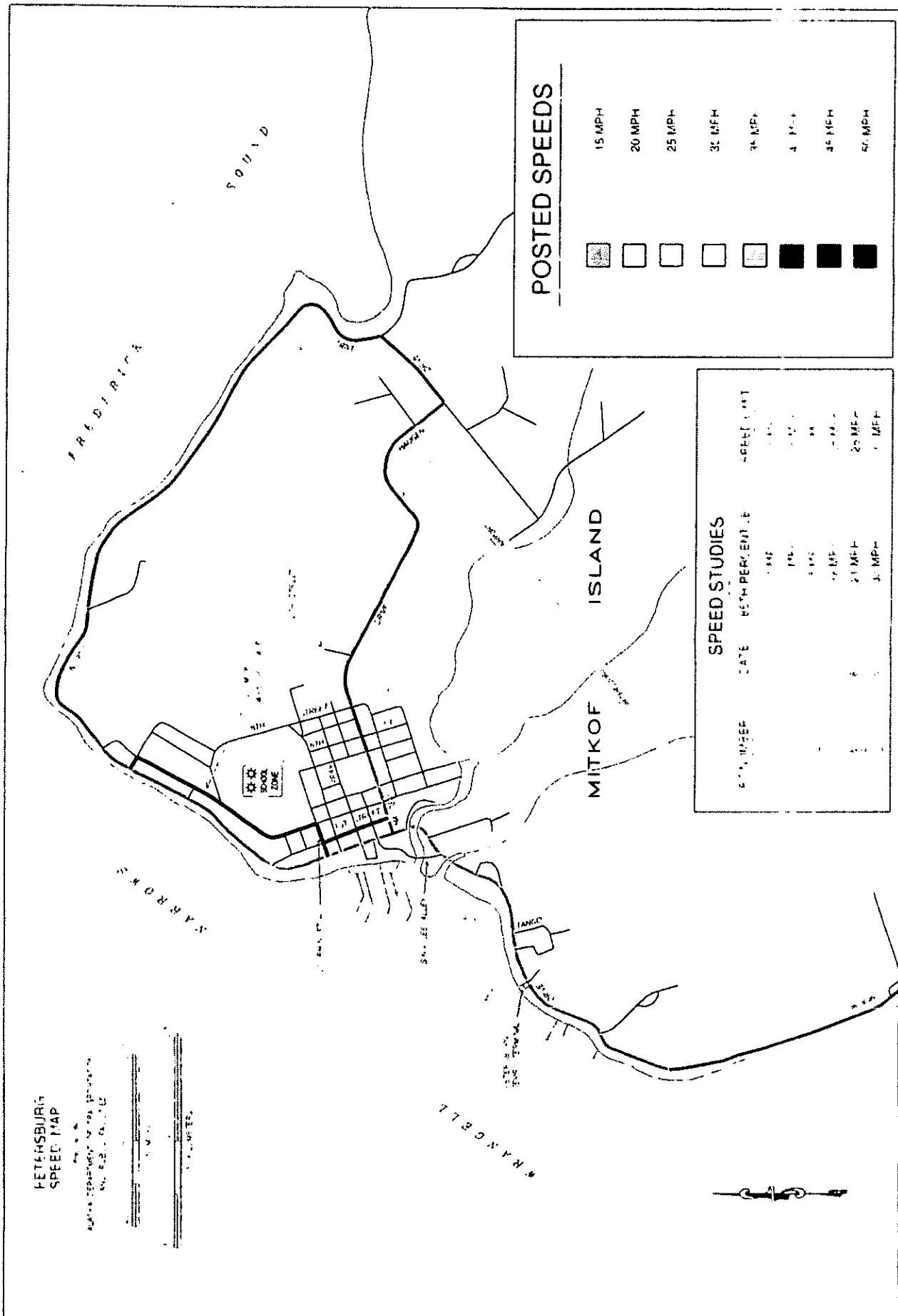
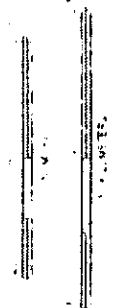
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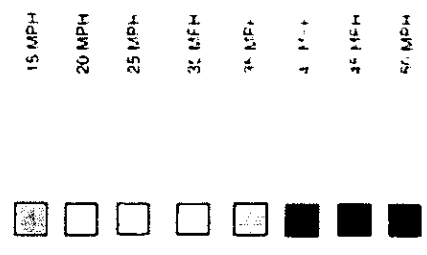
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NO. 100-10-100-100

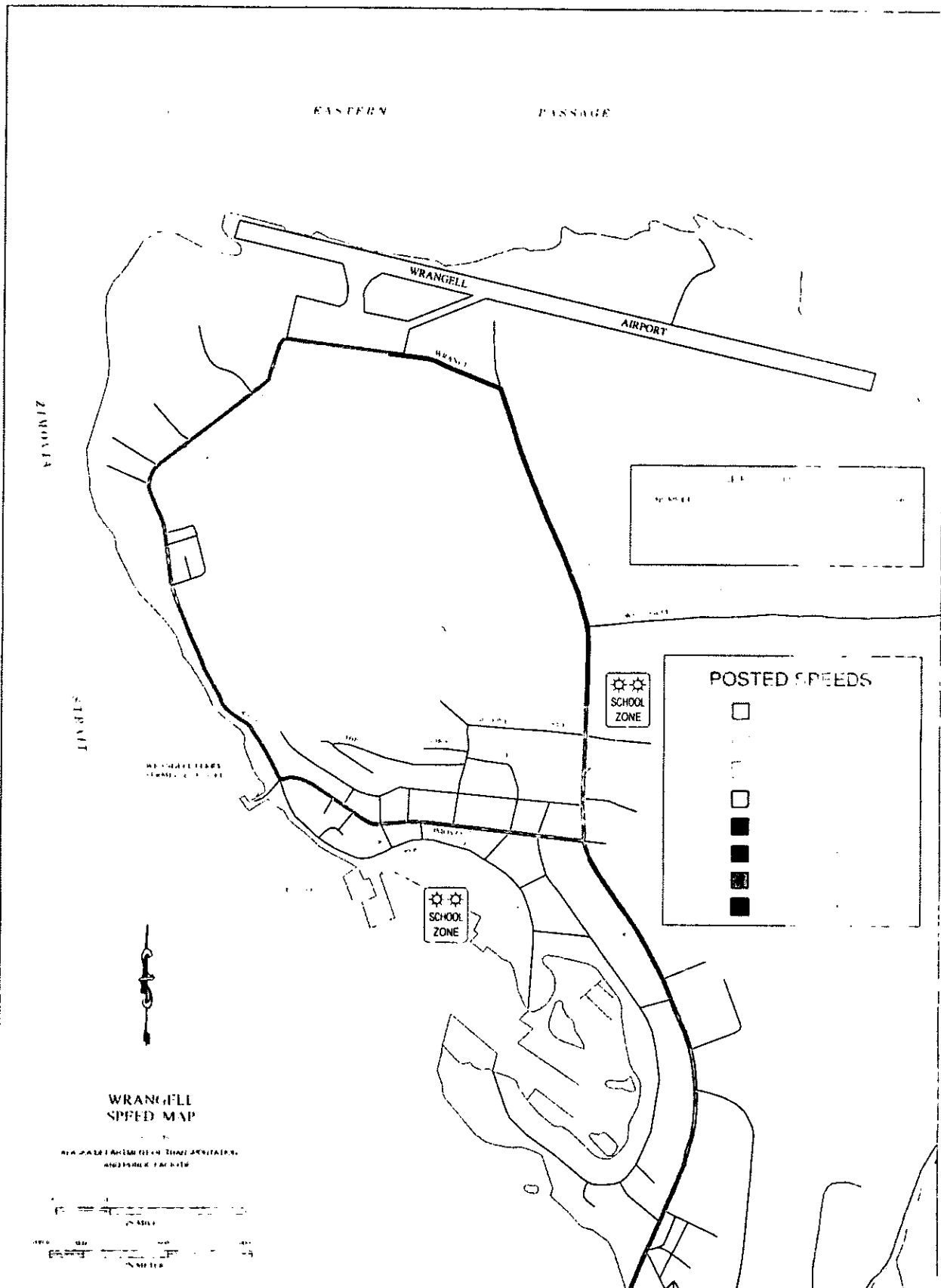


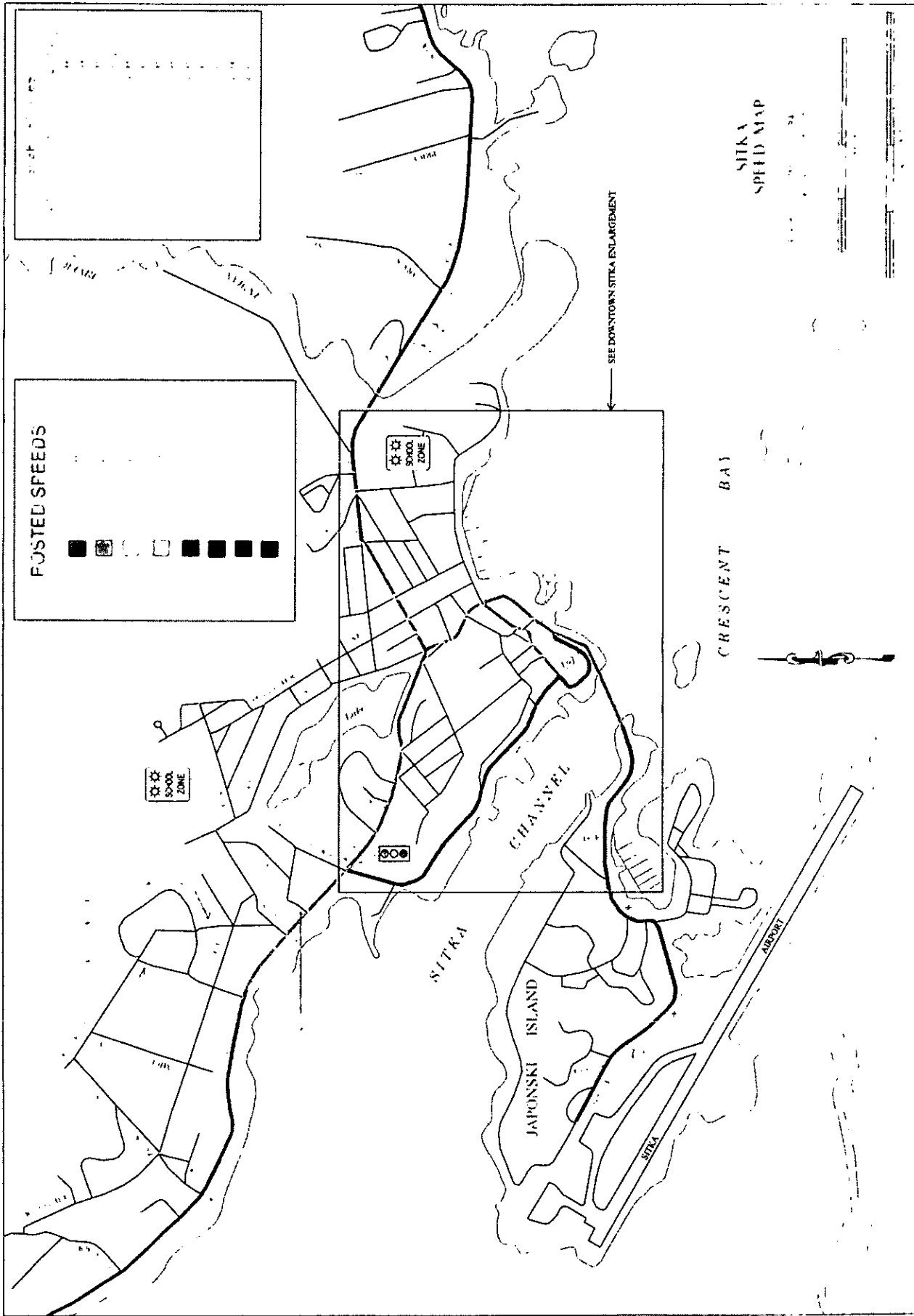
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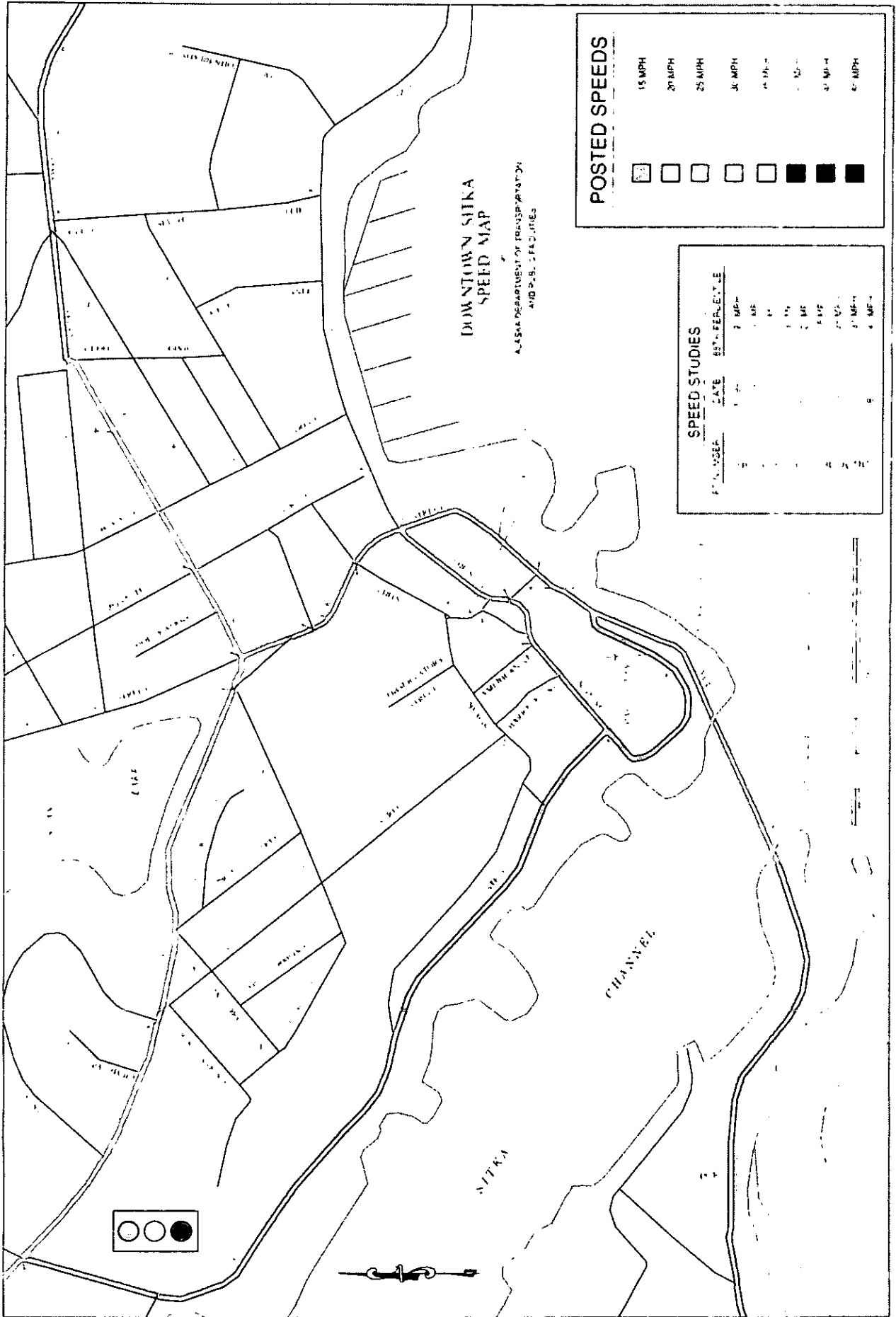
SPEED STUDIES

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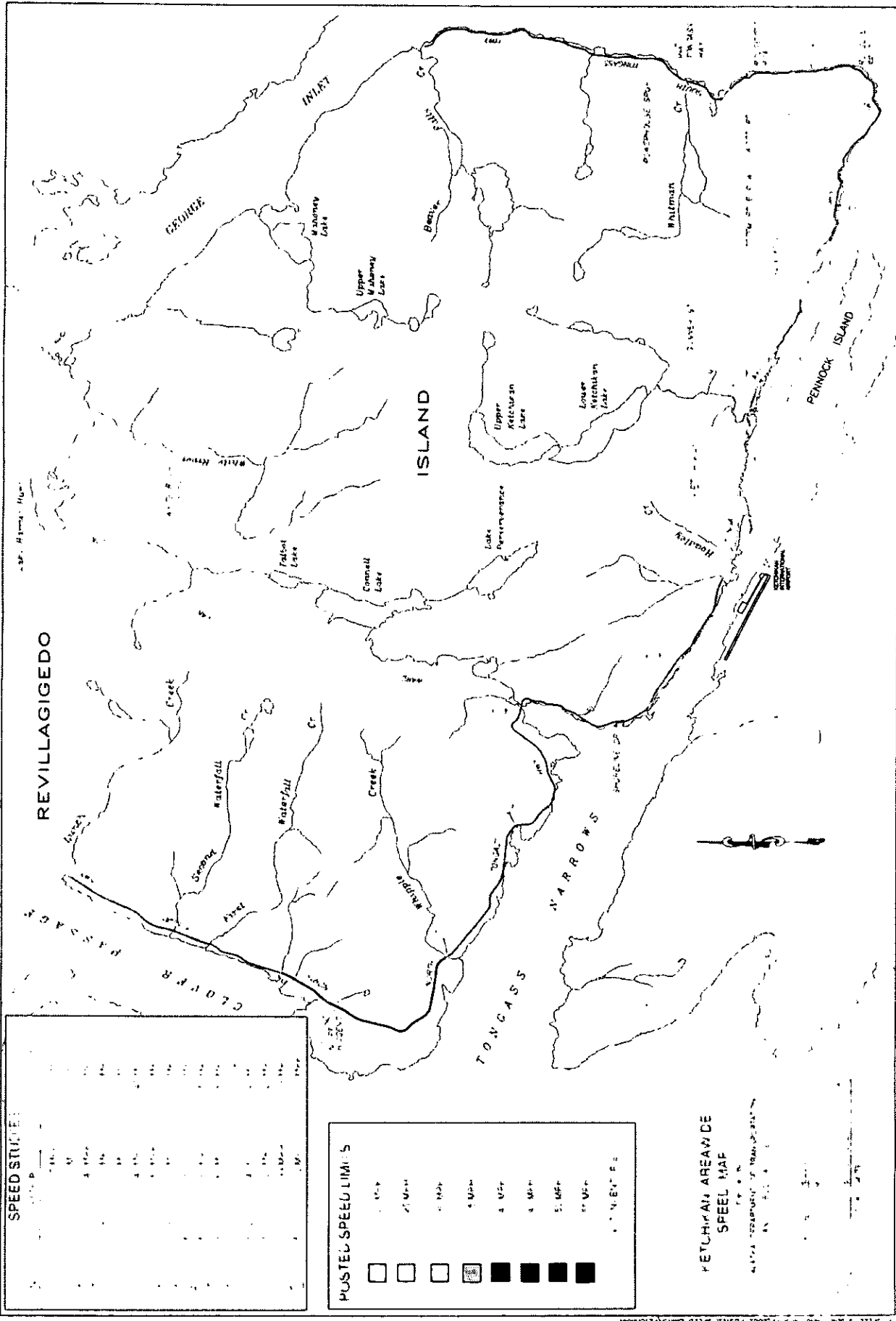


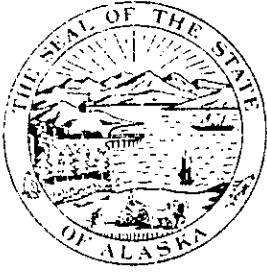


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DATE: 1/10/07, MAP: 10/10/07, 2007, POSTED SPEED LIMITS/SITKA/DWG





Alaska State Legislature

Representative Peggy Wilson
House District 2
Putting Alaska's Families First

FAX TRANSMITTAL SHEET

TO: Leg Legal FAX# 2029

DATE: 3-26-09 FROM: Besky Rooney

SUBJECT: 26-LS0715-E

Total Pages (including cover sheet) 1

HB 194 Ver E was moved from committee with 2 amendments:

- #1 page 1 line 10 replace 25,000 with 35,000
- #2 page 2 lines 3-8 delete all language and insert

"(2) only cross a highway at intersections if the approach and departure of the highways upon which the low-speed vehicle is being operated are eligible for low-speed vehicle operation under this section"

(specific language is given but Amendment 2 was conceptual)

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Good afternoon. My name is Megan Pasternak and I have been a low-speed electric vehicle owner and driver in Sitka for more than a year. Thank you to Rep. Wilson for sponsoring this bill, to her aides for their help and thank you to the Transportation Committee for having a hearing on HB 194.

Besides the at least 19 known such vehicles in Southeast, there are also two in Kodiak and possibly more throughout the state.

This bill is not just about cheap transportation. It is another much-needed step toward helping eliminate pollution and protecting the environment. It not only will help you but will help your communities, the State of Alaska, the United States, and the world.

This bill will help allow those who must transit 45-mph zones for work or other purposes and who have had reservations about owning a low-speed vehicle because of the 35-mph limitations to make the decision to join the group of citizens who are trying to make a difference in our carbon footprints.

As a low-speed vehicle driver I am very conscious of the traffic around me and do not impede others who want to go faster than my allowed 25 mph. I do this by waiting to enter a roadway until approaching traffic is far away and by pulling over to the side whenever possible to allow others to pass. I'm sure other low-speed vehicle drivers are just as conscientious.

Many of these vehicles are in use and have been in use in Europe for quite some time.

My understanding of one of many reasons why these vehicles are safe is that they are generally very lightweight. When involved in a crash, they tend to bounce away rather than take the impact full force.

This bill has great flexibility by allowing each municipality to make the decision to allow low-speed vehicles to travel in 45 mph zones based on local conditions.

Some have noted that electric vehicle owners will not be contributing to the building and upkeep of roads and highways because they will not be purchasing fuel and paying the taxes. I, for one, am more than willing to have an electric-vehicle tax or other added fee when registering or renewing license tabs. I'm sure my 1200-pound car does far less damage to the highways than the overloaded dump trucks traversing them.

As a side note, if legislators truly want to encourage electric or other alternative fuel-vehicle usage and make it safer for them in the higher speed zones, they should consider allowing low-speed vehicles to be modified to go 35 mph. My car has the capability but the modification was required to be removed in order to get registered and licensed in Alaska.

Please feel free to contact me with any questions you may have.

Thank you.

Megan Pasternak

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Sitka, AK 99835

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mwpstnk@ptialaska.net

Electric Car In Sitka

[Print](#)

Written by Shannon Haugland, Sentinel Staff Writer

Tuesday, 26 February 2008

Walt and Megan Pasternak have a new rule at their house: the first one out the door gets the electric car.

The Sitka couple's ZENN 2.22LX arrived on the barge last Thursday, and so far they have logged 60 miles in it. Megan said that's enough to let her see its suitability for a town with less than 20 miles of highway.

"It's perfect for Sitka," she said.

The Pasternaks have two other vehicles -- a Toyota RAV4 and Ford Ranger pickup -- but their new Canadian-built ZENN has become their first choice for nearly all their driving.

They had been thinking about getting a high efficiency car for some time, and had been looking at a SmartCar, which gets 40 miles to the gallon of gas. But when they were in Seattle last November, Megan read a local magazine story about the ZENN.

ZENN stands for Zero Emissions No Noise.

They went to the Seattle dealer, M.C. Electric Vehicles, took a test drive in the battery-powered ZENN, and took to it immediately.

"It was almost a snap decision," Megan said. "But if you don't do it now, what are you waiting for? They will always come up with newer (technology) but why keep pumping crap into the air?"

The Pasternaks received a discount from the \$20,000 list price for acting as "ambassadors," and answering questions from interested consumers. Megan said she and Walt learn something every day about the vehicle, often from others in Sitka who seem to have been following the product. Megan said they welcome calls from potential buyers.

"It's a learning process," she said. "I'm sitting here reading the book for the second time, because you don't know what they're talking about until you're in the car."

The ZENN gets 35 miles on a single battery charge. Top speed is 37 mph, with 35 a sustainable cruising speed. It takes four hours and five kilowatts of electricity to bring a fully depleted battery up to 80 percent charged. The draw on AC power tapers off as the battery approaches full charge.

The Pasternaks keep extension cords handy, and Megan said she is still getting into the habit of "opportunity charging" -- plugging in to the nearest available outlet when away from home. The car has electric windows, electric and manual locks and a functioning heating system but no air conditioning.

Megan said it isn't as quiet as she expected, but that's because a lack of insulation in the aluminum frame and the polycarbonate sides don't keep out road noise. The only glitch so far has been a short caused during the installation of an AM/FM stereo. But a quick bit of troubleshooting solved the problem.

The car weighs in at a featherweight 1,200 pounds, but Megan said she feels safe because she is a careful, defensive driver. She hasn't tried the ZENN on snow but the car has front-wheel drive, and can be equipped with snowtires.

Sitka Electric Utility Director Charlie Walls said he had heard about the Pasternaks' car and is interested to see how it performs in Sitka.

"At this point it's very much an emerging technology," he said. "We're watching that. It has some potential in the long run for Sitka. It's a pioneering technology. This time they have a chance of getting them established."

As the price of oil -- now at about \$100 a barrel -- continues to go up, the interest in hybrids and electric cars will increase, Walls said. "The next thing to come is plug-in hybrids, then all electrical," he said. "What we're seeing is forerunners of what's to come."

Walls has made announcements in the last few weeks about the low water levels at the hydroelectric dams, and the need for such conservation measures as turning off home electric heaters when alternative heat is available.

Battery-powered cars will not be a significant draw on the electric system until there are a lot more of them in Sitka, he said.

The city is working on plans to raise the height of the Blue Lake Dam, which will increase the local hydro resources significantly, and Walls will be in a Sitka delegation heading to Washington, D.C., next month to get support for the \$25 million project.

"In a few years from now, we could have the capacity to handle the addition of (electric cars)," he said. "We think it has some real potential, and it'll be real attractive to Sitkans five years from now."

There is at least one other all-electric vehicle in Sitka. The Coast Guard Air Station uses it to transport materials short distances on Japonski Island.

Megan said so far she gives the ZENN high marks, and hopes to spread the word about her car and its benefits to the environment with a new personalized license plate.

If it's not already taken, she wants it to read: "NO CO2."

[Close Window](#)

ZENN

From Wikipedia, the free encyclopedia
(Redirected from Zenn)

ZENN (*Zero Emission, No Noise*) is a 2-seat battery electric vehicle currently in production and built by ZENN Motor Company designed to qualify as a Neighborhood Electric Vehicle. It has a range of up to 40 miles (64 km) and does not exceed 25 mph (40 km/h). On earlier production models, there was an option of a 'Discovery Pack' which increased the ZENN's range a few miles. It now comes standard.

The vehicle is based on the Microcar (brand) MC2, in production in France since the early 2000s, and produced under license from Microcar's parent company Beneteau Group. The Microcar MC2, and the short wheelbase MC1, are sold in Europe with diesel engines.


Electric power is stored in six 12V lead-acid gel batteries, which has a recharge cycle of 8 hours. Valve regulated (low maintenance) lead-acid wet cells are available at extra cost.

Also optional are a retractable fabric sunroof, air conditioning, audio entertainment center, and AC motor, stated to be better for hill climbing. The 2008 model has a standard AC motor.

On January 16, 2007 EESor, Inc. announced plans to ship 15 kilowatt-hour Electrical Energy Storage Units (EESU) to ZENN Motor Company by end of 2007 for use in the ZENN electric vehicles. As of Nov. 2008, this has not happened. If it were to happen, it would make the ZENN the first production vehicle to use EESU. As of April 30 2007 ZENN Motor Company owned approximately 3.8% of the equity of capacitor developer EESor, after an investment of \$2.5M US.^[1]

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- 3 City ZENN

ZENN	
	
Manufacturer:	ZENN Motor Company
Location:	Headquarters in Toronto Ontario, production in St. Jérôme, Quebec
Also known as:	Feel Good Cars
Production Years:	2006–present
Class:	NEVLSV
Length:	3.1 m
Width:	1.6 m
Height:	1.4 m
Charging connector:	Extension cord to standard domestic 110V outlet
Charge time	80% - 4 hours, 100% - 8 hours
Curb Weight:	1,200 lb (544 kg)
GVRW:	1,705 lb (773 kg)
Battery type:	lead-acid batteries
Range:	50-80 km (30–50 miles)
Maximum speed:	40 km/h (25 mph)

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Doors:	3-door hatchback
MSRP:	\$12,000–\$16,000

Licensing agreement with EEStor

EEStor was founded in 2001 by Richard D. Weir and Carl Nelson, former senior managers in disk-storage technology at IBM and Xerox. The Company maintains a low profile, but others in the automotive and CleanTech communities are calling their storage technology 'game changing'. Such a breakthrough has the potential to transform the energy sector and the automobile industry in particular.

The following is how the EESU is claimed to compare to other batteries used for electric cars^[2]

	Ceramic EESU	NiMH	La(Gel)	Lithium-ion
Weight (kg/lbs)	135/300	780/1716	1660/3646	340/752
Volume (litres/cubic inches)	74.5/4541	293/17,881	705/43,045	93.5/5697
Discharge rate	0.02%/30 Days	5%/30 Days	1%/30 Days	1%/30 Days
EV Charging time (full) - 100% charge	3-6 min	>3.0 hr	3-15 hr	>3.0 hr
Life Reduced with deep cycle use	none	very high	high	very high
Hazardous Materials	none	yes	yes	yes
Temperature vs. effect on energy storage	negligible	high	very high	high

ZMC entered into an agreement with EEStor dated August 24, 2004 (with subsequent amendments dated November 26, 2004, September 30 2005, August 8, 2006 and January 22, 2007) to acquire in perpetuity the worldwide exclusive rights to use EEStor's EESU in the following markets:

All-electric 4-wheeled personal transportation uses for vehicles with a curb weight up to 1,400 kilograms (3,100 lb), net of the battery weight, and For golf carts and similar-styled utility vehicles, and The aftermarket conversion of any internal combustion passenger vehicle to electric drive

The EEStor Technology Agreement also provides ZMC with non-exclusive, worldwide use to manufacture higher power and heavier vehicles.

About half of Zenn's IPO was used to invest in EEStor.

Skepticism from Experts about EEStor

Three technology experts hired by potential investors to investigate EESor's technology have stated "it's not possible", "extremely unlikely that it's possible", "there's extreme skepticism", "there's nothing there", "it's ridiculous thinking", "it's beyond science fiction", and "I'm surprised that Kleiner has put money into it". [3] [4] [5]

City ZENN

The **cityZENN** is planned to be a fully certified, highway capable vehicle with a top speed of 125 kilometres per hour (78 mph) and a range of 400 kilometres (250 mi). Powered by EESor, the cityZENN will be **rechargeable in less than 5 minutes**, feature operating costs 1/10th of a typical internal combustion engine vehicle and be 100% emission-free at the point of use. The **Zero Emission, No Noise** cityZENN will be designed to meet the transportation requirements of a large percentage of drivers worldwide. [6] It is due to be launched in Fall 2009. Also according to Ian Clifford a normal household outlet with 110 volt supply can fully charge the EESor powered CityZENN in 4 hours for a 250 miles (400 km) range and a normal household outlet with 220 volt supply can fully charge the EESor powered CityZENN in 2 hours for a 250 miles (400 km) range. A fast charge in about 5 minutes will be possible at special charge stations. CityZENN target price is around \$25000 - \$30000. [7]

Legalization in Canada

Although the company is headquartered in Toronto, and the car is manufactured in St- Jérôme, the vehicle was first introduced in the United States. Federal regulations set up by Transport Canada to approve low speed vehicles (LSVs) for public road use excluded the ZENN and other NEVs from Canadian roads. ZENN's battle with Transport Canada over LSV regulations has been periodically mentioned in Canadian news. [8]

The ZENN car met all the regulatory requirements in the United States; the same regulations adopted by Transport Canada in 2000. It took 2 years of political red tape before ZENN received its National Safety Mark from the Canadian Ministry of Transport. The safety mark was granted after a report by the CBC [9] caused public outcry against the governments lack of interest in environmentally friendly alternatives to fossil fuel vehicles.

Since August 16, 2000, British Columbia has allowed LSVs on its roads, but this exception to the federal law was designed mainly for large slow-moving farm equipment. Although the ZENN was technically legal in British Columbia, the cars would have needed to be equipped with warning signs and yellow flashing lights to distinguish themselves as slow-moving. ZENN Motor Company did not see these conditions as viable to establish a retailer market. After ZENN received its National Safety Mark, the province of British Columbia vowed to improve their support for electric vehicles, and granted the right to each municipality to make LSVs legal on their roads. As of November 2008, The City of Vancouver and the township of Oak Bay, a suburb near Victoria are the only municipalities to grant LSV use.

In Ontario, LSVs can be used on roadways within provincial or municipal parks and conservation areas (when driven by an authorized park employee) or on private property.

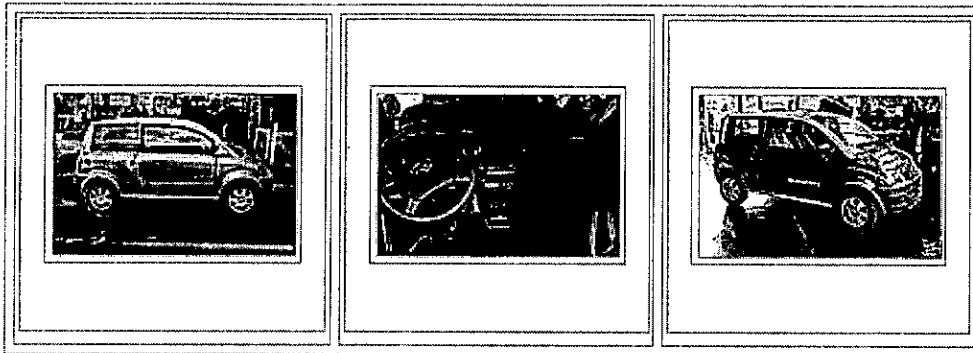
On June 17, 2008, Quebec announced a pilot project for the ZENN, which would allow residents of Quebec to drive a ZENN in Canada. [10] On October 4th, 2008 ZENN Motor Company opened up a retailer

out of its production plant in St. Jérôme with a factory direct approach to sales. This marked the first time a ZENN or any other low-speed commercial vehicle could be sold in Canada.

Awards

In the Michelin Challenge Bibendum 2006, ZENN received the highest overall rank in the Urban Car category.

Gallery



Competitors in light electric vehicles

- Aixam (neighborhood electric vehicle)
- Bolloré Blue Car
- Buddy
- Citroen Berlingo Electrique
- Dynasty IT
- G-Wiz (REVA)
- Italcarr
- Mini E
- Nissan Nuvu
- Pininfarina B0
- Renault Z.E.
- Smart EV (production car)
- Subaru R1e (2009)
- The Kurrent (neighborhood electric vehicle).
- Th!nk City (production car).
- ZENN

Comparison with selected light electrical cars

Maker	Top speed	Range
Kewet Buddy	80 km/h	40 - 80 km

CityEl	63 km/h	80 - 90 km
Dynasty IT	40 km/h	50 km
REVA	70 km/h	80 km
The Kurrent	40 km/h	60 km
Th!nk City	100 km/h	170 km

References

- [^] Ehrlich, David (2008-03-31). "Zenn Gearing up for EESstor-powered car". Cleantech Group. <http://media.cleantech.com/2644/zenn-gearing-up-for-eestor-powered-car>. Retrieved on 2008-06-24.
- [^] "investor / EESstor". <http://www.zenncars.com>. Retrieved on 2008-07-09.
- [^] <http://theeestory.com/topics/27>
- [^] <http://theeestory.com/topics/17>
- [^] <http://www.technologyreview.com/business/18086/>
- [^] [http://www.zenncars.com/media/press_rel/03_08/ZMCAnnouncesPlans.pdf "ZENN MOTOR COMPANY DETAILS PLANS FOR HIGHWAY CAPABLE ZENN POWERED BY EESTOR"] (PDF). ZENN Motor Company Inc.. 2008-03-28. http://www.zenncars.com/media/press_rel/03_08/ZMCAnnouncesPlans.pdf. Retrieved on 2008-07-09.
- [^] "zenncars.com - *Ian Clifford discusses the ZENN, EESstor*.. - June 02, 2008". <http://www.zenncars.com/media/audio/evcast.mp3>.
- [^] "Auto makers catch whiff of new fuel sources". <http://www.theglobeandmail.com/servlet/story/LAC.20080526.FUELS26/TPStory/Environment>.
- [^] "Electric car maker charges Ottawa blocking its sale in Canada". <http://www.cbc.ca/canada/story/2007/10/26/electriccar-zenn.html>.
- [^] "ZENN Motor Company Evaluating Canadian Expansion". <http://www.foxbusiness.com/story/markets/industries/industrials/enn-motor-company-evaluating-canadian-expansion/-1441685563>.

External links

- ZENN Motor Company (<http://www.ZENNCars.com/index.html>)
- The Challenge Bibendum Paris 2006: wrap-up (<http://www.challengebibendum.com/challenge/front/affich.jsp?codeRubrique=43&lang=EN&newsID=17927>)
- Low-Speed Vehicle Pilot Test FAQ (<http://www.mto.gov.on.ca/english/dandv/vehicle/emerging/lsv-faq.htm>)
- Support for legislation change in Canada to allow Zenn Cars to be sold here. (<http://www.iwantazenn.com>)
- <http://www.eestorbatteries.com> - Information, News, Articles, and Discussion Board for EESstor Batteries and Zenn Motor Company.

In The News

- Battery Breakthrough? - 1/22/2007 (<http://www.technologyreview.com/Biztech/18086/>)
- Better Batteries Charge Up - 8/05/2008 (<http://www.technologyreview.com/Energy/21171/>)

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DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 571

[Docket No. NHTSA-2008-0154]

Federal Motor Vehicle Safety Standards; Medium Speed Vehicles

AGENCY: National Highway Traffic Safety Administration (NHTSA), DOT.

ACTION: Denial of petition for rulemaking.

SUMMARY: This document denies petitions for rulemaking submitted by Environmental Motors, and Porteon Electric Vehicles, Inc. and Mirox Corporation. The petitioners requested that NHTSA commence rulemaking to create a new class of motor vehicles known as medium speed vehicles, which would have a maximum speed capability of 35 mph. The petitioners contemplated that these vehicles would be subject to a set of safety standards greater than those that apply to low speed vehicles but substantially less than the full set of safety standards that apply to other light vehicles such as passenger cars. The petitioners cited a

number of reasons in support of their petition, the most significant of which related to potential environmental benefits. After carefully reviewing the petitions, we are denying them because the introduction of such a class of motor vehicles without the full complement of safety features required for other light vehicles such as passenger cars would result in significantly greater risk of deaths and serious injuries. While NHTSA agrees with the importance of environmental issues, the agency believes that it is neither necessary nor appropriate to significantly increase the risk of deaths and serious injuries to save fuel.

FOR FURTHER INFORMATION CONTACT:

For technical issues: Gayle Dalrymple, Office of Crash Avoidance Standards, NVS-123. Telephone: 202-366-5559;

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facsimile: 202-493-2739; e-mail gayle.dalrymple@nhtsa.dot.gov.

For legal issues: Mr. Ari J. Scott, NHTSA Office of the Chief Counsel, NCC-112. Telephone: (202) 366-2992; facsimile: (202) 366-3820; e-mail ari.scott@nhtsa.dot.gov.

Both officials can be reached by mail at the National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590.

SUPPLEMENTARY INFORMATION:

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V. Agency Response to Petitions

A. The rationale for applying a limited set of safety standards to LSVs is not relevant to MSVs

B. The traffic environment in which MSVs would likely travel is an environment for which the full set of the Federal motor vehicle safety standards is needed to prevent fatalities and serious injuries

C. It is neither necessary nor appropriate to significantly increase the risk of deaths and serious injuries to save fuel

D. Other issues

VI. Conclusion

I. Overview

NHTSA has received three petitions for rulemaking, from Environmental Motors, Porteon Electric Vehicles, Inc. and Mirox Corporation, requesting that the agency commence rulemaking to create a new class of motor vehicles known as medium speed vehicles MSVs. While the specific requests vary, they essentially ask the agency to conduct

rulemaking to exclude smaller light vehicles that would currently be classified as passenger cars, multipurpose passenger vehicles (MPVs) or trucks from many or most of the Federal motor vehicle safety standards, if their speed capability is 35 mph or less. The vehicles would instead be subject to a set of safety standards greater than those that apply to low speed vehicles (LSVs) but substantially less than the full set of safety standards that apply to other light vehicles.

The petitioners made a variety of arguments in support of their requests, the most significant of which related to environmental benefits, including facilitating the development of electric vehicles and fuel savings. They argued that because LSVs are not permitted to have a speed capability greater than 25 mph, they cannot safely keep up with traffic in urban areas, and a need therefore exists for vehicles with a higher speed (35 mph) capability. The petitioners also noted that two States have passed laws that purport to allow medium speed electric vehicles to operate on certain public roads.

After carefully considering the petitions, we are denying them because the introduction of such a class of motor vehicles without the full complement of safety features required for other light vehicles would result in significantly greater risk of deaths and serious injuries. We address the petitioners' arguments in detail in the rest of this document, but note the following points in this overview.

The petitioners appear to view MSVs as a variant of LSVs, i.e., a special class of small motor vehicles that would not be required to meet the full complement of the Federal motor vehicle safety standards. However, the rationale for applying a limited set of safety standards to LSVs is not relevant to MSVs.

NHTSA issues different safety standards for different types of motor vehicles. The agency established the special category of motor vehicles called LSVs to accommodate the use of small golf cars and other vehicles primarily intended for use in controlled, low-speed communities, such as retirement communities. In order to qualify as an LSV under the agency's definition, a vehicle must, among other things, have a speed capability no higher than 25 mph. LSVs are subject to a limited set of safety measures in FMVSS No. 500, including requirements related to the installation of lamps, mirrors, seat belts and a windshield. However, LSV's are not subject to most of the standards to which other light vehicles such as passenger cars are required to comply, including the rigorous crashworthiness standards.

One of the principal concerns raised by the petitioners is that the 25 mph speed limitation that applies to LSVs prevents these vehicles from keeping up with traffic in urban areas. However, the 25 mph limitation reflects the fact that NHTSA designed the set of safety standards that apply to LSVs for vehicles intended to be used in controlled, low speed environments. Vehicles with a speed capability above 25 mph are more likely to be driven outside controlled, low speed environments, and the limited LSV safety requirements are not appropriate for such vehicles.

The petitioners appear to assume that the full set of safety standards applicable to other light vehicles such as passenger cars would not be appropriate for MSVs, i.e., small vehicles with a speed capability of 35 mph. However, the traffic environment in which these

vehicles would likely travel, including, e.g., urban roads with a speed limit of 35 mph or 45 mph, is an environment for which the full set of the Federal motor vehicle safety standards is needed to prevent fatalities and serious injuries. MSVs would be traveling in mixed traffic at speeds in which crashes posed a risk of serious injury or fatality and in which safety features such as frontal and side air bags significantly reduced that risk. Also, a number of the crash test requirements included in our safety standards simulate crashes in this higher speed environment. We note that the petitioners did not provide analysis demonstrating why any of the Federal motor vehicle safety standards are not needed for MSVs.

NHTSA shares the concerns of the petitioners about the importance of environmental issues and saving fuel, and notes that it is currently engaged in rulemaking in which it has proposed to substantially increase average fuel economy standards for passenger cars and light trucks. We also note that a number of smaller vehicles have been introduced in recent years that are certified to comply with the full set of Federal motor vehicle safety standards. In addition, the current unprecedented cost of fuel is forcing manufacturers to improve fuel efficiency and reduce vehicle size without Federal mandates.

While we appreciate the importance of environmental issues, NHTSA does not believe that it is necessary or appropriate to significantly increase the risk of deaths and serious injuries to save fuel by introducing a new class of motor vehicles that does not provide adequate safety protection.

II. Petitions for Rulemaking

Environmental Motors

One of the petitions received by NHTSA was from Environmental Motors, an electric vehicle (EV) dealer located in Glendale, CA.\1\ That company stated that the petition was being sent as part of an effort by a coalition interested in getting zero emission, energy-efficient vehicles on the road in a safe and timely manner. The coalition includes EV manufacturers and sellers (including Miles Electric Vehicles, Zenn Motor Company, e-ride Industries, Dynasty Electric Car Corp., Boshart Engineering, Free Drive EV, Inc, Clean-Tech LLC, LE Electric Automobiles, LLC, and Electrovaya, Resort Vehicles, Inc.), the City of Santa Monica, CA, the University of California, Santa Barbara, and the Sustainable Transport Club of Santa Monica, CA. All of these groups sent letters supporting Environmental

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Motors' petition, which were attached to the petition.

\1\ This petition can be viewed at <http://www.regulations.gov>, docket NHTSA-2008-0019.

The petition itself requested that NHTSA establish a Medium Speed Vehicle (MSV) standard. According to the petition, the promulgated MSV standard should incorporate "the right mix of safety features," although it did not specify what it considered a right mix. In doing so, the petition requested that NHTSA consider a number of factors. These include:

The fact that MSV legislation has been passed by several States.

Alleged safety benefits of vehicles being able to keep up with traffic.

That a MSV class would assist in the development of electric vehicles.

That most MSVs would be electric, and noting the environmental benefits of electric vehicles.

Additionally, in letters of support, various supporters added additional arguments. These included:

The fact that full-speed electric vehicles are expensive.

Safety disbenefits incurred by the fact that some individuals modify LSVs to increase their speed.

As an alternative to creating a class of MSVs, NHTSA could increase the speed limitation for LSVs.

NHTSA prop. approach as solut.

Mirox Corporation

Another petition that NHTSA received was from Mirox Corporation (Mirox). Mirox's petition was more detailed than that of Environmental Motors, but also suggested that NHTSA create a class of MSVs with a maximum top speed of 35 mph.

Mirox requested that NHTSA define a MSV as a vehicle with: (1) A maximum speed of 30-35 mph, a maximum GVWR of 3,000 lbs. for cargo-carrying vehicles, or 2,500 lbs. for vehicles with passenger-carrying capacity only; (2) has three or four wheels; and (3) a limited number of equipment and bumper requirements. These requirements are more stringent than those required for LSVs, but substantially less than those required for other light vehicles such as passenger cars. Most prominently, Mirox would exclude MSVs from the requirements of FMVSS Nos. 138, 202a, and 208. The petitioner's request is explained in more detail below.

This petition can be viewed at <http://www.regulations.gov>, docket NHTSA-2008-0019.

Mirox presents a variety of reasons for recommending its MSV classification. Some of these are similar to those identified by Environmental Motors, but some are unique. The following is a summary of the arguments put forth by Mirox:

MSVs are a viable alternative to motorcycles, including enclosed, three-wheeled motorcycles, which are currently subject to a very limited array of safety standards. Mirox notes that the rate of motorcycle fatalities has been increasing, and argues that the use of

MSVs could alleviate this. Mirox also argues that MSVs would provide better protection from weather and outside conditions than motorcycles, and are therefore likely to be used more often. Additionally, Mirox states that MSVs would be easier to drive than motorcycles, which would also help reduce injuries.

MSVs are a better alternative to LSVs for use in driving in urban environments. Mirox states that due to speed limitations, LSVs are unsuited to driving in urban conditions, as they impede traffic flow and have limited acceleration potential. Mirox also argues that drivers will prefer MSVs as defined by the petitioner, as they will offer more protection from outside conditions and be equipped with a wider array of safety features than LSVs.

Mirox expounds on the environmental and economic benefits of increased fuel economy for MSVs over passenger cars. It argues that because most MSVs will be electric, they will not consume fuel while idling, which is common in the urban environments that Mirox believes will be the primary environment for MSVs.

Like Environmental Motors, Mirox points to the adoption of MSEV statutes in Montana and Washington, and argues that Federal regulations should be changed to sanction vehicles built in accordance to those statutes.

Mirox cites the use of ``quadricycles'' in Europe, and argues that similar vehicles should be permitted in the U.S. as well. Mirox asserts that European experience, especially in France, has shown that the quadricycle class of vehicles is the safest of all vehicle classes, and that their drivers had fewer accidents than the average driver of a full-sized car.

In its petition, Mirox recommended a specific, detailed definition for MSVs. While similar in nature to that for an LSV, Mirox's definition contains more specific safety requirements. We note that, while it espoused the benefits of electric power, unlike the Montana or Washington statutes, Mirox's recommended definition would include gasoline-powered MSVs.

Specifically, Mirox's recommended definition of medium-speed vehicle is:

A self-propelled, four-wheeled or three-wheeled motor vehicle, equipped with a roll cage or crush-proof body design, whose speed attainable in one mile is more than thirty miles per hour but not more than thirty-five miles per hour on a paved level surface. Each Medium-speed vehicle shall at a minimum be equipped with [the] following safety equipment that [conforms] to [the] existing FMVSS and current applicable SAE standard:

Headlamps as per FMVSS No. 108

Front and rear turn signal lamps (SAE I) (49 CFR 571.108)

Taillamps (SAE T), (49 CFR 571.108)

Stop lamps (SAE S), (49 CFR 571.108)

Reflex reflectors: one red on each side as far to the rear as practicable, one amber on each side as far to the front as practicable (SAE A)

Side marker lights, one red on each side as far to the

rear as practicable, one amber on each side as far to the front as practicable (SAE P)

An exterior mirror mounted on the driver's side of the vehicle and either an exterior mirror mounted on the passenger's side of the vehicle or an interior mirror (49 CFR 571.111)

A parking brake (49 CFR 571.135)

A windshield of AS-1 or AS-5 composition, that conforms to the American National Standards Institute's ``Safety Code for Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highway,' ' Z-26.1-1977, January 28, 1977, as supplemented by Z26.1a, July 3, 1980 (49 CFR 571.205)

A VIN that conforms to the requirements of 49 CFR Part 565, Vehicle Identification Number

A Type 1 or Type 2 seat belt assembly conforming to FMVSS No. 209, installed at each designated seating position, and whose mounting complies with FMVSS No. 210

Bumper system; both front and rear that conforms to 49 CFR Part 581

Audible Warning Devices; Horn and Reverse Warning Beeper

If the vehicle is electrically powered it shall conform to FMVSS No. 305

A GVWR of less than 1,361 kilograms (3,000 pounds) if the vehicle is designed with substantial cargo-carrying capacity (i.e., vehicles intended for carrying goods), or 1,134 kilograms (2,500 pounds) if the vehicle is designed solely for transport of passengers.

Additionally, if the Medium-speed vehicle contains any equipment that is referenced in any of the following FMVSS[s], such equipment or features shall [conform] to all the requirements of the applicable FMVSS:

FMVSS Nos. 101, 102, 103, 104, 105, 106, 108, 109, 110, 111, 113, 116, 118, 124, 135, 139, 201, 202, 203, 204, 205, 206, 207, 209, 210, 212, 214, 216, 219, -225, 301, 302, 304, 305, and 401.

Porteon Electric Vehicles, Inc

The last petition received by NHTSA was from Porteon Electric Vehicles, Incorporated of Portland, Oregon.\3\ This petitioner plans to market an electric car designed from the ground up rather than retrofit an imported vehicle by removing the IC engine and replacing it with an electric motor. The petitioner is concerned, ``that unregulated growth

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could create safety issues and concerns that negatively impact and cause severe damage to a new growth industry that provides real and significant solutions to our country and our planet's key issues.'' This petitioner envisions a Medium Speed Vehicle class that ``would essentially be the same as the LSV regulations with the exception of the top speed of 35 miles per hour and additional vehicle requirement to increase the safety of margin [sic] for rollover, stopping,

acceleration, and avoidance maneuvering.' The petitioner lists these additional vehicle requirements as: Ability to maintain 35 mph on a level grade, ability to maintain 30 mph up an 8 percent grade, a minimum width of 55 inches, a ``coil over shock'' suspension, four-wheel hydraulic disc or drum brakes, and three-point automotive seat belts, in addition to the requirements that already exist for LSVs in FMVSS No. 500. The petitioner also states, ``Additional testing of the vehicles should also be considered, including crush zones with a 2.5mph `no damage' requirement. A full frontal crash should be required to meet safety standards between 17-18 mph, which is a derivative of full speed automobiles being crash tested at 35 mph.' The petitioner does not state where the no damage crush zones would be on the vehicle, how they would be measured, or which safety standards would be tested at 17 or 18 miles per hour.

\3\ This petition can be viewed at <http://www.regulations.gov>, docket NHTSA-2008-0019.

Porteon believes the new medium speed vehicle class is necessary because LSVs currently travel, with their top speed of 25 mph, on streets with speed limits up to 35 mph and normal traffic flow is impeded by these vehicles. MSVs, with their top speed of 35 mph, ``would create a more cohesive traffic environment for mixed use vehicles.''

III. Low Speed Vehicles

In 1998, NHTSA established Federal Motor Vehicle Safety Standard (FMVSS) No. 500, ``Low speed vehicles,' in response to growing interest in using golf cars and other similar-sized, 4-wheeled vehicles, including Neighborhood Electric Vehicles (NEVs), to make short trips for shopping, social, and recreational purposes primarily within retirement or other planned communities with golf courses. See 63 FR 33194. The definition of LSV established in that rulemaking was, ``a 4-wheeled motor vehicle, other than a truck, whose speed attainable in 1.6 km (1 mile) is more than 32 kilometers per hour (20 miles per hour) and not more than 40 kilometers per hour (25 miles per hour) on a paved level surface.

In 2005, NHTSA published a final rule amending the definition of LSVs by removing the restriction on trucks, and instead establishing a 2,500 pound maximum GVWR. See 70 FR 48313. This allowed small vehicles designed for work-related applications within the intended communities, such as landscaping or delivery purposes, to be included within the definition of an LSV, without opening the category to unintended vehicles, such as street-sweepers or speed-modified passenger cars. Additionally, in 2006, in response to petitions for reconsideration from Dynasty Electric Car Corporation and Global Electric Motorcars (GEM), both manufacturers of electric LSVs, NHTSA increased the maximum GVWR for LSVs to 3,000 pounds. This was done, in part, to ``level the playing field'' between electric and gasoline-powered LSVs, by allowing

for the additional weight in batteries required by electric vehicles.
See 71 FR 20026.

In conceiving the concept of the LSV as a small vehicle that would not be subject to the same stringent safety criteria as other vehicles, a critical concept was that it would not ordinarily mix with other traffic. In our 1998 rule establishing the category of LSVs, NHTSA explained in the summary that the rule:

[R]esponds to a growing public interest in using golf cars and other similar-sized, 4-wheeled vehicles to make short trips for shopping, social and recreational purposes primarily within retirement or other planned communities with golf courses. [emphasis added]

NHTSA's detailed analysis, as explained in the preamble of the 1998 final rule, recognized the importance of the fact that under most conditions, LSVs would not intermingle with regular automobile traffic, and the occasions where they would mix would be in controlled, low-speed environments. NHTSA stated that

NHTSA has carefully reviewed their argument about the effects of this rulemaking. LSV safety, and thus the need for FMVSSs for LSVs, will be determined by the combination of three factors: vehicle design and performance; operator training and ability; and the operating environment. The agency believes that Standard No. 500, in combination with a limited operating environment and appropriate operator training and ability, will appropriately address the safety needs of LSV users.\4\

\4\ 63 FR 33208.

Additionally, in the 1998 final rule, NHTSA analyzed the Fatal Analysis Reporting System (FARS) data regarding fatalities involving golf cars. It was found that of the nine reported fatalities, eight of them involved a collision with a car or truck. This further underscored the importance of driving environment.

In the 1998 final rule, the agency studied the use of NEVs in various municipalities that permitted them to travel on public roads. In that notice, we stated that ``the driving environment [of LSVs] should be appropriate to the vehicle and its characteristics. Limiting LSV use to low-speed city and suburban streets is necessary, but does not eliminate the safety risks.'' \5\ NHTSA analyzed the State laws governing the on-road permissibility of NEVs in various States. Of the 12 States discussed, only one State (Arizona) permitted NEVs to travel on any road with a speed of 35 mph or less. The other 11 States (California, Nevada, New Mexico, Colorado, Wyoming, Illinois, Minnesota, Iowa, Florida, Georgia, and Texas) restricted NEVs to roads specifically designated by State and local governments.\6\

\5\ 63 FR 33208.

\6\ See 63 FR 33207.

One portion of the analysis discussed possible reasons for the disparity of fatalities between Sun City \7\ (which had four NEV fatalities) and the City of Palm Desert (which had zero). We noted that:

\7\ We note that Sun City is located in Arizona, the only State that allowed NEVs to travel on any street with a speed limit of 35 mph or less.

The City of Palm Desert has a more controlled environment than Sun City for golf car use. The City of Palm Desert permits on-road use of golf cars in the same lanes as passenger cars and other larger motor vehicles in speed zones posted for speeds up to 25 miles per hour. In speed zones posted for speeds over 25 miles per hour, golf cars may be operated on-road only if there is a lane designated for their use and if the golf car is, in fact, operated within that lane. By contrast, NHTSA understands that Sun City, under state law, allows golf cars to operate in the same lanes as larger traffic on any road with a maximum speed of 35 miles per

hour.

Based in part on this analysis, as well as our other observations, we concluded that operating environment played an important role in determining the benefits of establishing the LSV classification, as well as determining what safety standards should apply to that class. While NHTSA does not regulate the driving environment (such decisions are at the discretion of State governments), it did recommend that LSVs be licensed only for use in environments with very limited traffic. Specifically, we stated:

NHTSA recognizes that not all operating environments may be as controlled as that of the City of Palm Desert. The agency encourages other states and municipalities to study the features of the City of Palm Desert's

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plan, and to adopt those features to the extent practicable.\8\

\8\ 63 FR 33208.

In later rulemakings, NHTSA made several adjustments to the definition of LSVs. First and foremost, the agency dropped its original restriction on ``truck-like'' vehicles, and replaced it with a maximum gross vehicle weight rating for LSVs.\9\ This weight limit was originally 2,500 lbs., but was later increased to 3,000 lbs.\10\

\9\ 70 FR 48313, August 17, 2005.

\10\ 71 FR 20026, April 19, 2006.

IV. State Legislation on MSEVs and Relevant Federal Requirements

In the past year, two States have enacted legislation that purports to allow medium speed electric vehicles (MSEVs) to operate on certain public roads. Montana was the first State to pass such a law, on April 23, 2007. This was followed shortly thereafter by Washington State, which passed on May 15, 2007. These are the only two States that NHTSA is aware of that have passed any sort of MSV legislation.

The Montana and Washington statutes define MSEVs as electric-powered vehicles with a maximum speed of 35 mph that meet certain limited safety requirements similar to those established by NHTSA for LSVs.\11\ The Montana law permits MSEVs to travel on public roads with a posted speed of up to 45 mph,\12\ while the Washington law restricts them to roads with a posted speed of 35 mph or less.

\11\ The specific definitions are at Mont. Code Ann. 61-1-101 and West's RCWA 46.04.295.

\12\ Mont. Code Ann. 61-8-377.

NHTSA has considered the legislative history and other information relating to the aforementioned State laws. Both States were interested in expanding the use of electric vehicles in order to reduce fuel consumption, and economic and environmental benefits associated with that end. Additionally, there was a stated belief that a speed of 35 mph is needed for safety, as they would be able to keep up with traffic better. The following excerpt from the Washington State Senate report illustrates the considerations at issue:

Staff Summary of Public Testimony: PRO: These electric vehicles are environmentally friendly and provide significant energy savings. They are not golf carts; they are cars designed for running errands in town. The current speed of 25 mph is too slow and puts people at risk. Increasing the allowed speed to 35 mph will improve safety.\13\

\13\ Washington State Senate Bill Report, HB 1820, March 21, 2007.

Under Federal law, vehicles with a speed capability above 25 mph that would be considered MSEVs under these State laws are classified as passenger cars, multipurpose passenger vehicles, or trucks. These vehicles are subject to the full range of FMVSSs that apply to these vehicles. The responsibilities of manufacturers and dealers to comply

with Federal law, including not manufacturing or selling vehicles unless they comply with all applicable FMVSSs, are not limited by State laws on MSEVs.

V. Agency Response to Petitions

After carefully considering the petitions from Environmental Motors, Proteon and Mirox, we are denying them. First and foremost among this agency's considerations are safety concerns. The concept of establishing such a class of motor vehicles with limited safety features that would be likely to intermingle with larger, higher-speed vehicles in urban environments would result in significantly greater risk of deaths and serious injuries. The petitioners did not provide analysis demonstrating why any of the Federal motor vehicle safety standards are not needed for MSVs, given the traffic environment in which these vehicles would be likely to travel.

A. The Rationale for Applying a Limited Set of Safety Standards to LSVs Is Not Relevant to MSVs

As noted earlier, the petitioners appear to view MSVs as a variant of LSVs, i.e., a special class of small motor vehicles that would not be required to meet the full complement of the Federal motor vehicle safety standards. However, the rationale for applying a limited set of safety standards to LSVs is not relevant to MSVs.

NHTSA issues different safety standards for different types of motor vehicles. The agency established the special category of motor vehicles called LSVs to accommodate the use of small golf cars and other vehicles primarily intended for use in controlled, low-speed communities, such as retirement communities. In order to qualify as an LSV under the agency's definition, a vehicle must, among other things, have a speed capability no higher than 25 mph. LSVs are subject to a limited set of safety measures in FMVSS No. 500, including requirements related to the installation of lamps, mirrors, seat belts and a windshield. However, LSV's are not subject to most of the standards to which other light vehicles such as passenger cars are required to comply, including the rigorous crashworthiness standards.

One of the principal concerns raised by the petitioners is that the 25 mph speed limitation that applies to LSVs prevents these vehicles from keeping up with traffic in urban areas. They argued that because LSVs are not permitted to have a speed capability greater than 25 mph, they cannot safely keep up with traffic in urban areas, and a need therefore exists for vehicles with a higher speed (35 mph) capability.

However, the 25 mph limitation reflects the fact that NHTSA designed the set of safety standards that apply to LSVs for vehicles intended to be used in controlled, low speed environments. Vehicles with a speed capability above 25 mph are more likely to be driven outside controlled, low speed environments, and the limited LSV safety requirements are not appropriate for such vehicles.

When promulgating the original LSV rule, as stated above, at the time one of the most important factors was that LSVs were conceived as vehicles that would be used in controlled, low-speed environments,

primary in retirement communities and those centered around golf courses. NHTSA surveyed the applicable State laws governing the on-road use of LSVs, and found that only one out of twelve States with LSV-use laws permitted them to travel on any public road with a speed limit of 35 mph or less. The other remaining States limited their use to specially-designated roads.\14\ While NHTSA does not have the authority to prescribe the roads for which different types of vehicles are permitted, the agency suggested limiting LSVs to controlled environments. The following passage from the 1998 final rule properly summarizes NHTSA's position on this point:

\14\ 63 FR 33207.

Still another reason [for the significant disparity in the number of deaths involving NEVs] may lie in the different operating environments in the two communities. The City of Palm Desert has a more controlled environment than Sun City for golf car use. The City of Palm Desert permits on-road use of golf cars in the same lanes as passenger cars and other larger motor vehicles in speed zones posted for speeds up to 25 miles per hour. In speed zones posted for speeds over 25 miles per hour, golf cars may be operated on-road only if there is a lane designated for their use and if the golf car is, in fact, operated within that lane. By contrast, NHTSA understands that Sun City, under state law, allows golf cars to operate in the same lanes as larger traffic on any road with a maximum speed of 35 miles per hour.

NHTSA recognizes that not all operating environments may be as controlled as that of the City of Palm Desert. The agency encourages other states and municipalities to study the features of the City of Palm Desert's plan, and to adopt those features to the extent practicable.\15\

\15\ 63 FR 33208.

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We recognize that since that time many States have passed laws permitting LSVs on a much wider variety of roads than originally contemplated. Today, many States permit LSVs on all public roads with posted speed limits of 35 mph or less. Some States even permit them on roads with speed limits of 45 mph.

As we have noted before, however, we continue to believe that LSV use on roads outside confined, controlled areas will be limited by the fact that occupants will not want to travel at less than 25 mph in mixed-vehicle traffic for other than very short trips, regardless of how States may or may not restrict their use. See 68 FR 68319, December 3, 2003.

We agree with the petitioners that the increased speed capability

and other features in the requested MSV category would facilitate and encourage drivers to use MSVs in general driving environments. This, however, means that the rationale for applying a limited set of safety standards to LSVs is not relevant to MSVs. Instead, and as discussed further below, this is an argument for why these vehicles should be required to comply with the same safety standards as other light vehicles used in general driving environments, such as passenger cars.

B. The Traffic Environment in Which MSVs Would Likely Travel Is an Environment for Which the Full Set of the Federal Motor Vehicle Safety Standards Is Needed To Prevent Fatalities and Serious Injuries

The petitioners appear to assume that the full set of safety standards applicable to other light vehicles such as passenger cars would not be appropriate for MSVs, i.e., small vehicles with a speed capability of 35 mph. However, the traffic environment in which these vehicles would likely travel, including, e.g., urban roads with speed limits of 35 mph or 45 mph, is an environment for which the full set of the Federal motor vehicle safety standards is needed to prevent fatalities and serious injuries. We note that the energy involved in vehicle-to-vehicle collisions increases proportional to the square of the velocity of travel, and the result of a vehicle collision at 35 mph is twice as severe as the same collision at 25 mph.

MSVs would be traveling in mixed traffic at speeds in which crashes posed a risk of serious injury or fatality and in which safety features such as frontal and side air bags significantly reduced that risk. Also, a number of the crash test requirements included in our safety standards simulate crashes in this higher speed environment. We note that the petitioners did not provide analysis demonstrating why any of the Federal motor vehicle safety standards are not needed for MSVs.

As part of considering this issue, we have looked at crash information on public roads with speed limits of 35 to 45 mph. For this traffic environment, the need for the safety features required in FMVSS No. 208, air bags, are far more important than for lower speed crashes, as frontal crashes become a more prominent part of the overall crash picture.

The total number of occupants killed annually in crashes is 37,314 (2002-2006 average, Fatality Analysis Reporting System). Of these occupant fatalities, 6,319 were killed on roads with posted speed limits of 35 mph or less, and 13,493 are killed in crashes on roads with posted speed limits of 45 mph or less. The total number of occupants suffering incapacitating injury annually is 13,492. Of these, 1,798 were injured in crashes on roads with posted speed limits of 35 mph or less, and 4,261 occupants were injured in crashes on roads with posted speed limits of 45 mph or less. It is important to note that those numbers reflect vehicles that were certified to comply with the Federal motor vehicle safety standards.

We estimate that in 2005, on roads posted at 35 mph or lower, 1,921 crash victims lived because the vehicles were compliant with all FMVSSs, including 278 saved by air bags. In crashes on roads posted at 45 mph or lower, 3,163 lives were saved because the vehicles involved were compliant with all FMVSSs. Of those, 414 were saved by air

bags.\16\

\16\ Using the methodology of ``Lives Saved by the Federal Motor Vehicle Safety Standards and Other Vehicle Technologies, 1960-2002`` DOT HS 809-833.

Given these statistics, we believe the full set of Federal motor vehicle safety standards is needed for vehicles traveling in the traffic environment in which MSVs would likely travel, including, e.g., urban roads with speed limits of 35 mph or 45 mph.

Finally, as noted above, a number of the crash test requirements included in our safety standards simulate crashes in this environment. For example, our highest speed crash test in FMVSS No. 208 (vehicle compliance is currently phasing in) simulates a 35 mph frontal crash between the tested vehicle and a vehicle like itself. Our crash test in FMVSS No. 214 that helps ensure thoracic protection simulates a crash in which the tested vehicle traveling at 15 mph is struck in the side by a light vehicle traveling at 30 mph.

C. It Is Neither Necessary nor Appropriate To Significantly Increase the Risk of Deaths and Serious Injuries To Save Fuel

The petitioners and the supporters which wrote in favor of the Environmental Motors petition emphasized the potential to conserve fuel, thereby saving money at a time of high fuel prices as well as reducing emissions that can harm the environment. In the two States that passed MSEV statutes, the legislative history also shows that this legislation was conceived due to concerns about saving fuel.

NHTSA also considers fuel conservation an important goal. However, we believe that it is neither necessary nor appropriate to significantly increase the risk of deaths and serious injuries to save fuel.

Fuel conservation can be accomplished by means that are not inconsistent with the need for safety. Significant innovation is currently underway in fuel economy, gas-electric hybrid engine technology, and continued development of fully electric vehicles, such as the Chevrolet Volt, noted in the Mirox petition. NHTSA recently published a proposal to substantially increase fuel economy (CAFE) standards for passenger cars and light trucks. These standards affect nearly all light vehicles, and will have a tremendous impact on fuel savings. Furthermore, these vehicles are being designed to meet the full FMVSS requirements for passenger cars or other applicable vehicle class.

D. Other Issues

The petitioners raised a number of additional issues, which we discuss in this section.

Quadricycles

The Mirox petition compared the requested MSV classification to a

type of vehicle used in Europe known as a ``quadricycle.'' The Economic Commission for Europe (ECE) defines a quadricycle in two vehicle categories, L6 ``light quadricycle'' and L7 ``quadricycle'': \17\

\17\ TRANS/WP.29/78/Rev.1/Amend. 4, 26 April 2005.

Category L6: A vehicle with four wheels whose unladen mass is not more than 350 kg, not including the mass of the batteries in the case of electric vehicles, whose maximum design speed is not more than 45 km/h, and whose engine cylinder capacity does not exceed 50 cm³ for spark (positive) ignition engines, or whose maximum net power output does not exceed 4 kW in the case of other internal combustion engines, or whose

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maximum continuous rated power does not exceed 4 kW in the case of electric engines.

Category L7: A vehicle with four wheels, other than that classified for the category L6, whose unladen mass is not more than 400 kg (550 kg for vehicles intended for carrying goods), not including the mass of batteries in the case of electric vehicles and whose maximum continuous rated power does not exceed 15 kW.

Mirox claimed that quadricycles are an extremely safe method of transportation that is used extensively in Europe. The chief benefits of quadricycles is that they are easy to use (unlike motorcycles), easy to park, and consume far less fuel than even the smallest European passenger cars. Mirox requested that MSVs be defined in such a way that at least some European quadricycles can be legally imported as MSVs.

While the petitioner claimed that quadricycles are extremely safe, Mirox did not provide any data to support this claim or to show that introduction of these vehicles into the U.S. would be consistent with the need for safety. We note that we have earlier denied the petition of GG Quad North American to change the definition of ``motorcycle'' to allow quadricycles to be sold in the U.S. as motorcycles (71 FR 67843, November 24, 2006).

Aftermarket Speed Modifications of LSVs

A letter written in support of the Environmental Motors petition by Electrovaya suggested that ``The new [MSV] regulations would give people a better option than illegally changing an LSV to go faster.'' We agree with Electrovaya that modifying an LSV to increase the speed is highly undesirable. However, we do not believe that adopting a regulation to accommodate this practice is a prudent response to the issue. Furthermore, we would point out that manufacturers, dealers, sellers, and motor vehicle repair businesses that modify the speed of an LSV are in violation of the ``make inoperative'' provision.

This statutory provision, 49 U.S.C. 30122, Making safety devices and elements inoperative, reads in part:

A manufacturer, distributor, dealer, or motor vehicle repair business may not knowingly make inoperative any part of a device or element of design installed on or in a motor vehicle or motor vehicle equipment in compliance with an applicable motor vehicle safety standard prescribed under this chapter unless the manufacturer, distributor, dealer, or repair business reasonably believes the vehicle or equipment will not be used (except for testing or a similar purpose during maintenance or repair) when the device or element is inoperative.

If one of the above-mentioned entities increased the speed of an LSV to 25 mph or greater, that LSV would no longer comply with paragraph S5.3 of FMVSS No. 500, which specifies that the vehicle's top speed must be less than 25 mph. Therefore, the modifying entity would be subject to civil penalties as specified in 49 U.S.C. 30165.

Burgeoning Electric Vehicle Market

Porteon states in its petition, "Regardless of our [the electric cars' industry] success or failure, the U.S. will soon see an influx in electric vehicles as fuel prices, urbanization, and climate change effect [sic] transportation and state regulation. It is estimated that over 20 manufacturers are in operation or commencing production along with a new influx of imports anticipated from China and Malaysia. Our concern is that unregulated growth could create safety issues and concerns that negatively impact and cause severe damage to a new growth industry that provides real and significant solution to our country and our planet's key issues." NHTSA would like to point out that the electric vehicle market is not unregulated. Any vehicle not certified as an LSV, or that travels at speeds greater than 25 miles per hour, must meet all the FMVSSs in place for the appropriate vehicle type (passenger car, truck, bus, or MPV). The petitioner can rest assured that growth of the electric vehicle market will not occur without the vehicles meeting the existing regulatory safety requirements enforced by NHTSA. The only difference between electric vehicles and those predominately in use today is their propulsion system. An electric propulsion system will not exempt these vehicles from the requirement to meet all the Federal standards for motor vehicles.

VI. Conclusion

For the reasons discussed above, NHTSA denies the petitions for rulemaking submitted by Environmental Motors, Proteon Electric Vehicles and Mirox Corporation.

Issued on: September 19, 2008.

Stephen R. Kratzke,
Associate Administrator for Rulemaking.
[FR Doc. E8-22737 Filed 9-25-08; 8:45 am]

BILLING CODE 4910-59-P

Adopted
w/o obj

Conceptual Amendment #2 by MS

page 2 lines 3-8 delete all language and

insert:

Adopted
w/o obj) by MS Conceptual
Amnt # 1 to
insert approach
and
departure

(2) cross a highway at intersections if the highways

upon which the LSV is being operated ^{are} [is] eligible for LSV

operation under this section [THAT HAS A MAXIMUM

SPEED LIMIT OF MORE THAN 35 MILES AN HOUR IF

THE CROSSING IS MADE AT THE INTERSECTION WITH

A HIGHWAY THAT IS AUTHORIZED FOR LOW SPEED

VEHICLES].

Conceptual Amendment 2

Passed

page 2 lines 3-8 delete all language and

insert:

(2) cross a highway at intersections if the highway

approach
and
departure
of

upon which the LSV is being operated is eligible for LSV

operation under this section [THAT HAS A MAXIMUM

SPEED LIMIT OF MORE THAN 35 MILES AN HOUR IF

THE CROSSING IS MADE AT THE INTERSECTION WITH

A HIGHWAY THAT IS AUTHORIZED FOR LOW SPEED

VEHICLES].