

**National Aeronautics and Space Administration
Fleet AFV Program Report for Fiscal Year 2001
November 26, 2002**

This National Aeronautics and Space Administration (NASA) Fleet Program Report for Fiscal Year (FY) 2001 presents the Agency's data on the number of AFV acquired during FY 2001. Forecast for acquisitions in 2002 and 2003 are not provided in this report, since actual data is provided in follow-on reports. This report has been developed in accordance with the Energy Policy Act of 1992 (EPAAct) (42 U.S.C. 13211-13219) as amended by the Energy Conservation Reauthorization Act of 1998 (Public Law 105-388) (ECRA), and Executive Order 13149.

Prior to April 2002, NASA's contractor vehicles were not included as part of the NASA inventory or acquisitions for EPAAct or E.O. 13149. When NASA determined that contractor vehicles were reportable and should be included, NASA's compliance with EPAAct changed. NASA has since mandated compliance with the EPAAct and E.O. 13149 to its contractors.

NASA originally calculated that their AFV acquisitions equated to 77 percent in FY 2001. NASA recalculated their percentages to include contractor-operated vehicles. Thereby correcting the AFV acquisitions for FY 2001 to 45 percent.

Legislative Requirements

EPAAct requires that 75 percent of all covered light-duty vehicles acquired for Federal fleets in FY 1999 and beyond must be AFVs (where the fleets have 20 or more vehicles, are capable of being centrally fueled, and are operated in a metropolitan statistical area with a population of more than 250,000 based on the 1980 census). Certain emergency, law enforcement, and national defense vehicles are exempt from these requirements. EPAAct also sets a goal of using replacement fuels to displace at least 30 percent of the projected consumption of motor fuel in the United States annually by the year 2010. The ECRA amended EPAAct to allow one alternative fuel vehicle acquisition credit for every 450 gallons of pure biodiesel fuel consumed in vehicles over 8,500 pounds gross vehicle weight rating. "Biodiesel credits" may fulfill up to 50 percent of an agency's EPAAct requirements. The head of each Federal agency must also prepare and submit a report to Congress outlining the agency's AFV acquisitions and future plans by November 13th each year. Executive Order 13149 directs Federal agencies operating a fleet of 20 or more vehicles within the United States to reduce their annual petroleum consumption by at least 20 percent by the end of FY 2005 (compared to FY 1999 levels) by using alternative fuels in AFVs more than 50 percent of the time, improving the average fuel economy of new light-duty petroleum-fueled vehicle acquisitions by 1 mpg by FY 2002 and 3 mpg by FY 2005, and using other fleet efficiency measures.

NASA Approach to Compliance with EPAct and E.O. 13149

To achieve compliance with the legislative mandates of EPAct and E.O. 13149, NASA is planning to acquire 75 percent of new light-duty vehicles as AFVs, and use alternative fuel in these vehicles a majority of the time. As part of NASA's AFV strategy, consideration is being given to a new surcharge program that will add \$10 monthly to the cost of every vehicle leased through the General Services Administration (GSA) to help cover the higher incremental cost of many AFV models (compared to conventional vehicles). NASA will also continue to acquire light duty vehicles with a higher fuel economy, and further reduce petroleum consumption by using biodiesel fuel in most diesel vehicles.

NASA Fleet Compliance for FY 2001

Figure 1 is a graphical depiction of AFV acquisitions by NASA's fleet in fiscal year 2001. NASA acquired 207 covered light-duty vehicles (LDVs), including contractor vehicles, in fiscal year 2001, of which 95 were AFVs with credits. This represents a 45 percent compliance rate. Attachment A provides detailed information on the number and types of light-duty vehicles leased or purchased by NASA in FY 2001

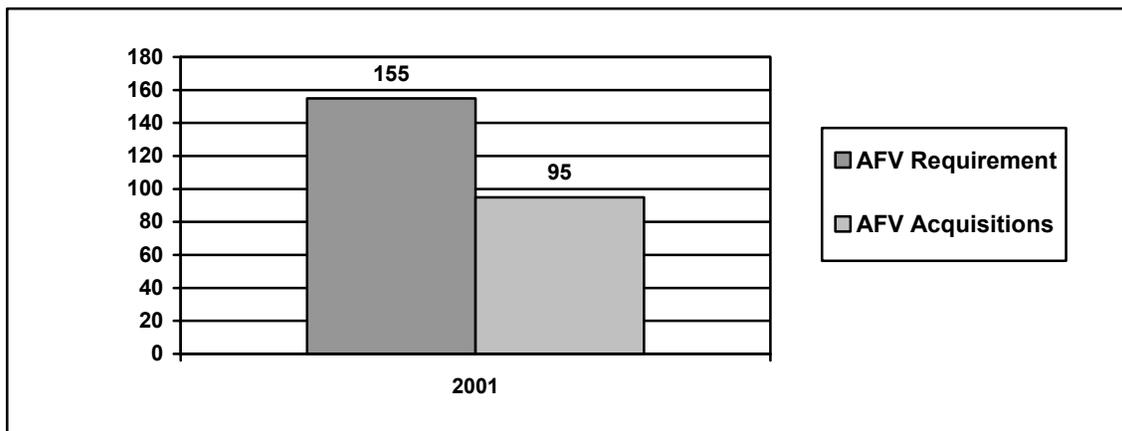


Figure 1. Summary of NASA's FY 2001 AFV Acquisitions

Alternative Fuel Use by NASA Fleets in FY 2001

Table 2 presents alternative fuel use data for NASA's fleets in fiscal year 2001. The majority of vehicles acquired by NASA and other Federal fleets are leased from GSA, and the leasing contract includes maintenance and fuel costs for the vehicles. This is accomplished by the use of a GSA credit card used to purchase alternative fuel. However, since product code standards are not uniform among suppliers of alternative fuels (e.g., ethanol or E-85), it is impossible for credit vendors to accurately track the purchase of alternative fuels with this credit card. The exception may be natural gas, which is usually purchased at a local utility refueling site, allowing the fleets to contact the utility for an accurate accounting of purchased fuel.

Table 2. NASA Fuel Use in FY 2001

Fuel Type	Quantity	Unit
CNG	26,023	Gallons @ 2,400 psi, 70°F
E-85	162,264	Gallons*
Propane	1,323	Gallons

*Estimate based on incomplete data

Petroleum Savings

Since it is difficult to calculate petroleum savings for FY 2002 and FY 2003 based upon the estimated AFV acquisitions, improvements in fuel economy, and fleet efficiency, petroleum savings are reported for only FY 2001. This information is approximation since it is acquired from GSA historical data and NASA's FAST report.

Attachment B provides the NASA Petroleum Consumption Report. In FY 1999 NASA's baseline petroleum consumption was 1,949,566 GGE and FY 2001 petroleum consumption was 1,537,719 GGE. This represents an decrease of 411,847 GGE in FY 2001 compared to the 1999 baseline (21 percent reduction).

Summary

NASA will continue to implement its strategy for complying with the requirements of E.O. 13149.

**Attachment A - National Aeronautics and Space Administration
AFV Report 2001 - Actuals**

Actual NASA FY 2001 Vehicle Acquisitions					
Actual FY 2000 Light-Duty Vehicle Acquisitions					Total Vehicle Inventory
	Leased	Purchased	Total		
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions		393	3	396	2711
Exemptions	Fleet Size	0	0	0	0
	Geographic	0	0	0	0
	Law Enforcement	16	0	16	41
	Non-MSA Operation	173	0	173	559
EPACT Covered Acquisitions		204	3	207	2111
Actual FY 2001 AFV Acquisitions					Total Vehicle Inventory
Vehicle	Leased	Purchased	Total		
Sedan	CNG Bi-Fuel Subcompact	5	0	5	88
Sedan	CNG Dedicated	0	0	0	48
Sedan	E-85 Flex-Fuel Midsize	6	0	6	22
Pickup 4x2	CNG Bi-Fuel Full-Size Reg Cab	10	0	10	99
Pickup 4X4	CNG Bi-Fuel	0	0	0	4
Pickup 4X4	Propane Bi-Fuel Full-size Reg Cab	0	0	0	1
Pickup 4x2	Propane Bi-Fuel Size Reg Cab	2	0	2	2
Van 4x2	E-85 Flex-Fuel	62	3	65	201
MD AFV Other 8,501-16,000 GVWR	CNG Dedicated	1	0	1	3
MD AFV Other 8,501-16,000 GVWR	CNG2	5	0	5	20
Emergency & Special Purpose HD 16,001 + GVWR	LPG Bi-Fuel	0	0	0	0
Total Number of AFV Acquisitions		91	3	94	488
Zero Emission Vehicle Credits		0	0	0	0
Dedicated Light-Duty AFV Credits		0	0	0	0
Dedicated Medium-Duty AFV Credits		1	0	0	0
Dedicated Heavy-Duty AFV Credits		0	0	0	0
Biodiesel Fuel Usage Credits		0	0	0	0
Total AFV Acquisitions with Credits		92	3	94	488
AFV Percentage Light-Duty Vehicle Acquisition				45%	

Attachment B – National Aeronautics and Space Administration

Petroleum Consumption Report

Covered Petroleum Consumption in GGE							
	FY 1999						
	Baseline	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005
Gasoline	1,528,088	1,211,832	1,327,464				
Diesel	421,478	212,025	210,255				
Diesel B-20	0	7,396					
TOTAL	1,949,566	1,431,253	1,537,719				
Reduction*	N/A	27%	21%				

* Reduction is the % reduction compared to the FY 1999 Baseline Total

Alternative Fuel Consumption (in GGE)							
	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	
CNG	25,719	26,063					
LNG	0	0					
LPG	676	1,323					
E-85	6,283	264					
Electric	0	0					
M-85	8,593	0					
BioDiesel (B20)	7,396	0					
TOTAL	48,667	27,650					
Estimated Total Fuel Used in AFVs	100%						
% of Alt Fuel Use in AFVs	** Unknown	** Unknown					

Average Fuel Economy of non-AFV Light Duty Vehicle Acquisitions (in mpg)							
	FY 1999						
	Baseline	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005
Fuel Economy	18.0	20.0	20.0				
Change Compared to Baseline		2.0	2.0				

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