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Ontario, Canada

Lexus, Honda milestones highlight Ontario's automotive sector

Two automotive milestones were recently achieved in Ontario. September 26, the Lexus RX 330 – the first Lexus built outside of Japan – rolled off the Toyota Canada assembly line in Cambridge. Three days later, the two-millionth Civic was built at the Honda Canada plant at Alliston.

These accomplishments highlight both the importance of Ontario's contribution to the global automotive industry and its advantages as a site for global automotive manufacturers. Ontario is second only to Michigan in vehicle production in North America, contributing five percent of the world's automobiles. Ontario exports more motor vehicles to the U.S. than any other country. A total of 85 percent of Ontario's vehicle production is exported to the U.S.

Ontario enjoys one of the world's best vehicle

manufacturing environments as a result of its infrastructure, its availability of skilled labor, and the support of an extensive automotive parts industry.

About 45,000 highly skilled workers are employed in 13 plants in Ontario's auto assembly industry. These

facilities are operated by six of the world's leading automotive companies including DaimlerChrysler, Ford, General Motors, Toyota, Honda and CAMI. They produced 2.5 million vehicles in 2002.

More than 400 innovative auto parts companies in Ontario employ over 90,000 highly-skilled workers. These companies export 70 percent of production and totaled US\$31.6 billion in shipments in 2002.

Ontario workers are among the best-educated in the world with more than 59 percent of workers over age 25 having achieved post-secondary education. Twenty-three percent are university graduates and 32 percent have diplomas and certificates from community colleges. This labor force ranks among the most productive in the world. For example, it takes an average of 21.65 hours to build a vehicle in Ontario compared to 25 hours in the U.S. and 32.5 hours in Mexico. And, Ontario's auto assembly plants are consistent award winners, receiving 13 out of 40 North American J.D. Power awards for plant quality.

More than half of the U.S. market is within one day's drive of Ontario. The province's extensive highway system is connected to the U.S. at 10 border crossings and the Ontario rail system meets the U.S. at five commercial border crossings. In addition, the new Canada-U.S. Free and Secure Trade agreement, which went into effect in December 2002, enhances border-crossing clearance processes.

In the third and fourth quarters of 2003, the London-based Economist Intelligence Unit chose Canada as the best nation in the world in which to do business for the coming five years. ■



Texas Angling for Toyota Plant Expansion

By Katherine Zachary

SAN ANTONIO, TX – Not a shovel of earth has been moved on the site of Toyota Motor Corp.'s next automotive plant, slated to open on the outskirts of San Antonio in 2006, but officials already are angling for a Phase Two.

Attorney Manuel Pelaez, the first employee of Toyota Motor Mfg Texas Inc., says that while there are no concrete plans for a second phase, a doubling of the current planned footprint, constructed to build the next-generation Tundra fullsize pickup, would be ideal.

That plan, representing an \$800 million investment, calls for an initial capacity of 150,000 units and the creation of 2,000 jobs. The plant, which will be a zero-land-fill facility, will be 2 million sq.-ft. (185,806 sq.-m), or about 100 acres (40 ha) all under one roof, including assembly and stamping facilities, and will sit on 2,700 acres (1,093 ha) of land.

Also on the site will be a 30,000 sq.-ft. (2,787 sq.-m) visitors center, which will contain community space, serve as the starting point for plant tours and also provide access to a riverfront park, part of 700 acres (283 ha) of the parcel Toyota is giving back to the City of San Antonio.

Although there has been a ceremonial ground-breaking, actual land clearing won't begin until February. Construction will take two years.

For now, the flat, barren parcel looks much like what it always has been: the oldest operating ranch in Texas. The land was granted by the King of Spain to Ignacio Perez and has stayed in the family for seven generations.

This development is different for Toyota, whose other North American manufacturing facilities are located in rural areas, including Georgetown, KY; Princeton, IN; and Cambridge, Ont., Canada. San Antonio has a population of 1.1 million people, according to the 2000 U.S. Census, is the country's ninth largest city and among the fastest growing.

There is not much development on the south side of San Antonio, a "historically underserved side of town," but Pelaez assures it soon will come.

Now nine minutes from the closest housing development, the site is expected to attract restaurants, hotels, gas stations and other service-related businesses. The area is eagerly awaiting the anticipated economic impact.

It also is awaiting the jobs, both at the plant and otherwise. Toyota says it already has received some 3,000 applications for positions at the plant, and it expects to draw

100,000 by the time the plant is up and running. The jobs pay well for the area: Toyota contractually agreed to pay workers \$19 an hour initially and \$24 after two years. The wages, Pelaez believes, likely will dissuade workers from joining the United Auto Workers union.

Additionally, for every job at the plant, one job is expected to be created at a parts supplier. Suppliers have yet to commit to locating in the San Antonio area, though, as Toyota continues to help negotiate a supplier benefits package.

The auto maker would like the city and county to extend the same privileges to suppliers that it received, including access to rail, access to utilities at a discounted rate, tax abatements and flexibility on other tax rates.

While the location relative to San

TMMTX President Hidehiko "T.J." Tajima (left), Texas Governor Rick Perry (center) and Toyota Honorary Chairman Shoichiro Toyoda ceremonially break ground at future plant site.



Antonio may be remote, the plant will be well-positioned to take advantage of the country's biggest truck market – one of seven pickups is sold here. Research shows Texans would show loyalty to a Texas-made truck.

More practically, the plant is located on I-35, otherwise known as the “NAFTA Corridor.” The auto maker expects to tap into Mexico's well-established supply base as well. Access to two direct rail lines also attracted Toyota.

Location in the end proved to be a bigger draw than the state's incentives package, which totaled \$150 million.

“We were offered half a billion (from other states) and we turned it down,” Pelaez says. ■

Three Down, Two to Go at Nissan Miss.

By Katherine Zachary

CANTON, MS – Job One ceremonies are getting to be old hat in these parts.

The Oct. 20 event, in which the first Nissan Titan fullsize pickup truck rolled off the line at Nissan Motor Co. Ltd.'s new Canton, MS, plant, was the third such celebration this year.

Nissan's new Quest minivan inaugurated the plant on May 27 and production began on the Pathfinder Armada SUV on Aug 13.

And there are two more parties left to go before the plant sees its first birthday. Production of the Infiniti QX56 fullsize SUV is slated for early January, if not sooner, while Altima bows on a separate line, still under construction, by late spring 2004, at what Nissan President and CEO Carlos Ghosn has dubbed the “Nissan Revival Plant.”

A fitting nickname, as the facility is key to Nissan's achieving the third prong of its Nissan 180 plan – the second phase of its turnaround – which calls for an additional 1 million units of annual sales globally in a 3-year period ending in 2005. The other two prongs – zero operating debt and at least an 8% operating profit – already have been met.

Nissan expects the U.S. to grab about 300,000 units of the 1 million-vehicle mandate – a number it will reach through sales of the new Titan, new fullsize SUVs and the comparatively low-volume

350Z sports car, as well as incremental growth with the new Quest and current-generation Altima.

Titan, which goes on sale in December, is expected to sell at a rate of 100,000 annually, although Emil Hassan, Nissan North North America Inc. (NNNA) senior vice president-manufacturing, purchasing, quality and logistics, says the plant has room for more production.

Canton already has built 28,000 Quests, and, since Armada was launched – Hassan hastens to add – 8,000 have rolled off the line. Line speed for both vehicles is at full speed in what executives have characterized as smooth launches.

One ongoing challenge, says Hassan, has been materials handling – as construction of the Altima lines continues to take up valuable space for inventory.

Lack of room for parts is less of a problem here than it might have been in other plants, as the Nissan facility makes heavy use of synchronous delivery of parts, often delivered from onsite or nearby plants, with little overflow. Manufacturing executives are looking forward to further tightening the order-to-delivery process.

Altima construction, which includes a separate body shop and separate trim and chassis lines, before the car joins the trucks and Quest on the final assembly line,



Nissan CEO Carlos Ghosn celebrates inauguration of Canton, MS, plant with employees in May.



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Virginia's Roanoke Valley

**A new
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cluster emerges**

The automotive industry is a driving force behind the economic growth of Virginia's Roanoke Valley. Since the early 1990s, the Valley, which is located in western Virginia along Interstate-81, has seen the emergence of an automotive/transportation cluster. Now, suppliers both foreign and domestic are producing transmission components, steering systems, tires and wheel hub bearings for the automotive market.



Dynax America, which makes automatic transmission friction discs; Koyo Steering Systems of USA, which makes electric power steering systems currently featured in Saturn's VUE and Ion, and Virginia Forge, maker of wheel hub bearings for automobiles and passenger trucks, joined Yokohama

Tire Company in the region. Other transportation-related firms include Metalsa Roanoke, a Mexico-based manufacturer of heavy truck rail frames, and Altec Industries, a Birmingham, AL-based manufacturer of equipment for the utility and telecommunications industries.

They all benefit from the close proximity to Virginia Tech, a leading research university, and home to the Virginia Tech Transportation Institute – an interdisciplinary, multidisciplinary, university research center – and Smart Road, a state-of-the-art, full-scale research facility for pavement

research and Intelligent Transportation Systems. The Smart Road is a 2.2-mile road capable of producing a variety of weather conditions, including rain, snow and fog, and in varying degrees of severity.

Beyond the research capabilities of Virginia Tech, the Valley offers automotive suppliers a number of other advantages. Costs of living and doing business are below the national average, with electric rates being among the lowest in the nation. A central, mid-Atlantic location provides excellent market access. Roanoke Valley companies are within a day's shipping distance of two-thirds of the population of the United States, and within easy reach of auto makers in the Midwest and Southeast. The jet-served Roanoke Regional Airport offers daily, non-stop service to Detroit.

There are 18 other colleges and universities within a 60-mile radius, six public school systems and state-of-the-art training facilities as a ready source for trained and educated workers. Several unique training facilities are available. The Education & Training Center at Greenfield – a cooperative venture among Virginia Western Community College, Dabney Lancaster Community College and Botetourt County – is a state-of-the-art facility located in the Botetourt Center at Greenfield business park and also is home to the area's Japanese Saturday School. The Roanoke Higher Education Center is home to 16 institutions of learning, from a charter high school to training programs to colleges and universities that offer bachelor's and master's degree level programs. ■

should be finished in February or March, Hassan says. Equipment prove-out will be achieved soon after, and production will start in late spring or early summer.

Production goals for Altima are nebulous, although the line's capacity is 150,000 units. The midsize sedan is a swing model, also built at Nissan's Smyrna, TN, facility. Plans are to get as much Altima production as possible out of Smyrna, with Canton taking the rest. Altima's levels can be juggled depending on demand for the other products.

Smyrna is slated to absorb the Pathfinder SUV and continue production of the Frontier compact pickup and Xterra SUV into the next generation, production of which begins next year, while Canton is balancing production of all new products.

So there is no telling how capacity will shake out, Hassan says. Smyrna is designed to build some 300,000 trucks, leaving about 250,000 units for the Altima and Maxima midsize sedans. Maxima volumes have been around 80,000, but sales have been constrained by capacity.

Smyrna, which will finish this year at 490,000-495,000 units, will have 6,200 employees and a capacity of 550,000 units. And, when all is up to speed, Canton, with a capacity of 400,000 units, will have 5,300 employees. Some 4,000 so far have been hired, but Nissan says there is no truth in rumors it's having trouble filling the spots.

Next on the plant's agenda is the Infiniti QX56 launch, which may be moved up from its early-January target.

"I'd like to see us really start Infiniti before the holidays," Hassan says.

The plant already has built two production trial batches, which identified some supplier problems. The company will execute a final trial batch before production officially begins.

Infiniti's Job One in some respects should be easier, since the fullsize luxury SUV is based closely on the Pathfinder Armada, says Larry Dominique, chief product specialist/director-product planning, NNNA.

Still, there are major differences between the two, including different performance characteristics, noise, vibration and harshness targets, and ride characteristics. The QX56 also sports a different front fascia.

Dominique says Infiniti is in the process of finalizing towing performance and accommodating last-minute changes to its seats, as well as additional luxury improvements.

The changes are necessary, he says, as the vehicle was originally planned three-and-a-half years ago, and the competitive situation has evolved. ■



Dubbed the "Nissan Revival Plant," Canton, MS, has enjoyed three launch parties and will have two more before its first birthday.

Lexus Makes History in Canada

By Ward's Staff

CAMBRIDGE, Ont., Canada – A new Lexus RX 330 cross/utility vehicle rolls off the line in Canada to applause and cheers from workers, company officials and dignitaries. To some, it looks like just another new vehicle launch, but to Toyota Motor Corp. and its Canadian subsidiary, Toyota Motor Mfg. Canada Inc.,

it is automotive history in the making.

The RX 330 is the first model of Toyota's vaunted Lexus luxury brand ever to be built outside Japan.

"This is a great day for all of us here in Cambridge," says TMMC President Ray Tanguay at the Job One ceremony in late September. "We have been working for more than three years to realize this dream." Toyota invested \$650 million

(\$499 million) in upgrades and new construction for Lexus production, including a separate manufacturing area at the plant that features a new paint shop using waterborne-cartridge paint technology, and a new state-of-the-art welding shop. The Lexus project has been an immense undertaking and a humbling honor," says Tanguay.

The RX 330, successor to the highly

regarded RX 300 – Lexus' best-selling model – also is manufactured at Toyota Motor Kyushu Inc. in Japan, where it was launched last February. Since 2000, Canadian and Japanese Lexus workers have traveled between the two plants to prepare for assembly of the luxury cars.

The Canadian plant added about 700 new jobs to accommodate the Lexus project and growing demand for the facility's other two products, the Toyota Corolla and Matrix, bringing employment to 3,900. Annual production capacity started at 50,000 units in 1988. It rose from 200,000 last year to 220,000 to accommodate Lexus, but rising demand for Corolla and Matrix caused capacity to be adjusted upward by another 30,000 units, boosting the plant to 250,000 units annually.

"We found that a strong skillset is very important, but the key difference is the mindset," says Tanguay. "Manufacturing Lexus demands a deep understanding of what customers want, expect and deserve in a luxury vehicle."

When it was announced Cambridge would get the new vehicle, plant officials and workers were at first thrilled and then a bit intimidated by the challenge of building the first non-domestic Lexus.

"The celebration lasted all of five minutes," Kent Rice, manager-Quality Control Engineering at TMMC, told *Ward's* last year during a long-lead preview of the vehicle. "We went from: 'What a mandate! What a challenge!' To wow – 'What a mandate, what a challenge, and what are we gonna do now?'"

The pilot team spent two years working on the RX 330 project, including benchmarking the Kyushu plant. Hundreds of TMMC team members received special training at Kyushu, including tearing down a new RX to do a complete analysis of the body panel gap dimensions and paint.

TMMC further honed the production process using a 3-D computer tool to "assemble" a virtual RX 330. Engineers in Kyushu and Canada both were able to watch the process and observe if the TMMC plant presented any kind of assembly line interference and to determine if special tools would be required. This phase of



The RX 330 CUV, the first Lexus built outside Japan, rolls off the line in Cambridge.



(Left to right) Top Toyota Canada officials Daisuke (Dave) Kobayashi, Kenji (Ken) Tomikawa and Real (Ray) Tanguay celebrate launch of new Lexus.

development even took into account the larger size of the average Canadian worker compared with Lexus workers in Japan.

The Lexus vehicles share only the plastics and stamping shops with Toyota models. The Lexus welding shop also is equipped with a laser measurement system that checks some 700 points on the vehicle for body-panel alignment.

The new Lexus paint shop features a water-based paint system that uses individual cartridges for each color. This eliminates the need for paint guns to be cleaned and purged between color changes, cutting waste and further reducing paint plant emissions.

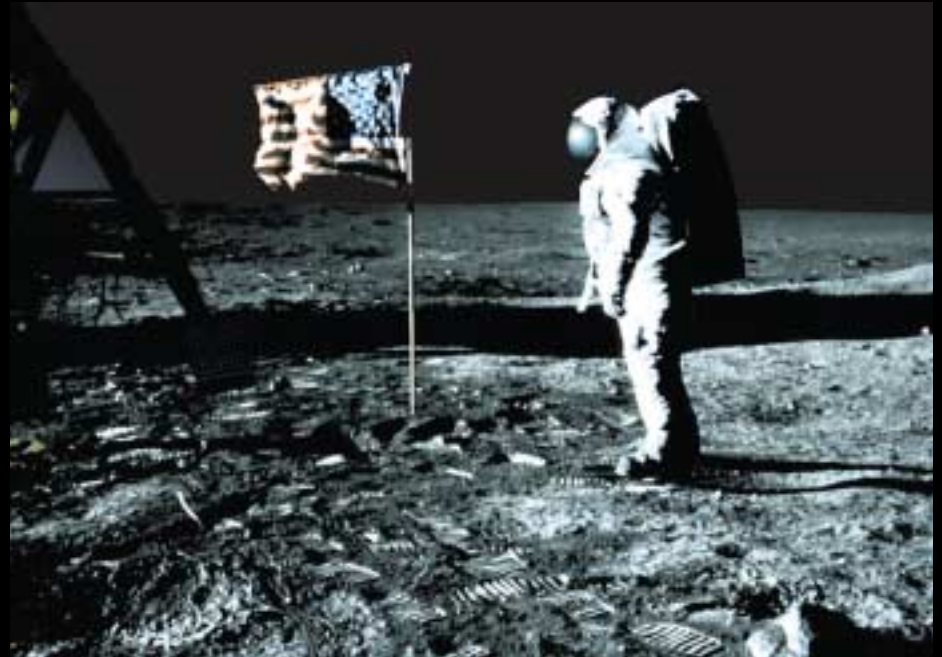
The Lexus project has attracted several

companies to southern Ontario to supply the Toyota plant with various parts and products, including Futaba Industrial Co. Ltd. in Stratford, TG Minto in Palmerston and Trim Masters in Elmira, Toyota says.

Hiroshi Kawakami, a managing officer of Toyota Motor Corp., expresses confidence in the Canadian facility. "Our company's philosophy is to manufacture vehicles where they are sold," he said at the launch ceremony.

Toyota estimates it will build some 60,000 RX 330s annually at Cambridge. The RX 330 also will continue to be produced at Toyota's Kyushu plant.

Base price of the RX 330 is \$35,650. ■



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Motorsports and Beyond



Motorsports Technology Capital of North America:

Hampton's efforts to pursue the title of "Motorsports Technology Capital of North America" received a boost with Governor Warner's recent announcement of the Virginia Motorsports Initiative, this August. Three main areas have been targeted: new business recruitment; support of existing racing venues and assets; and nurture research and development and workforce training. Financial support will be allocated from existing sources such as traditional incentives to qualifying businesses and seeking additional federal funds. Under this newly launched initiative, the Commonwealth will seek additional federal funds for the expansion of Old Dominion University's Wind Tunnel operations in Hampton allowing for a broader array of race car testing. Over half of the NASCAR Winston Cup teams and other race teams from various motorsports leagues worldwide have been tested in the facility.

Frost Motorsports Market Analysis Gives Hampton the Green Light:

According to the final market analysis results of the Frost Motorsports Impact Study, Hampton has tremendous technology capabilities that would make it a "one-stop location" for engineering technology and testing needs applicable to the motorsports industry. The study also cites that there is no other location in the world that would offer this total concentration of resources and recommends the addition of a test/race track facility and a specialized research and development park targeting this industry. "Besides the Charlotte, North Carolina and Indianapolis, Indiana metropolitan areas, there is no other area in North America that has a strong cluster of companies

and resources that meet the overall needs of the high-performance automotive industry," said Timothy Frost, Frost Motorsports, LLC.

Aerospace and Motorsports Share Mutual Technology

Building upon the synergy between aerospace and motorsports, NASA Langley Research Center offers technology easily adaptable to the high-performance automotive industry. The synergy between aerospace and high-performance motor vehicles is apparent from aerodynamic applications to structure and materials (weight, strength/durability, sensors, adhesive, tire friction performance analysis, human factors). This huge technical resource is available to partner with companies and institutions in joint efforts to commercialize applied aerospace research.

Motorsports R&D Park:

The first building is being designed for the new Hampton Motorsports Research & Development Business Park. A 90-acre site is being targeted for a test/race track and manufacturing and race team sites. The park is located just outside of NASA Langley's gates and near the wind tunnels. Sites and development opportunities are available.

Hampton and the Region's Technical Advantages:

Centrally located on the East Coast and three hours away from the nation's capital, Washington, DC, Hampton has a concentration of resources such as technology, skilled workforce, regional automotive and transportation base, development opportunities and excellent university and college facilities. To obtain an introductory CD on these assets, contact the Hampton Motorsports Technology Alliance at 1-800-433-2449, 757-727-6237, e-mail: business@hampton.gov or visit www.hmta.info for details. ■

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U.S. Plant Puts Hyundai



In New League

By David E. Zoia

Hundai Motor Co. Ltd. is about to launch a new model – a new business model. South Korea's largest auto maker, which has taken advantage of lower labor rates at home to carve out an increasing slice of the U.S. entry-level vehicle market, will launch output in America for the first time in 2005.

Even with the new plant's location in the non-unionized South, labor costs will be rising for Hyundai, and that finally will force the auto maker to play by many of the same rules that govern others in the highly competitive U.S. market.

But insiders say that's OK. Hyundai is ready to take the next step in its development, which has seen the brand's sales quadruple since 1998 and its reputation for poor quality slowly recede.

Hyundais, which typically come to market priced some \$2,000 or so below the competition, no longer are being viewed merely as cheap transportation. And company executives are confident the brand is ready to go toe-to-toe with the Japanese and Americans in more upscale segments. Besides, they say, there are advantages to U.S. production that will help offset a portion of those higher wages.

Hyundai will invest \$1 billion in the new Montgomery, AL, facility that will have capacity to produce 300,000 vehicles

annually, about half Sonata sedans and half Sante Fe SUVs. Employment ultimately will total 2,000 workers.

Advantages include more intimate contact with the all-important U.S. market.

Building cars here will give executives a better feel for what American consumers want, and the plant's built-in flexibility will allow quicker reactions to changes in demand.

"We'll be able to rotate people through the plant to get a better understanding of the market," says a spokesman.

It also will mean a shorter pipeline to dealers and customers, enabling Hyundai to fill orders in 30% less time.

The move to produce more vehicles outside of South Korea – plans are to set up a plant in Eastern Europe, as well – also will make Hyundai less susceptible to financial ups and downs associated with fluctuations in currency exchange rates.

"Currency swings are inevitable," says the Hyundai spokesman. "I don't know what the (Korean) won/dollar rate will be by the time we open this plant, but I'm sure it won't be what it is today. Having capacity here will help balance that out."

And let's face it. Labor and political issues in the U.S. can't be tougher than they are in South Korea, where workers are prone to frequent, sometime violent strikes and the country faces constant threat of nuclear war from the north.

Of course, not all Hyundais will be made here. Lower-priced models will continue to

be imported from Korea. And Hyundai also has its Kia brand, which will remain positioned a notch below Hyundai in order to draw lower-income buyers into the fold.

But the plant still represents a bold step into the major leagues for Hyundai.

"There'll be some added cost," admits the Hyundai insider. "But we think the advantages outweigh that." ■

Hyundai Motor Mfg. Alabama Tier-One Suppliers

AP Tech Glass Alabaster, AL	Lear Seat Assembly Montgomery, AL
Arvin Meritor Door Modules Montgomery, AL	Lear/Kyung Shin Wire Harnesses Selma, AL
Daehan Solution Co., Ltd. Insulation Parts Tyson, AL	Mando Corporation Braking, Suspension, and Steering Systems Opelika, AL
Delphi Saginaw Steering Halfshafts Athens, AL	Mobis Alabama Cockpit Modules Montgomery, AL
Dongwon Door Frames Sardis, AL	PPG Glass Talladega, AL
Engelhard Catalysts Huntsville, AL	Samlip Industrial Co. Lighting Parts and Systems Alexander City, AL
HS R&A, Ltd. Weather Stripping, Rubber Tubing, and Hoses Enterprise, AL	Shin Young Industrial Metals Stamped Metal Parts Luverne, AL
Halla Climate Control Heat and AC Units Shorter, AL	Sejong Co., Ltd. Exhaust Systems Ft. Deposit, AL
Hisan Brake and Fuel Lines Scottsboro, AL	T&WA Tire Wheel Assembly Montgomery, AL
Hwashin Co., Ltd. Chassis and Body Parts Greenville, AL	Teksid Aluminum Components Engine Components Sylacauga, AL
Hysco America Co. Steel Sheets and Coil Greenville, AL	Venture Industries Plastic Components Prattville, AL



The Evolving North American Industry

Mexico's light-vehicle capacity grew more than 50% during the past 10 years, and production is soaring in the Southern U.S. But in 2008, Michigan and Ontario still will be the top producers.

By Haig Stoddard and Drew Winter

Whatever happened to "that giant sucking sound" that was going to pull manufacturing from the U.S. and Canada into Mexico as soon as the North American Free

Trade Agreement was signed?

As the 10th anniversary of its implementation approaches, proponents and opponents of the landmark agreement between the U.S., Canada and Mexico – signed Oct. 7, 1992, and phased in beginning Jan. 1, 1994 – still can't agree on its impact.

Ward's data show Mexico's production capacity has increased more than 50% over the past 10 years, from roughly 1.2 million vehicles in 1992 to 1.89 million in 2002. Ironically, though, new plants and capacity expansion in Mexico now are grinding to almost a complete halt. Except for a new Toyota Motor Corp. assembly plant in Tijuana starting up in late 2004 to build 30,000 pickups per year, there is no more capacity expansion on the horizon for Mexico. By 2008, capacity is expected to rise

by only a tiny margin, to 1.93 million.

And while Mexico's gains over the past decade were large, they are not quite as big as they seem. Total North American light-vehicle production overall rose 31% from 1992 to 2002, from 12.7 million to 16.7 million units.

Automotive production capacity will continue growing in the Southern U.S. for the next five years, but historically strong manufacturing regions such as Michigan and Ontario, Canada, will remain the dominant vehicle producers despite some losses. Based on production capacity, Michigan and Ontario easily will remain the No.1 and No.2 auto producers in North America in 2008, while the Atlantic coast south of New England suffers the most capacity losses from plant closings.

But there will continue to be a lot of shifting in the

Top 10

North American Vehicle-Producing States and Provinces

(Ranked by vehicles produced in 2002, compared with 1992)





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Global demand for automotive aftermarket products is projected to increase 5% per year through 2007 – expanding the healthy sector to \$144 billion.

While growth in North America is expected to fall short of 5%, continued demand for high-end products, and a growing body of automotive manufacturers here, represents opportunities for steady gains. Indeed, the affluence of U.S. and Canadian markets alone indicates future health. (Presently, U.S. manufacturers supply 85% of Canada's aftermarket automotive parts and accessories.)

Numerous trend watchers hope that gains in demand prompt expansion and relocation of manufacturing and distribution facilities.

Among those hopeful observers are economic developers in the Eastern region of South Carolina, who are positioning their area to benefit from aftermarket industry growth. More importantly, they note, the industry stands to benefit greatly from locating in their region.

Linda Boone, Marketing and Projects Manager of the Eastern South Carolina Alliance, notes that the region offers abundant advantages, including low business costs, an intricate network of highways and rail service, expansive green fields, skilled labor and more.

"We have parts company executives moving here routinely, and they all wonder why they considered any other Southeastern region before settling here." She laughs: "We tend to wonder the same thing."

The region is home already to operations owned by Honda, Takata, Musashi and others.

Numerous Benefits

While the region's program is itself interesting, what matters most to target companies is the list of benefits they would gain by doing business in the region.

First on the list is locational advantage. The region hugs the I-95 corridor for miles, and also is served by the key east-west interstate of I-20. Close proximity to the ports of Charleston (the nation's third most productive) and Wilmington, and attendant FTZs, make the "getting and sending" side of the business seamless.

Then there's the wide open space that can be found throughout the rural-to-suburban region. Small towns give way to large, pre-permitted fields with abundant water and electricity.

Workforce advantages abound. The region's population is growing, and skews younger than some competing regions. Best of all, the region supports a vibrant workforce training program, the Center for Accelerated Technology Training (CATT), which brings customized, free or low-cost training to the shop floor, even before it opens.

The region's effort to rise to the top of "prime location" lists has been bolstered by a new marketing campaign. The Eastern South Carolina Alliance (ESCA), which represents seven counties (Chesterfield, Darlington, Dillon, Florence, Marion, Marlboro and Williamsburg), has entered the market with bold new trade advertising, a direct mail campaign, increased direct sales efforts, and a new four-color brochure.

Their website, www.easternsc.com, offers abundant data on the benefits of doing business in the region. For additional information, contact Eric Jones at 866-349-3722. ■



ranks below the top two states/provinces. Just from 2001 to 2002, Tennessee rose from No.8 to No.6; Illinois dropped from sixth to No.7; and Indiana dipped from No.7 to eighth in the overall production rankings.

The Mexican state of Coahuila knocked out Puebla (home to a big Volkswagen AG plant that builds VW Jettas and Beetles) for the 10th highest producing state/province in 2002 from 2001. Coahuila is home to General Motors Corp.'s plant in Ramos Arizpe that produces Pontiac Aztek, Buick Rendezvous, Chevy Cavalier and other small cars and a Chrysler Group plant in Saltillo that builds Dodge Ram pickups.

The East South Central region of the U.S. (Alabama, Kentucky, Mississippi, Tennessee) will see its share of capacity rise from 10.7% in 2002 to 16.7% in 2008. The ESC will overtake Canada as the second-highest region in terms of annual capacity with 3.1 million units by 2008.

Inside the ESC, Alabama, which 10 years ago had no production, will become North America's eighth largest state/province producer by 2007 based on annual capacity of 735,000 units. But it will be close enough to Tennessee – No.7 at 838,000 – and Indiana (805,000) that it could in some years rank No.6 in actual production depending on how much capacity actually is used by each state.

Alabama, already home to Mercedes-Benz U.S. International Inc. in Vance and Honda Mfg of Alabama LLC in Lincoln – who are planning expansions to their existing facilities – will have a third assembly plant, thanks to Hyundai Motor Mfg

Production by State and Region (2002 vs. 1992)

		2002	1992	% Chg. From 1992
1	Michigan	2,918,331	2,445,232	19.3
2	Ontario	2,584,625	1,946,319	32.8
3	Ohio	1,888,278	1,562,422	5.0
4	Missouri	1,274,151	1,047,114	21.7
5	Kentucky	1,214,668	687,408	76.7
6	Tennessee	653,319	518,944	25.9
7	Illinois	608,952	570,807	6.7
8	Indiana	593,600	309,958	91.5
9	Georgia	482,903	352,087	37.2
10	Coahuila	388,982	126,509	207.5

Source: WardsAuto.com

Annual Straight Time Capacity by Region (Forecast 2008 vs. 2002)

	2002	2008	% change	Vol Change
Canada	3,157,000	2,944,000	-6.7	-213,000
Mexico	1,885,050	1,927,550	2.3	42,500
New England	0	0	-	0
Middle Atlantic	370,900	16,900	-95.4	-354,000
South Atlantic	1,587,000	1,012,000	-36.2	-575,000
East North Central	7,056,600	6,694,900	-5.1	-361,700
East South Central	1,988,000	3,085,000	55.2	1,097,000
West North Central	1,522,000	1,580,000	3.8	58,000
West South Central	518,000	755,000	45.8	237,000
Mountain	0	0	-	0
Pacific	448,000	472,000	5.4	24,000
TOTAL	18,532,550	18,487,350	-0.2	-45,200

Source: WardsAuto.com

Alabama LLC, at the end of 2004. There is a good possibility even more capacity – beyond what already is planned – will be added at any of these plants in the future.

Besides the ESC, the southern movement also is enhanced by Toyota's plan to open a new plant in San Antonio, TX. The West South Central (Louisiana, Oklahoma and Texas) will see annual capacity increase by 45% from 2002 levels to 755,000 in 2008.

In total, additional production capacity moving to these Southern states between 2002 and 2008 will total 1.3 million units. Over 90% of the increase is from non-Big

Three, non-union plants.

According to Ward's forecasts, most of that share will come from the East North Central (Great Lakes States), Canada and the Middle and South Atlantic. Capacity in the ENC will fall from 7.1 million in 2002 to 6.7 million by 2008. Canada capacity is expected to fall from 3.2 million to 2.9 million. Capacity along the Atlantic south of New England will drop from 2.0 million in 2002 to 1.0 million by 2008. The cuts all are due to shutdowns (announced by the companies or expected by Ward's) at GM and Ford Motor Co. ■

North American Manufacturing Capacity Nears 18.7 Million Units By Haig Stoddard

North American manufacturers will have the straight-time capability to build 18.656 million cars and trucks for the 2004 calendar year, less than 1% above what they could produce in 2002.

The net increase largely is due to the addition of 300,000 units at Nissan North America Inc.'s new plant in Canton, MS. Toyota Motor Mfg. U.S.A. Inc. and Honda of America Mfg. Inc. also had increases for 2004.

The hikes offset declines at General Motors Corp., Ford Motor Co., DaimlerChrysler Corp. and in the aggregate total for independent medium-/heavy-duty truck makers.

Nissan opened its plant earlier this year, building the new Quest minivan and recently launched the Pathfinder Armada SUV.

Production of the new Titan pickup started Oct. 21, and a new large Infiniti SUV will be launched in February.

GM will have a net capacity decline of some 280,000 units thanks to cars. But it does have increases on the truck side, including the new Chevrolet SSR at the Lansing, MI, Craft Centre plant and the Cadillac SRX at the Lansing Grand River facility.

Toyota and Honda added capacity at their Ontario, Canada, plants. Toyota now is building the Lexus RX 330 in Cambridge, and Honda added some car capacity at its Alliston No. 1 plant.

Ford's decline takes into account the planned closing of its Edison, NJ, truck plant in March. Also, Ward's estimates annual capacity

for the Freestar/Monterey minivans at the Oakville, Ont., plant is lower than that for the Windstar, which the vehicles replace '04.

Ford somewhat offset declines by re-opening the Avon Lake, OH, plant to build 50,000 Ford Escapes annually.

DC's net reduction by nearly 300,000 units is due mostly to the closure of its Windsor, Ont.-Pilette Rd. plant that built the Dodge Ram Van/Wagon, and a shift reduction at the Jefferson North Jeep Grand Cherokee plant.

Looking ahead, capacity likely will increase in 2005 as Nissan adds capacity for cars at its Canton plant, and Hyundai Motor Co. Ltd. opens a new plant in Alabama at the end of 2004. ■



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WARD'S AUTOMOTIVE REPORTS

North American Production on Track for May; GM, Ford Set for Overbuilds

North American auto makers don't appear to be giving up on the market despite May U.S. sales falling behind April as a seasonally adjusted basis and a pullback in the economic outlook for the year. North American vehicle production for May is tracking on course with scheduled output for the month, albeit at a 5-year low. But lack of further cutbacks and overbuilds (as top by General Motors Corp. and Ford Motor Co. signal there is no panic.

Ward's estimates May production will total 1.431 million units, slightly below the 1.424 million planned for the month. By country, a 10.5% overbuild in Mexico will not be enough to offset underbuilds in the U.S. and Canada of 0.5% and 3.9%, respectively.

North American Production vs. Schedule - May 2003

Country	May 2003		May 2002		May 2001		May 2000	
	Units	% Change	Units	% Change	Units	% Change	Units	% Change
U.S.	1,000,000	-0.5%	1,000,000	-0.5%	1,000,000	-0.5%	1,000,000	-0.5%
Canada	100,000	-3.9%	100,000	-3.9%	100,000	-3.9%	100,000	-3.9%
Mexico	331,000	10.5%	331,000	10.5%	331,000	10.5%	331,000	10.5%
Total	1,431,000	-0.1%	1,431,000	-0.1%	1,431,000	-0.1%	1,431,000	-0.1%

Both cars and trucks will track less than 1% exact of schedule for the month, although some manufacturers are offsetting underbuilds of one model with overbuilds of another.

GM is banking the industry trend of falling car share by heading for a surplus build of 1,400 cars, while waiting for Ford to begin toward a 10,000-unit surplus.

Chrysler of America Mfg. Inc. and Nissan are going to track with significant overbuilds, while Toyota Motor Mfg. Co. tracks. Overall, trends will track on target and Nissan will record overbuild.

Most of GM's car overbuilds are from Lansing, MI plants including Cadillac CTS and Chevy Malibu, and Park Ave. Ford's excess truck overbuild is in Kansas City factory.

General Motors Corp. is going to an underbuild of 13,500 units, DC below the month's schedule.

Measure, proposed May 31 U.S. House of Representatives, would allow light trucks to be taxed at 3.9% below the prior month and 11.7% lower than year-ago. It is expected at 66, down from April 2003's 76 but above year-ago's 61.

Chrysler: Economics, Not Lack of Incentives, Killed Canadian Plant Plans

The Canadian Auto Workers union is not buying Chrysler Corp.'s plan that plant operations are leaving it to close plants for an innovative new assembly plant in Windsor, Ont., Canada, and close indefinitely its MDI plant, the spark plug manufacturer vehicle in...

Biggest staff, saying the willingness should have translated into a financial commitment by the end of 2002, which would have put the program in motion sooner and made it more difficult for Chrysler to pull the plug.



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