

# ODYSSEY ADVENTURE



**The Family Adventure  
The Road Test  
The Safety Story  
The Marketing Story**

Prepared by the editors of Carguide magazine

# “Expert” opinion is appreciated but there’s nothing like

# SIX FAMILIES PUT HONDA’S NEW MINIVAN TO THE TEST



**W**hile it’s our job at *Carguide* to put vehicles under the microscope on a regular basis, we know from our long-term road tests that readers also like to hear what other motorists like themselves have to say about their vehicles. “Expert” opinion is appreciated but there’s nothing like a real world reality check from consumers who use their vehicles on a day-in-day-out basis.

Consumer reaction is critical for Honda since it is entering the minivan world for the very first time. To find out how well the Odyssey meets the needs of this market segment, *Carguide* invited six Canadian “minivan families” to join our test crew in California for a concentrated three-day test session.

Their unedited reactions, comments, criticisms and suggestions are reported here in the *Carguide* Odyssey Adventure.

## The Team

*Carguide* hired Insight Canada Research to find six families – all current minivan owners – who were available to take part in the project. Once they overcame the fear that they were going to be sold a time-share condo in California, they responded enthusiastically. Meet the team:

From Montreal, Que.: David Johnston and Lucie Cardyn-Johnston with their three children, Alexandra (5), Stephanie (7) and Michaela (9).  
Vehicle: 1992 Toyota Previa (65,000 km)

From Repentigny, Que.: Gilles Provost and Sylvie Bertrand Provost with Maxime (9) and

Valerie (13).

Vehicle: 1993 Grand Caravan (65,000 km)

From Grand Forks, B.C.: Raymond and Jane Hughes with Michael (8), Keely (13) and Lissa (15).

Vehicle: 1991 Dodge Caravan (75,000 km)

From Fredericton, N.B.: Dana and Colleen Clendenning with Patrick (5) and Erin (8).  
Vehicle: 1992 Toyota Previa (82,000 km)

From Calgary, Alta.: Darryl and Leah East with Robyn (8) and Tara (11).

Vehicle: 1990 Mazda MPV (150,000 km)

From Kitchener, Ont.: Reg and Ellen Dirstein.  
Vehicle: 1993 Chrysler Town & Country (53,000 km)

## The Place

Disneyland, California. Why California? Because you need to be assured of good weather for photography and dry roads for



driving evaluations. Why Disneyland? Because Disneyland is the ultimate family destination and the minivan is the ultimate family-mover. The vehicle and the destination were meant for each other.

## Day One: Friday, January 27

Our volunteer testers were met at LAX by the *Carguide* team consisting of editor Alan E. McPhee, associate editor Julie Wilkinson, Graeme Fletcher, photographer John Plow, Lou Bintz – our man in California – and publisher J. Scott Robinson. Also covering the event were Brad and Isabel Diamond with video cameraman Keran Rees of Bradford Productions, the award-winning producers of TSN’s Motoring 95. Friday evening was a

Story by Alan E. McPhee  
Photos by John Plow

# a real world reality check

***“Coming from Calgary,  
I think this van needs a  
rear heater and fan.”***

chance for everyone to get to meet and discuss the weekend program. Alan McPhee explained, “The reason you’re here is because you represent the real world of the minivan owner and we want you to use that experience in judging the new Honda Odyssey. We have to accomplish a great deal in just two days, so we’ll be pushing you hard and we’ll expect you to push the Odyssey very hard as well.”

## Day Two: Saturday, January 28

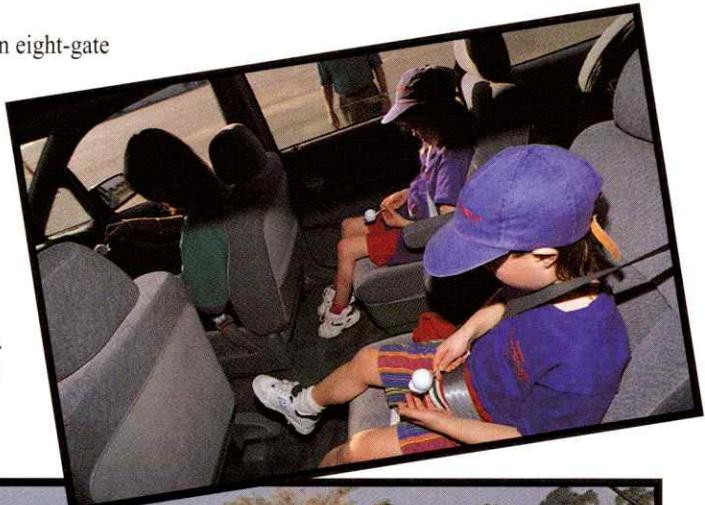
After an early breakfast our Test Team gathered at a controlled driving course, set up in

such things as anti-lock braking systems and Odyssey’s unique Grade Logic Control transmission in ways that anyone can understand.

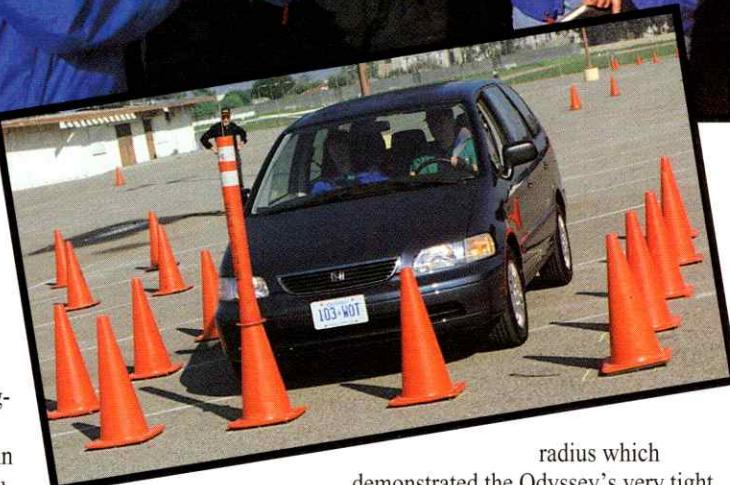
### The Test Program

The course, starting with an eight-gate slalom, was set up to emphasize a number of handling characteristics. This exercise is conducted at about 20 km/h and gives the driver a chance to evaluate the steering, with respect to effort, accuracy and response to steering inputs. After coming to a stop, the driver then had to enter a right turn of diminishing

left-right-left-right flow, the lane change requires that the vehicle be stabilized for a moment between the lane changes. This demonstrates the vehicle’s



the parking lot adjacent to the Disneyland Hotel. The handling course was designed by Julie Wilkinson and Graeme Fletcher, who writes our regular Service Counter feature. An ex-racer and a regular instructor for the Labatt Road Scholarship program, Julie was the ideal person to design the course and prepare the curriculum. Graeme’s technical background makes it easy for him to explain



radius which demonstrated the Odyssey’s very tight turning circle (only 11.5 metres or 37.7 ft.) and maneuverability. This led directly into a lane change simulation that required a speed increase to about 40 km/h. Unlike the slalom where the lateral changes are a continuous

stability between the directional changes and shows up any tendency to under- or oversteer.

Out of the lane change and directly – nose first – into a simulated garage, then back-up into another garage at right angles to the first. This was a good test of all-round visibility and maneuverability. Then it was out of the garage, around a tight constant radius turn and into a straight accel-

Far left: Julie Wilkinson gives some last minute instructions to Jane Hughes before the slalom test; test area was thoroughly soaked to demonstrate ABS effectiveness. Above: Patrick and Erin Cleundenning get ready for the “golf ball in spoon” stability test; Alan McPhee (left) explains the morning test program to the teams; garaging test demonstrated Odyssey’s maneuverability and visibility.

eration run ending with a hard stop. It took a little while for the teams to move from "tentative" to "comfortable," but after a few runs, some drivers were even reaching the "tiger" level. With the Odyssey's 3-channel ABS, separate sensors at each front wheel and one for both rear wheels determine if lockup is imminent and then apply the system only if required. In a panic stop, when both front wheels are most likely to lock up (stop rotating), the ABS takes over, applying and releasing the brakes in a pulsing action that allows the wheels a limited amount of rotation and thus, steering control.

The theory was then demonstrated dramatically in the next driving exercise. Five cones were set up in a line to create a barrier and an area of about 50 square metres (500 sq. ft.) was flooded directly in front of them. The Odysseys had to approach the barrier at about 50 km/h and wait for a signal from Julie directing them to avoid the obstacle by turning either left or right. They could not turn or brake until they received the signal, which came at the last possible moment, making it a dramatic simulation of a panic situation. Finally, the signal was given, the brakes and steering applied, and bingo – the Odysseys sailed by the cones under severe braking *but with complete steering control . . . except for one driver who tried to guess which way Julie would point . . . and guessed wrong!* To finally drive home this point, we de-activated the ABS and had each driver do it again. This time, the wheels simply locked up and the Odysseys sailed straight ahead into the barrier.

***"The rear seats were a snap to fold away. This is probably the most unique and practical feature of the entire vehicle."***

After lunch it was time for the children to get involved. This was a family effort that involved folding down the rear seat, loading the Odyssey with luggage, filling four of the six cupholders, completing a slalom and garaging test while the passengers each balanced a golf ball in a spoon (we had considered using eggs but saner minds prevailed). The children were great but one father managed to complete this test sitting on the spoon and golf ball!

#### **Day Three: Sunday, January 29**

So far, all the driving had been done in a supervised, restricted area. Now it was time to head out into the real world on a 200 km rally



that would provide our team with a wide variety of driving conditions. Once clear of the city, the road became more rural as it ran south through the Santiago Canyon to Laguna Beach. The route then followed the Pacific coast to Dana Point before cutting back towards Los Angeles on

the freeway. Then it was onto the Ortega highway for a steady climb up into the Santa Ana mountains. In the previous day's classroom session, Graeme had explained how the Odyssey's Grade Logic transmission, with its artificial intelligence, would recognize when the vehicle was climbing and hold the appropriate gear. The Ortega highway provided an excellent laboratory to demonstrate the effectiveness of the system. At the top of the climb, you break out onto a ridge with a spectacular view of Lake Elsinore in the valley below and the snow-topped San Bernardino mountains in the distance. After a brief lunch stop it was a straight run back to Anaheim via freeways.

## **The Results**

### **Ergonomics**

All team members found the front seats to be comfortable and easy to adjust. Five members suffer from occasional back problems but felt no adverse affects either during the driving exercises on Saturday or after the long rally

on Sunday. Colleen Clendenning: "The seats were very comfortable, especially the lumbar support." This opinion was shared by Reg Dirstein: "I have a bad back but felt no discomfort during the drive on Sunday." Lucie Cardyn-Johnston thought the driver's seat to be "Absolutely perfect . . . the seat controls are easily accessible and back and leg support

is good. But the driver's armrest is not adjustable (for height) and is positioned too low for comfort. I also missed (having) the armrest on the front passenger seat." The lack of an armrest on the passenger seat was also noted by David Johnston, Colleen Clendenning and Darryl East

***"ABS is no longer an option'. It would be irresponsible to my family not to have it."***

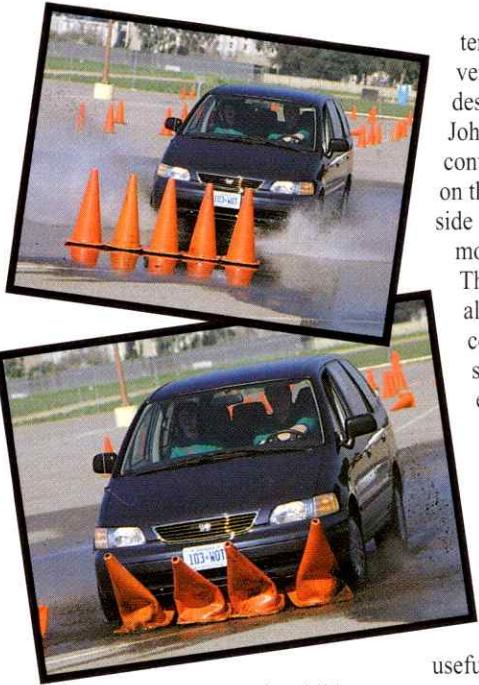
(Optionally available ~ Ed.). On the other hand, Dana Clendenning noted that the driver's moveable armrest (it can be folded up beside the backrest) is "a feature which I like; something which our Previa doesn't have."

The major controls and instruments were generally found to be easy to see and use. Dana Clendenning: "The steering wheel was easy to adjust and didn't block the instruments. All controls were easy to use, especially the mirror controls but I found the radio controls rather small and difficult to grasp." Reg Dirstein was also impressed with the outside mirrors: "The outside mirrors are a good size and give an excellent view of what's going on behind . . . makes it very easy for lane changes." David Johnston found "the windshield wiper/washer stalk is overly complicated and confusing (It also operates the standard rear window wiper/washer ~ Ed.), all the other controls are well identified with easy pictographs. The gear selector detents are insufficiently deep and I often missed my gear."

The Odyssey is equipped with standard A/C but it was noted that there are no heating/ventilation vents for the rear passengers.

"Coming from Calgary," said Leah East, "I think this van needs a rear heater and fan." \*

**Facing page:** with anti-lock braking, the drivers were able to brake from 50 km/h on a slippery surface and steer around the barrier in complete control. Above: the same exercise without ABS resulted in front wheel lockup and complete loss of steering control; Graeme Fletcher (below) explains safety aspects of engine location; morning coffee break provides a chance for exchange of ideas and reactions.



ter than in conventional minivan designs. David Johnston found the conventional door on the passenger's side to be "much more convenient. The low step up also means a very comfortable low step out. Kids' entry in the back (is) much easier . . . not like climbing Mt. Everest. The second door on the driver's side is not all that useful to me. I

require children to get out at the curb side most of the time." He also noted that there was a safety benefit in the conventional door design: "I cringe every time I see the Previa door increasing velocity along the rails until impact, sometimes on a child's hand. You really have to take a run at a sliding door!" Jane Hughes: "We really enjoy the sliding door on the Dodge Caravan, but after experiencing the four doors on the Odyssey, we would make a change." Darryl East's Mazda MPV has three conventional doors but he was still impressed with the Odyssey: "I liked the ease of getting in and out (better than my existing van and car). The seat height is just right. My Mazda already has a regular door on the passenger side but it opens wider (90 percent), but I really liked the driver's side door for middle row (seats) convenience." Not everyone agreed. Sylvie Provost: "With respect to ease of entry, the Odyssey offers the same convenience as a car. It's interesting to have a rear left door but we would find a sliding door more convenient for loading the vehicle."

### Doors

The Odyssey's four conventional doors came in for considerable comment. Entry and exit was found to be generally bet-

### Seating

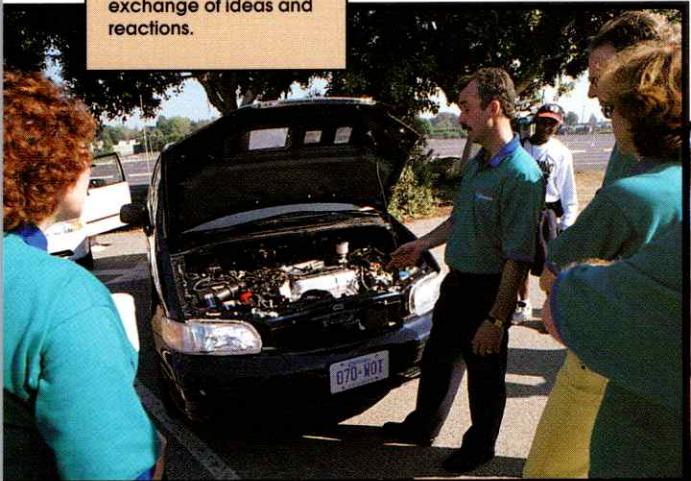
The "disappearing" rear seat was a big hit with everyone. "This is an ingenious way to make the rear cargo area so spacious – considering that all it takes is a touch of the hand." ~ Gilles Provost. Leah East was also impressed, "Seemed easy – looks easy. More space in the rear than our MPV, for larger loads." Dana Clendenning writes, "The rear seats were a snap to fold away. This is probably the most unique and practical feature of the entire vehicle but I would like to see more cargo space at the rear without the seats folded." David Johnston made the same point, adding, "I have to add that the low roofline of the Odyssey allows easy access to "rack" living, either for skiing, camping or construction supplies." Colleen Clendenning suggests, "It would be very beneficial if one side (of the rear seat) stowed separately. I would still have five seats but cargo space would be improved." (This would be less of a problem with the 7-seat version ~ Ed.)

**"Possibly because of the lower centre of gravity, the vehicle felt much more stable than other minivans."**

There were no complaints about the middle row seats. The Provosts were "just as comfortable in the back (middle row seats) as the front. However, tall people might feel a little cramped in the far back as leg room seems rather tight." Reg Dirstein found the seating to be very spacious: "Lots of headroom. I am long in the upper body and generally have headroom problems in other vans. In the Odyssey, I still had a good 2 to 3 inches of clearance." Leah East found it easy to move around in the vehicle and Ray Hughes liked the (fore and aft) adjustment for the front passenger seat, "a feature we don't have on the Dodge."

### Ride and Handling

The driving exercises were certainly effective in demonstrating the Odyssey's handling characteristics with the anti-lock braking test drawing the most comments. "The brake response was excellent! The ABS tests were an eye-opener." ~ Colleen Clendenning. "The ABS system should be mandatory in all vehicles. It's an incredible system that makes accident avoidance much, much easier." ~ Dana Clendenning. Ellen Dirstein felt that the classroom session was very useful:



\* Heat and ventilation vents under front seats direct flow to the rear.



"Braking response is excellent. The testing on Saturday morning proved without question the superiority of ABS and the instruction and explanations by Julie and Graham were excellent."

Ray Hughes was equally impressed with the ABS: "I wouldn't buy another vehicle without it." David Johnston probably summed up everyone's reactions: "ABS is no longer an 'option.' It would be irresponsible to my family not to have it."

## ***"On the mountain roads, the gears didn't downshift, upshift, downshift, but remained constant in a lower gear.***

Everyone was impressed with the Odyssey's ride and handling. All agreed that it is much closer to a car than a minivan in this respect. David Johnston: "Suspension is that of a sedan, and a European one at that. (Ride) is firm, reactive – not bouncy, but absorbing and giving enough." Jane Hughes adds, "The Honda drives and feels more like a car. Driving out to Lake Elsinore you felt you were much closer to the road. We would not be able to take the corners (with the Dodge Caravan) at the same speeds as we did in the Honda and according to the kids, the ride comfort in the back was good." Dana Clendenning noted, "Possibly because of the lower centre of gravity, the vehicle seemed much more stable than other minivans . . . in tight, turning situations." Gilles Provost felt that the suspension was "perfect. The game with the spoon and the golf ball proved this easily."

The Odyssey also impressed in the area of steering response. David Johnston found it to be A-plus on all counts: "(Steering is) very responsive, with good feedback. My high speed maneuvering nightmares and fears are vastly calmed by the Honda. The lack of pro-

tection in the Previa – in front – and its lumbering aspect on the highway, with lots of swing and a light rear end, has caused me to worry a lot." There were frequent comparisons to the Odyssey's car-like characteristics. Dana Clendenning: "The steering response was exceptional. To me, it handled more like a luxury sedan than a minivan." Ellen Dirstein felt that she really had control of the Honda, "Steering responds quickly, takes curves and corners really well. Control was very good going around the pylons."

### **Performance**

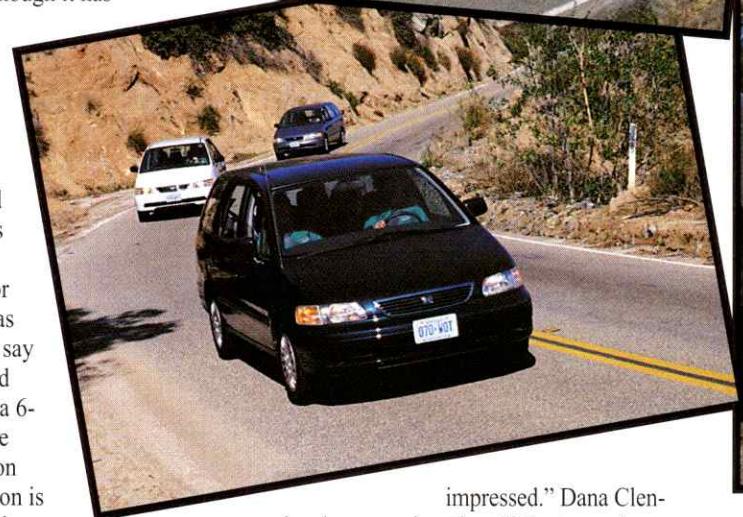
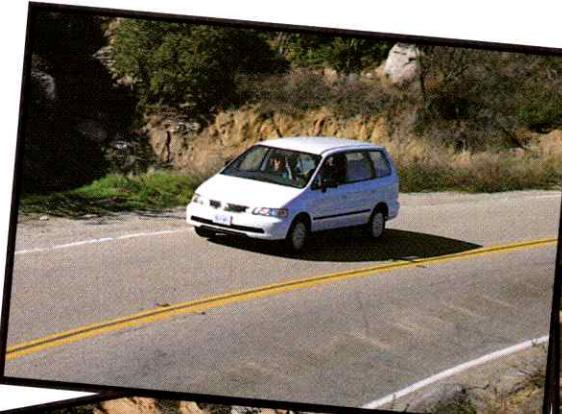
There were differing opinions about the Odyssey's 140 horsepower, 2.2 litre engine. Both Ray Hughes and Reg Dirstein have vehicles equipped with V-6 engines but didn't feel the Odyssey is any less powerful. "We have a 6-cylinder in the Caravan," said Ray Hughes, "and I found the Odyssey seemed to have more power even though it has only four cylinders." Reg was "surprised that it was that good considering it is just a 4-cylinder engine." Compared to the V-6 MPV, Darryl East found it hard to criticize: "Less acceleration, obviously, and less response, but for a 4-cylinder engine, I was impressed and wouldn't say this is a fault." Gilles and Sylvie Provost both felt a 6-cylinder engine would be better and David Johnston commented, "Acceleration is adequate, no more. Steady acceleration is the order of the day . . . the kickdown makes a lot of noise and buzz but isn't very effective. I must point out though, that the car (sic) accelerates steadily and powerfully and does particularly well in hilly terrain." Without wanting to start a family feud, we should also note that wife

Lucie "accelerated to 140 km/h on the highway and it reacted promptly. Passing maneuvers and lane changes are effortless."

### **Transmission**

While Graeme Fletcher explained the workings of Honda's "fuzzy logic" transmission in the classroom session, it really needed the

mountain drive on Sunday to prove the point. And everyone was impressed. Ellen Dirstein remarked on the quietness of the transmission and the seamless gear changes, "There was no awareness of gear changes on hills – going up or down." David Johnston was also impressed: "On the mountain roads, the gears didn't downshift, upshift, downshift, upshift, but remained constant in a lower gear. I was very



impressed." Dana Clendenning agreed, noting, "The transmission is incredibly smooth. I couldn't feel it changing gears on the hills, whereas my Previa changes gears very noticeably going uphill."

### **Noise, Vibration, Harshness**

The Odyssey also scored well for its very low NVH (Noise, Vibration and Harshness) levels. Dana Clendenning: "This is another outstanding characteristic of the Odyssey. There is virtually no engine noise, in fact it's so quiet I found myself trying to start it when it was already running. It really has the quiet ride of a much more expensive vehicle." Dana shouldn't feel embarrassed about trying to start the Odyssey with the engine running – he was not alone. Jane Hughes noted, "A couple of times while outside the vehicle, I thought it had stalled."

### **Fit and Finish**

The conservative interior drew neither raves nor complaints. Colleen Clendenning wondered if the light-coloured interior would be



hard to keep clean. Darryl East "liked the (interior) materials and the soft feature finishes that give the van a secure, comfortable feel." Ellen Dirstein felt that the aesthetics were good: "The cloth finish on the doors will take abuse." She also commented on the positive tactile feel of the switches – particularly the push-button radio. David Johnston thought the dashboard "attractive, functional and safe (sloping away from occupants) with aesthetic advantages over the square dashboards that give you a closed in feeling." With respect to materials, he added, "I prefer a brushed interior roof. Without identifying anything in particular, I feel it is too 'plastic'." For Dana Clendenning, the interior is "attractive without being ostentatious."

competitive minivans are beginning to look alike. Gilles Provost noted, "This design is great because it is distinguishable from any other minivan on the market." Dana Clendenning thinks "the exterior look is attractive, if somewhat conservative. It's not the type of vehicle that will turn heads on the street." Ray Hughes, on the other hand felt, "the exterior is sleeker and more aerodynamic than my Dodge Caravan," and Darryl East simply observed, "it's a very nice '90s-looking vehicle."

## Conclusions

Lucie Cardyn-Johnston: "Frankly, if it weren't for the extra space that I need, I would take the Odyssey any day."

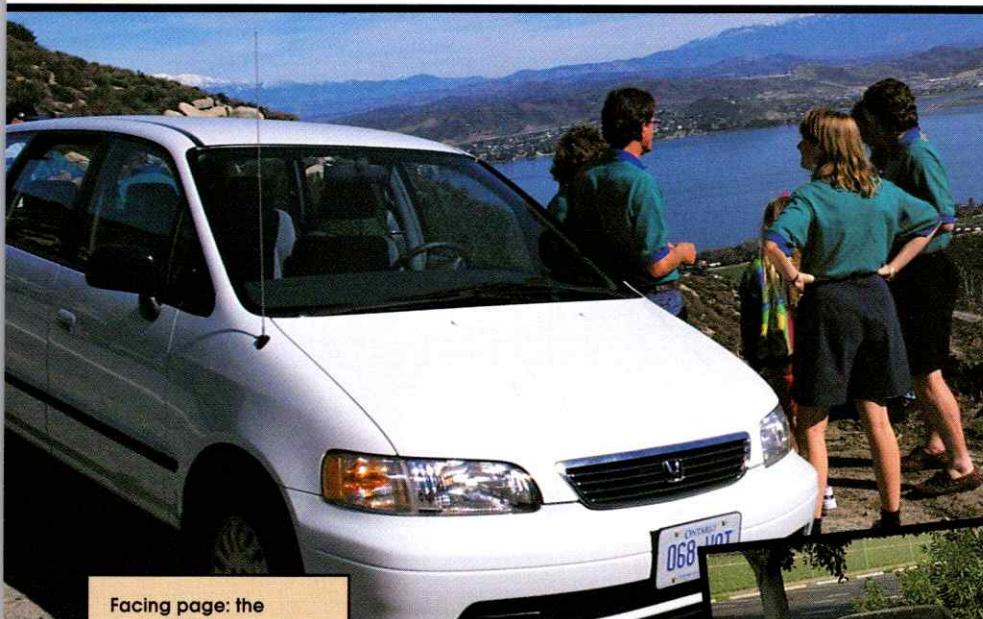
Gilles and Sylvie Provost: "In many respects, the Honda Odyssey seems superior to our 1993 Dodge Caravan."

Darryl East: "I think this van would equal or outrate the current Mazda MPV I'm driving. I would recommend anyone considering a minivan purchase to test drive the Odyssey." Leah East: "Certainly a viable alternative. I think the cruise control and four doors are 'no-brainers.' But a rear heater is a must for most Canadians."

***"I think the Odyssey will be one of the top minivans on the market."***

Reg Dirstein: "I would rate the Honda Odyssey right up there with my current van. There's less road noise and it runs a lot quieter. Potential owners should take a test drive. They couldn't help but be impressed as we were."

Ellen Dirstein: "This Odyssey rates very well and possibly superior in some ways (to our current minivan). A test drive will convince them to buy it IF they also receive the information on safety and engineering that we did."



**Facing page:** the Ortega Highway was a stern test of the Odyssey's ride and handling; David and Lucie Johnston get into the spirit of things with the cargo capacity test. **Above:** end of the climb – team members pause to look out over Lake Elsinore before the run down to the lunch stop; the Odyssey Adventure test team takes a break before tackling the last driving exercises on Saturday.

### Exterior

The low step up height and lower roofline of the Odyssey seemed to suggest to many team members that this is much more like a car than a

David Johnston: "Performance and safety is light years ahead. Space utilization good but not enough of it for my needs. A lot of minivan owners – American or import – should try it. They may find they have too much 'van' for their needs."

Ray Hughes: "The Odyssey is more of a large station wagon or car. Compared to the Dodge, it is a viable alternative and everyone should take a test drive."

Jane Hughes: "I would now rate the Odyssey over our Caravan because of the safety factors and the way it handles."



Colleen Clendenning: "The Honda Odyssey would be a definite alternative to our van when it's time to buy again."

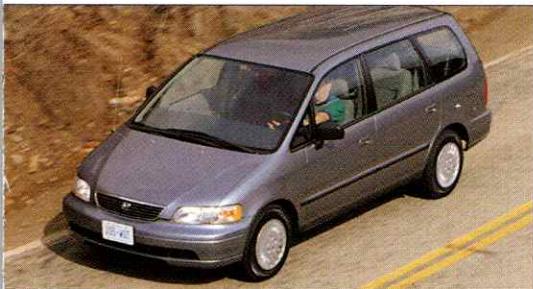
Dana Clendenning: "I think Odyssey will be one of the top three minivans on the market, right up there with Toyota Previa and Dodge Caravan. It handles better than our Previa and is much quieter. If it came in a stretch version with all-wheel drive, I would choose it over any other minivan on the market."

minivan. Many kept referring to it as a car throughout the program. "I like the overall design of the car," said Jane Hughes. "I really like how it looks more like a car than a van but still gives you the capacity of a van." The quality of the finish was also recognized.

Reg Dirstein: "The Odyssey is attractive . . . a good design. There were no wide gaps between panels. Doors opened and released well. The fit is good and tight." While many

**Honda has taken a different approach, starting with the**

# **ROAD TEST: WE SHOULD BE CALLING IT A MAXICAR INSTEAD OF A MINIVAN**



**I**n the 10 or so years since Chrysler invented the minivan, we have seen this segment of the market grow to a point where there are more than eight million of them on North American roads today. To say they have changed the automotive landscape is an understatement, and when the history of the automobile is written, the minivan will require several chapters of its own.

As Jim Miller, Senior Vice-President Automobile Sales & Marketing for Honda Canada, points out, while the recession put the overall passenger car market in the doldrums, the truck segment – which includes minivans – increased by more than 12 percent in 1994, and this is just a continuation of a trend which has held steady since minivans were introduced. What it signifies is nothing short of a revolution in consumer preferences. Large luxury cars, intermediates and sport specialty cars are losing their appeal. The station wagon is dying. Two and three car families are dwindling. People are looking for a vehicle that can fulfil many different roles. This is going to be the decade of the minivan and Honda may have caught the wave just in time.

For Honda, this is new territory, and while there are some hazards in launching an entirely new kind of vehicle into an established market, they had the benefit of analysing everyone else's mistakes. And they've minimized many of the risks by sticking to what they do best. First of all, it's essential to recognize that minivans have

moved away from their traditional truck roots in order to provide ride, handling and creature comforts that are more car-like. While some manufacturers are still using body-on-frame construction (the way trucks are built), Honda decided to use the highly efficient and well-proven Accord sedan platform as a starting point. In order to achieve a low step-up and a completely flat floor, Honda engineers lowered the passenger compartment and moved the entire drivetrain forward. To increase structural rigidity – the minivan body, after all, is a lot bigger than a passenger car – two longitudinal beams are placed under the floor, linked by seven U-shaped crossmembers.

When welded up in a



unibody form, the entire structure forms a lightweight, rigid, torque- and flex-resistant safety cage. Thanks largely to this construction, the Odyssey meets all 1997 U.S. federal passenger car standards for full frontal and side impacts. Honda has also reinforced the front beams, frame members, outriggers, lower side sills and windshield frame to protect against off-set frontal collisions, even though there are no federal standards in existence. **Conclusion: this is one of the strongest and safest passenger "cages" on the road, and the rigid structure allows the suspension to do its job just as if this were a unibody passenger car.**

Designing a body for a minivan is no easy task. How can you disguise the fact that it's a great big box on wheels? And because of its mass, it will be much more sensitive to wind resistance than a low-profile passenger car. Honda designers have addressed these problems after extensive wind tunnel experimentation. The key is to keep the skin as smooth as possible and round every corner to allow unobstructed airflow. The Odyssey's short

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Story by Alan E. McPhee  
Photos by John Plow

# award-winning Accord

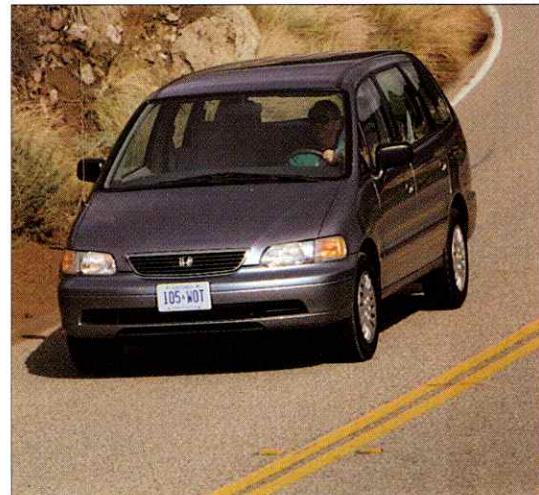


Using the Accord platform results in many car-like attributes such as low step up, low roofline, precise steering and handling and the use of conventional swing-open doors.

nose, flush-mounted halogen headlamps and door handles, steeply-raked windshield and low roofline not only cheat the wind effectively, but result in a handsome shape that seems more elegant and less boxy than most of its competitors. We particularly liked the location of the outside mirrors on the doors rather than on the A-pillars. This cuts down on wind noise and turbulence. The integrated front bumper and chin spoiler smooth the

flow of air under the vehicle while triple door seals and hidden drip rails reduce wind noise and improve the coefficient of drag. Conclusion: The Odyssey's shape cuts through the air quietly, is resistant to crosswinds, reduces wind noise and contributes to the best fuel economy rating in this segment.

Power is provided by the same 16-valve, 2.2 litre, SOHC engine found in the Accord sedan. However, horsepower has been increased from 130 at 5300 rpm, to 140 at 5600 rpm. Torque remains the same at 145





The "disappearing" rear seat folds flat into the floor. The middle captain's chairs are easily removed for additional cargo carrying capacity.

lb-ft at 4500 rpm. Like the Accord, the Odyssey engine uses Honda's Multi-Point Programmed Fuel Injection (PGM-FI) system derived from the Formula One racing program. Acceleration is better than some 4-cylinder competitors and almost as good as some sixes. We were able to post a 0-100 km/h time of 10.1 seconds, and the 80-120 km/h passing maneuver was accomplished in 9.5 seconds. The Odyssey responds instantly to accelerator tip-in and the engine is perfectly happy running up to its rev limit of 5600 rpm. However, engine noise begins to intrude under hard acceleration. Fuel economy is the big winner but we would like to see what the Accord's 170 horsepower V-6 would do to performance. The standard 4-speed electronically-controlled automatic transmission is managed by a control module that uses road speed and throttle opening to cue the gearshifts. We found the steering column-mounted gear selector to be very light, slipping too easily between the detents and frequently missing the gear we were aiming at. Shift shock is reduced by momentarily retarding the ignition during shifts. The transmission also has a lock-up torque converter which provides a couple of

important benefits. In steady state cruising in second, third or fourth gears, the converter locks up the transmission to minimize slippage in the viscous coupling, thereby improving fuel economy. It can also lock up in third or fourth gears during deceleration to provide engine braking. A unique feature of the transmission is Honda's Grade Logic Control. Also known as "fuzzy logic," it understands when the vehicle is climbing or descending a steep grade. For example, when driving uphill, it senses that despite a large throttle opening, the vehicle is gaining speed slowly, if at all.

Ergo, you're climbing a hill. Recognizing this, the transmission will stay in a lower gear rather than shifting up. Going downhill, the Grade Logic Control will sense that the vehicle is gathering speed with your foot off the accelerator. A touch on the brakes and the transmission will pick the most suitable lower gear to provide engine braking. This overcomes one of the most annoying features of most automatic transmissions which respond to throttle openings only and "hunt" from one gear to another regardless of road conditions. **Conclusion: Reliable, high-tech engine and a "thoughtful" transmission add up to maximum fuel efficiency and shock-free gearshifts.**

### You don't have to be on steroids to remove those middle seats

Odyssey is the first minivan to utilize a fully-independent, double wishbone suspension system. The basic benefit of this system is that it keeps all four wheels perpendicular to the road surface, regardless of cornering forces, and each wheel can respond individually to road dips and bumps without affecting the others. Thanks to the very rigid body structure, the suspension works almost unnoticed, eating up bumps, dips and seams in the road surface. Hard cornering or quick lateral movements produce some lean but under normal conditions, the sturdy 30 mm (1.2 in.)

### Four doors that open . . . well, like doors!

diameter stabilizer bar and stiff bushings keep the Odyssey on an even keel. The variable power rack & pinion steering provides added boost when it senses greater effort is needed – for example, when moving from a slick surface to dry pavement. This certainly takes the effort out of steering, but we would prefer less assist and a bit more feedback through the steering wheel. The on-centre feel is good and the vehicle tracks well at highway cruising speeds. We were pleasantly surprised at the very tight turning circle of just 11.5 metres (37.7 ft.). This is unusual in a front-wheel drive vehicle and better than any other minivan. Another plus is the 4-wheel power disc brake system. All other minivans are equipped with less effective disc-drum systems. Honda's 4-sensor, 3-channel anti-lock braking system (ABS) is standard on the 6-passenger

Odyssey (optional on the 7-passenger model). The 3-channel system allows each front wheel to react independently to its own sensor while the rear wheels act in unison. When, under heavy braking, the sensor detects impending lockup, the ABS modulator momentarily disengages and then reapplies brake pressure to the appropriate brake caliper (wheel). This allows the tires to retain optimum traction and steering control. **Conclusion: Car-like ride and handling with superior braking performance.**

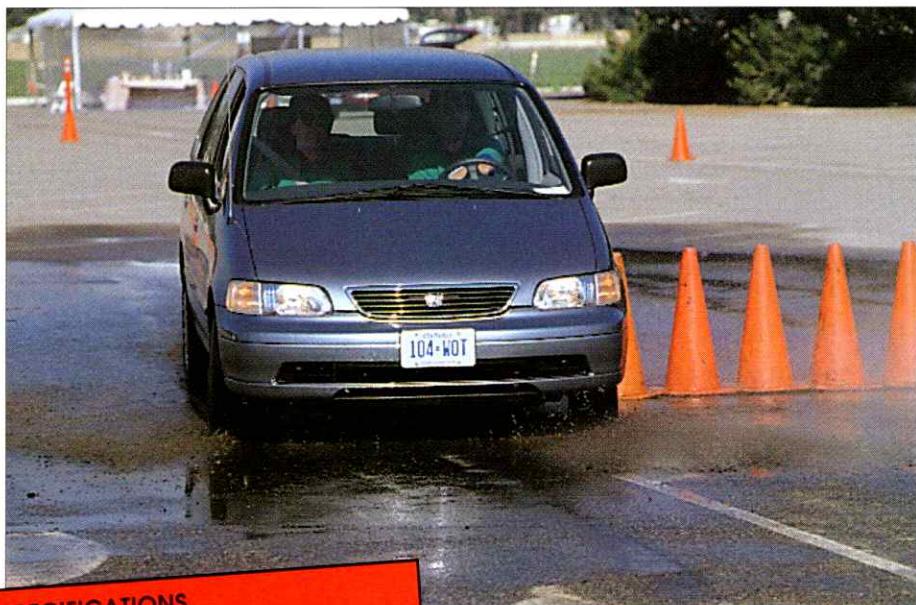
Inside is where Honda ingenuity is most obvious. Our 6-passenger test vehicle was equipped with four captain's chairs and a two-place bench in the rear. There are five different combinations of seat positions that provide a variety of people or cargo configurations. Starting with all seats in place, you can increase cargo space by simply folding



A shape that distinguishes it from all other minivans.



The 2.2 litre, 4-cylinder engine gets 10 more horses than the Accord.



## SPECIFICATIONS

Vehicle	5-dr, 6-pass minivan, FWD
Price - base	\$27,995
- as tested	\$27,995
Engine type	16-valve SOHC L4
Displacement	2.2 litres
Horsepower	140 @ 5600 rpm
Torque (lb-ft)	145 @ 4500 rpm
Transmission	4-speed elec. auto
Steering	var. power rack & pinion
Brakes f/r	power disc/disc ABS
Tires	205/65R15
Wheelbase	2830 mm
Length	4755 mm
Width	1792 mm
Height	1642 mm
Curb weight	1565 kg
Cargo capacity (seat folded)	1300 litres
Fuel capacity	65 litres
Acceleration 0-100 km/h	10.1 sec
80-120 km/h	9.5 sec
Fuel economy (city)	11.7 L/100 km
(hwy)	8.9 L/100 km

down the rear bench to fit flush with the floor. For even more space, you can remove one or both of the two reclining bucket seats from the middle row. They're not that heavy. Just tilt them forward and unlatch the front anchors. Getting them out is easy thanks to those wide-opening second doors. Very simple, no finger bashing or hernia maneuvers necessary. You don't have to be on steroids to do this. The 6-passenger model also allows that convenient walk-through feature between the first and second rows. The seats are set up "theatre style," with the second row slightly higher than the first row and the third higher than the second, so that everyone can see where they're going. All the seats have adjustable headrests and the outboard positions have three-point seatbelts. Cupholders? There are six in total and they can accommodate most sizes of cups or drink boxes. Even

### Steering response is precise and immediate.

with standard dual front airbags (SRS), the Odyssey manages to provide two gloveboxes on the passenger side and several other bins and pockets for "stuff." The driver's cockpit is simple and effective. The main instrument array, integrated into the sweep of the instrument panel, is dominated by the large 200 km/h speedometer with smaller gauges on each side for fuel and engine temperature. Cruise control buttons are incorporated into the steering wheel and we liked the front and rear wiper/washer controls located on one column-mounted stalk. The centre console houses the HVAC controls and the AM/FM stereo cassette player. The controls for the adjustable outside mirrors, power windows and door locks are located in the driver's door armrest. And those doors. Four of them that open ... well, like doors. Plus a lift-up tailgate on power struts. These struts make the tailgate very light so it isn't a struggle to close. **Conclusion: superior space management and flexibility; sound ergonomics and excellent visibility.**

While other manufacturers have focused on

## Odyssey

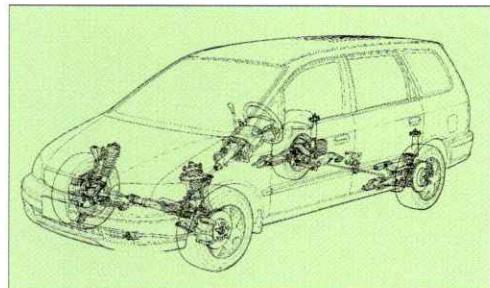
Category	Score/10
ERGONOMICS	
Driving Position	8.0
Major Controls	8.0
Instruments	7.5
Visibility	8.5
Climate Control	8.5
RESPONSE	
Steering	8.5
Brakes	9.0
Handling	8.5
PERFORMANCE	
Engine	7.8
Acceleration	8.3
Transmission	8.5
Fuel Economy	7.5
SAFETY	
Airbag (d + p)	10.0
ABS	9.5
Belts	9.0
SPACE	
Interior	9.5
Cargo Area	8.0
FINISH	
Interior	7.8
Exterior	8.0
N/V/H	
Noise, vibration, harshness	7.8
TOTAL	168.2/200

making their minivans better minivans, Honda has taken a different approach. Starting with the award-winning Accord sedan, Honda has added to a great car the attributes of a minivan. What we have here, folks, is a maxicar!



# Others claim to be car-like, this one virtually is a car

# ODYSSEY: TECHNICALLY MORE HONDA THAN MINIVAN



**M**inivans are classified as trucks, and the new Honda Odyssey is a minivan; ergo, it follows, the Odyssey must be a truck. Don't believe it! No matter how it is classified, there is nothing remotely truck-like about the Odyssey.

In concept, you could think of it as an Accord station wagon with a much-expanded interior. It is more than that, of course, but it does rely heavily on Accord's proven design and componentry, and that is no bad starting point. Recognizing that mainstream minivan design is becoming progressively more car-like, Honda's engineers approached the Odyssey design from the context of their passenger car experience. Not surprisingly, the result is somewhat different than other minivans on the market.

Early on, Odyssey's designers determined that the traditional two-box design would best satisfy their ambitious design objectives for crash impact absorption, interior space utility and noise, vibration and harshness (NVH). Their interpretation of the concept incorporates a low belt-line with lots of upper-body glass area, to afford Odyssey's passengers excellent visibility in the Honda tradition. It also provides strong visual clues that this vehicle is a Honda.

In spite of the high greenhouse, Odyssey is the shortest of all minivans, a feat made possible by clever design of the floorpan and body structure. Beginning from an Accord front-end section, an integral ladder-type frame extends rearward in the form of two longitudi-

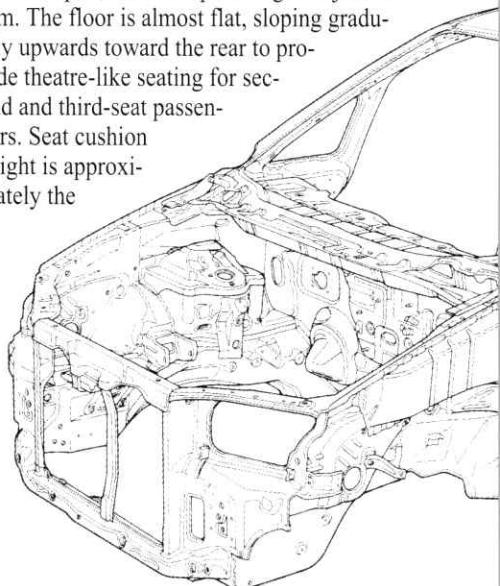
nal members with seven U-shaped cross-members, as well as a large-section transverse beam between the rear wheel wells. These primary members tie into an upper structure made rigid by large side-sills, high strength windshield and door frames and posts, a cross-body steering hanger beam and countless detail features.

Tubular side-impact beams are located in each of Odyssey's four doors, all of which are hinged, as on passenger cars. Most competitors offer only one sliding rear side-door but Honda believes the more traditional design is both more durable and more convenient.

Odyssey's structure provides safety characteristics that exceed the requirements of existing passenger car safety standards. It is, for example, designed for 30 degree offset frontal crashes (the standard applies only to full frontal) and to satisfy 1997 (U.S.) side-impact requirements. Dual airbags are standard equipment.

A combination of design and material selection helps minimize NVH transmission to the passenger compartment. For example, the firewall is lined with absorption material and the floorpan is comprised of layers of resin and steel sheet.

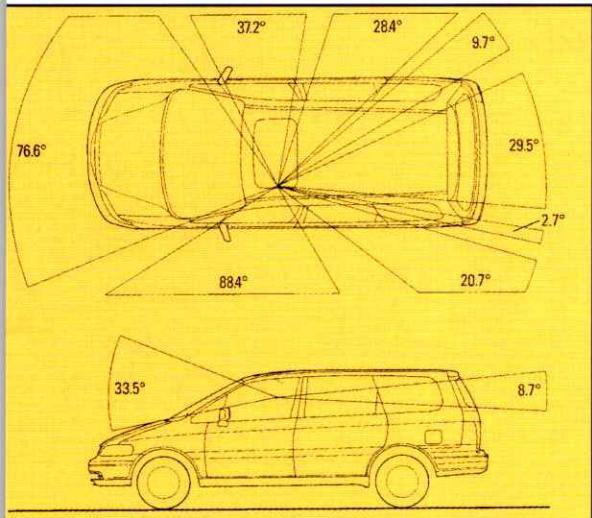
A key feature of Odyssey's design is its low floorpan, with a step-in height of just 330 mm. The floor is almost flat, sloping gradually upwards toward the rear to provide theatre-like seating for second and third-seat passengers. Seat cushion height is approximately the



**Modified Accord suspension (above) provides precise steering and passenger car comfort; rigid unibody construction includes side beam protection; 4-speed automatic transmission (right) has Grade Logic feature.**

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Story by Gerry Malloy



**Generous use of glass provides excellent visibility.**

same as the hip-height of an adult standing outside the vehicle, so sliding into and out of the seats is easy.

Odyssey's unique-for-minivans suspension design helps make its low, flat floor possible. Up front, the suspension is borrowed directly from Accord, with a leading compliance link and upper and lower transverse links – no MacPherson struts here. It is a low roll-center design, with typical Honda attention to detail, such as a lightweight, hollow anti-roll bar.

The rear suspension is fully independent, too – a feature not found on its major competitors. It is a new, compact design, incorporating a trailing beam with one upper and two lower transverse links. A low profile coil spring mounts aft and inboard, separate from the damper (shock absorber), to minimize the

space required for the wheel-well and permit a low floor.

Four-wheel disc brakes, with a load-sensing proportioning valve that adjusts front-rear bias according to load, are standard on all Odysseys. Also standard is 4-wheel/3-channel ABS with 6-passenger seating – optional with 7-passenger seating. Speed-sensitive power rack & pinion steering, combined with compact exterior dimensions give Odyssey a tighter turning circle (11.5 m) than that of its competitors.

While Odyssey's chassis and suspension endow it with real car-like ride and handling characteristics its roomy exterior and flexible seating arrangements provide van-like versatility. Buckets up front and a unique fold-down, 2-passenger bench in the rear are common to all Odysseys. When not needed, the rear bench folds flush into a well in the rear floor. In its "up" position, it normally faces forward but can be tilted to face rearward – the perfect seat for watching the races or other sports events.

Customers have a choice of two buckets or a 50-50 split, 3-passenger bench for the middle seats. The buckets are lightweight and easily removable, particularly with two side doors. The bench-halves fold down and forward, separately, to stow vertically right behind the front seats. On both the second and third row bench seats, the backrests also fold backwards, so the two seats together form a bed.

Although the Odyssey is the smallest of the front-wheel drive minivans in exterior dimensions, a plus for maneuverability and fuel economy, its interior space is generous.

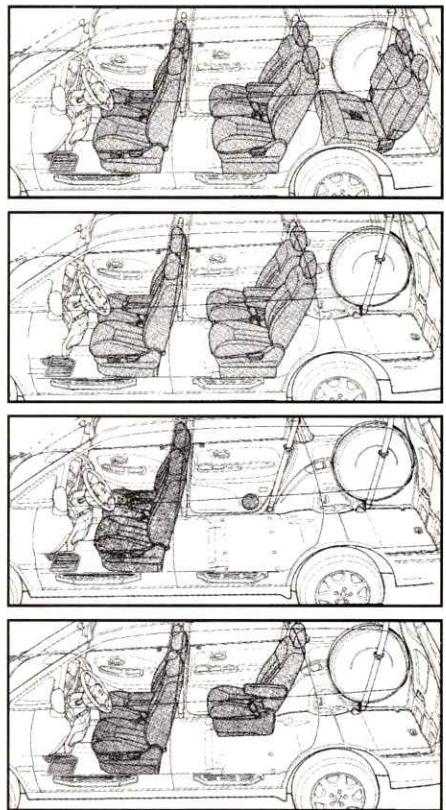
Front headroom is best in class – 18 mm better than next best, the much larger-on-the-outside Ford Villager.

Mid-seat headroom is second only to that of the Ford Villager/Nissan Quest twins, and third-seat headroom is better than in

Villager/Quest – just 14 mm less than the class-best dimension of the much larger Windstar. Legroom, too, belies Odyssey's exterior size. In the front seats, it is competitive with that of larger minivans, and in the mid-seat no competitor comes close to Odyssey. Only in the rear seat does knee-space get a bit tight.

Odyssey is narrower than its competitors but that fact only becomes noticeable inside when three adults occupy the middle bench. As for storage space, only Odyssey has a fold-down rear seat. Overall, it is a highly efficient use of space.

That space-efficiency pays off in many

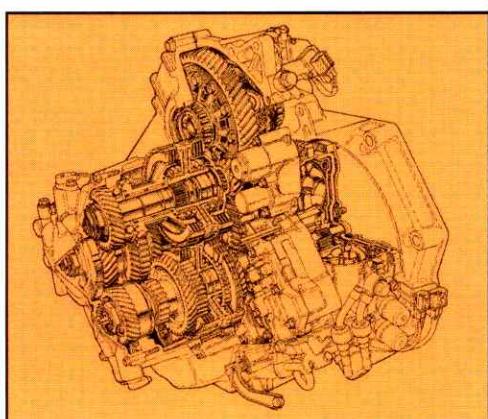
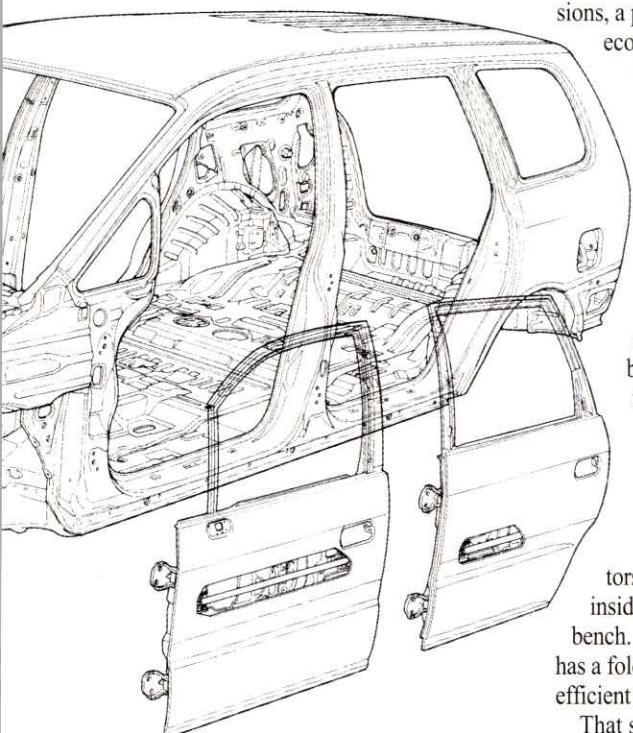


**Flexible seating and a space-efficient design maximize interior roominess.**

ways. Not only is Odyssey the smallest front-wheel drive minivan on the outside, it is also the lightest – just 1,565 kg. Add an aerodynamic shape to those attributes and you have a vehicle that requires significantly less power than its larger, heavier competitors, to achieve similar performance.

Odyssey uses a variant of Accord's proven 2.2 litre SOHC 4-cylinder engine, with detail changes that increase power to 140 hp and torque to 145 lb-ft. The V-6 engine now available in Accord is not available – yet.

Odyssey has the credentials to be a serious competitor in the minivan class, but it is more than just another minivan. It represents a different perspective on the genre and offers alternative solutions to challenges others have yet to master. It is, above all else, a Honda.



**"We have a lot of customers who have been looking**

# **ECONOMY AND SAFETY - KEY ELEMENTS IN MARKETING THE ODYSSEY**



**Honda is taking its hard won reputation for building superbly engineered, award-winning passenger cars and putting it all on the line with the introduction of the Odyssey minivan. This is entirely new territory for Honda, but one that offers an opportunity for incremental sales in a segment of the market that has proven impervious to the recession and continues to grow in spite of a shaky dollar and nagging doubts about our economic future. Carguide met with Jim Miller, Senior Vice-President Automobile Sales and Marketing for Honda Canada, to discuss this significant development.**

**Carguide (CG):** The minivan market has grown steadily since the introduction of the first Chrysler models in 1984. Sales are estimated to reach about 150,000 units in 1995. Do you think this trend will continue or is the market beginning to level off?

**Jim Miller (JM):** I think it is maturing but it will continue to grow. Because of the economic environment and rising vehicle prices, more and more consumers are looking for a vehicle that will satisfy all of their transportation needs. Previously, they may have looked for a car for everyday use and something else for weekends at the cottage and recreation. Now they tend to be looking for a vehicle that can do everything for them and the minivan is certainly capable of fulfilling all those expectations.

**CG:** One interesting characteristic of the minivan market – true also for sport/utility vehicles – is that it has continued to grow while overall vehicle sales have not. This means that minivan sales must be coming at the expense of some other segment of the market. Whose ox is being gored?

**JM:** Well, you're right, the total car market is only up 1.3 percent for the year while the truck market (*includes minivans ~ Ed.*) is up more than 12.0 percent. This is a real indication of a shift in consumer preference.

The luxury end of the car market and sport specialty vehicles have taken the biggest hit in the last couple of years. On the other hand, compacts and intermediates are growing along with sport/utility vehicles.

**CG:** If, as you indicate, the minivan market is maturing, what about your timing? Isn't it a bit late to be looking for a share of the pie?

**JM:** I think there is still sufficient growth there. Proof of that is the number of new entries which the segment is attracting and the competitiveness within that segment. I think Honda has a place there. We've built a reputation for quality and reliability in the marketplace and Honda has a lot of customers who have been looking for a Honda minivan for some time. This gives a lot of our customers a step to go to from the Accord sedan.

**CG:** Is that just a gut feeling or have you done any hard research to support it?

**JM:** There has been a lot of research. Honda spent about six months touring the U.S., going to malls, parks, sports events . . . all the places where minivan families are likely to be found. They even spent about a month at Disneyland and typically they would ask owners what they liked, disliked about their minivans, what

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Story by Alan E. McPhee  
Photos by John Plow

for a Honda minivan"



# “... the best fuel economy in the minivan segment”

they would like to see improved, removed, added and so on. And that was with a broad range of competitive vehicles. Honda also asked similar questions of Honda owners to find out what their needs and expectations are.

**CG: What kind of comments did they get?**

**JM:** They seemed to want the extra door (on the driver's side) and while the sliding door on the passenger side was acceptable, women in particular felt a regular hinged door was more convenient. Again, women liked the safety aspect of the visibility from a high seating position, but didn't like having to climb up into the vehicle. So that indicated a lower sill height for the Odyssey.

**CG: Aside from customer opinions, would it be true to say that your dealers have also been urging you to take this step?**

**JM:** For the better part of the past five years, dealers have been urging us to get into the minivan and SUV market. But we had a capacity problem to deal with . . . not just what to build but where to build it. And we had no expertise in building trucks, which is the traditional platform for a minivan or SUV.

**CG: Lack of truck expertise is probably in your favour. Every manufacturer likes to talk about the “car-like” ride of their minivan or SUV, but most of them are still built like trucks with a body-on frame construction. Using the Accord passenger car platform makes a lot of sense. However, you are launching the Odyssey with just the 2.2 litre, 4-cylinder engine while many of your competitors offer a V-6. Do you think this will affect sales?**

**JM:** We are quite confident about the performance of the 4-cylinder. I've driven the Odyssey and the Ford Villager with the V-6 – both with six people aboard – and didn't feel a significant difference in performance. And look at what has happened with the Accord. Everyone felt we should have a V-6 and now we've got it, which is great. But now that we've got it a lot of people are saying we didn't really need it because the four is more than sufficient. I think a lot of it is a mental perception that you have to have a 6-cylinder option whether you need it or not.

**CG: If, as you indicated earlier, this vehicle has to meet many expectations, presumably one of them would be economy?**

**JM:** Exactly, and the Odyssey right now gets the best fuel economy in the minivan segment.

**CG: Will economy be a major theme in your marketing story?**

**JM:** That and the safety aspect. The Odyssey meets all the 1997 passenger car safety standards with respect to side impact protection and frontal impact. And, of course, dual front airbags are standard equipment.

positive. But we have to see how the retail market is going to perform. Perhaps we are being a bit aggressive, but we would like to sell 4,000 units in the 1995 calendar year.

**CG: Will these be conquest sales or do you see the Odyssey as essentially a product to keep existing Honda owners in the family?**

**JM:** Most of the marketing thrust on a national basis will be: a) Honda now has a minivan, and b) here are the features which set it apart from the competition. I'm sure from a dealer perspective it will be marketed to their own customer base with special invitations to view the vehicle and so on, but nationally we'll be taking a broader approach.

**CG: With a base price of \$27,495, are you afraid the Odyssey will look too expensive compared to, say, a base Chrysler Caravan at under \$19,000?**

**JM:** If you look at typical transaction prices in the minivan segment, they seem to end up in the \$26,000-\$30,000 price range when the vehicles are optioned out. A lot of the growth in this market is at the top end because consumers really want all the creature comforts and that's where the Odyssey is targeted . . . so we are really right on the mark.

**CG: The economy is really not fully restored to health and we have a number of other problems like the deficit and Quebec sovereignty facing us. What is your view of the economic future, not just for the Odyssey and Honda but the automobile industry in general?**

**JM:** There have been a number of bullish predictions that suggest a growth of seven or eight percent for the coming year. I would like to share that enthusiasm but I believe we're still looking at slow, steady growth for the next two to three years. I would be surprised if we see more than three percent growth in the next year. I am also concerned about increasing interest rates. The market showed some growth last September and October but by November it just shut right off. And that uncertainty doesn't keep people out of the market for just a week or two . . . they will wait for months to see where the interest rates will settle. But despite the economic and political uncertainties, I think we are on the road to recovery and we're confident that the Honda Odyssey will find a place in a lot of Canadian driveways this year. ●



**CG: The Odyssey is built in Japan and imported to this market but we are seeing a general shift to source more production over here and avoid the vagaries of currency exchange rates. Honda has announced some expansion of North American production capability. Will the Odyssey be included in those plans?**

**JM:** I wouldn't be at all surprised to see the next generation Odyssey built in North America.

**CG: What are your expectations for this vehicle in 1995?**

**JM:** We are looking at the year with guarded optimism. Initial reaction from the press, the public and our dealer body has all been very