

MSU - Center for Advanced Vehicular Systems P.O. Box 6343 Mississippi State, MS 39762

Dr. Mark E. Keenum

AGENCY ADDRESS CHIEF EXECUTIVE OFFICER

	Actual Expenses FY Ending June 30, 2013	Estimate Expenses FY Ending June 30, 2014	Requested for FY Ending June 30, 2015	Requested Increase (+) or Decrease (-) FY 2015 vs. FY 2014 (Col. 3 vs. Col. 2)	
				AMOUNT	PERCENT
I. A. PERSONAL SERVICES					
1. Salaries, Wages & Fringe Benefits (Base)	2,256,585	2,482,029	2,482,029		
a. Additional Compensation			499,219		
b. Proposed Vacancy Rate (Dollar Amount)					
c. Per Diem					
Total Salaries, Wages & Fringe Benefits	2,256,585	2,482,029	2,981,248	499,219	20.11%
2. Travel					
a. Travel & Subsistence (In-State)	16,223	32,000	32,000		
b. Travel & Subsistence (Out-of-State)	3,108				
c. Travel & Subsistence (Out-of-Country)					
Total Travel	19,331	32,000	32,000		
B. CONTRACTUAL SERVICES (Schedule B):					
a. Tuition, Rewards & Awards	3,412	2,500	2,500		
b. Communications, Transportation & Utilities	1,147	15,500	15,500		
c. Public Information					
d. Rents	625				
e. Repairs & Service	49,857	250	250		
f. Fees, Professional & Other Services	1,189	1,500	1,500		
g. Other Contractual Services	259,040	181,730	181,730		
h. Data Processing	58,774	58,520	58,520		
i. Other					
Total Contractual Services	374,044	260,000	260,000		
C. COMMODITIES (Schedule C):					
a. Maintenance & Construction Materials & Supplies					
b. Printing & Office Supplies & Materials	58,460	43,500	43,500		
c. Equipment, Repair Parts, Supplies & Accessories	9,207	5,500	5,500		
d. Professional & Scientific Supplies & Materials	24,832	13,400	13,400		
e. Other Supplies & Materials	30,040	22,600	22,600		
Total Commodities	122,539	85,000	85,000		
D. CAPITAL OUTLAY:					
1. Total Other Than Equipment (Schedule D-1)					
2. Equipment (Schedule D-2):					
b. Road Machinery, Farm & Other Working Equipment					
c. Office Machines, Furniture, Fixtures & Equipment					
d. IS Equipment (Data Processing & Telecommunications)					
e. Equipment - Lease Purchase					
f. Other Equipment					
Total Equipment (Schedule D-2)					
3. Vehicles (Schedule D-3)					
4. Wireless Comm. Devices (Schedule D-4)					
E. SUBSIDIES, LOANS & GRANTS (Schedule E):	527,501	469,097	469,097		
TOTAL EXPENDITURES	3,300,000	3,328,126	3,827,345	499,219	15.00%
II. BUDGET TO BE FUNDED AS FOLLOWS:					
Cash Balance-Unencumbered					
General Fund Appropriation (Enter General Fund Lapse Below)	3,300,000	3,328,126	3,827,345	499,219	15.00%
State Support Special Funds					
Federal Funds _____ Other Special Funds (Specify) _____					
Less: Estimated Cash Available Next Fiscal Period					
TOTAL FUNDS (equals Total Expenditures above)	3,300,000	3,328,126	3,827,345	499,219	15.00%
GENERAL FUND LAPSE					
III. PERSONNEL DATA					
Number of Positions Authorized in Appropriation Bill					
a.) Full Perm	55	55	55		
b.) Full T-L					
c.) Part Perm.					
d.) Part T-L	2	2	2		
Average Annual Vacancy Rate (Percentage)					
a.) Full Perm					
b.) Full T-L					
c.) Part Perm.					
d.) Part T-L					

Approved by: _____
Official of Board or Commission

Budget Officer: Mr. Don Zant / dzant@budgetplan.msstate.edu

Phone Number: 662-325-2231

Submitted by: Dr. Mark E. Keenum
Name

Title: President

Date: July 19, 2013

REQUEST BY FUNDING SOURCE

Name of Agency MSU - Center for Advanced Vehicular Systems

Specify Funding Sources As Shown Below	FY 2013 Actual Amount	% Of Line Item	% Of Total Budget	FY 2014 Estimated Amount	% Of Line Item	% Of Total Budget	FY 2015 Requested Amount	% Of Line Item	% Of Total Budget
1. General State Support Special (Specify)	2,256,585	100.00%		2,482,029	100.00%		2,981,248	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. Hurricane Disaster Reserve Fund									
7. Capital Expense Fund									
8.									
9. Federal Other Special (Specify)									
10.									
11.									
12.									
13.									
Total Salaries	2,256,585		68.38%	2,482,029		74.57%	2,981,248		77.89%
1. General State Support Special (Specify)	19,331	100.00%		32,000	100.00%		32,000	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. Hurricane Disaster Reserve Fund									
7. Capital Expense Fund									
8.									
9. Federal Other Special (Specify)									
10.									
11.									
12.									
13.									
Total Travel	19,331		0.58%	32,000		0.96%	32,000		0.83%
1. General State Support Special (Specify)	374,044	100.00%		260,000	100.00%		260,000	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. Hurricane Disaster Reserve Fund									
7. Capital Expense Fund									
8.									
9. Federal Other Special (Specify)									
10.									
11.									
12.									
13.									
Total Contractual	374,044		11.33%	260,000		7.81%	260,000		6.79%
1. General State Support Special (Specify)	122,539	100.00%		85,000	100.00%		85,000	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. Hurricane Disaster Reserve Fund									
7. Capital Expense Fund									
8.									
9. Federal Other Special (Specify)									
10.									
11.									
12.									
13.									
Total Commodities	122,539		3.71%	85,000		2.55%	85,000		2.22%

REQUEST BY FUNDING SOURCE

Name of Agency MSU - Center for Advanced Vehicular Systems

Specify Funding Sources As Shown Below	FY 2013 Actual Amount	% Of Line Item	% Of Total Budget	FY 2014 Estimated Amount	% Of Line Item	% Of Total Budget	FY 2015 Requested Amount	% Of Line Item	% Of Total Budget
1. General _____ State Support Special (Specify) _____									
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. Hurricane Disaster Reserve Fund									
7. Capital Expense Fund									
8.									
9. Federal _____ Other Special (Specify) _____									
10.									
11.									
12.									
13.									
Total Other Than Equipment									
1. General _____ State Support Special (Specify) _____									
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. Hurricane Disaster Reserve Fund									
7. Capital Expense Fund									
8.									
9. Federal _____ Other Special (Specify) _____									
10.									
11.									
12.									
13.									
Total Equipment									
1. General _____ State Support Special (Specify) _____									
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. Hurricane Disaster Reserve Fund									
7. Capital Expense Fund									
8.									
9. Federal _____ Other Special (Specify) _____									
10.									
11.									
12.									
13.									
Total Vehicles									
1. General _____ State Support Special (Specify) _____									
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. Hurricane Disaster Reserve Fund									
7. Capital Expense Fund									
8.									
9. Federal _____ Other Special (Specify) _____									
10.									
11.									
12.									
13.									
Total Wireless Comm. Devices									

REQUEST BY FUNDING SOURCE

Name of Agency MSU - Center for Advanced Vehicular Systems

Specify Funding Sources As Shown Below	FY 2013 Actual Amount	% Of Line Item	% Of Total Budget	FY 2014 Estimated Amount	% Of Line Item	% Of Total Budget	FY 2015 Requested Amount	% Of Line Item	% Of Total Budget
1. General State Support Special (Specify)	527,501	100.00%		469,097	100.00%		469,097	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. Hurricane Disaster Reserve Fund									
7. Capital Expense Fund									
8.									
9. Federal Other Special (Specify)									
10.									
11.									
12.									
13.									
Total Subsidies, Loans & Grants	527,501		15.98%	469,097		14.09%	469,097		12.25%
1. General State Support Special (Specify)	3,300,000	100.00%		3,328,126	100.00%		3,827,345	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. Hurricane Disaster Reserve Fund									
7. Capital Expense Fund									
8.									
9. Federal Other Special (Specify)									
10.									
11.									
12.									
13.									
TOTAL	3,300,000		100.00%	3,328,126		100.00%	3,827,345		100.00%

SPECIAL FUNDS DETAIL

MSU - Center for Advanced Vehicular Systems
Name of Agency

S. STATE SUPPORT SPECIAL FUNDS		(1) Actual Revenues FY 2013	(2) Estimated Revenues FY 2014	(3) Requested Revenues FY 2015
Source (Fund Number)	Detailed Description of Source			
	Cash Balance-Unencumbered			
Budget Contingency Fund	BCF - Budget Contingency Fund			
Education Enhancement Fund	EEF - Education Enhancement Fund			
Health Care Expendable Fund	HCEF - Health Care Expendable Fund			
Tobacco Control Fund	TCF - Tobacco Control Fund			
Hurricane Disaster Reserve Fund	HDRF - Hurricane Disaster Reserve Fund			
Capital Expense Fund	CEF - Capital Expense Fund			
Section S TOTAL				

A. FEDERAL FUNDS*		Percentage Match Requirement		(1) Actual Revenues FY 2013	(2) Estimated Revenues FY 2014	(3) Requested Revenues FY 2015
Source (Fund Number)	Detailed Description of Source	FY 2014	FY 2015			
	Cash Balance-Unencumbered					
Section A TOTAL						

B. OTHER SPECIAL FUNDS (NON-FED'L)		(1) Actual Revenues FY 2013	(2) Estimated Revenues FY 2014	(3) Requested Revenues FY 2015
Source (Fund Number)	Detailed Description of Source			
	Cash Balance-Unencumbered			
Section B TOTAL				

Section S + A + B TOTAL				
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C. TREASURY FUND/BANK ACCOUNTS*			(1) Reconciled Balance as of 6/30/13	(2) Balance as of 6/30/14	(3) Balance as of 6/30/15
Name of Fund/Account	Fund/Account Number	Name of Bank (If Applicable)			

* Any non-federal funds that have restricted uses must be identified and narrative of restrictions attached.

**NARRATIVE OF SPECIAL FUNDS DETAIL
AND TREASURY FUND/BANK ACCOUNTS**

MSU - Center for Advanced Vehicular Systems

Name of Agency

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems

Program No. _____ of 2 Programs

AGENCY

SUMMARY OF ALL PROGRAMS

PROGRAM

	FY 2013 Actual				
	(1) General	(2) State Support Special	(3) Federal	(4) Other Special	(5) Total
Salaries, Wages, Fringe	2,256,585				2,256,585
Travel	19,331				19,331
Contractual Services	374,044				374,044
Commodities	122,539				122,539
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	527,501				527,501
Total	3,300,000				3,300,000
No. of Positions (FTE)	57.00				57.00

	FY 2014 Estimate				
	(6) General	(7) State Support Special	(8) Federal	(9) Other Special	(10) Total
Salaries, Wages, Fringe	2,482,029				2,482,029
Travel	32,000				32,000
Contractual Services	260,000				260,000
Commodities	85,000				85,000
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	469,097				469,097
Total	3,328,126				3,328,126
No. of Positions (FTE)	57.00				57.00

	FY 2015 Increase/Decrease for Continuation				
	(11) General	(12) State Support Special	(13) Federal	(14) Other Special	(15) Total
Salaries, Wages, Fringe	499,219				499,219
Travel					
Contractual Services					
Commodities					
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants					
Total	499,219				499,219
No. of Positions (FTE)					

Note: FY2015 Total Request = FY2014 Estimated + FY2015 Incr(Decr) for Continuation + FY2015 Expansion/Reduction of Existing Activities + FY2015 New Activities.

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems _____

Program No. _____ of 2 Programs

AGENCY

SUMMARY OF ALL PROGRAMS

PROGRAM

FY 2015 Expansion/Reduction of Existing Activities				
(16) General	(17) State Support Special	(18) Federal	(19) Other Special	(20) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2015 New Activities				
(21) General	(22) State Support Special	(23) Federal	(24) Other Special	(25) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2015 Total Request				
(26) General	(27) State Support Special	(28) Federal	(29) Other Special	(30) Total
Salaries, Wages, Fringe	2,981,248			2,981,248
Travel	32,000			32,000
Contractual Services	260,000			260,000
Commodities	85,000			85,000
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants	469,097			469,097
Total	3,827,345			3,827,345
No. of Positions (FTE)	57.00			57.00

Note: FY2015 Total Request = FY2014 Estimated + FY2015 Incr(Decr) for Continuation + FY2015 Expansion/Reduction of Existing Activities + FY2015 New Activities.

**SUMMARY OF PROGRAMS
FORM MBR-1-03sum**

MSU - Center for Advanced Vehicular Systems _____
Agency Name

FUNDING REQUESTED FISCAL YEAR 2015

PROGRAM	GENERAL	ST.SUPP.SPECIAL	FEDERAL	OTHER SPECIAL	TOTAL
1. RESEARCH	3,199,315				3,199,315
2. PUBLIC SERVICE	628,030				628,030
SUMMARY OF ALL PROGRAMS	3,827,345				3,827,345

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems

Program No. 1 of 2 Programs

AGENCY

RESEARCH

PROGRAM

	FY 2013 Actual				
	(1) General	(2) State Support Special	(3) Federal	(4) Other Special	(5) Total
Salaries, Wages, Fringe	2,061,384				2,061,384
Travel	1,910				1,910
Contractual Services	328,886				328,886
Commodities	112,887				112,887
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	253,446				253,446
Total	2,758,513				2,758,513
No. of Positions (FTE)	52.29				52.29

	FY 2014 Estimate				
	(6) General	(7) State Support Special	(8) Federal	(9) Other Special	(10) Total
Salaries, Wages, Fringe	2,206,722				2,206,722
Travel	7,000				7,000
Contractual Services	215,000				215,000
Commodities	40,000				40,000
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	313,245				313,245
Total	2,781,967				2,781,967
No. of Positions (FTE)	52.29				52.29

	FY 2015 Increase/Decrease for Continuation				
	(11) General	(12) State Support Special	(13) Federal	(14) Other Special	(15) Total
Salaries, Wages, Fringe	417,348				417,348
Travel					
Contractual Services					
Commodities					
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants					
Total	417,348				417,348
No. of Positions (FTE)					

Note: FY2015 Total Request = FY2014 Estimated + FY2015 Incr(Decr) for Continuation + FY2015 Expansion/Reduction of Existing Activities + FY2015 New Activities.

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems

Program No. 1 of 2 Programs

AGENCY

RESEARCH

PROGRAM

FY 2015 Expansion/Reduction of Existing Activities				
(16) General	(17) State Support Special	(18) Federal	(19) Other Special	(20) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2015 New Activities				
(21) General	(22) State Support Special	(23) Federal	(24) Other Special	(25) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2015 Total Request				
(26) General	(27) State Support Special	(28) Federal	(29) Other Special	(30) Total
Salaries, Wages, Fringe	2,624,070			2,624,070
Travel	7,000			7,000
Contractual Services	215,000			215,000
Commodities	40,000			40,000
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants	313,245			313,245
Total	3,199,315			3,199,315
No. of Positions (FTE)	52.29			52.29

Note: FY2015 Total Request = FY2014 Estimated + FY2015 Incr(Decr) for Continuation + FY2015 Expansion/Reduction of Existing Activities + FY2015 New Activities.

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems

Program No. 2 of 2 Programs

AGENCY

PUBLIC SERVICE

PROGRAM

	FY 2013 Actual				
	(1) General	(2) State Support Special	(3) Federal	(4) Other Special	(5) Total
Salaries, Wages, Fringe	195,201				195,201
Travel	17,421				17,421
Contractual Services	45,158				45,158
Commodities	9,652				9,652
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	274,055				274,055
Total	541,487				541,487
No. of Positions (FTE)	4.71				4.71

	FY 2014 Estimate				
	(6) General	(7) State Support Special	(8) Federal	(9) Other Special	(10) Total
Salaries, Wages, Fringe	275,307				275,307
Travel	25,000				25,000
Contractual Services	45,000				45,000
Commodities	45,000				45,000
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	155,852				155,852
Total	546,159				546,159
No. of Positions (FTE)	4.71				4.71

	FY 2015 Increase/Decrease for Continuation				
	(11) General	(12) State Support Special	(13) Federal	(14) Other Special	(15) Total
Salaries, Wages, Fringe	81,871				81,871
Travel					
Contractual Services					
Commodities					
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants					
Total	81,871				81,871
No. of Positions (FTE)					

Note: FY2015 Total Request = FY2014 Estimated + FY2015 Incr(Decr) for Continuation + FY2015 Expansion/Reduction of Existing Activities + FY2015 New Activities.

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems

Program No. 2 of 2 Programs

AGENCY

PUBLIC SERVICE

PROGRAM

FY 2015 Expansion/Reduction of Existing Activities				
(16) General	(17) State Support Special	(18) Federal	(19) Other Special	(20) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2015 New Activities				
(21) General	(22) State Support Special	(23) Federal	(24) Other Special	(25) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2015 Total Request				
(26) General	(27) State Support Special	(28) Federal	(29) Other Special	(30) Total
Salaries, Wages, Fringe	357,178			357,178
Travel	25,000			25,000
Contractual Services	45,000			45,000
Commodities	45,000			45,000
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants	155,852			155,852
Total	628,030			628,030
No. of Positions (FTE)	4.71			4.71

Note: FY2015 Total Request = FY2014 Estimated + FY2015 Incr(Decr) for Continuation + FY2015 Expansion/Reduction of Existing Activities + FY2015 New Activities.

PROGRAM DECISION UNITS

MSU - Center for Advanced Vehicular Systems

1 - RESEARCH

AGENCY

PROGRAM NAME

	A	B	C	D	E	F	G	H
	FY 2014 Appropriation	Escalations By DFA	Non-Recurring Items	Personnel Cost Adjustments	Total Funding Change	FY 2015 Total Request		
EXPENDITURES:								
SALARIES	2,206,722			417,348	417,348	2,624,070		
GENERAL	2,206,722			417,348	417,348	2,624,070		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
TRAVEL	7,000					7,000		
GENERAL	7,000					7,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
CONTRACTUAL	215,000					215,000		
GENERAL	215,000					215,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
COMMODITIES	40,000					40,000		
GENERAL	40,000					40,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
CAPITAL-OTE								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
EQUIPMENT								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
VEHICLES								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
WIRELESS DEV								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
SUBSIDIES	313,245					313,245		
GENERAL	313,245					313,245		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
TOTAL	2,781,967			417,348	417,348	3,199,315		

FUNDING:

GENERAL FUNDS	2,781,967			417,348	417,348	3,199,315		
ST.SUP.SPCL.FUNDS								
FEDERAL FUNDS								
OTHER SP.FUNDS								
TOTAL	2,781,967			417,348	417,348	3,199,315		

POSITIONS:

GENERAL FTE	52.29					52.29		
ST.SUP.SPCL.FTE								
FEDERAL FTE								
OTHER SP FTE								
TOTAL FTE	52.29					52.29		

PRIORITY LEVEL:

				1				
	FY 2014 Appropriation	Escalations By DFA	Non-Recurring Items	Personnel Cost Adjustments	Total Funding Change	FY 2015 Total Request		
EXPENDITURES:								
SALARIES	275,307			81,871	81,871	357,178		
GENERAL	275,307			81,871	81,871	357,178		
ST.SUP.SPECIAL								
FEDERAL								

PROGRAM DECISION UNITS

MSU - Center for Advanced Vehicular Systems

2 - PUBLIC SERVICE

AGENCY

PROGRAM NAME

	A	B	C	D	E	F	G	H
OTHER								
TRAVEL	25,000					25,000		
GENERAL	25,000					25,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
CONTRACTUAL	45,000					45,000		
GENERAL	45,000					45,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
COMMODITIES	45,000					45,000		
GENERAL	45,000					45,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
CAPITAL-OTE								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
EQUIPMENT								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
VEHICLES								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
WIRELESS DEV								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
SUBSIDIES	155,852					155,852		
GENERAL	155,852					155,852		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
TOTAL	546,159			81,871	81,871	628,030		

FUNDING:

GENERAL FUNDS	546,159			81,871	81,871	628,030		
ST.SUP.SPCL.FUNDS								
FEDERAL FUNDS								
OTHER SP.FUNDS								
TOTAL	546,159			81,871	81,871	628,030		

POSITIONS:

GENERAL FTE	4.71					4.71		
ST.SUP.SPCL.FTE								
FEDERAL FTE								
OTHER SP FTE								
TOTAL FTE	4.71					4.71		

PRIORITY LEVEL:

				2				
--	--	--	--	---	--	--	--	--

PROGRAM NARRATIVE

Program Data Collected in Accordance with the
Mississippi Performance Budget and Strategic Planning Act of 1994
(To Accompany Form MBR-1-03)

MSU - Center for Advanced Vehicular Systems

1 - RESEARCH

AGENCY NAME

PROGRAM NAME

I. Program Description:

The Center for Advanced Vehicular Systems (CAVS) at Mississippi State University is an interdisciplinary center comprised of engineering, research, development, and technology transfer teams focused on enhancing human and payload mobility. The CAVS activities are clustered around material science, manufacturing process modeling, computational mechanics, computational fluid dynamics, multi-scale modeling, vehicular systems engineering, design optimization, human factors and ergonomics, alternative powered systems, and intelligent electronic systems. Research activities include efforts on vehicle weight reduction, improved crashworthiness, crash avoidance, new power generation, autonomous vehicle control (robotics) as well as advances in improved diagnostics, manufacturing, human interface, and computational design technologies. While CAVS projects generate timely solutions relevant to regional manufacturers, CAVS research seeks to expand knowledge that is essential for sustained economic development. Through direct involvement in various activities at CAVS, students gain valuable experience that leverages on their classroom learning.

II. Program Objective:

The objective of CAVS is to serve Mississippi State University, government, and industry through research and development of advanced computational modeling, simulation, and design of physical systems to solve real world problems. CAVS houses multiple research groups that provide cross-disciplinary research capabilities to address advancing technologies to solve complex problems for industry and our customers. As a result of CAVS' application-driven, team-oriented approach to basic and applied research on complex industrially-relevant engineering problems, we have contributed to:

- improved vehicle performance and reduced design cycle time and cost;
- timely generation of knowledge on the behavior and capabilities of missile, flight, naval vessels and other physical systems;
- analysis of behavior and performance of engineering systems (including humans) under adverse or catastrophic conditions;
- development of high-fidelity simulation tools and training;
- simulation and design systems to both enable and support designers and manufacturers of land, sea, air and space vehicular systems.

III. Current program activities as supported by the funding in Columns 6-15 (FY 14 Estimated & FY 15 Increase/Decrease for continuations) of MBR-1-03 and designated Budget Unit Decisions columns of MBR-1-03-A:**(D) Personnel Cost Adjustments:**

In order to meet rising personnel costs for PERS increases, enrollment increases, and to prevent further decline in competitive faculty salaries, funds are requested for personnel cost adjustments to maintain competitive salary and benefits for faculty.

PROGRAM NARRATIVE

Program Data Collected in Accordance with the
Mississippi Performance Budget and Strategic Planning Act of 1994
(To Accompany Form MBR-1-03)

MSU - Center for Advanced Vehicular Systems

2 - PUBLIC SERVICE

AGENCY NAME

PROGRAM NAME

I. Program Description:

CAVS has proven to be a leading economic development engine for the State of Mississippi. In addition to the CAVS MSU campus facility, in support of its mission, CAVS also offers a direct interface to manufacturers and industries throughout the state and region via the CAVS Engineering Extension, located in Canton, Mississippi. The services offered by the CAVS Engineering Extension include discrete event simulation, Six Sigma, lean manufacturing, and metrology. Nissan and its suppliers in Mississippi are in a global labor competition, so securing lasting jobs is an important activity. Further, there is an increased demand for engineers and technologists to support the increasingly complex problems. According to surveys conducted by the Manufacturing Extension Partnership of Mississippi in the 5-year period of 2006-2012, CAVS has had more than \$5.6 billion economic impact on the state and is responsible for over 3,300 jobs created or retained. Similar projects on behalf of other Mississippi companies help secure jobs throughout the state.

II. Program Objective:

Although CAVS research, development, and extension activities are important to the automotive industry and its suppliers in attaining its goals, it is also clear CAVS has a broader impact. We are already playing a role with the new PACCAR engine plant and Severstal steel mill located near the Golden Triangle Regional airport. In fact, Severstal is investing in the construction of a new Steel Research Center at MSU to support the steel industry's needs for new products. We are also working closely with Nucor, a more established steel firm in the state. CAVS current efforts have touched on many manufacturers and hundreds of employees in the State, especially via our workforce training efforts. From this foundation, CAVS brings the promise for enhanced productivity to further grow the employment base. Thus, the financial support for growing CAVS and its cadre of skilled technologists has significant and long-term implications to the State.

III. Current program activities as supported by the funding in Columns 6-15 (FY 14 Estimated & FY 15 Increase/Decrease for continuations) of MBR-1-03 and designated Budget Unit Decisions columns of MBR-1-03-A:**(D) Personnel Cost Adjustments:**

In order to meet rising personnel costs for PERS increases, enrollment increases, and to prevent further decline in competitive faculty salaries, funds are requested for personnel cost adjustments to maintain competitive salary and benefits for faculty.

PROGRAM PERFORMANCE INDICATORS AND MEASURES
 Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic
 Planning Act of 1994

MSU - Center for Advanced Vehicular Systems
 AGENCY NAME

1 - RESEARCH
 PROGRAM NAME

PROGRAM OUTPUTS: (This is the measure of the process necessary to carry out the goals and objectives of this program. This is the volume produced, i.e., how many people served, how many documents generated.)

	<u>FY 2013</u> <u>ACTUAL</u>	<u>FY 2014</u> <u>ESTIMATED</u>	<u>FY 2015</u> <u>PROJECTED</u>
1 # Agency Proposals	52.00	76.00	75.00
2 # Company Proposals	21.00	14.00	16.00
3 \$ Agency Proposals (in millions)	48.00	48.00	48.00
4 \$ Company Proposals (in millions)	1.33	7.00	5.00
5 Expenditures - Internal (in millions)	4.97	5.50	5.50
6 Expenditures - Agency (in millions)	9.68	17.00	17.25
7 Expenditures - Company (in millions)	0.50	1.00	1.00
8 # Awards - Agency	38.00	42.00	43.00
9 # Awards - Company	11.00	14.00	15.00
10 \$ Agency Awards (in millions)	3.59	5.50	5.50
11 \$ Company Awards (in millions)	0.67	1.50	1.70
12 # Managers	4.00	4.00	4.00
13 # Academic Faculty	20.00	42.00	40.00
14 # Research Professionals	85.00	104.00	105.00
15 # Support Staff	28.00	29.00	29.00
16 # Post Docs	14.00	22.00	25.00
17 # PhD Students Employed	98.00	125.00	130.00
18 # MS Students Employed	20.00	46.00	47.00
19 # Undergraduate Students Employed	92.00	128.00	135.00
20 # Journal Articles Submitted	4.00	7.00	7.00
21 # Conference Papers Submitted	1.00	1.00	1.00
22 # Authors of Proposals	87.00	62.00	65.00

PROGRAM EFFICIENCIES: (This is the measure of the cost, unit cost or productivity associated with a given outcome or output. This measure indicates linkage between services and funding, i.e., cost per investigation, cost per student or number of days to complete investigation.)

	<u>FY 2013</u> <u>ACTUAL</u>	<u>FY 2014</u> <u>ESTIMATED</u>	<u>FY 2015</u> <u>PROJECTED</u>
1 # Proposals / # Faculty & Mangers	3.04	2.15	2.20
2 \$ Proposals / # Faculty & # Managers (in millions)	2.07	1.30	1.40
3 Expenditures / # Faculty & # Mangers	0.63	0.50	1.00
4 # Awards / # Faculty & # Managers	2.04	1.18	2.20
5 Expenditures / # Support Staff and Others (in millions)	0.05	0.05	0.05
6 # Publications/ # Faculty & # Managers	2.13	1.39	1.50
7 # Conference Papers / # Faculty & # Mangers	1.38	0.76	0.85
8 # Technical Reports / # Faculty & # Managers	0.83	0.33	0.45

PROGRAM PERFORMANCE INDICATORS AND MEASURES
Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic
Planning Act of 1994

MSU - Center for Advanced Vehicular Systems
 AGENCY NAME

1 - RESEARCH
 PROGRAM NAME

PROGRAM OUTCOMES: (This is the measure of the quality or effectiveness of the services provided by this program. This measure provides an assessment of the actual impact or public benefit of your agency's actions. This is the results produced, i.e., increased customer satisfaction by x% within a 12-month period, reduce the number of traffic fatalities due to drunk drivers within a 12-month period.)

	<u>FY 2013</u> <u>ACTUAL</u>	<u>FY 2014</u> <u>ESTIMATED</u>	<u>FY 2015</u> <u>PROJECTED</u>
1 Book/Book Chapters Published	5.00	1.00	2.00
2 Articles Published in Trade Journals	2.00	4.00	4.00
3 Articles Published in Peer-reviewed Journals	44.00	62.00	63.00
4 Peer-reviewed Conference Papers	33.00	35.00	37.00
5 Peer-reviewed Conference Abstracts & Posters	12.00	20.00	20.00
6 Theses/Dissertations	3.00	7.00	7.00
7 Technical Reports	20.00	17.00	19.00
8 Awards/Recognitions	3.00	6.00	8.00
9 Non-refereed Conf. Papers/Abstracts/Posters	8.00	13.00	14.00

PROGRAM PERFORMANCE INDICATORS AND MEASURES
 Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic
 Planning Act of 1994

MSU - Center for Advanced Vehicular Systems
 AGENCY NAME

2 - PUBLIC SERVICE
 PROGRAM NAME

PROGRAM OUTPUTS: (This is the measure of the process necessary to carry out the goals and objectives of this program. This is the volume produced, i.e., how many people served, how many documents generated.)

	<u>FY 2013</u> <u>ACTUAL</u>	<u>FY 2014</u> <u>ESTIMATED</u>	<u>FY 2015</u> <u>PROJECTED</u>
1 # Agency Proposals	6.00	15.00	8.00
2 # Company Proposals	6.00	6.00	6.00
3 \$ Agency Proposals	2.14	4.00	4.00
4 \$ Company Proposals	0.29	0.13	0.30
5 Expenditures - Internal	0.78	0.53	0.80
6 Expenditures - Agencies	0.14	0.37	0.40
7 Expenditures - Company	0.12	0.19	0.20
8 Award - Agencies	8.00	6.00	8.00
9 Awards - Company	2.00	5.00	6.00
10 \$ Agency Awards	1.48	0.44	1.00
11 \$ Company Awards	0.14	0.13	0.15
12 Managers	2.00	2.00	2.00
13 # Academic Faculty	2.00	2.00	2.00
14 # Research Professionals	18.00	18.00	18.00
15 # Support Staff	3.00	4.50	4.50
16 # Undergraduate Students Employed	4.00	3.00	4.00
17 # Books/Articles Submitted or awaiting publication	1.00	1.00	1.00
18 # Conf Papers Submitted or Awaiting Publication	1.00	1.00	1.00
19 # of Authors of Proposals	12.00	10.00	12.00

PROGRAM EFFICIENCIES: (This is the measure of the cost, unit cost or productivity associated with a given outcome or output. This measure indicates linkage between services and funding, i.e., cost per investigation, cost per student or number of days to complete investigation.)

	<u>FY 2013</u> <u>ACTUAL</u>	<u>FY 2014</u> <u>ESTIMATED</u>	<u>FY 2015</u> <u>PROJECTED</u>
1 # Proposals / # Faculty & Managers	3.00	5.25	5.50
2 \$ Proposals / # Faculty & Managers	0.61	1.03	1.03
3 Expenditures / # Faculty & Managers	0.26	0.27	0.28
4 # Awards / # Faculty & Managers	2.50	2.75	3.00
5 Expenditures / # Support Staff and Others	0.05	0.05	0.05
6 # Publications/# Faculty & Managers	0.01	0.01	0.01
7 # Papers Presented/# Faculty & Mangers	0.01	0.01	0.01
8 Tech Reports/# Faculty & Managers	3.40	2.18	3.50

PROGRAM OUTCOMES: (This is the measure of the quality or effectiveness of the services provided by this program. This measure provides an assessment of the actual impact or public benefit of your agency's actions. This is the results produced, i.e., increased customer satisfaction by x% within a 12-month period, reduce the number of traffic fatalities due to drunk drivers within a 12-month period.)

	<u>FY 2013</u> <u>ACTUAL</u>	<u>FY 2014</u> <u>ESTIMATED</u>	<u>FY 2015</u> <u>PROJECTED</u>
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PROGRAM PERFORMANCE INDICATORS AND MEASURES
Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic
Planning Act of 1994

<u>MSU - Center for Advanced Vehicular Systems</u>	<u>2 - PUBLIC SERVICE</u>		
AGENCY NAME			PROGRAM NAME
1 Technical Reports	34.00	52.00	50.00
2 Awards/Recognitions	0.00	3.00	2.00

PROGRAM 3% GENERAL FUND REDUCTION AND NARRATIVE EXPLANATION

MSU - Center for Advanced Vehicular Systems

	Fiscal Year 2014 Funding			FY 2014 GF PERCENT REDUCED
	Total Funds	Reduced Amount	Reduced Funding Amount	
Program Name: (1) RESEARCH				
GENERAL	2,781,967	(83,470)	2,698,497	(3.00%)
ST.SUPPORT SPECIAL				
FEDERAL				
OTHER SPECIAL				
TOTAL	2,781,967	(83,470)	2,698,497	
Narrative Explanation: A 3% reduction in funding would be absorbed by covering more contractual costs with discretionary funding.				
Program Name: (2) PUBLIC SERVICE				
GENERAL	546,159	(16,374)	529,785	(2.99%)
ST.SUPPORT SPECIAL				
FEDERAL				
OTHER SPECIAL				
TOTAL	546,159	(16,374)	529,785	
Narrative Explanation: A 3% reduction in funding would be absorbed by covering more contractual costs with discretionary funding.				
SUMMARY OF ALL PROGRAMS				
GENERAL	3,328,126	(99,844)	3,228,282	(3.00%)
ST.SUPPORT SPECIAL				
FEDERAL				
OTHER SPECIAL				
TOTAL	3,328,126	(99,844)	3,228,282	

BOARD OF TRUSTEES OF INSTITUTIONS OF HIGHER LEARNING MEMBERS

MSU - Center for Advanced Vehicular Systems

Agency

A. Explain Rate and manner in which board members are reimbursed:

Board members are reimbursed through the Institutions of Higher Learning System Administration budget with a per diem of \$40 plus expenses.

B. Estimated number of meetings FY2014

12 (twelve)

C.	Names of Members	City, Town, Residence	Appointed By	Date of Appointment	Length of Term
1.	<u>Ms. Karen L. Cummins</u>	<u>Oakland, MS</u>	<u>Bryant</u>	<u>May 2012</u>	<u>9 years</u>
2.	<u>Dr. Bradford J. Dye, III</u>	<u>Oxford, MS</u>	<u>Bryant</u>	<u>May 2012</u>	<u>9 years</u>
3.	<u>Mr. Shane Hooper</u>	<u>Tupelo, MS</u>	<u>Bryant</u>	<u>May 2012</u>	<u>9 years</u>
4.	<u>Mr. Hal Parker</u>	<u>Bolton, MS</u>	<u>Bryant</u>	<u>May 2012</u>	<u>9 years</u>
5.	<u>Mr. Ed Blakeslee</u>	<u>Gulfport, MS</u>	<u>Barbour</u>	<u>May 2004</u>	<u>11 years</u>
6.	<u>Mr. Bob Owens</u>	<u>Terry, MS</u>	<u>Barbour</u>	<u>May 2004</u>	<u>11 years</u>
7.	<u>Mr. Aubrey Patterson</u>	<u>Tupelo, MS</u>	<u>Barbour</u>	<u>May 2004</u>	<u>11 years</u>
8.	<u>Ms. Robin Robinson</u>	<u>Laurel, MS</u>	<u>Barbour</u>	<u>May 2004</u>	<u>11 years</u>
9.	<u>Mr. Alan W. Perry</u>	<u>Jackson, MS</u>	<u>Barbour</u>	<u>May 2008</u>	<u>10 years</u>
10.	<u>Ms. Christine L. Pickering</u>	<u>Biloxi, MS</u>	<u>Barbour</u>	<u>May 2008</u>	<u>10 years</u>
11.	<u>Mr. C.D. Smith, Jr.</u>	<u>Meridian, MS</u>	<u>Barbour</u>	<u>May 2008</u>	<u>10 years</u>
12.	<u>Dr. Douglas W. Rouse</u>	<u>Hattiesburg, MS</u>	<u>Barbour</u>	<u>May 2008</u>	<u>10 years</u>

Identify Statutory Authority (Code Section or Executive Order Number)*

Constitutional Amendment 213A of the Constitution of the State of Mississippi

*If Executive Order, please attach copy.

**SCHEDULE B
CONTRACTUAL SERVICES**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2013	(2) Estimated Expenses FY Ending June 30, 2014	(3) Requested for FY Ending June 30, 2015
A. TUITION, REWARDS & AWARDS (61010-61099)			
61010 Tuition			
61020 Employee Training	3,412	2,500	2,500
61030 Travel Related Registration			
TOTAL (A)	3,412	2,500	2,500
B. TRANSPORTATION & UTILITIES (61100-61299)			
61110 Postage, Box Rent, etc.			
611XX Transportation of Goods (61180-61190)	728	15,000	15,000
61210 Electricity	419	500	500
61220 Gas			
61230 Water & Sewage			
TOTAL (B)	1,147	15,500	15,500
C. PUBLIC INFORMATION ((61300-61399)			
61310 Advertising & Public Information			
61340 Signs & Billboards			
61350 Exhibits & Displays			
TOTAL (C)			
D. RENTS (61400-61499)			
61420 Building & Floor Space	625		
61430 Land			
61440 Office Equipment			
61460 Other Equipment			
61470 Capitol Facilities - Rental			
61480 Exhibits, Displays & Conference Rooms			
61490 Other Rentals			
TOTAL (D)	625		
E. REPAIRS & SERVICES (61500-61599)			
61500 Grounds, Walks, Fences & Lots	17,259		
61520 Buildings	32,278		
61530 Machinery & Field Equipment			
61540 Motor Vehicles	320	250	250
61550 Office Equipment & Furniture			
61580 Shop Equipment			
61590 Miscellaneous Items of Equipment			
TOTAL (E)	49,857	250	250
F. FEES, PROFESSIONAL & OTHER SERVICES (61600-61699)			
61610 Engineering			
61615 SAAS Fees - DFA			
61616 MMRS Fees			
61620 Department of Audit			
6162X Accounting (61621-61624)			
6163X Legal (61630-61636)			
6164X Medical Services (61640-61646)	75		
61650 State Personnel Board			
6165X Personnel Services Contracts (61651-61653)			
61658 Personnel Services Contracts - SPAHRS			
6166X Court Costs & Reporters (61659-61660)			
61670 Laboratory & Testing Fees	1,114	1,500	1,500

**SCHEDULE B
CONTRACTUAL SERVICES CONTINUED**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2013	(2) Estimated Expenses FY Ending June 30, 2014	(3) Requested for FY Ending June 30, 2015
F. FEES, PROFESSIONAL & OTHER SERVICES (61600-61699)			
6168X Contract Worker (61682-61688)			
61690 Other Fees & Services			
TOTAL (F)	1,189	1,500	1,500
G. OTHER CONTRACTUAL SERVICES (61700-61899)			
61700 Liability Insurance Pool Contributions (Tort Claims)			
61710 Insurance & Fidelity Bonds			
61715 Insurance Computer Equipment			
61718 Service Charge - Bank Accounts			
61720 Membership Dues			
61721 Subscriptions	275	1,000	1,000
61730 Laundry, Dry Cleaning & Towel Service	53		
61740 Salvage, Demolition & Removal Service			
61800 Procurement Card/Contractual Purchases			
Custodial Services	42,231	40,000	40,000
Maintenance Contracts - Equipment	18,759	3,000	3,000
Garbage Disposal	3,698	1,550	1,550
Software Maintenance	39,128	40,000	40,000
Contractual Services - HPC Retainage	149,733	95,880	95,880
Other Miscellaneous Contractual Services (Includes MTA)	4,500	300	300
Pest Control	663		
TOTAL (G)	259,040	181,730	181,730
H. INFORMATION TECHNOLOGY (61900-61990)			
61902 IT Professional Fees - Outside Vendor	1,733	1,500	1,500
61905 IT Professional Fees - ITS			
6191X IS Training/Education			
61917 Service Charges to State Data Center			
61921 Software Acquisition, Installation and Maintenance			
61922 Basic Telephone Monthly - Outside Vendor			
61923 Basic Telephone Monthly - ITS	37,347	38,000	38,000
61924 Long Distance Charges - Outside Vendor			
61925 Long Distance Charges - ITS	16,357	15,000	15,000
61926 Private Data Line Monthly Charges - Outside Vendor			
61927 Private Data Line Monthly Charges - ITS			
61928 Private Network Access Charges - Outside Vendor	3,337	4,020	4,020
61929 Public Network Access Charges - ITS			
61932 Rental of IT Equipment - Outside Vendor			
61938 Pager Usage Time - Outside Vendor			
61939 Cellular Usage Time - Outside Vendor			
61940 Wireless Data Usage (Non-Cellular)			
61941 Satellite Voice Service			
61942 IT Offsite Storage - Data or Software			
61961 Maintenance/Repair of IS Equipment - Outside Vendor			
TOTAL (H)	58,774	58,520	58,520

**SCHEDULE B
CONTRACTUAL SERVICES CONTINUED**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2013	(2) Estimated Expenses FY Ending June 30, 2014	(3) Requested for FY Ending June 30, 2015
I. OTHER (61991-61999)			
6199X Prior Year Expense (61996-61998)			
61999 Contractual Services - No PO Required			
TOTAL (I)			
GRAND TOTAL <i>(Enter on Line I-B of Form MBR-1)</i>	374,044	260,000	260,000
FUNDING SUMMARY:			
GENERAL FUNDS	374,044	260,000	260,000
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
TOTAL FUNDS	374,044	260,000	260,000

**SCHEDULE C
COMMODITIES**

MSU - Center for Advanced Vehicular Systems
Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2013	(2) Estimated Expenses FY Ending June 30, 2014	(3) Requested for FY Ending June 30, 2015
A. MAINTENANCE & CONSTR. MATERIALS & SUPPLIES (62010-62099)			
62040 Lumber Parts			
62050 Steel & Other Metals			
62060 Paints			
Total (A)			
B. PRINTING & OFFICE SUPPLIES & MATERIALS (62100-62199)			
62110 Printing Binding	1,200		
62120 Duplication & Reproduction Supplies			
62130 Office Supplies & Materials	19,229	35,000	35,000
62140 Paper Supplies	1,271	1,500	1,500
62150 Maps, Manuals, Library Books	158		
62160 Office Equipment (not capital outlay)	36,602	7,000	7,000
Total (B)	58,460	43,500	43,500
C. EQUIPMENT REPAIR PARTS, SUPPLIES & ACCES. (62200-62299)			
62210 Fuels - Gasoline	2,145	2,000	2,000
62251 Expendable Vehicle Repairs and Parts			
62270 Radio & TV Supply & Repair			
62290 Other Equipment Repair Parts	7,062	3,500	3,500
Total (C)	9,207	5,500	5,500
D. PROFESSIONAL & SCI. SUPPLIES AND MATERIALS (62300-62399)			
62330 Photographic Supplies		400	400
62340 Drugs & Chemicals - Medical & Lab Use	9,234	1,000	1,000
62390 Other Professional Scientific	15,598	12,000	12,000
Total (D)	24,832	13,400	13,400
E. OTHER SUPPLIES & MATERIALS (62400-62999)			
62420 Hardware, Plumbing & Electrical		4,000	4,000
62450 Janitor Supplies & Cleaning	4,191	7,500	7,500
62460 Wearing Material			
6247X Foods	809		
62520 Decal Signs			
62530 Uniforms & Wearing Apparel	23	100	100
62555 IS Equipment Repair Parts			
62560 Eating Utensils and Cafeteria Supplies			
62590 Other Supplies & Materials	18,743	9,000	9,000
62595 Other Equipment (less than \$1,000)	6,274	2,000	2,000
62800 Procurement Card/Commodity Purchases			
62994 Petty Cash Expense			
62998 Prior Year Expenses			
Total (E)	30,040	22,600	22,600

**SCHEDULE C
COMMODITIES CONTINUED**

MSU - Center for Advanced Vehicular Systems
Name of Agency _____

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2013	(2) Estimated Expenses FY Ending June 30, 2014	(3) Requested for FY Ending June 30, 2015
GRAND TOTAL (A, B, C, D & E) <i>(Enter on Line I-C of Form MBR-1)</i>	122,539	85,000	85,000
FUNDING SUMMARY:			
GENERAL FUNDS	122,539	85,000	85,000
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
TOTAL FUNDS	122,539	85,000	85,000

**SCHEDULE D-1
CAPITAL OUTLAY
OTHER THAN EQUIPMENT**

MSU - Center for Advanced Vehicular Systems
Name of Agency _____

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2013	(2) Estimated Expenses FY Ending June 30, 2014	(3) Requested for FY Ending June 30, 2015
A. LANDS (63100-63199)			
63110 Land for Buildings			
63120 Land for Right-of-Way			
63170 Land Purchased for Other Purposes			
TOTAL (A)			
B. BUILDINGS & IMPROVEMENTS (63200-63299)			
63230 Building Additions & Betterments (except MDOT)			
63250 Buildings - Purchased, Constructed, Remodeled			
TOTAL (B)			
C. INFRASTRUCTURE & OTHER (63500-63999)			
635XX Other			
TOTAL (C)			
GRAND TOTAL <i>(Enter on Line I-D-1 of Form MBR-1)</i>			
FUNDING SUMMARY:			
GENERAL FUNDS			
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
TOTAL FUNDS			

**SCHEDULE D-2
CAPITAL OUTLAY EQUIPMENT**

MSU - Center for Advanced Vehicular Systems

Name of Agency

EQUIPMENT BY ITEM	Act. FY Ending June 30, 2013		Est. FY Ending June 30, 2014		Req. FY Ending June 30, 2015		
	No. of Units	Total Cost	No. of Units	Total Cost	No. of Units	Cost Per Unit	Total Cost
A. VEHICLES (see form MBR-1-D-3)							
B. ROAD MACHINERY, FARM & OTHER EQUIPMENT							
63320 Road Machinery							
TOTAL (B)							
C. OFFICE MACHINES, FURNITURE, FIXTURES, EQUIP.							
63330 Office Equipment, Furniture							
TOTAL (C)							
D. IS EQUIPMENT (DP & TELECOMMUNICATIONS)							
63421 IT/IS Equipment							
TOTAL (D)							
E. EQUIPMENT - LEASE PURCHASE (63460-63476)							
63460 Lease-Purchase - Copy Machines							
63462 Lease-Purchase - Information Systems Equipment							
63476 Lease-Purchase - Other Equipment							
TOTAL (E)							
F. OTHER EQUIPMENT							
63396 Betterments/Accessrs for Vehicles							
63405 Lawn and Garden Equipment							
63490 Other Equipment							
63495 Betterments/Accessrs for Other than Vehicles							
TOTAL (F)							
GRAND TOTAL <i>(Enter on Line I-D-2 of Form MBR-1)</i>							
FUNDING SUMMARY:							
GENERAL FUNDS							
STATE SUPPORT SPECIAL FUNDS							
FEDERAL FUNDS							
OTHER SPECIAL FUNDS							
TOTAL FUNDS							

**SCHEDULE D-3
PASSENGER/WORK VEHICLES**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	Vehicle Inventory June 30, 2013	FY Ending June 30, 2013		FY Ending June 30, 2014		FY Ending June 30, 2015	
		No. of Vehicles	Actual Cost	No. of Vehicles	Estimated Cost	No. of Vehicles	Requested Cost
A. PASSENGER & WORK VEHICLES (63310, 63390-63400)							
63310 Passenger, Basic Economy							
63310 Passenger, Basic Sporty							
63310 Passenger, Entry Level							
63310 Passenger, Lower Middle							
63310 Passenger, Traditional Large							
63310 Passenger, Upper Middle							
63310 Passenger, Upper Middle Specialty							
63390 Truck, Compact Pickup							
63390 Truck, Fullsize Pickup							
63390 Truck, Fullsize Utility							
63390 Truck, Midsize Pickup							
63391 Truck, Heavy Duty Station Wagon							
63391 Truck, Heavy Duty Trucks							
63392 Truck, Mini Sport Utility							
63392 Truck, Sport Utility							
63393 Truck, Fullsize Van (Cargo)							
63393 Truck, Minivan (Cargo)							
63393 Truck, Minivan (Passenger)							
63393 Truck, Window Van (Passenger)							
63400 Other Vehicles							
TOTAL (A)							
B. BETTERMENTS OR ACCESSORIES FOR VEHICLES (63395)							
63395 Betterments or Accessories for Vehicles							
TOTAL (B)							
GRAND TOTAL <i>(Enter on Line I-D-3 of Form MBR-1)</i>							
FUNDING SUMMARY:							
GENERAL FUNDS							
STATE SUPPORT SPECIAL FUNDS							
FEDERAL FUNDS							
OTHER SPECIAL FUNDS							
TOTAL FUNDS							

**SCHEDULE D-4
WIRELESS COMMUNICATION DEVICES**

MSU - Center for Advanced Vehicular Systems
Name of Agency _____

MINOR OBJECT OF EXPENDITURE	Device Inventory June 30, 2013	Act FY Ending June 30, 2013		Est FY Ending June 30, 2014		Req FY Ending June 30, 2015	
		No. of Devices	Actual Cost	No. of Devices	Estimated Cost	No. of Devices	Requested Cost
A. CELLULAR PHONES (63435)							
63435 Cellular Phones							
Total (A)							
B. PAGERS (63434)							
63434 Pagers, Paging Equipment							
Total (B)							
C. WIRELESS PERSONAL DIGITAL ASSISTANTS (63435)							
63435 Wireless PDAs, Blackberry, etc							
Total (C)							
GRAND TOTAL <i>(Enter on Line I-D-4 of Form MBR-1)</i>							
FUNDING SUMMARY:							
GENERAL FUNDS							
STATE SUPPORT SPECIAL FUNDS							
FEDERAL FUNDS							
OTHER SPECIAL FUNDS							
TOTAL FUNDS							

**SCHEDULE E
SUBSIDIES, LOANS & GRANT**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2013	(2) Estimated Expenses FY Ending June 30, 2014	(3) Requested for FY Ending June 30, 2015
A. SCHOOL GRANTS TO COUNTIES & MUNICIPALITIES (64000-64599)			
TOTAL (A)			
B. GRANTS TO I.H.L. & OTHER POLITICAL SUBDIVISIONS (64600-64699)			
TOTAL (B)			
C. GRANTS TO NON-GOVERNMENT INSTNS & INDS (64700-64999)			
TOTAL (C)			
D. DEBT SERVICE & JUDGEMENTS (65000-65399)			
65040 Interest on Lease Purchases			
6504x Other Indebtedness			
TOTAL (D)			
E. OTHER (66000-89999)			
Cost Share on Joint Industry / University / Federal	481,458	350,000	350,000
Fellowships		12,000	12,000
Start-up Commitments	46,043	107,097	107,097
TOTAL (E)	527,501	469,097	469,097
GRAND TOTAL <i>(Enter on Line I-E of Form MBR-1)</i>	527,501	469,097	469,097
FUNDING SUMMARY:			
GENERAL FUNDS	527,501	469,097	469,097
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
TOTAL FUNDS	527,501	469,097	469,097

NARRATIVE
2015 BUDGET REQUEST

MSU - Center for Advanced Vehicular Systems
Name of Agency

The Center for Advanced Vehicular Systems (CAVS) at Mississippi State University is an interdisciplinary center comprised of engineering, research, development, and technology transfer teams focused on enhancing human and payload mobility. The CAVS activities are clustered around material science, manufacturing process modeling, computational mechanics, computational fluid dynamics, multi-scale modeling, vehicular systems engineering, design optimization, human factors and ergonomics, alternative powered systems, and intelligent electronic systems. Research activities include efforts on vehicle weight reduction, structural integrity, hybrid power train design, energetics, advances in improved design and predictability as well as advances in improved diagnostics, manufacturing, training systems, and computational design technologies. While CAVS projects generate timely solutions relevant to regional manufacturers, CAVS research seeks to expand knowledge that is essential for sustained economic development. Through direct involvement in various activities at CAVS, students gain valuable experience that leverages on their classroom learning.

The research groups within CAVS are dynamic with the ability to maximize the utilization of advancing technologies. In recognition that today's complex problems facing manufacturing competitiveness and product safety and reliability must be addressed by cross-disciplinary teams, CAVS researchers approach the problems from diverse viewpoints to arrive at appropriate solutions. Each group at CAVS shares a passion for helping industry realize and sustain a competitive advantage within the global economy.

In support of its mission, CAVS also offers a direct interface to manufacturers and industries throughout the state and region via the CAVS Engineering Extension, located in Canton, Mississippi. The services offered by the CAVS Engineering Extension include discrete event simulation, Six Sigma, lean manufacturing, and metrology. With a staff of about 220 faculty, research staff, postdocs, and students, the engineering enterprise of the Center for Advanced Vehicular Systems is well situated to support the research needs of industry.

CAVS is continuing to serve as a regional resource for the recruiting of automotive and related industries. The recent recruitment of Yokohama Tire Corporation to the state of Mississippi was facilitated by the core competencies in research, extension, and automotive related academic prowess at CAVS. As the US economy is turning around, the manufacturing enterprise of the state of Mississippi will be in need of support from CAVS for a multitude of research, design, training, and warranty issues. CAVS has also been proven to be a leading economic development engine for the State of Mississippi. According to surveys conducted by the Manufacturing Extension Partnership of Mississippi in the 6-year period of 2006-2012, CAVS has had more than \$5.6 billion economic impact on the state and is responsible for over 3,300 jobs created or retained. As for the quality of the students being produced by MSU's engineering programs and CAVS - we have placed first for 5 out of the last 7 years in the DOE/GM automotive programs (ChallengeX, EcoCar and EcoCar2) -- hard evidence that showcases the quality of our students.

CAVS represents a commitment by the State of Mississippi to work with and support Mississippi industry through project-based activities. The management at CAVS and the research team in general, recognize the need to generate economic development via technological and scientific discovery. This means CAVS serves as a knowledge resource for existing and future Mississippi industries. As with all academic research centers, CAVS is dependent on stable infrastructure support to ensure the best and brightest engineering talent is brought to bear on the regional growth initiatives and development of a strong R&D infrastructure to support the emerging Southern Automotive Corridor. CAVS now serves as an active member of the Mississippi Automotive Manufacturers Association (MAMA) and it has established a close working relationship with the Nissan assembly facility in Canton and is beginning to build that relationship with Toyota in Blue Springs. CAVS faculty and staff are continuing to work closely with MDA and local economic development authorities throughout the state in recruiting new industry to the state. The State infrastructure funds allow CAVS to build toward its basic mission, with already much evidence of impact via an effective engineering capability to support Mississippi industry. Having access to knowledgeable researchers and providing leading edge capabilities is an important asset for the State.

Recurring State funding for CAVS is required as the foundation continues to be built via the development of the

NARRATIVE
2015 BUDGET REQUEST

MSU - Center for Advanced Vehicular Systems

Name of Agency

facilities, staff, and knowledge base. Current State funding is critical to supporting the infrastructure while seeding new research initiatives, student activities, and engineering extension. Further, many recent activities have helped Mississippi industry via workforce training, short courses, and partnerships designed to attract federal and industrial funding. At present, the State support is providing less than 20 percent of the total CAVS operating funds. Continued leveraging of the State funding is critical to building a self-sustaining organization satisfying the obligations of CAVS to our partners, the state, and the university.

In 2015, CAVS has requested an increase in its State funding. This request is asked to help with infrastructural costs associated with new industry that need technical support (e.g., the new Yokohama Tire Corporation manufacturing facility, Toyota and GreenTech Automotive vehicle production) and to expand the engineering extension component of CAVS. When CAVS was initially envisioned it was focused on conventional automotive vehicles (i.e., gasoline fueled internal combustion engines) and a manufacturing focus in the Canton area. We are now dealing with the reality that the industry is changing to biofuels and electric hybrids. Also, that new automotive components (tires) will require CAVS to invest in new infrastructure to be able to support the needs of this new industry. CAVS work with ChallengeX and EcoCAR has positioned it well to support the needs of Toyota, GreenTech Automotive and their Tier 1 and 2 supply chains; however, there is a need to update CAVS facilities to position it to provide the level of support necessary for supporting the Mississippi hybrid electric vehicle industry. Also, with PACCAR building large diesel engines in Columbus, there is a need to expand CAVS engine test facilities to better accommodate PACCAR's need for engineering test capability. Also, there is a need to reach out beyond the Canton based engineering extension activity and to better support statewide industry. This additional fund will be used to situate CAVS to be better able to support Mississippi industry over the next 5 years.

**OUT-OF-STATE TRAVEL
FISCAL YEAR 2013**

MSU - Center for Advanced Vehicular Systems

Agency Name

Note: All expenditures recorded on this form must be totaled and said total must agree with the out-of-state travel amount indicated for FY 2013 on Form Mbr-1, line I.A.2.b.

Employee's Name	Destination	Purpose	Travel Cost	Funding Source
Branch, Victor	Oklahoma City, OK	National Aeronautics and Space Admin worksho	412	General Funds
Walden, Calyton	New Orleans, LA	Meet with Micheod to discuss facility use	181	General Funds
Richardson, Mary Ann	Memphis, TN	National Conference for University Research C	605	General Funds
Mazzola, Michael	Memphis, TN	Tour GreenTech plant and visit Christian Bro	179	General Funds
Lemmon, Andrew	Memphis, TN	Tour GreenTech plant and visit Christian Bro	94	General Funds
Woody, Cheryl	New Orleans, LA	National Conf for University Research Adminst	1,637	General Funds
Total Out of State Travel Cost			\$3,108	

FEES, PROFESSIONAL AND OTHER SERVICES
(EXPENDITURE CODES 61600-61699)

MSU - Center for Advanced Vehicular Systems

Name of Agency

TYPE OF FEE AND NAME OF VENDOR	Retired w/ PERS	(1) Actual Expenses FY Ending June 30, 2013	(2) Estimated Expenses FY Ending June 30, 2014	(3) Requested for FY Ending June 30, 2015	Fund Num.
61610 Engineering					
TOTAL 61610 Engineering					
61615 SAAS Fees - DFA					
TOTAL 61615 SAAS Fees - DFA					
61616 MMRS Fees					
TOTAL 61616 MMRS Fees					
61620 Department of Audit					
TOTAL 61620 Department of Audit					
6162X Accounting (61621-61624)					
TOTAL 6162X Accounting (61621-61624)					
6163X Legal (61630-61636)					
TOTAL 6163X Legal (61630-61636)					
6164X Medical Services (61640-61646)					
MSU Health Center / Physical		75			
<i>Comp. Rate: \$75.00/hour</i>					
TOTAL 6164X Medical Services (61640-61646)		75			
61650 State Personnel Board					
TOTAL 61650 State Personnel Board					
6165X Personnel Services Contracts (61651-61653)					
TOTAL 6165X Personnel Services Contracts (61651-61653)					
61658 Personnel Services Contracts - SPAHRS					
TOTAL 61658 Personnel Services Contracts - SPAHRS					
6166X Court Costs & Reporters (61659-61660)					
TOTAL 6166X Court Costs & Reporters (61659-61660)					
61670 Laboratory & Testing Fees					
CAVS Service Center / Scientific testing		1,114	1,500	1,500	
<i>Comp. Rate: \$75/hour</i>					
TOTAL 61670 Laboratory & Testing Fees		1,114	1,500	1,500	
6168X Contract Worker (61682-61688)					
TOTAL 6168X Contract Worker (61682-61688)					
61690 Other Fees & Services					
TOTAL 61690 Other Fees & Services					
GRAND TOTAL (61600-61699)		1,189	1,500	1,500	

VEHICLE PURCHASE DETAILS

MSU - Center for Advanced Vehicular Systems

Name of Agency

Year	Model	Person(s) Assigned To	Vehicle Purpose/Use	Replacement or New?	FY2015 Req. Cost
				New	0
					<hr/>
					0
TOTAL VEHICLE REQUEST					0

**VEHICLE INVENTORY
AS OF JUNE 30, 2013**

MSU - Center for Advanced Vehicular Systems _____

Name of Agency

Veh. Type	Vehicle Descript.	Model Year	Model	Person(s) Assigned To	Purpose/Use	Tag Number	Mileage On 6-30-13	Average Miles per Year	Replacement Proposed	
									FY 2014	FY 2015

Vehicle Type = Passenger/Work

**VEHICLE POOL MEMBER LIST
2015 BUDGET REQUEST**

MSU - Center for Advanced Vehicular Systems
Name of Agency

**PRIORITY OF DECISION UNITS
FISCAL YEAR**

MSU - Center for Advanced Vehicular Systems _____
Agency Name

Program	Decision Unit	Object	Amount
Priority # 1			
Program # 1 : RESEARCH			
	Personnel Cost Adjustments		
		Salaries	417,348
		Total	417,348
		General Funds	417,348
Priority # 2			
Program # 2 : PUBLIC SERVICE			
	Personnel Cost Adjustments		
		Salaries	81,871
		Total	81,871
		General Funds	81,871

CAPITAL LEASES

MSU - Center for Advanced Vehicular Systems

Name of Agency

Vendor/ Item Leased	Original Date of Lease	Original Number of Months of Lease	Number of Months Remaining on 6-30-13	Last Payment Date	Interest Rate	Amount of Each Payment			Total of Payments to be Made								
						Principal	Interest	Total	Actual FY 2013	Estimated FY 2014			Requested FY 2015				
										Principal	Interest	Total	Principal	Interest	Total		
/	//	0	0	//	.000												

Summary of 3% General Fund Program Reduction to FY2014 Appropriated Funding by Major Object

MSU - Center for Advanced Vehicular Systems _____

Major Object	FY2014 GENERAL FUND REDUCTION	EFFECT ON FY2014 STATE SUPPORT SPECIAL FUNDS	EFFECT ON FY2014 FEDERAL FUNDS	EFFECT ON FY2014 OTHER SPECIAL FUNDS	TOTAL 3% REDUCTIONS
PERSONAL SERVICES					
TRAVEL					
CONTRACTUAL SERVICES	(99,844)				(99,844)
COMMODITIES					
OTHER THAN EQUIPMENT					
EQUIPMENT					
VEHICLES					
WIRELESS COMM. DEVICES					
SUBSIDIES, LOANS, ETC					
TOTALS	(99,844)				(99,844)