



December 2002

Dear Shareholder:

I would like to begin by thanking each Mirencos stockholder for your support of our company, our patented technology, and environmental objectives. I believe the company you invested hard earned dollars into is getting closer to providing a return on your investment. However, as many of you understand, due to a variety of circumstances, Mirencos has had to spend more and has taken longer than was originally expected to develop its markets.

Contributors to timing have been that terrible day (9/11) in our history and the general downward trend of the economy over the last three years. Additionally, Mirencos has found that many people do not understand that vehicle combustion and fuel management are important keys in reducing diesel pollution and increasing fuel mileage. Consequently, Mirencos has had to invest additional time and finances over the last year to educate its potential customers.

This newsletter will highlight Mirencos's achievements in the past year and outline prospects for 2003. I have received many questions and I will proceed to answer most of them. In doing so, I will address the following:

1. Mirencos's first solid stepping-stone to the market, the Iowa school Bus Emissions Education Program (BEEP).
2. Status of California Air Resources Board (CARB) certification of the DriverMax for reducing tailpipe smoke in California.
3. Patents and the progress of licensing our technology and EconoCruise.
4. The 2003 business plan.
5. The market price of Mirencos's common stock.

We believe there is growing world demand for improved air quality and the need to minimize fuel and maintenance costs. However, it appears that very few vehicle owners will do anything proactive with their vehicles unless the fuel prices increase or until some government agency cracks down on tailpipe polluters.

### **Bus Emissions Education Program**

The end of the year marks the completion of the first year of the Bus Emissions Education Program (BEEP). BEEP is an arrangement between Mirencos and the School Administrators of Iowa, with support from the Department of Education, Department of Natural Resources, and the Iowa Pupil Transportation Association, to reduce diesel emissions from school buses and educate Iowa's students about the effects of tailpipe emissions. The five-year program provides for testing of Iowa diesel school buses twice each year using the Environmental Protection Agency- recognized SAE J-1667 tailpipe-testing procedure.

Each school receives a report to help its transportation officials identify buses with noticeable combustion inefficiency. The reports are tools for understanding combustion management and proactively using emission data in making maintenance decisions within a school bus fleet. Several schools have already made fleet improvements based on our data. The next phase is the installation of Mirencos's DriverMax technology on candidate vehicles during year three. After five years, BEEP's mission is to make Iowa's school bus fleet the cleanest and best maintained fleet in the United States and educate Iowa school students on the impact of emissions on their future.

Through BEEP, Mirencos now has perhaps the largest database of real-time diesel emission information in the world. The database is useful for comparing vehicles of the same year and model, identifying combustion problems while a vehicle is under warranty, and drawing the attention of engine manufacturers to Mirencos products and services.

I believe Mirencos emission database created, as part of the BEEP Program will provide the foundation to:

- Validate our product to prospective customers who demand proof before making a purchase decision.
- Enhance the opinions of engine manufacturers about our products.
- Support the education of Iowa's teachers, students and school bus maintenance personnel about the impact of diesel emissions on human health, the environment, and the world energy reserve.
- Provide a potential revenue link for sharing Mirencos expanding proprietary vehicle emission data and BEEP results to human health and environmental organizations.

Mirencos tailpipe testing service can be likened to finding an early stage cancer in humans. If the "disease" is discovered early, then a removal or repair of the problem could add years to the life of an engine. Similarly, our DriverMax product could be compared to a wonder drug that stabilizes cases where poor engine combustion has permanently damaged the engine. Since the engine has been tuned to factory specifications, but no longer burns all the fuel injected, DriverMax is needed for the treatment that we call fuel management.

We believe that BEEP represents a technology stepping stone to build confidence in Mirencos products, services and future. In less than one year of existence, BEEP has been featured on the public television, American Environmental Review series. The BEEP story will air on approximately 345 public television stations over the next twelve months to an estimated audience of up to fifty million people. The series reports environmental innovations and public efforts to preserve the environment. If you would like a video copy of the program or to receive monthly BEEP progress reports, please call our office.

December 22 will mark the end of the first year of the BEEP. As noted above, the mission of the five-year program is to reduce school bus tailpipe emissions and educate every Iowa student about the effect emissions have on human health and our environment. At the end of the program it is anticipated that Iowa school buses will have the cleanest documented tailpipe emissions in the nation. This project is only funded through tax-deductible donations. Mirencos agreement with the School Administrators of Iowa permits Mirencos to invoice and collect for our services to the extent that donated funds are available. We have completed \$900,000 in services to date, which can become revenue if BEEP receives sufficient donations. That revenue would be a great reward for a lot of work by many people pulling for Mirencos. Mirencos is helping BEEP secure funding by contacting the larger companies located in Iowa.

On the wings of BEEP, Mirencos is ready for the next logical marketing opportunity by selling the state legislators on Mirencos combustion and fuel management service for all state-operated, diesel-powered vehicles. Like BEEP, this partnership could save taxpayer money by identifying vehicles with abnormal combustion. If you would like to help Mirencos by writing your legislator, either in your own words, or by signing and mailing the enclosed letter, please do so. If you need your legislator's address, please call us and ask for Dave DeValois, at 800-423-9903, extension 1027.

With Mirencos nearly 4500 Iowa investors, spouses, and friends supporting the action, we believe this plan would have a fighting chance in the 2003 legislative session. This proposal helps the State, helps Iowans and would help our company.

I believe the state decision makers should also be reminded of the education side of BEEP. In the last twelve months, we have identified and measured the amount of unhealthy diesel particulate from

school buses. Iowa schools are positioned to make a significant reduction in total diesel particulate emissions that have been linked to cancer and asthmatic breathing problems. It is the perfect time to market our data and involve organizations specializing in the study of emissions and health. The state of Iowa has departments that could help us, and we could use their attention regarding our technology today!

### **California Air Resources Board**

A second area of progress for Mirencos products and services is in the state of California. The California Air Resources Board (CARB), the state's influential clean air regulatory agency, invited Mirencos to conduct emissions testing on ground support equipment at Los Angeles International Airport and John Wayne Airport in December 2002. Ground support vehicles include ramp tractors, baggage tractors and many other heavy-duty diesel vehicles that support commercial airlines. The testing could lay the groundwork for selling DriverMax systems to airports in Los Angeles and other cities struggling with air pollution. CARB also continues to test DriverMax as an emissions-control device for on-road diesel engines. CARB's certification takes time, but if certification is received, it could be a huge step in establishing credibility for DriverMax systems.

### **Patents and Licensing**

Patents are an important part of protecting any company's technology. Patents have the potential to generate great value to the holder through sales and licensing. Sometimes, patents get ahead of the economic drive that creates the demand for the patented technology. It can be beneficial to keep developing and informing potential licensing prospects of company progress, setting the stage for licensing negotiations at a later time. Currently, Mirencos has six issued patents that protect our technology in three countries and other patent applications to further protect our latest technology.

Over the past year, Mirencos has accumulated a paper trail of over 2,000 e-mails, letters and phone conferences with companies with a potential interest in Mirencos's patents. However, it takes time to build a business relationship that Mirencos can trust. To the extent they have an interest, I believe vehicle manufacturers most likely will purchase our EconoCruise from one of their electronic equipment suppliers and would rather install our patent-protected product during their vehicle assembly. The referenced communication trail includes contacts with many smaller companies all over the world that make options for vehicles. Consequently, Mirencos has to perform careful due diligence when licensing our patents to third parties.

Mirencos's digital and analog versions of EconoCruise are both at the same stage of development and are nearly ready for commercialization. The digital version will be for new engines and analog for older models. Both versions plug into your car's existing cruise control wiring harness with no change in operation of the cruise control. The result is improved fuel efficiency, reduced tailpipe emissions, and improved safety on road curves and poor vision nights. The satellite-to-navigation-system feature makes all of this possible. I would hope Mirencos investors might be interested in being among the first to install the new units. Please feel free to contact us if you are interested.

We are in preliminary negotiation for marketing rights for both units with several companies. One party is considering exclusive EconoCruise patent rights for the motor home market. Improved fuel mileage, safer traveling, and an environmentally friendly vehicle seem to fit its plans. I believe we may get the opportunity to install our first prototype EconoCruise on a motor home powered by a Ford V10 Triton engine. If the demonstration moves to the next stage, we will have the opportunity to settle terms of the relationship, and jointly finish developing the final version of EconoCruise for commercialization.

### **2003 Business Plan**

We believe the 2003 business plan could mark the turning point for Mirencos from a development stage company into an operating business. We believe Mirencos is positioning itself to pursue opportunities that could result in the return on investment Mirencos and its investors have expected.

Starting in January 2003, Mirencos intends to launch a twelve-month national marketing campaign based on documented real-time combustion and fuel management success our products and customer service program have accomplished in Iowa and with our customers in other states, where success is defined in terms of gallons of fuel saved, pounds of emissions reduced, and maintenance dollars saved. The success will be highlight in monthly progress reports to the nation's school systems, state and federal government officials, environmental organizations, and the world's engine and vehicle manufacturers.

It is time to take credit for Mirencos's technology. Nothing tells the story better than demonstrable success. We have more people every day telling us they finally understand how Mirencos and its customers have worked together over several years to make each vehicle operate cleaner, more efficiently and longer. We believe that now is the time to push our company and services into every profitable market opportunity.

A second significant part of the 2003 business plan is to promote our company to potential investors. By communicating with potential investors, we may increase demand for Mirencos stock, attract new capital and provide new opportunities to market our products and services.

### **Market Prices of Company Common Stock**

I believe the low volume of stock traded on a daily basis may indicate that most Mirencos investors purchased its common stock as a long-term investment. They trust that our products and services will reach the market acceptance we have anticipated.

I believe the price of Mirencos stock may be undervalued for what the Company has accomplished and the potential market opportunities we have identified. I believe in 2003 we are adequately positioned and have the resources to awaken the nation to Mirencos's documented improvements toward air quality and human health through combustion management with a program that can be repeated anywhere.

Finally, I also believe that after our national marketing campaign begins, more people will see value in our company and want to become stockholders and possibly customers, thereby creating demand for stock and our products and services. I believe we can achieve a break-even revenue stream within the next year, which should help the market to recognize Mirencos's value. Subject to applicable securities laws relating to purchases of stock by insiders such as myself, it is my intention, based on my belief in the company and its future prospects, to purchase additional shares of Mirencos's common stock at market prices and through the established market makers for Mirencos's common stock.

In closing, I wish each and every one of our Mirencos family members a wonderful Holiday Season.

Sincerely,

Dwayne Fosseen, CEO

***[FORWARD LOOKING STATEMENT]** The foregoing discussion contains forward-looking statements that have been made pursuant to the provisions of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements are based on current expectations, estimates and projections about the Company's business, based on management's current beliefs and assumptions made by management. Words such as "expects," "anticipates," "intends," "believes," "plans," "seeks," "estimates" and similar expressions or variations of these words are intended to identify such forward looking statements. Additionally, statements that refer to the Company's estimated or anticipated future results, sales or marketing strategies, new product development or performance or other non-historical facts are forward looking and reflect the Company's current perspective based on existing information. These guarantees are not guarantees of future performance and are subject to certain risks, uncertainties and assumptions that are difficult to predict. Therefore, actual results and outcomes may differ materially from what is expressed or forecasted in any such forward-looking statements. The Company undertakes no obligation to update publicly any forward looking statements, whether as a result of new information, future events or otherwise.*

Dear Legislator:

I am an investor in Mirencó, Inc., a Radcliffe-Iowa based company, that specializes in fuel and combustion management technology for reducing vehicle emissions and improving fuel efficiency.

This year, Mirencó technicians tested emissions from all of Iowa's nearly 4,500 diesel school buses at no cost to the schools through the non-profit Bus Emissions Education Program (BEEP). BEEP is an organization formed in cooperation with the Iowa Department of Education, Iowa Department of Natural Resources, School Administrators of Iowa, Iowa Pupil Transportation Program and Mirencó.

This new program improves the health of Iowa schoolchildren and Iowa's school bus fleets. Bus emissions tests provide diagnostic information that allows school bus personnel to pinpoint scarce maintenance dollars. That information helps schools identify and correct engine problems, so they avoid costly breakdowns, improve fuel efficiency and use buses longer. Those improvements also result in lower emissions and fewer health problems for students on or near diesel school buses. Many school districts throughout Iowa have made engine improvements and reduced emissions as a result of this program.

I believe the State of Iowa would benefit greatly from a similar program. I am looking for your help in supporting a law that would require all state diesel vehicles to undergo emissions testing twice each year at the state's expense. The benefits to the state would include:

1. Diesel-engine trucks and equipment that last longer.
2. Fuel savings through combustion management.
3. Measurable air quality improvement for Iowans.

You may not be aware that black smoke from diesel exhaust contains a dense concentration of fine particulate matter. Studies have found that 92 percent of diesel particulate is less than 1 micron in diameter, which is 1/1,000<sup>th</sup> of a millimeter. Those tiny particles are easily breathed into the lungs, absorbed into the bloodstream, and carried to all organs. Diesel emissions have been linked to cancer and chronic heart and lung disease, including asthma, the leading cause of absenteeism and hospitalization among children.

Through the efforts of the Bus Emissions Education Program, Iowa is showing the rest of the country how to reduce unhealthy tailpipe emissions from the school bus fleet and how vehicles can be operated longer and more efficiently. I believe the State of Iowa needs to also demonstrate a proactive environmental solution with its diesel-engine fleet. The result will be less fuel burned for the same amount of work, longer-lasting equipment and cleaner air for our world.

Additional company information is available at [www.mirencó.com](http://www.mirencó.com). Or, contact Mirencó at (800) 423-9903 or via e-mail at [info@mirencó.com](mailto:info@mirencó.com). For more information on Bus Emissions Education Program, log on to [www.beeponline.org](http://www.beeponline.org).

Thank you in advance for your support of cleaner-burning state vehicles.

Sincerely,

*Shareholder:*

*This Des Moines Register article is included in your packet because it demonstrates the health concerns that exist nationwide over diesel-engine pollution, especially among children on school buses. This article also shows the potential market that exists for Mirenc's products and services. Mirenc tests and evaluates each vehicle and works together with the vehicle maintenance director to establish a target engine combustion level using the engine manufacturer's guidelines. After this point, Mirenc's DriverMax can be installed to further improve engine combustion.*

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# Iowa school buses threaten children's health, study says

**A state official says he's skeptical of the criticisms in the report on pollution from diesel engines.**

By **WILLIAM PETROSKI**  
Register Staff Writer  
02/08/2002

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Iowa's school bus fleet is among the dirtiest in the country, emitting 1,206 tons of smog-forming pollution and nearly 39 tons of soot annually, says the Union of Concerned Scientists.

The Massachusetts-based organization said in a national report issued Thursday that more than 43 percent of Iowa's school buses are more than a decade old and pre-date current air pollution standards.

"Diesel pollution harms everyone, but our children and their developing lungs are hurt the most," said Michelle Robinson, the union's senior advocate for clean vehicles.

The organization said diesel soot is small enough to invade the body's defenses and lodge deep in children's lungs, increasing the likelihood of asthma, chronic bronchitis, heart disease and even premature death. Other chemicals contribute to smog, which causes

coughing, choking and reduced lung capacity.

The union wants Congress to establish a federal grant program to enable school districts to buy newer natural gas or low-emission diesel buses. At least 29 states scored better than Iowa in the report. Nebraska and Minnesota scored about the same as Iowa.

Terry Voy, transportation consultant for the Iowa Department of Education, said he hadn't reviewed the report, but he was skeptical of the criticisms.

"Yes, we have some older-model vehicles, but it all boils down to how well they are maintained," Voy said.

During the 1998-99 school year, the latest year for which figures were available, the average age of an Iowa school bus was 9.7 years, Voy said. Iowa had 5,883 school buses, mostly with diesel engines.

State officials are concerned about reducing school bus emissions and are working with a company that manufactures equipment to address the problem, Voy said.

Mike Martin, a spokesman for the New York-based School Bus Information Council, criticized the

Union of Concerned Scientists. He questioned why the nation's 450,000 school buses were singled out, while the study didn't point out pollution linked to semitrailer trucks, public transit vehicles and other diesel-powered equipment.

"This wasn't a study. This was pure political puffery," Martin said. "The school bus industry is one of the leaders in trying to push for environmental improvements."

The Des Moines Public Schools transport about 11,000 children every school day on 120 buses, mostly diesel-powered. The bus fleet has an average age of about 8.5 years.

"One of our main goals is to reduce the age of the fleet," said Todd Liston, transportation manager for Des Moines Public Schools.

The main concern is that older buses require more maintenance, he said.

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Shareholder:

*The following testimonials were gathered by Brian Button, Air Information Specialist with the Iowa Department of Natural Resources, and will appear in an article for Iowa Conservationist magazine. The excerpts demonstrate the success of the Bus Emissions Education Program. These, and two more success stories on subsequent pages in your Mirengo packet, demonstrate how many schools throughout Iowa are using the real-time emissions data from Mirengo, Inc. to identify combustion problems in specific buses. Then, they can make major improvements in engine performance through maintenance repairs. These successes will be the foundation of Mirengo's marketing plan in 2003 by demonstrating how our products and services work in many types of diesel engines in markets throughout the United States.*

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### **Dave Kramer, Johnston CSD**

“I was surprised at the ease at which we saw some significant improvements,” explained Dave Kramer, maintenance supervisor for the Johnston School District. The simple test found that bus 29 was one of four buses of their 30-bus fleet with high emissions. An air filter change gave better fuel combustion and dropped unhealthy soot output 70 percent! The other buses were repaired by valve adjustments—the diesel equivalent of a simple tune-up for gasoline engines.

“Those are things that are extremely easy to do for minimal cost. I was surprised by the easy difference we could make with minimal effort. My mindset is that if we can do it anyone can do it. You don't need to be a mechanical guru. You can make significant differences by observation and simple things,” said Kramer, referring to all Iowa motorists and their vehicles too.

He said poor combustion not only wastes fuel and creates smoke, it coats cylinder walls with fuel that washes protective oil from sealant rings to create more wear—a spiral of increasing damage. The result, if that goes uncorrected, is a new bus engine priced between \$6,500 to \$10,000. The fix was an inexpensive one—a simple to install air filter that costs \$5 for cars and \$10 for buses!



*Gary Henderson, left, discusses emissions testing and DriverMax technology for school buses with Dwayne Fosseen, Mirengo CEO.*

### **Gary Henderson, Jesup CSD**

A little wrench work yielded similar successes in eastern Iowa too. “This bus turned into a totally different bus,” said Gary Henderson, head mechanic at Jesup Community School District. All of their 14 buses tested well for emissions, except bus 10. He said after simple repairs “every driver asked what happened to bus 10. It went from a 58 mph to a 68 mph bus overnight.” Before repair, unburned diesel fuel passed through the engine and tailpipe as excess soot. Better combustion yielded fuel savings and power with a valve adjustment and new air filter—simple work.

### **Dolores Bergert, Central Community**

Dolores Bergert, transportation director for Central Community in DeWitt, Iowa, said BEEP emissions data helped her pinpoint mechanical problems undetected by drivers. “I'm really pleased with BEEP. The testing gives us insight on engine combustion problems. Then, we can get the engine repaired before it becomes a big problem. That's a big benefit to us and is going to save us money,” Bergert said. “Schools don't like to have buses out of service.”

***Johnston School District***

In demonstration of the continuing success of the Bus Emissions Education Program (BEEP), the Johnston School District in suburban Des Moines has made significant reductions in tailpipe emissions within their school bus fleet.



Johnston reduced its average opacity reading by 28 percent following the first round of BEEP testing. Opacity measures the concentration of black carbon particles found in exhaust. In layman’s terms, opacity shows the percent of black smoke that is visible from the tailpipe. Opacity ranges from 0 to 100 percent, with 100 percent as the worst. Johnston improved its opacity from 21 percent to 15 percent on average. Johnston used the opacity measurements to target specific buses for maintenance corrections and made a positive change for the environment. Those changes will prevent more than 215 pounds of soot per year from polluting the air students breathe. That figure is based on a proprietary formula of Mirencos, Inc, the company that performs the emissions testing for BEEP.

Dave Kramer, Maintenance Supervisor for Johnston School District, targeted four vehicles in particular after receiving data from the first round of emissions testing. Four of Johnston’s 30 diesel buses had opacity readings greater than 55 percent and were designated in need of immediate corrective maintenance. With this knowledge, Kramer and his mechanic created a plan to improve the vehicles’ tailpipe emissions.

The following table represents the first and second round tests results and the corrective actions taken by Kramer and his staff.

| Vehicle Number # | Engine Manufacturer | Engine Model | Injection Type | Hours/ Mileage | Year | 03-22-02 Opacity Ranking | 09-14-02 Opacity Ranking | Comments  |
|------------------|---------------------|--------------|----------------|----------------|------|--------------------------|--------------------------|---|
| 29               | Cummins             | 6 cyl        | Mechanical     | 54,285         | 1997 | 94.60                    | 22.30                    | Air filter change   |
| 33               | Cummins             | 6 cyl        | Mechanical     | 86,270         | 1994 | 84.50                    | 33.50                    | Replaced exhaust manifold & exhaust gasket on the turbo, valve adjustment |
| 16               | Cummins             | 6 cyl        | Mechanical     | 85,517         | 1995 | 82.70                    | 26.50                    | Valve adjustment  |
| 4                | Cummins             | 6 cyl        | Mechanical     | 72,754         | 1997 | 72.80                    | 29.30                    | Valve adjustment  |

These four vehicles in particular show how minor maintenance can make a substantial reduction in tailpipe emissions. The Johnston maintenance team will further utilize the BEEP data to target its maintenance strategy and make improvements on the remaining fleet.



## *Indianola CSD*

The Indianola Community School District was part of a pilot program conducted in October of 2001 in which four school districts had their vehicles tested for tailpipe emissions. The Indianola average was 17.36% in October and the maintenance director, Danny Thede, took immediate actions to improve that number.



The first item on the list was to perform a timing check and valve setting check on each of the vehicles that had emission levels above 15%.

Adjustments were made to bring each vehicle into the specifications set by the engine manufacturer and the local policy. Secondly, any vehicle that continued to have signs of visible smoke was considered for having the injectors pulled and tested. While the injectors were pulled, the engine had a compression check performed to determine if the engine had a compression level to manufacturers specifications.

In order to standardize his fleet to all diesel engines in a timely manner and meet his budget constraints, Mr. Thede purchases used buses for replacement of his gas-powered vehicles. The purchase of used vehicles has its risk according to Mr. Thede, “you may not get the whole service history of a vehicle.” This is where the BEEP data comes in very useful. “If you test a vehicle from day one, the district now has a baseline on that vehicle.” You can then go on how much it changes from that baseline to see how well the engine is combusting the fuel demanded of it.

By using the BEEP data, Mr. Thede has been able to identify and make corrective maintenance on his vehicles. The average tailpipe opacity reading has dropped from 17.36% to 13.83% in six months. The Indianola fleet has made significant improvements and continues to strive for a lower average opacity by the next round of BEEP testing.