



# International Competitive Assessments

388 Croton Avenue Cortlandt Manor, New York 10567

Tel. (914) 293-7577 Fax (914) 788-1550

e-mail: icaworld@optonline.net

---

*International Competitive Assessments announces a new market study...*

## **Golf Car-Type Vehicles and The Emerging Market For Small, Task-Oriented Vehicles in the United States; Trends 2000-2005, Forecasts to 2008**

---

ICA announces publication of its third market study in a series of analyses on the small vehicle market in the United States. The study, as in the past, focuses on the various markets for golf car-type vehicles, the neighborhood electric vehicle (NEV), and heavy duty utility vehicles.

In ICA's initial study, published in 2000, we found that, *"the emergence of small vehicles for transportation and commercial usage has reshaped the profile of a market--largely dependent, heretofore, on fleet golf cars- into several new segments with diverse requirements."*

The second study published in 2002/2003 confirmed this trend, *"citing the fact that it is now a necessity rather than an option [for companies] to develop and expand these newer segments."*

### **Features of this study include key market trend data, analyses, and forecasts:**

- Market data and forecasts for golf cars used on golf course (fleet vehicles);
- Market data and forecasts for privately-owned golf cars (used for golfing and transportation);
- Market data and forecasts for utility vehicles;
- Product review and analysis in each market segment;
- Analysis of the emerging low speed vehicle (LSVs) market;
- Analysis of the market dynamics of new versus used and refurbished vehicles;
- Major player profiles/market share and competitive strategies.

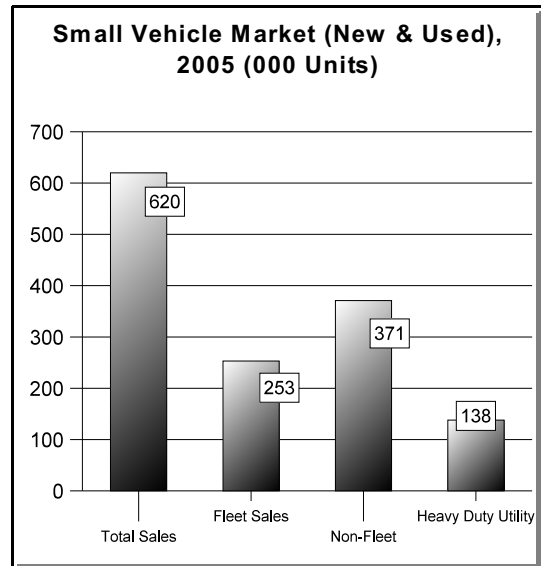
\* \* \* \*

The current study charts the continuing evolution of the small, low-powered vehicle market, including the emergence of the remanufactured vehicle as a volume-oriented product, the growth of the heavy duty vehicle as a mainstream product line for golf car companies, as well as other recent entrants, the potential for new, higher performing vehicles in the privately-owned market, and data and analysis on recent growth trends—as well as forecasts to 2008.

\* \* \* \*

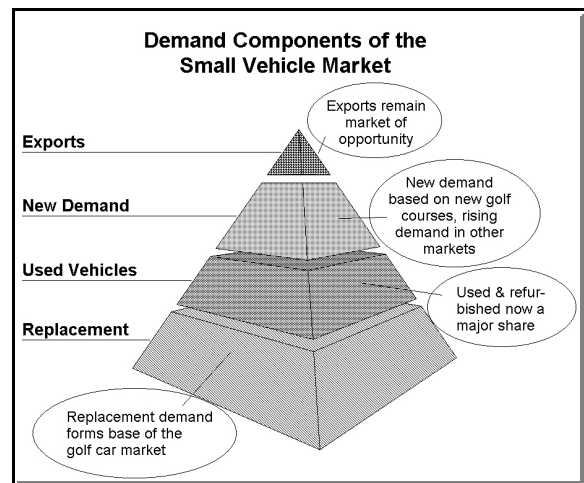
## Market Expansion Brings Over \$2 Billion in Sales

The study finds current golf car-type vehicle sales in excess of 620,000 units, including new and used vehicles, with 370,000 sold outside the fleet market (of which, 60% are used). Dollar volume is estimated at \$1.2 billion at the manufacturers level and close to \$2.0 billion at the end market. By 2008 end market sales should reach close to the \$2.5 billion. Add to this 138,000 heavy duty utility vehicle sales, and the current market reaches close to 760,000 units and over \$2 billion at the manufacturers level.



## Both the privately-owned and utility vehicle segments build into major volume segments with a wide variety of models and types

While media coverage of alternative fuel and electric vehicles has focused on advances which are evolutionary within the framework of traditional automobiles, privately-owned (including neighborhood electric vehicles) and utility vehicles have quietly proven to be a viable market in the short term because of their relative advantage in cost, coupled with performance parameters that match their operational requirements. Long term factors promise greater growth beyond the forecast period.



## **ICA/International Competitive Assessments**

---

### **ICA's Research Investigates the Details of Market Growth**

ICA's studies of the small vehicle market are unique for their detailed formulation of market structure and analysis of market growth, segment by segment. In particular, our clients will get information, insights and forecasts relating to:

- Three critical segments of the market: fleet golf cars, privately-owned vehicles and utility vehicles;
- Growth potential of the NEV market and the significant gains in heavy duty, utility vehicles;
- The impact of used/remanufactured vehicles throughout the major segments;
- Growth of the electric-powered subsegment; and
- A special section on the growing export market.

### **Analysis of factors driving the market**

ICA's study looks carefully at the factors underlying market growth and assesses the impact of:

- ▶ The slow down of new golf course construction and the leveling-off of golf participation;
- ▶ Increasing development of gated or closed communities-one of the leading factors in the increasing ownership of privately-owned golf cars and neighborhood electric vehicles and other LSVs;
- ▶ State and local laws and ordinances allowing on-street use of low-speed vehicles-giving rise to the whole new class of LSVs, which are now fully encompassed in NHTSA safety equipment regulations;
- ▶ Key Federal and State legislation which mandates alternative fuel and electric vehicles-these mandates will be partially fulfilled through NEVs;
- ▶ Population and workplace demographics favoring living environments conducive to use of privately-owned golf cars and low-speed vehicles;
- ▶ Market conditions favoring the growth of electric powered small vehicles, including the rapidly increasing cost of hydrocarbon-based fuels.

## **ICA/International Competitive Assessments**

### **For whom will the study be important and why?**

The study is directed toward marketing executives, senior corporate strategists, and market researchers engaged in all aspects of the small vehicle industry—including vehicle manufacturers and refurbishers, components and materials suppliers, and providers of electric power . The study should be valuable tool for those who must address the issues of short term performance, as well as those of overall corporate strategic direction.

### ***Fees and Availability***

The fee for the study is \$2,950.00 and is immediately available. A PowerPoint® presentation of the report is available for an additional \$550. Extra copies may be ordered for an additional fee. Orders may be placed by calling Stephen Metzger, Principal, at (914) 293-7577, or order via:

- Fax: (914) 788-1550
- e-mail: [icaworld@optonline.net](mailto:icaworld@optonline.net)

The detail of this report can be ascertained by review of the table of content, beginning on the next page:

# ICA/International Competitive Assessments

---

## Golf Car-Type Vehicles and The Emerging Market For Small, Task-Oriented Vehicles in the United States; Trends 2000-2005, Forecasts to 2008

### Table of Contents

#### Chapter 1. Introduction and Scope

- The Quest for Sustainable Markets
- Major Factors Underlying Growth: The Key Changes from Past Experience
  - Changing demographics, the 800-lb. gorilla
  - Environmental concerns continue as a major factor
  - The gasoline crisis
- How Golf Car-Type Vehicles Fit into the Picture
  - Commercial uses expand in parallel with a decentralizing society
- Other important market segments
- Market Segments Covered in This Study
  - Utility vehicle market comprised of two distinct segments
- Segments *Not* Covered
  - Organization of the Study
  - Methodology and research sources

#### Chapter 2. Market Overview-All Segments

- Fleet car market: Continues as the Backbone of the Industry
- Industry is still in early phase of market development
- New segments provide growth avenues
  - Privately-owned vehicles
  - Utility vehicles
  - Demand for electric vehicles continues to increase steadily
- Trend in Share of Total Unit Market Reveals Importance of Non-Fleet Segments

Table 2.1 Summary of Key Market Statistics

Fig. 2.1: Fleet Golf Car Sales, New & Used, 2000-2005

Fig. 2.2: Private Golf Car Sales, New & Used, 2000-2008

Fig. 2.3: LPT Utility Vehicle Sales, New & Used, 2000-2005

Fig. 2.4: Electric vs. Gas: Growth Trends, 2000-2008

Fig. 2.5: Share of Market, Electric vs. Gas (in terms of unit sales)

Fig. 2.6: Share of Market by Major Segment, 2000-2008

#### Chapter 3. The Industry in North America

Table 3.1 Summary of Principal Manufacturers

#### Chapter 4. Product Types/Technical Developments

- Golf Cars
- Neighborhood Electric Vehicles
- Utility Vehicles
- Differences among vehicles types become more clearcut as market grows
- Trends in small vehicle technology: New markets will force new technologies
- Technology trends of the 90s now dominate the product lines of 2000+; upgrades take center stage
- Fuel cells and enhanced batteries in the small vehicle of the future
- Other technologies: On-going development of the "fast/smart" charger
  - Gel-type batteries likely to be required in fast/smart systems
  - Fast/smart systems may initially be too expensive

## **Chapter 5: New and Used Golf Car Market Dynamics**

- Demand Components of the Market
- Growth of Parts Industry Testifies to Strength of the Used/Remanufactured Market
- Overall market figures for new and used vehicles
  - New vs. used golf cars by market segment
  - Sources of Used Vehicles
  - Used Car Markets, 2004
- Refurbishing now part of the mainstream industry
- How the remanufacturing process works: Industry structure
- Contract Rebuilders and Refurbishment Through Dealers
- Remanufacturing on large and small scale
- Upgrading the used vehicle: A growing phenomenon
- Used car network extends the market

SPECIAL SECTION: GROWTH OF THE EXPORT MARKET

Table 5.1 Parts Shipments vs. Golf Car Shipments, 1997-2002

Table 5.2 2004 New and Used Golf Car Demand

Table 5.3 2004 Sources of Used Cars

Table 5.4 2004 Used Golf Car Markets

Table 5.5 Summary of New & Used Golf Car Trends, 2000-2005

Figure 5.1: Demand Components of the Small Vehicle Market

Figure 5.2: Proportion of New and Used Vehicle Demand, By Segment, 2004

Figure 5.3: Sources and Uses of Used Golf Cars, 2004

Fig. 5.4: Club Car's remanufactured golf car.

Fig. 5.5: Club Car with 6-inch lift kit and knobbies. (Courtesy of Strech Plastics)

## **Chapter 6: The Market for Fleet Golf Cars**

- New golf course openings continue negative trend
- Core golfers may be declining
- Challenges to Increasing Golf Participation

## ICA/International Competitive Assessments

---

Note Bene: The Impact of Divorce  
States with the Most Golf Facilities  
Methodology for computing the fleet golf car market  
    Demand for new golf cars in the fleet segment:  
        Replacement demand  
    Demand for new golf cars in the fleet segment:  
        New demand  
    Demand for fleet golf cars, net of recycled used  
Outlook for fleet demand, 2005-2008  
    Factors driving demand  
    Outlook to 2008  
Trends in Electric- and Gasoline-Driven Golf Cars  
    Gains for electric vehicle component manufacturers  
    Trends in electric golf car sales show corresponding increase  
Forecast of Electric and Gas-Powered Vehicles, 2005-2008  
Strategic Aspects of the Forecasts  
Golf Car Production and Supply  
    Residual supply for the non-fleet market  
    Outlook for non-fleet supply availability  
Strategic Implications of the Outlook

Table 6.1 Five States With Most Golf Facilities, 2004  
Table 6.2 Fleet Golf Car Population and Replacement Demand, 2000-2005  
Table 6.3 New Golf Course Demand, 2000-2005  
Table 6.4 Total Fleet Demand and Net Demand for Fleet Golf Cars, 2000-2005  
Table 6.5 Forecast of Fleet Market Demand, 2005-2007  
Table 6.6 Population of Electric and Gas Fleet Golf Cars, 2000-2005 (000s)  
Table 6.7 Trends in Electric and Gas Fleet Replacement Demand, 2000-2005  
Table 6.8 Trends in Electric and Gas Demand from New Golf Course Openings  
    2000-2005  
Table 6.9 Total Fleet Demand by Electric and Gas Powered Vehicles, 2000-2005  
Table 6.10 Forecast of Replacement Demand for Fleet Vehicles,  
    Electric- and Gas-Powered, 2005-2008  
Table 6.11 Forecast of New Demand for Fleet Vehicles,  
    Electric- and Gas-Powered, 2005-2008  
Table 6.12 Combined Forecast of Replacement and New Demand Fleet Vehicles,  
    Electric- and Gas-Powered, 2005-2008  
Table 6.13 Trends in Golf Car Production, 2000-2005 (Shipments = \$Millions)  
Table 6.14 Total Fleet Demand and Fleet Demand Net of Recycled Vehicles,  
    2000-2005  
Table 6.15 Total Supply Available to the Non-Fleet Market, 2000-2005  
Table 6.16 Forecast of Golf Car Production, 2005-2008 (Shipments = \$Millions)  
Table 6.17 Forecast of Total Fleet Demand and Fleet Demand Net of Recycled  
    Vehicles, 2005-2008  
Table 6.18 Forecast of Total Supply Available to the Non-Fleet Market, 2005-2008

## ICA/International Competitive Assessments

---

- Fig. 6.1: Trend in New Golf Course Openings 2000-2004, Estimate 2005
- Fig. 6.2: Openings, Closings, & Net Openings Of Golf Courses, 2003, 2004, 2005 (est.)
- Fig. 6.3: Trends in Adult Golfers
- Fig. 6.4: Market Share of 5 Largest Golf Facility States, 2004
- Fig. 6.5: Forecast of New Fleet Car Demand, 2005-2008
- Fig. 6.6: Electric & Gas Fleet Populations, 2000-2005
- Fig. 6.7: Trends in Combined Fleet Demand, Electric & Gas, 2000-2005
- Fig. 6.8: Forecast of Combined Fleet Demand, 2005-2008
- Fig. 6.9: Trends in Golf Car Production, 2000-2005
- Fig. 6.10: Available Golf Car-Type Vehicles to Non-Fleet Markets
- Fig. 6.11: Ratio of New to Used Golf Cars in the Non-Fleet Market, 2000-2005
- Fig. 6.12: Forecast of Golf Car-Type Vehicles to Non-Fleet Markets, New & Used, 2005-2008
- Fig. 6.13: Ratio to New to Used in the Non-Fleet Market, 2005-2008

### Chapter 7: The Privately-Owned Market

- Executives Take Note of New Market
  - Mainstream roadways open to LSVs
  - Liability issues loom in the wake of the evolving market
  - NHTSA Rule 500: Product conformance requirements for LSV use on public roadways
- Market Expansion Likely to Encourage Diversity of Product Characteristics
  - Evolution of product characteristics
  - The privately-owned golf car market
  - Customized golf car vehicles occupy important niche
  - Dash Golf Cars acquired by IR's Club Car for new market development efforts
  - Custom cars as an approach to a relatively new, mainstream market
- Recent Market Trends
  - The market sourced from golf car manufacturers
  - Population and replacement demand for privately-owned golf cars
- Market Trends and Forecast for Electric and Gas Vehicles
- NEVs—Incremental New Demand
- A Page Beyond the NEV
- NEV Production Levels
  - ICA estimates of NEV production trends
- Forecast of the Privately-Owned Market
  - Communities conducive to LSV usage
  - Increasing number of states make LSVs street-legal
  - Impact of high gasoline prices
  - Tax-based incentives lower initial ownership costs
  - The factors driving the market reinforce one another
- Forecast for Privately-Owned Sees Market Expansion
- The LSV: Points of Reference for the Future

Table 7.1 Trends in Market for Privately-Owned Golf Cars, 2000-2005

Table 7.2 Replacement and New Demand in the Privately-Owned Golf Car Market, 2000-2005

Table 7.3 Representative NEV Manufacturers

Table 7.4 Forecast for Privately-Owned Golf Car-Type Vehicles, 2005-2008

Fig. 7.1: Club Car DS Luxury model.

Fig. 7.2: Custom-designed golf car from Club Car ('57 Chevy)

Fig. 7.3: Trends in New and Used Golf Car-Type Vehicles, 2000-2005

Fig. 7.4: Market Share, Replacement vs. New Market Growth

Fig. 7.5: The Tango.

Fig. 7.6: Estimate of Trend in NEV Production, 2000-2005

Fig. 7.7: The Villages in Florida

Fig. 7.8: Forecast for Privately-Owned Golf Car-Type Vehicles, 2005-2008

### Chapter 8: The Utility Vehicle Market

Market Segments: Heavy Duty Segment Attracts Many New Entrants

Variety of uses brings diverse competitors into the market

Market trends, 2000-2005

- LPT segment siphons used fleet vehicles

- Factors underlying growth

- End uses and markets multiply

- Manufacturers build on historical market strength

Customer Characteristics

Expansion phase now, consolidation ahead

- Leasing vs. Purchasing

- Pricing

Electric vs. Gas: User Environment is a Determining Factor

Forecast for the Utility Market

Factors Driving Future Growth

- Robust economy is important in sustaining the market

- LPT segment should see steady growth

- Heavy duty segment continues to increase

Electric Vehicles Predominate in LPT Segment

Growth Built on a Wide Range of Features

Key Features and Accessories

Appendix I: Representative Heavy Duty Utility Vehicles

Table 8.1 Utility Vehicle Market, 2000-2005

Table 8.2 LPT Utility Vehicle Market 2000-2005: Electric vs. Gas

Table 8.3 Forecast of Light Portage and Transport Segment, 2006-2008

Table 8.4 Forecast of Heavy Duty Vehicles, 2006-2008

Table 8.5 Forecast of Electric and Gas-Powered Utility Vehicles in the LPT Segment

- Fig. 8.1: Manufacturing Sources of Utility Vehicles
- Fig. 8.2: Trends in Utility Vehicle Market, 2000-2005
- Fig. 8.3: Market Share By Utility Vehicle Type, 2000 vs. 2005
- Fig. 8.4: Electric vs. Gas-Powered, 2000-2005
- Fig. 8.5: Share of Electric Powered Vehicles, 2000 Compared to 2005
- Fig. 8.6: Forecast for LPT Segment, 2006-2008
- Fig. 8.7: Forecast of Electric vs. Gas In the LPT Market Segment, 2006-2008
- Fig. 8.8: Share of Market By Electric and Gas, 2004 vs. 2008

### Chapter 9: Competitive Environment: Market Share/ Product Positioning

- Market priorities by manufacturer
- Market for Golf Car Type Vehicles
- Fleet Golf Car Segment
  - Company market share in new fleet sales
  - Club Car/EZ-GO Basically Share Market Leadership
- Company Profiles
  - Club Car
  - E-Z-Go Textron
  - Yamaha Golf Car
  - Columbia ParCar
- Privately-Owned Market
- Company Market Share
- NEV Company Profile
  - Global Electric MotorCars, LLC
- Utility Vehicle Segment
- Company Market Share
- John Deere, Kawasaki lead in the crowded heavy duty segment
- Top Five Leaders in Small Vehicle Sales Top \$1.3 Billion
- Company Profiles
  - Deere & Company
  - Kawasaki Motors Manufacturing Corp. U.S.A.
  - Cushman
  - Taylor-Dunn Manufacturing

- Table 9.1 Primary and Secondary Market Segments, By Representative Companies
- Table 9.2 Manufacturer Sales of New Golf Car Type Vehicles, 2005
- Table 9.3 2005 Sales of New Privately-Owned Vehicles By Manufacturer
- Table 9.4 Estimated Market Share in the LPT Utility Vehicle Segment, 2005
- Table 9.5 Market Share for New Heavy Duty Utility Vehicles,  
By Manufacturer, 2005 (Units, \$Millions)
- Table 9.6 Top Five Companies in Small Vehicle Sales

- Figure 9.1 Market Share of Major Golf Car Manufacturers (Unit Sales), 2005
- Figure 9.2: Market Share in Units of Privately-Owned Vehicles, 2005

Fig. 9.3: Estimated Share of LPT Utility Market By Manufacturer, 2005

Fig. 9.4: Market Share in the Heavy Duty Market, 2005

### Chapter 10. Environmental Issues, Government Regulations, Programs and Policies

Federal Regulations, Programs and Policies

Energy Policy Act (EPAAct)

Fleet coverage

What qualifies as an “alternative” fuel

Credits for light duty vehicles

Clean Cities Program

Federal Incentives

State Regulations

Golf Car Regulations

Low Speed Vehicle Laws

State Alternative Fuel and Zero Emission Vehicle Incentives

Regulatory trends will aid growth of the privately-owned market

Appendix 10.1: Representative State Incentives and Regulations for  
Alternative Fuels, Including Small Electric-Powered Vehicles