MICHIGAN TECHNOLOGICAL UNIVERSITY



FEDERAL AWARDS SINGLE AUDIT REPORT

JUNE 30, 2003

MICHIGAN TECHNOLOGICAL UNIVERSITY

SINGLE AUDIT REPORT

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INDEPENDENT AUDITORS' REPORT ON COMPLIANCE AND ON INTERNAL CONTROL OVER FINANCIAL REPORTING BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

October 9, 2003

Board of Control Michigan Technological University Houghton, Michigan

We have audited the financial statements of *Michigan Technological University* as of and for the year ended June 30, 2003 and have issued our report thereon dated October 9, 2003. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial statements contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

Compliance

As part of obtaining reasonable assurance about whether *Michigan Technological University's* financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grants, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance that are required to be reported under *Government Auditing Standards*.

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Internal Control over Financial Reporting

In planning and performing our audit, we considered *Michigan Technological University's* internal control over financial reporting in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements and not to provide assurance on the internal control over financial reporting. Our consideration of the internal control over financial reporting would not necessarily disclose all matters in the internal control over financial reporting that might be material weaknesses. A material weakness is a condition in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements in amounts that would be material in relation to the financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. We noted no matters involving the internal control over financial reporting and its operation that we consider to be material weaknesses.

This report is intended solely for the information and use of the Board of Control, management, and federal awarding agencies, and is not intended to be and should not be used by anyone other than these specified parties.

Rehmann Johann

INDEPENDENT AUDITORS' REPORT ON COMPLIANCE WITH REQUIREMENTS APPLICABLE TO EACH MAJOR PROGRAM AND INTERNAL CONTROL OVER COMPLIANCE IN ACCORDANCE WITH OMB CIRCULAR A – 133

October 9, 2003

Board of Control Michigan Technological University Houghton, Michigan

Compliance

We have audited the compliance of *Michigan Technological University* with the types of compliance requirements described in the *U.S. Office of Management and Budget (OMB) Circular A-133 Compliance Supplement* that are applicable to each of its major federal programs for the year ended June 30, 2003. Michigan Technological University's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs. Compliance with the requirements of laws, regulations, contracts, and grants applicable to each of its major federal programs is the responsibility of Michigan Technological University's management. Our responsibility is to express an opinion on Michigan Technological University's compliance based on our audit.

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial statements contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and OMB Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*. Those standards and OMB Circular A-133 require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about *Michigan Technological University's* compliance with those requirements and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion. Our audit does not provide a legal determination on *Michigan Technological University's* compliance with those requirements.

In our opinion *Michigan Technological University* complied, in all material respects, with the requirements referred to above that are applicable to each of its major federal programs for the year ended June 30, 2003.

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Internal Control over Compliance

The management of *Michigan Technological University* is responsible for establishing and maintaining effective internal control over compliance with requirements of laws, regulations, contracts and grants applicable to federal programs. In planning and performing our audit, we considered **Michigan Technological University's** internal control over requirements that could have a direct and material effect on a major federal program in order to determine our auditing procedures for the purpose of expressing our opinion on compliance and to test and report on internal control over compliance in accordance with OMB Circular A-133.

Our consideration of the internal control over compliance would not necessarily disclose all matters in the internal control that might be material weaknesses. A material weakness is a condition in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that noncompliance with applicable requirements of laws, regulations, contracts and grants that would be material in relation to a major federal program being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. We noted no matters involving the internal control over compliance and its operation that we consider to be material weaknesses.

Schedule of Expenditures of Federal Awards

We have audited the financial statements of *Michigan Technological University* as of and for the year ended June 30, 2003 and have issued our report thereon dated October 9, 2003. Our audit was performed for the purpose of forming an opinion on the financial statements taken as a whole. The accompanying schedule of expenditures of federal awards is presented for purpose of additional analysis as required by OMB Circular A-133 and is not a required part of the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the financial statements and, in our opinion, is fairly stated, in all material respects, in relation to the financial statements taken as a whole.

This report is intended solely for the information and use of the Board of Control, management, and federal awarding agencies, and is not intended to be and should not be used by anyone other than these specified parties.

Rehmann Johann

Federal Agency/					
CFDA#	Program title/major subdivision	Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
RESEARCH AN	ND DEVELOPMENT CLUSTER - C	FDA # AVAILABLE			
U.S. DEPARTME	ENT OF AGRICULTURE				
10.202	Mcintyre Stennis Act	MS-FY02-Research Administration	n/a	FY02 MCINTIRE-STENNIS	\$ 39,462
	"	MS-FY02-Admin Discretionary	n/a	FY02 MCINTIRE-STENNIS	14,468
	"	MS-FY02-Graduate Student Support	n/a	FY02 MCINTIRE-STENNIS	30,669
	"	MS-FY03-Research Administration	n/a	FY03 MCINTIRE-STENNIS	54,489
	"	MS-FY03-Wood Stake Decomposition	n/a	FY03 MCINTIRE-STENNIS	1,568
	"	MS-FY03-Molecular Genetics in Aspen	n/a	FY03 MCINTIRE-STENNIS	4,611
	"	MS-FY03-Western U.P. Land Use Centr	n/a	FY03 MCINTIRE-STENNIS	4,769
	"	MS-FY03 - A Plague of Maples	n/a	FY03 MCINTIRE-STENNIS	2,670
	"	MS-FY03-Wolf/Moose-Isle Royale	n/a	FY03 MCINTIRE-STENNIS	2,899
	"	MS-PBC-FY03 - Cryopreservation	n/a	FY03 MCINTIRE-STENNIS	5,935
	"	MS-FY03-Robust Methodology to Map	n/a	FY03 MCINTIRE-STENNIS	5,332
	"	MS-FY03-Toxic Metals-Ruffed Grouse	n/a	FY03 MCINTIRE-STENNIS	2,726
	"	MS-FY03 - Sarracenia Purpurea	n/a	FY03 MCINTIRE-STENNIS	2,892
	"	MS-FY03-Impacts of Greenhouse Gases	n/a	FY03 MCINTIRE-STENNIS	2,226
	"	MS-FY03-Regeneration Jack Pine Frst	n/a	FY03 MCINTIRE-STENNIS	2,562
	"	MS-FY03 - Pennsylvania Sedge	n/a	FY03 MCINTIRE-STENNIS	2,019
	"	MS-FY03-Carbon Cycling-Pine/Aspen	n/a	FY03 MCINTIRE-STENNIS	1,100
					180,397
10.206	Grants for agricultural research-				
	competitive research grants	UNIVE-Load Sharing/System Factor	Oregon State University	SUBCONTRACT # C0239A-01	2,383
	"	USAGR-Wood Composite Panels	n/a	2001-35504-10042	60,474
	"	USAGR-PBC/Molecular Dissection	n/a	2003-35103-12906	8,507
	"	USAGR-PBC/Cellulose Augmentation	n/a	99-35103-7986	6,192
	"	USAGR-PBC/Cellulose Augmentation	n/a	99-35103-7986	12,631
	"	USAGR-Aspen to Melampsora Rust	n/a	2001-35100-10624	58,583
	"	USAGR-Aspen to Melampsora Rust	n/a	2001-35100-10624	53
	"	USAGR-PBC/Monolignol Biosynthesis	n/a	2001-35318-11268	14,080
	"	USAGR-Urea-Formaldehyde Adhesive	n/a	2001-35103-10870	13,789
	"	USAGR-Response-Fine Root Chemistry	n/a	2001-35107-11262	53,836
40.040	D				230,528
10.219	Biotechnology risk assessment -	Via Lab about 1 a		00 00010 0010	
	research	USAGR-PBC/Ecol Consequences Aspen	n/a	00-39210-9812	61,151
	"	USAGR-PBC/Ecol Consequences Aspen	n/a	00-39210-9812	22,096
					83,247

Federal Agen CFDA#	cy/ Program title/major subdivision	Grant/contract title	Pass thru entity if applicable	<u>Contract #</u>	Expenditures
10.652	Forestry research	USAGR-Carbon & Nitrogen Cycling	n/a	01-CA-11242343-024	\$ 685
	"	USAGR - Phase 2-Carbon Models	n/a	SRS33-CA-98-462-AMD 3	213
	II .	USAGR-Sugar Maple/Discolored Heart	n/a	00-CA-11242343-077-AMD NO. 1	6,573
	"	USAGR-Carbon & Nitrogen Cycling	n/a	02-CA-11242343-032	14,463
					21,934
10.664	Cooperative forestry assistance	USAGR-Intensive Log Bucker Training	n/a	00-DG-11244225-204-MOD NO. 2	4,678
U.S. DEPART	MENT OF COMMERCE				
11.431	Climate and atmospheric research	USCOM-RSI/ Year 1 - PICO-NARE Site	n/a	NA16GP1658-AMD NO. 1	16,895
	"	USCOM/RSI-Use of Climate Forecasts	n/a	NA16GP2947	34,054
	"	USCOM/RSI-Use of Climate Forecasts	n/a	NA16GP2947	23,890
	"	USCOM-RSI/ Year 2 - PICO-NARE Site	n/a	NA16GP1658-AMD NO. 1	123,544
					198,383
11.609	Measurement and engineering research	and NIST- Summer Undergrad Fellow Prgm	n/a	70NANB3H1040	4,040
DEPARTMEN	T OF DEFENSE				
12.300	Basic and applied scientific research	WASHI-Fundmntl Properties Energetic	Washington State University	G001118 AMENDMENT #1.#2 & #3	235,871
	"	OFFIC-Improving NQR Detection	n/a	N00173-01-1-G000-MOD P00005	60,981
	II .	OFFIC-Breathing Photonic Crystals	n/a	N00014-03-1-0038	51,737
	"	OFFIC-Breathing Photonic Crystals	n/a	N00014-03-1-0038	22,710
					371,299
12.630	Basic, applied and avanced -	LICATO C. LE LE IV. EL .		E40/20 02 1 0200	4.106
	research in scientific engineering	USAIR-Ground-Test Facility/Thruster UNIVE-Year 3 Stdy Def/Dop Chalcopyr	n/a Stanford University	F49620-03-1-0300 PY-1372 AMEND 1,2,3	4,186 7,250
	m .	STANF-Theo Stdy Dfcts Chalcopyrites	Stanford University	PY-1372 AMEND 1,2,3 PY-1372 AMEND 1,2,3	75,439
		57.1.1 Theo day Brea chalcopyries	Samora Chirosay	113721111111111111111111111111111111111	86,875
12.800	Air Force defense reseach -				
	sciences program	USAIR-Design of Smart Structures	n/a	F49620-01-1-0152-MOD P00002	38,525
	"	UNIVE-Adv Concepts Grnd Base Imag	University of New Mexico	8-91601-7812/PO # 888039	58,031
	"	USAIR-Vaporizing Liquid-Metal Anode	n/a	F49620-03-1-0027	37,358
		USAIR - Nanosatellite Demonstrator UNIVE-Science/Eng Carbon Foams	n/a Ohio University	F49620-03-1-0139 UT12219 SUB DATED 12/19/02	7,543 12,002
	"	UNIVE-Science/Eng Carbon Foams UNIVE-Improving the Performance of	New Mexico State University	Q00570	23,005
		C. W. Z. Improving the Ferrormance of	Tell Hadde State Shirelsky	20070	176,464
					1,0,404
12.901	Mathematical sciences grant program	NATIO - Codes and Applications	n/a	MDA904-02-1-0010-MOD P00001	1,922
	"	NATIO-Codes, Designs, Finite Geometry	n/a	MDA904-03-1-088	16,814
					18,736

Federal Agen	Program title/major subdivision	Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
12.910	Research and technology advanced- development	UNIVE-Power Adaptive Micro	University of Arizona	Y542471 MOD 1,2,3	\$ 14,898
U.S. DEPART	MENT OF THE INTERIOR				
15.228	Wildland urban interface community				
	and rural fire assistance	USFIS-Firebreaks at Seney NWR	n/a	AGRMNT NO. 301813J066	9,997
15.807	Earthquake hazards reduction	USGEO - ID Ground Motion Parameters	n/a	02HQGR0110-MOD 01	50,132
15.808	U.S. geological survey -				
	research and data acquisition	USGEO - YEAR 2 - Boreal Ecosystem	n/a	00CRAG0041-AMD 0002	24,044
	"	USGEO-RSI/Volcanic Hazards (Matias)	n/a	01WRAG0023-MOD NO. 1	1,731
	"	USGEO-RSI/Volcanic Hazards-Escobar	n/a	01WRAG0023-MOD NO. 1	15,914
	"	USGEO-RSI/Volcanic Hazards - (Rose)	n/a	01WRAG0023-MOD NO. 1	1,442
	"	USGEO - Year 3 - Boreal Ecosystem	n/a	00CRAG0041-AMD 0002	44,727
15.810	National cooperative geologic-				87,858
13.810	mapping program	USGEO-Structural Mapping-Rocky Mtn	n/a	01HQAG0181-MOD NO. 02	3,034
U.S. DEPART	MENT OF TRANSPORTATION				
20.600	State and community highway safety	MIPOL-Dev Wntr Driv Safe Train/Manu	Michigan State Police	DE-03-02	5,440
NATIONAL S	CIENCE FOUNDATION				
47.041	Engineering grants	NSF-Redesign Engg Education	n/a	EEC-9872533	1,734
	"	NSF-Redesign Engg Education	n/a	EEC-9872533	11,358
	"	NSF-Redesign Engg Education	n/a	EEC-9872533	15,661
	"	NSF-Redesign Engg Education	n/a	EEC-9872533	372
	"	NSF-Redesign Engg Education	n/a	EEC-9872533	2,476
	"	NSF-Hybrid Processes for Machining	n/a	DMI-9875251-AMD 003	49,698
	"	NSF-Nanoindentation Testing System	n/a	CMS-9977462	6,921
	"	NSF - Gradient Theory: What is Next	n/a	CMS-9978758-AMD 001	24,022
	"	NSF-Redesign Engg Education	n/a	EEC-9872533	3,538
	"	NSF - REU-Hybrid Process for Machin	n/a	DMI-9875251-AMD 003	356
	"	NSF/CLASM - Kinematic Coagulation	n/a	DMI-0070088	113,371
	"	NSF-Projects to Assist Disabled	n/a	BES-0079969-AMD 007	17,368
	"	NSF - Instrumentation (MRI)	n/a	CMS-0079469	25,275
	"	NSF/CLASM-Selection Indstrl Coating	n/a	DMI-0084903	155,467
	"	NSF-Hybrid Processes for Machining	n/a	DMI-9875251-AMD 003	1,650
		NSF-REU-Projects to Assist Disabled	n/a	BES-0079969-AMD 007	7,948
		NSF/SFI-Metrics Envir Remediation	n/a	BES-0083112	15,276
	"	NSF - (REU) Kinematic Coagulation	n/a	DMI-0070088	2,525
		NSF-Internal Condensing Flows	n/a	CTS-0086988-AMD 002	78,386
		NSF-Planar Magnetic Photonic Crystl	n/a	ECS-0115315-AMD 004	34,758
	"	NSF-Planar Magnetic Photonic Crystl	n/a	ECS-0115315-AMD 004	15,888
		NSF - P-N Junction Photocatalyst	n/a	BES-0102983-AMD 001	18,814
	"	NSF-(REU) Internal Condensing Flows	n/a	CTS-0086988-AMD 002	10,111
	*	NSF-Binding Mechanisms of Fly-Ash	n/a	BES-9802198-AMD 001	14,924

Federal Agend	ey/				
CFDA#	Program title/major subdivision	Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
	"	NSF-(REU/RET)-Photonic Crystals	n/a	ECS-0115315-AMD 004	\$ 6,171
	"	NSF - Integrated Machine-Tool	n/a	DMI-0225952-AMD 001	118,132
	"	NSF-GOALI: Design Extrusion Dies	n/a	DMI-0200091	53,625
	"	UNIVE-Sponor Enter Engin Rsrch Cntr	University of Michigan	SUBCONTRACT # F004025	3,993
	"	UNIVE-WIMS Edu Tsk Participant Cost	University of Michigan	SUBCONTRACT # F004025	5,617
	"	UNIVE-WIMS Educ Tsk Sps	University of Michigan	SUBCONTRACT # F004025	44,185
	"	UNIVE-WIMS Mcr Tk Spsr Acc	University of Michigan	SUBCONTRACT # F004025	153,721
	"	UNIVE-Sensors Tsk Spnsr	University of Michigan	SUBCONTRACT # F004025	229,690
	"	UNIVE-WIMS Sponsor Adminis	University of Michigan	SUBCONTRACT # F004025	65,285
	"	COLUM-XYZ-On-A-Chip/Integration Tec	Columbia University	PO # 516843	27,091
	**	COLUM-XYZ-On-A-Chip/Integration Tec	Columbia University	PO # 516843	12,982
					1,348,389
47.049	Mathematical and physical sciences	NSF - FRG: Mechanical Instabilities	n/a	DMR-9972941-AMD 003	163,826
	"	NSF - FRG: Mechanical Instabilities	n/a	DMR-9972941-AMD 003	12,182
	"	NSF- FRG: Mechanical Instabilities	n/a	DMR-9972941-AMD 003	22,672
	"	NSF - Large-Scale Optimization	n/a	DMS-9973308-AMD 002	3,843
	"	NSF-Generalized Ensemble Algorithms	n/a	CHE-9981874	70,682
	"	NSF-Stretched Dihydrogen Ligand	n/a	CHE-0079158	13,303
	"	NSF-Bound & Continuum Properties	n/a	PHY-0097111-AMD 002	16,405
	"	NSF-Model for Polymeric Fluids	n/a	DMS-0096847	27,020
	"	NSF-REU/Understand Temporal Univers	n/a	AST-9701716-AMD 003	12,340
	"	NSF-Adaptive Optical Telescopes	n/a	AST-0123466	22,729
	"	NSF-ITR: Computing Sky in Real Time	n/a	AST-0218991	33,785
	"	NSF-RSI/Deep Circumstellar Imaging	n/a	AST-9618803-AMD 006	5,893
					404,680
47.050	Geosciences	NSF - AD 260 Eruption-Lake Ilopango	n/a	EAR-9903291	44,565
	"	NSF-Laboratory Studies of Clouds	n/a	ATM-9984294-AMD 003	105,317
	"	NSF/RSI-Correlated Stochastic Proc.	n/a	ATM-0106271-AMD 002	84,543
	"	NSF-RSI/Volcanic Cloud-Atmosphere	n/a	EAR-0106875-AMD 003	135,320
	"	NSF-RSI/Volcanic Cloud-Atmosphere	n/a	EAR-0106875-AMD 003	200
	"	NSF-RSI/Nitrogen Oxides-N. Atlantic	n/a	ATM-0215843	117,713
	"	NSF-RSI/Magnitude Turbidity Plumes	n/a	OCE-9726680-AMD 003	15,562
	"	NSF-RSI/Magnitude Turbidity Plumes	n/a	OCE-9726680-AMD 003	41,875
	"	NSF-RSI/Impact of Keweenaw Current	n/a	OCE-9712872-AMD 005	46,097
	"	NSF-RSI/Impact of Keweenaw Current	n/a	OCE-9712872-AMD 005	15,859
	"	NSF-Impact of the Keweenaw Current	n/a	OCE-9712872-AMD 005	16,436
	"	NSF-RSI/Impact of Keweenaw Current	n/a	OCE-9712872-AMD 005	111,402
	"	NSF-Impact of the Keweenaw Current	n/a	OCE-9712872-AMD 005	33,148
	"	NSF-Impact of the Keweenaw Current	n/a	OCE-9712872-AMD 005	22,521
47.070	Computer and information -				790,558
47.070		NSE Computational Facilities	n/a	EIA-9871133	62,136
	science and engineering	NSF - Computational Facilities NSF-CAREER: Distributed Computation	n/a n/a	CCR-9984682-AMD 003	52,136 54,176
	,,	NSF-CAREER: Distributed Computation NSF - SGER: Interconnect Problem	n/a n/a	CCR-9984682-AMD 003 CCR-0086609-AMD 003	34,176 34,676
	,,	NSF-CSERI/CAREER: Air Quality Model	n/a n/a	ACI-0093139-AMD 001	37,405
	"	NSF-CSERI/CAREER. All Quality Model NSF-(REU) SGER:Interconnect Problem	n/a	CCR-0086609-AMD 003	6,392
		(LLC) SOLICIMETEDIMECT FOOICIII	**/**	CCR-0000007-7111D 003	3,392

Federal Agen	ncy/				
CFDA#	Program title/major subdivision	Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
	"	NSF - CAREER: Memory Controller	n/a	CCR-0133777-AMD 001	\$ 54,506
	"	NSF - Optimization DSP Architecture	n/a	CCR-0209036	85,191
	"	NSF-(REU)- CAREER:Memory Controller	n/a	CCR-0133777-AMD 001	3,055
	"	NSF - CAREER:Signal Processing Rsch	n/a	CCR-0238174	12,960
	"	NSF - US-Russian Collaborative Rsch	n/a	CCR-0310632	16,431
					366,928
45.054		Manager 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		DTD 0000074 115D 000	55 O.C.
47.074	Biological sciences	NSF-Multi-trophic Level Dynamics	n/a	DEB-9903671-AMD 003	57,264
		NSF-Major Research Instrumentation	n/a	DBI-0079566	100,307
	"	NSF - Plant-Microbe Interactions NSF - Aquatic Food Webs	n/a	DEB-0075397-AMD 006 DEB-0083731-AMD 002	263,842 20,289
	"		n/a		
		NSF - Aquatic Food Webs	n/a	DEB-0083731-AMD 002	28,505
		NSF - Plant-Microbe Interactions	n/a	DEB-0075397-AMD 006	55,488
		NSF-Multi-trophic Level Dynamics	n/a	DEB-9903671-AMD 003	7,316
	"	NSF-Exopolymer Prod-Benthic Diatoms NSF - (REU) Exopolymer Production	n/a	IBN-0110875-AMD 004	82,855 4,214
			n/a	IBN-0110875-AMD 004	
	"	NSF-(REU) Plant-Microbe Interaction	n/a	DEB-0075397-AMD 006 DBI-0231109	3,924 2,360
	"	NSF-Modern Methods Wrkshp-Madison	n/a		****
	"	NSF-Participant Costs-Methods Wkshp NSF-PBC/CAREER:Cellulose Biosynthes	n/a n/a	DBI-0231109 IBN-0236492	5,736 9,001
		NSI-1 BOCARLEX.Cellulose Biosylliles	11/4	1514-0230492	
47.075	Social, behavioral and -				641,101
	economic sciences	NSF-Monitoring Tech/Pollution Cntrl	n/a	SES-9817913	1,167
	"	NSF-Volcanoes-Guatemala/El Salvador	n/a	INT-0118587	16,433
	"	NSF - U.SArgentina Planning Visit	n/a	INT-0112718	5,849
	"	NSF-RSI/US-Azores Co-op Study	n/a	INT-0110397	51,356
	"	NSF - US-Egypt Co-Op Research	n/a	INT-9809889-AMD 001	30,268
	ī	NATIO-Devel Codes Genetic Access	National Research Council	9/18/01 AGREEMENT	4,222
					109,295
47.076	Education and human resources	NSF-Code Generation for ILP	n/a	CCR-9870871-AMD 003	1,482
	"	NSF/SFI-Experential Learning Module	n/a	DUE-9950506-AMD 001	29,351
	"	NSF-Geology Utah's Nat'l Parks	n/a	DUE-9950213-AMD 001	134,324
	"	NSF - MTU Grad Teaching Fellows	n/a	DGE-9979572-AMD 003	6,829
	"	NSF - MTU Grad Teaching Fellows	n/a	DGE-9979572-AMD 003	15,390
	"	NSF - MTU Grad Teaching Fellows	n/a	DGE-9979572-AMD 003	4,999
	"	NSF - MTU Grad Teaching Fellows	n/a	DGE-9979572-AMD 003	57,071
	"	NSF-X-Ray Diffractometry Applicatio	n/a	DUE-9950729	2,882
	"	NSF - MTU Grad Teaching Fellows	n/a	DGE-9979572-AMD 003	3,636
	"	NSF - Concurrent Computing	n/a	DUE-9952509-AMD 001	17.833
	"	NSF - Concurrent Computing	n/a	DUE-9952509-AMD 001	5,879
	"	NSF/SFI - Engg in Pre-College Ed	n/a	DUE-9953189 AMD 002	188,266
	"	NSF-GK-12 Supplement:Trvl-Malaysia	n/a	DGE-9979572-AMD 003	1,712
	"	NSF-Op Lab/Simulation Ctr-Envir Eng	n/a	DUE-0088282	57,397
	"	NSF-Eng Pre-College Participant Cst	n/a	DUE-9953189 AMD 002	16,770
	"	NSF-Integrate Computing w/Geometry	n/a	DUE-0127401	137,046
	m .	NSF-Computer Instrumentation-Visual	n/a	DUE-0127025	45,288
	"	UNIVE-Great Lks Wood Manuf Partners	University of Minnesota - Duluth	1638-187-6487-7901	7,690
	TI .	TENNE-Teachers' Earth Sci Inst	Tennessee Technological Univ.	PO # C13489	47,798
					781,643

Federal Agenc CFDA#	<u>Program title/major subdivision</u>	Grant/contract title	Pass thru entity if applicable	Contract #	<u>Expenditures</u>
47.078	Polar programs	NSF/RSI-Photochemicl Transformation	n/a	OPP-9907197-AMD 004	\$ 23,476
U.S. ENVIRON	MENTAL PROTECTION AGENCY				
66.469	Great Lakes program	EPA - Development of SOLEC Land Use	n/a	GL-97560101-0	7,516
66.500	Environmental protection - consolidated research "	EPA/SFI-Environmental Remediation EPA-Ecosystem Response to Climate CONSO-Sponsor Design Promoturs	n/a n/a Consortium for plant biotech research	CR-82661401-AMD 3 CR-82794001-AMD 1 EPA82947901-129	15,407 11,616 15,680 42,703
U.S. DEPARTM	MENT OF ENERGY				
81.035	Unknown "	USENE-Improvement of Wear Component USENE-Improvement of Wear Component USENE-Comminution Circuit Thru-put	n/a n/a n/a	DE-FC26-01NT41055-AMD A002 DE-FC26-01NT41055-AMD A002 DE-FC2626-01NT41062-AMD M002	56,320 18,772 81,913
81.036	Inventions and innovations	USENE-Enabling Tool for Glass		DE-FG36-02G012062	38,052
81.049	Office of science financial assistance " " " " " " " "	USENE-Forest Atmosphere Carbon Trsf USENE-YEAR 1-Aspen FACE-FACTS II USENE-PBC/Reg Guaiacyl-YEAR 1 DOE-Year 10-Hyperfine Structure USENE-YEAR 2-Aspen FACE-FACTS II USENE-PBC/Reg Guaiacyl-YEAR 2 DOE-Year 11-Hyperfine Structure USENE-YEAR3-Aspen FACE-FACTS II UNIVE-Syn/Fac Reg Carb Cyclin MICHI- Below Grnd Plants/Soil	n/a	DE-FG02-95ER62125-AMD A014 DE-FG02-95ER62125-AMD A014 DE-FG02-95ER62125-AMD A011 DE-FG02-92ER14282-AMD A011 DE-FG02-95ER62125-AMD A014 DE-FG02-91ER15179-AMD A001 DE-FG02-92ER14282-AMD A011 DE-FG02-92ER14282-AMD A011 DE-FG02-95ER62125-AMD A014 MTU901214-03 V51573/F000354 AMEND 9	235 212 21,918 49,190 646,832 61,782 43,503 338,670 73,208 159,534
81.086	Conservation research and - development " " " " " " " " " " " " " " "	USENE-Grad Auto Tech Ed (GATE) Prgm USENE-Recycle/Reuse Aluminum Wastes USENE-ADV ACCT-PBC/Genetic Augment USENE-ADV ACCT-PBC/Genetic Augment USENE-Tubes-Production of Ethylene USENE-Novel Direct Steel Making USENE-Novel Direct Steel Making USENE-Ignition Improvement-Lean Gas USENE-Ignition Improvement-Lean Gas USENE-Ignition Improvement-Lean Gas USENE-Microwave Assisted Electrolyt USENE-Microwave Assisted Electrolyt USENE-Steelmaking Slag Iron Content USENE-Steelmaking Slag Iron Content	n/a	DE-FC36-98CH10951-AMD M006 DE-FC36-01G010617-AMD A003 DE-FC36-01G010617-AMD A003 DE-FC36-01G101617-AMD A003 DE-FC36-01ID14205-AMD M003 DE-FC36-01ID14209-AMD M003 DE-FC36-01ID14209-AMD M003 DE-FC36-02NT41443-AMD A001 DE-FC36-02NT41443-AMD A001 DE-FC36-02ID14402-AMD M002 DE-FC36-02ID14402-AMD M002 DE-FC36-01ID14046-AMD M004 DE-FC36-01ID14046-AMD M004	7,554 39,142 66,570 2,318 235,157 258,096 50,709 7,747 41,266 7,018 17,395 152,176 121

Federal Agenc CFDA#	<u>y/</u> <u>Program title/major subdivision</u>	Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
81.087	Renewable energy - research and development	CONSO-PBC-Design Promoter for Preci	Consortium for plant biotech research	AGR # OR22072-121	\$ 12,546
81.089	Fossil energy research - and development	USENE-Calibration/Test Sonic Stimul	n/a	DE-FC26-01BC15165	172,474
81.107	Unknown "	USENE-YR1/YR2-Shallow Carbon Rsvr. USENE-YR3/YR4-Shallow Carbon Rsvr. USENE-Implementing Cyclic CO2 Flood	n/a n/a n/a	DE-FC26-00BC15122-AMD M002 DE-FC26-00BC15122-AMD M002 DE-FC26-02NT15441-AMD A002	62,156 283,436 75,951
FEDERAL EMI	ERGENCY MANAGEMENT AGENCY				421,543
83.548	Hazard mitigation grant	MIPOL-Devel Composite Shear Wall	Michigan State Police	FEMA-1346-DR-MI	12,434
U.S. DEPARTM	MENT OF EDUCATION				
84.200	Graduate assistance in areas of - national need " " " "	USEDU-YEAR I GAANN:Geology Fellows USEDU/SFI-YR2 GAANN:Env Engg Fellow USEDU-YEARI GAANN:Engine Fellowship USEDU/SFI-YR3 GAANN:Env Engg Fellow USEDU-YEAR 3 GAANN:Geology Fellows USEDU-YEAR2 GAANN:Engine Fellowship	n/a n/a n/a n/a n/a	P200A000420-02 ACTION NO. 03 P200A000425-02 ACTION NO. 03 P200A010413-03-ACTION NO. 06 P200A000425-02 ACTION NO. 03 P200A000420-02 ACTION NO. 03 P200A010413-03-ACTION NO. 06	42,842 45,810 42,842 77,369 99,234 61,264
U.S. DEPARTM	MENT OF HEALTH AND HUMAN SERVIO	CES			369,361
93.390	Academic research enhancement award	NIH-Gender & Orthostatic Tolerances		1 R15 HL67787-01	31,715
93.821	Cell biology and biophysics research	NIH-Structural Transitions-Proteins		1 R01 GM062838-01A2	3,451
93.866	Aging research	NIH-Mechanosensory Signal in Muscle		1 R03 AG20370-01	8,018

Federal Agency/ CFDA# Program title/major subdivisio RESEARCH AND DEVELOPMENT CLUSTER -	on <u>Grant/contract titk</u> CFDA # NOT AVAILABLE - DIRECT AWARDS	Pass thru entity if applicable	Contract #	Expenditures
U.S. DEPARTMENT OF THE INTERIOR				
National Park Service	USPAR-Archaeol. Survey, Coal Creek	n/a	H6310010001 - J9840030127/015	\$ 3,149
"	USPAR-Moose Browsing/Fire Regime	n/a	1143CA631095004-MOD 0007	7,135
"	USPAR-Geographic Information System	n/a	1443CA631096001-MOD 1,3,5,6,7	17,569
"	USPAR-Moose Browsing/Fire Regime	n/a	1443CA6310A001-TASK001-MOD004	30,245
"	USPAR - IRI-Isle Royale Institute	n/a	H6310010001-TASK 001-MOD 004	9,801
"	USPAR-Quincy Smelter Photo-Document	n/a	H6310010001-TASK AGRMT004-MOD1	3,180
"	USPAR-Geographic Information System	n/a	H6310010001-TASK #003-MOD #1	2,887
	USPAR-Keane Wndr Cmplx-Death Valley	n/a	H6310010001-TASK AGRMT NO. 006	7,447
	USPAR-Great Lakes Inventory Netwrk	n/a	H6310010001-TASK AGRMT NO. 005	281
	USPAR-Kew. National Historical Park	n/a	H6310010001-TASK 007-MOD 001	68,315
	USPAR - IRI-Isle Royale Institute	n/a	H6310010001-TASK 001-MOD 004	60,000 1.280
"	USPAR-Isle Royale-Leave No Trace USPAR - Year 2 - Bio Diversity SLBE	n/a n/a	CHECK # 4840-013426 H6310010001-TASK 002-MOD 004	76,732
n .	USPAR-Loon Monitoring-Isle Royale	n/a	H6310010001-TASK 002-MOD 004	39,180
n .	USPAR-Bats in Great Lakes Network	n/a	H6310010001-TASK 011-MOD 2 H6310010001-TASK AGRMT NO. 012	15,584
n .	USPAR - Wolf-Moose Monitoring-2003	n/a	H6310010001-1743R AGRIVIT NO. 012	36,479
Ti .	YELLO-Clean Snowmobile 03 - KRC	n/a	P1571032009	1,920
ii .	USPAR-MTTI-Kew Ntl Transport System	n/a	H6310010001 - J641003K226/014	9,555
				390,739
US Fish & Wildlife	USFIS-Assessment of Lake Sturgeon	n/a	AGRMNT NO. 301811J205	35,467
U.S. DEPARTMENT OF AGRICULTURE				
U.S. Forest Service	USAGR-Archaeol Coll-Hiawatha Nat'l	n/a	00-CS-110910-00-42	365
TI T	USAGR-Archaeol Collect-Ottawa Nat'l	n/a	01-CS-11090700-005-MOD NO. 3	771
TI T	USAGR-Archaeol Coll-Hiawatha Nat'l	n/a	03-CS-110910-00-17	570
n n	USAGR-Streamsweeping Elvoy Creek	n/a	03-CS-11091313-006	1,741
ii	USAGR - NDE Methods	n/a	PNW03-DG-11261975-137	176
"	USAGR-Timber Bridge-Extended Study	n/a	97-RJVA-2958	51
"	USAGR-Teakettle Experimental Forest	n/a	PSW-98-011-RJVA-AMD 5	7,924
"	USAGR-Openland Avifauna-Mich. U.P.	n/a	23-98-43-RJVA-AMD 1	943
"	USAGR-Carbon Storage in Forests	n/a	00-JV-11231300-086	180
"	USAGR-Chip Yield of Jack Pine	n/a	00-JV-11111132-119-AMD NO. 1	8,288
	USAGR-Silver vs Red Maple Property	n/a	00-JV-11111133-149-AMD NO. 3	7,465
"	USAGR-Healthy/Diseased Spruce Trees	n/a	00-JV-11111132-121-AMD NO. 2	6,503
	USAGR-Strength of Timber Bridges	n/a	01-JV-11111132066-AMD NO. 1	24,704
	USAGR-Strength of Timber Bridges	n/a	01-JV-11111132066-AMD NO. 1	5,929
	USAGR-Response of Timber bridges	n/a	01-JV-11111132-078	4,958
	USAGR-Carbon Allocation-Red Pine USAGR-Above-Ground Crbn Allocation	n/a	01-JV-11231300-071	2,667 3,805
"	USAGR - Manage FACE Experiment	n/a n/a	01-JV-11231300-074 01-JV-11231300-085-MOD NO. 4	53,948
"	USAGR-Carbon & Nitrogen Dynamics	n/a n/a	01-JV-11231300-083-MOD NO. 4 01-JV-11231300-072-MOD NO. 2	43,903
n .	USAGR-Mapping Fire Location/Extent	n/a	01-JV-11231300-072-MOD NO. 2 01-JV-11231300-098-MOD NO. 3	28,463
n .	USAGR-Wood Decomposition by Environ	n/a	01-JV-11223060-096-NOD NO. 3 01-JV-11222062-242-AMD NO. 2	99,518
n .	USFOR-Aerial Photos-Ottawa Nat'l.	n/a	43-54A7-1-0061	7,814
n .	USAGR-Dir Northern Ecosystem-Year 2	n/a	IPA AGREEMENT 8/24/00	22,311
ii .	USAGR-Bio & Earth Sciences Session	n/a	53-43ZP-2-37	41,115
п	USAGR-Ponderosa Pine in Black Hills	n/a	02-CS-11020300-037	4,856
				.,550

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Federal Agency/ CFDA#	Program title/major subdivision	Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
CLDIL	"	USFOR-Historical & Modern Forest	n/a	02-CS-11090700-013-MOD NO. 1	\$ 54,397
	"	USAGR-Mapping Fire Location/Extent	n/a	01-JV-11231300-098-MOD NO. 3	76,737
	"	USAGR-Increase Atmospheric CO2 & O3	n/a	03-JV-11231300-053	2,275
	"	USAGR-Mgmt Local Scour-Stream Rehab	n/a	AGRMT NO. 58-6408-3-0002	410
	"	USPAR-Aerial Imagery, Keweenaw NHP	n/a	H6310010001-TASK AGRMT NO. 010	4,000
					516,787
U.S. DEPARTMEN	IT OF DEFENSE				
D	Department of the Army	TACOM - Surge WD001	n/a	DAAE07-00-C-L052-MOD WD 2,3,4	1.946
	"	TACOM-Develop Capillary Pumped Loop	n/a	IPA 11/07/00	7,520
	"	TACOM - FMTV Dump Body Analysis	n/a	DAAE07-01-C-L520-MOD A00003	357,854
	"	TACOM - FMTV Dump Body Analysis	n/a	DAAE07-01-C-L520-MOD A00003	20,306
	"	TACOM-ADV ACCT-Surge WD006 & WD008	n/a	DAAE07-00-C-L052-MOD WD 6, 8	79,054
	"	TACOM - Surge WD007	n/a	DAAE07-00-C-L052-MOD P00007	41,654
	"	TACOM - Surge Work Directive 011	n/a	DAAE07-00-C-L052-MOD WD11/WD13	348,361
	"	TACOM - Surge - Work Directive 012	n/a	DAAE07-00-C-L052-MOD WD012	101,131
	"	TACOM - SAE Clean Snowmobile Report	n/a	DAAE07-03-P-L694	3,866
	"	USARM-Crystalline-Amorphous W-Based	n/a	DAAD19-00-1-0103-MOD P00002	12,436
	"	USARM-Testing of Amorphous Metals	n/a	DAAD19-01-1-0492-MOD P0002	60,671
	"	USARM-RSI-ADV ACCT-ECBC Hyperspectr	n/a	DAAD05-02-P-0588-MOD P00001	31,672
	"	USARM-RSI/Rainfall Hydrologic Rsch	n/a	DACW35-02-P-0089-MOD P00002	44,596
	"	USARM-Wear Characterization	n/a	DAAD17-02-P-0446-MOD P0004	15,771
					1,126,838
D	Department of the Army - US cold regi	on USARM (CRREL)-Antarctic Shear Zone	n/a	DACW42-03-P-0033-MOD 00001	34,910
T.	Department of the Navy	NAVAL-Fungal Decay Resistance	n/a	N47408-98-M-3017-MOD P00001	179
D	"	USNAV-Wear Tests on Center Guides	n/a	N00167-01-M-0621-MOD P00003	1,819
	"	USNAV - Field Termite Test	n/a	N47408-01-P-6478	2,571
		Colvity - Field Termine Test	174	1477-00-01-1-0-70	2,371
					4,569
U.S. DEPARTMEN	T OF TRANSPORTATION				
F	ederal Aviation Administration	FAA-Elastometric Anti-Icing Overlay	n/a	DTFA0302P10212-REVISION NO. 1	28,948
E	ederal Highway Administration	USTRA-YEARS 1-4-Tribal Tech Ast Prg	n/a	DTFH61-99-X-00011-AMD 6	167,357
1	"	USTRA-Aggregate Rsch for Pavements	n/a	DTFH61-02-C-00074-TSK ORDER #1	9,017
	"	USTRA-YEAR 5-Tribal Tech Asst Prgm	n/a	DTFH61-99-X-00011-AMD 6	100,201
		OSTRA-TEAR 3-THOM Tech Assertight	iva	D111101-99-A-00011-AMD 0	100,201
					276,575
NATIONAL AERO	NAUTICS AND SPACE ADMINIST	RATION			
n	/a - no subdivisions	NASA-L Superior Ice Field Measureme	n/a	NAG5-7051-SUPPL 0005	3,768
11	"	NASA-CSERI/Earth & Space Sciences	n/a	NAG5-7051-3011 E 0005 NAG5-8796-SUPPL 0006	135,823
	"	NASA - Gravity Induced Settling	n/a	NAGS-1478-SUPPLEMENT 06	24,575
	"	NASA-RSI/Lab Studies Ice Nucleation	n/a	NAG5-10568-SUPPLEMENT 0002	83,788
	"	NASA-Validation of TOMS Vol Aerosol	n/a	NAG5-11062-SUPPL 0003	86,892
	"	NASA-YEAR 1-Gas-Turbine Combustor	n/a	NAG3-2759-SUPPL NO. 1	47,435
		NASA-Next-Generation Ion Engines	n/a	NCC3-1030	13,881
		NASA-RSI-Dvlpmnt L-Band Radiometer	n/a	NAG5-12770	1,133
		E			,

Federal Agency/

CFDA#	Program title/major subdivision " " " "	Grant/contract title NASA-CSERI/Evaluate ESTO CT Project NASA-YEAR 2-Gas-Turbine Combustor NASA-RSI/Topographic Influences	Pass thru entity if applicable n/a n/a n/a	<u>Contract #</u> NAG5-13385 NAG3-2759-SUPPL NO. 1 NAG5-12690	Expenditures \$ 27,048 18,626 26,907
					469,876
NATOINAL SCIE	NCE FOUNDATION				
n	u/a - no subdivisions " "	NSF - IPA Assignment - Year 1 NSF - Rebecca Petteys Fellowship NSF- IPA Assignment - Year 2	n/a n/a n/a	EEC-0138959-0001 DGE-0004144-AMD 003 EEC-0138959-0001	42,260 32,327 132,526 207,113
U.S. DEPARTMEN	NT OF ENERGY				
n	n/a - no subdivisions " " " " "	USENE-Calibration Seismic Attribute USENE - Fractured Reservoirs USENE - IPA-Geophysical Imaging USENE-RSI / Year 4 - High Energy USENE-RSI / Year 5 - High Energy USENE - IPA-Geophysical Imaging	n/a n/a n/a n/a n/a n/a	DE-AC26-98BC15135-MOD M005 DE-AC26-98BC15100-MOD M005 M6ER15124 DE-FG02-99ER41107-AMD A004 DE-FG02-99ER41107-AMD A004 IPA DATED 09/29/02	28,738 28,495 42,150 162,032 56,609 101,621
					419,645
RESEARCH ANI	D DEVELOPMENT CLUSTER - PA	ASS THROUGH PROGRAMS - NO CFDA# AV	AILABLE		
	NT OF TRANSPORTATION	NAMES A THE A STEPLE ASSOCIATION		TOD # 50055	22.020
г	Federal highway Administration	MITRA-TC-MERL-2002/2003 MITRA-Vehicle/Road Surface Noise	Michigan department of transportation Michigan department of transportation	JOB # 72377 54632/579930	22,020 34,457
	"	MITRA-TC 2002 Video Prod	Michigan department of transportation	JOB # 59007	33,584
	"	MITRA-MTTI 2003 MDOT Video	Michigan department of transportation	JOB # 725650	77,889
	"	MITRA-TC-01 Michigan Crash Location	Michigan department of transportation	40617C	23,438
	"	MITRA-TC Phase II Spec for Hot Mix	Michigan department of transportation	JOB # 568080/549570/00-MTU-5-1	120,068
	"	MITRA-TC-Min Char/Catalog	Michigan department of transportation	JOB56708/56809/01-MTU-10-1,2,3	15,845
	"	MITRA-TC-Sponsor Trans Matls Rsrch	Michigan department of transportation	JOB # 567820 02-MTU-1	46,223
	"	MITRA-TC-2002 MDOT Research Record	Michigan department of transportation	JOB# 56789/02-MTU-3	7,667
	"	MITRA-TC-Cntr Structual Durability	Michigan department of transportation	JOB # 567830 02-MTU-2	7,734
		MITRA-TC-Ana Bit Pvmnt Srfce	Michigan department of transportation	590470/00-MTU-4-2	10,727
		MITRA-TC-Ana Bit Pvmnt Srfce	Michigan department of transportation	590470/00-MTU-4-2	839
	"	MTRA-MTTI-Spnsr Cntr Struct Durab MITRA-MTTI-Spsr-Tran Materials Rsch	Michigan department of transportation Michigan department of transportation	JOB#567830/03-MTU-4 JOB # 567820/03-MTU-3	11,882 67,085
	"	MITRA-MTTI-2003 Research Record	Michigan department of transportation	JOB # 56789	14,965
	m .	MITRA-MITI-2003 Research Record MITRA-MITI-Devel Steel Beam End Det	Michigan department of transportation	JOB # 74455/03-MTU-7	23,582
	"	MITRA-TC-Resil Mod Test MI Aggr	Michigan department of transportation	02-MTU-8	66,573
	"	MITRA-MTTI-Causes/Cures Crck Brdge	Michigan department of transportation	JOB # 5995902-MTU-1	26,115
	"	MITRA-Mechanical Properties of Rock	Michigan department of transportation	JOB # 51442D/02-MTU-6	3,956
	"	MITRA-TC-Pre Inves Role/Con Degr	Michigan department of transportation	56865/02-MTU-7	23,084
	"	MITRA-MTTI-Phase I -Risk Asses I-96	Michigan department of transportation	JOB # 568650	8,933
	"	MITRA-TC-2002 Roadsoft	Michigan department of transportation	JOB # 59326	311,095
	"	MITRA-TC-2002 LTAP	Michigan department of transportation	59323,59324,59325	171,318
	"	MITRA-MTTI-LTAP 2003	Michigan department of transportation	JOB # 73523/73524/73525	108,681
	"	MITRA-TC-Main/Electr 802P Syst	Michigan department of transportation	JOB # 60295	10,567

Federal Agency/ CFDA#	Program title/major subdivision	Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures
CIDA	" "	MITRA-Log Truck Security Study	Michigan department of transportation	JOB # JN56836	\$ 40,643
	"	MITRA-TC-Log Truck Security Study	Michigan department of transportation	JOB # JN56836	9,579
	"	MITRA-TC-20g 11ttk Security Study MITRA-TC-5 County Pro-Test 00-01	Michigan department of transportation	JOB # 60427	59,826
	"	MITRA-TC-9 County 110-16st 00-01 MITRA-TC-Optim Cost/Perf Sign Struc	Michigan department of transportation	JOB # 56886-2	41,513
	"	MITRA-ITC-Opinii Costreii Sigii Struc MITRA-MITTI/Steel Overhead Sign Sup	Michigan department of transportation	JOB # 56893	21.710
	"	MITRA-MITI-Roadsoft 2003		MTU 1996-AUTHORIZATION Z-M13	232,766
			Michigan department of transportation		
		MITRA-MTTI-Phase I CPR 2003	Michigan department of transportation	JOB # 6003/CONTRACT 1996-5434	5,238 865
		UNIVE-MTTI-MI HPMS Train/Publishing	Michigan department of transportation	PO # 59IN3006372	
		SOUTH-MTTI-Lng Effcts Mag Magnes	South Dakota department of transportation	CONTRAT # 310802	77,778
		WITRA-Eval Meth Air Void Sys Paving	Wisconsin department of transportation	PROJECT ID 0092-03-16	6,073
		NATIO-TC-Durability of Early-Openin	National transportation research board	HR 18-04B	76,804
					1,821,122
U.S. DEPARTMEN	NT OF DEFENSE				
Ţ	Jnknown	COMPA-Ref Implement Univ Parallel C	Compac computer corporation	PO-YU406429	164
	"	COMPA-CSERI-ADV ACCT-Impl/Univ ParC	Compac computer corporation	PO YU 406429 AMENDMENT # 1	115,329
	"	Confidential Research Agreement		PO # PL00100942 1-3 AN	4,741
	"	Confidential Research Agreement		PO # PL00100942 1-3 AN	8,928
	"	PRATT-Accelerated Insertion of Mate	Pratt and Whitney	PO # F819741 SUP 1 & 2	76,102
	"	THEM-3 D Voxel-Base Bio-Ht Tnsfr Cd	Thermoanalytics Inc.	TAI-02-0325	56,987
	"	UNITE-Crusader Track Comp/Sprg Test	United Defense LP	PT17003-00	3,156
Ī	Department of the Air Force	JOHNS-Mech Alloy'g Oxide Dispersion	Johns Hopkins University	SUB CONTRAT # 8201-16748	34,323
_	"	UNIVE-Atmos Prop Hgh Engy Laser	UCLA	0205-G-DB131	293,384
Г	Department of the Army	PHYSI-RSI-Detection of Liquids Long	Physical Science Inc.	SUBCONTRACT DAAD13-02-P-0053	17,706
-	"	UNITE-T130E1 Long Bushing Tests	United Defense LP	PO # PT16837-00	2.118
	"	UNIVE-Th/3JJ MTU Eng Rsch	University of Wisconsin - Madison	109G421 MOD # 1 & 2	61,090
	"	UNIVE-Thrst 2 MTU Eng Rsch	University of Wisconsin - Madison	109G421 MOD # 1 & 2	43,522
	"	UNIVE-Thist 2 MTO Eng Rsch	University of Wisconsin - Madison	109G421 MOD # 1 & 2 109G421 MOD # 1 & 2	76,868
	"	UNIVE-Thrs/3SB Ch Eng Rsch	University of Wisconsin - Madison	109G421 MOD # 1 & 2	52,609
	"	UNIVE-This/3SB Cit Eng Rsch	University of Wisconsin - Madison	109G421 MOD # 1 & 2 109G421 MOD # 1 & 2	41,557
		ACADE-2002 Research/Engin Apprentic	Academy of Applied Science	LETTER 6/4/02/CHK#4025	1,672
		0 11			
		AMGEN-Perf/Dur 3 Snow Tire Chains	AM General Corporation	PO # 0515536WA	65,091
		DYNAM-ightwght Durable Titan Trks	Dynamet Technology Inc.	PO # 8809-2027 PHASE I	1,132
		GENER-Engin Support GDLS	General Dynamics	PO# MET 001808 MODS 1-5	6,548
		GSENG-M1A2 SEP Eng Shock/Vibra Tst	GS Engineering	AGREEMENT #020916/PO # 10002	78,863
		GSENG-LV 100 Eng/MIA@ Integration S	GS Engineering	P0# 1013/GSE AGREEMETN #30520	696
	"	LESCO-MWO 9-2330-390-35-1	LESCO	PO # 5600-021-001	55,620
	"	LESCO- MWO 9-2330-390-35-1	LESCO	PO # 5600-0126-001	67,669
	"	MATER-Dura Improv Lghtwtght GHT Trk	Materials and Electrochemical Research Co.	SUBCONTRACT # 59091	12,151
	"	NORTH-Task 2.0 Survivability Tech	Northrop Grumman Mission Systems	PO # 4600014912	14,988
	"	NORTH-Task 1.3 Survivability Techno	Northrop Grumman Mission Systems	PO # 4600014912	132,505
	"	NORTH-Task 1.2 Survivability Techn	Northrop Grumman Mission Systems	PO # 4600014912	11,228
	"	THERM-Mobil & Vehicle Design Wkstat	Thermoanalytics Inc.	E10510	3,281
	"	THERM-Mobility SBIR 1	Thermoanalytics Inc.	SUB # TAI-03-0218	3,450
	"	THERM-Vehicle Design	Thermoanalytics Inc.	PO # TAI-01-0326/MOD 2/MOD 3	204,192
	"	THERM-CUBI Test Unit	Thermoanalytics Inc.	TAI-02-0621/E10161	15,313
	"	TRWSY-Survivability Tech	TRW Systems and Information Tech Group	PO # 4600011809	2,508
	m .	UNITE-ADV ACCT-Comp Bush Dur Tst	United Defense LP	PT17129-00	14,133
	m .	UNITE-M1 Carrier Design	United Defense LP	PO # PT16913-00	5,627
	"	UNITE-MI Track Vib Surv Yuma 2002	United Defense LP	PT 16979-00	263,432
					1,848,683

Federal Agency/ CFDA#	Program title/major subdivision	Grant/contract title	Pass thru entity if applicable	<u>Contract #</u>	Expenditures	
U.S. DEPARTMENT OF AGRICULTURE						
1	Unknown " "	NORTH-Utilization of Red Maple MINNE-Study Locate Decayed Timber UNIVE-Entomology/Pathology Data Col MINAT-Tech Trails Model Forest	Northern Initiatives University of Minnesota-Duluth University of California at Berkeley Michigan Department of Natural Resources	SERVICE AGREEMENT # S0125 1637-187-6456-7901 AGREE SA3630/PO#1-0000608856 0EG 03-6	\$ 3,205 7,143 6,111 1,980	
U.S. DEPARMEN	T OF THE INTERIOR					
1	U.S. Fish and Wildlife Service	MINAT-Gry Wof Pop Mod/Est MINAT-2002- Gray Wolf in Michigan	Michigan Department of Natural Resources Michigan Department of Natural Resources	149-02	52,058 20,405 72,463	
NATIONAL AERO	ONAUTICS AND SPACE ADMINISTR	RATION				
	n/a - no subdivsions " " " " " " " " " " " "	JETPR-Corona Testbed Metrology RAYTH-Support to Hubble Space Teles UNIVE-Model Funct Graded Materials UNIVE-Stdy Magneite Fld Interaction UNIVE-Organ Polymers Lignd Dsgn/App UNIVED-Web Instrution for Engineers UNIVE-Bric/Increas Heat Shock UNIVE-Rout Process of Terr & Therm UNIVE-Muscle Plas DuringIncreased UNIVE-K Schreck-Gr Lks Rm Sens Eval UNIVE-Edu Astron Cosomos Web Site UNIVE-New Bifunct Cat Carb/Diox Rec UNIVE-Infra Spectro Ice Nucleation	Jet Propulsion Laboratory Raytheon Company University of Michigan	CONTRACT # 1234467 PO # 083495 ITEM 6 & 7 CHECK # 655990 CHECK # 656590 CHECK # 66763 CHECK # 465763 CHECK # 465763 CHECK # 465763 CHECK # 84013 CHECK # 834013 CHECK # 834013	10,873 21 3,340 4,214 5,000 3,200 2,773 925 448 1,520 240 226 8	
U.S. DEPARMEN	T OF ENERGY n/a - no subdivisions " " " " " " " " " " " " " " " " " "	DETRO-Low Emissions After Treatment FIRMI-RSI Auger Observatory Souther HUNTI-Transient Liquid Phase of ODS JOHND-Model Partic Trap/Diesel Eng PACIF-PERC-Par Est/Advan/Trns Mdls SANDI-Shp Crn Model/Cntrl TOUCH-Fuel Cell Elect & Batteries UESIN-Dev/Ion Beam Tech Layer Split UESIN-Dev/Ion Beam Tech Layer Split UESIN-Dev/Ion Beam Tech Layer Split UESIN-Dev/Ion Polymer UNIVE-Struct Character Battery Mat UNIVE-Metreorological QA and Subway UNIVE-Structural Characterization UNIVE-Invest of Electro Micromirror	Detroit Deisel Corp. FERMILAB Hunington Alloys/Special Metals John Deere Pacific Engineering corp Sandia National Labs Touchtone Research Laboratory UES Inc. UES Inc. University of Chicago Boston University	PO # 41855 MOD 2 PO 521464 PO# 222976 PO #854058PE CONT # 00001136 PO # 2854 DE-FG02-00ER31112-MTU0001 UES PROJECT # P721 UES PROJECT # P721 PO #28-00921 OF-00544 MOD 0002 OF-01144 OF-00544 MOD 0002 GC177552NGD	498 109,773 23,937 56,511 34,416 14,380 76,277 9,120 20,554 19,273 15,643 39,330 362 11,347	

Federal Agenc CFDA#	y/ <u>Program title/major subdivision</u>	Grant/contract title	Pass thru entity if applicable	<u>Contract #</u>	Expenditures		
U.S. ENVIRONMENTAL PROTECTION AGENCY							
	n/a - no subdivsions n/a - no subdivsions	NEETF-A Safe Water First Approach BATTE-SFI-Comp Assist Cntr Chem Ind	NEETF Battelle Memorial Institute	AGREEMENT # 98-08H 408379-B-J4/CONT # 1042	\$ 2,284 24,878 27,162		
NATIONAL SO	CIENCE FOUNDATION						
	n/a - no subdivsions " " " "	EDUCA-NSF Middleware Init (NMI) Web UNIVE-Teachers Erth Scnee Inst UNIVE-Teachers Earth Sci Institute UNIVE-Deter Elect/Neutrino Rst Mass UNIVE-CSERI-Dv Comp Frmwk Atm CTMs	EDUCAUSE Tennesse Technological University Tennesse Technological University University of Texas at Austin University of Iowa	020431 PO # C12712 PO # C12712 UTA03-036 AMENDMENT 1 PO # 4000088271	3,818 153,026 77,838 22,461 18,988		
U.S. DEPARMI	ENT OF COMMERCE						
	National Oceanic and Atmospheric Administration	UNIVE-RSI-Gt Lakes Photosynth Rates UNIVE-RSI-Great Lks Photosyn Rate	University of Michigan University of Michigan	PO# 3000229916 PO# 3000229916	48,619 19,814 68,433		
U.S. AGENCY	FOR INTERNATIONAL DEVELOPMEN	Т					
		AMERI-Train Core Water Rsrce Expert	American Council on Education	AGREEMENT DATED 2/20/03	15,979		
TOTAL RESEARCH AND DEVELOPMENT CLUSTER OF PROGRAMS							
U.S. DEPARTMENT OF EDUCATION - STUDENT FINANCIAL AID CLUSTER							
84.033 84.063 84.066 84.038 84.268	Federal Work Study Program Federal Pell Grant Program Federal Supplemental Education Opport Federal Perkins Loan Program Federal Direct Loan Program	Do-Education College Work Study P Do-Education-Pell Grant Scholarsh tur Do-Education-Sup Educ Opp Grt Con Do-Education-Perkins Loan Program William D. Ford Direct Loan Program	n/a n/a n/a n/a		295,606 2,618,789 241,095 2,532,592 13,917,637		
TOTAL STUDENT FINANCIAL AID CLUSTER OF PROGRAMS							

Federal Agend <u>CFDA#</u> FEDERAL A	Program title/major subdivision	<u>Grant/contract title</u> IN RESEACH & DEVELOPMENT OR STUDEN	Pass thru entity if applicable T FINANCIAL AID CLUSTERS - WITH CFDA#S	Contract#	Expenditures			
U.S. DEPART	U.S. DEPARTMENT OF EDUCATION - OTHER STUDENT AID PROGRAMS							
84.185	Byrd honors scholarships	Robert C. Byrd Honors	n/a		\$ 51,000			
EPARMENT OF	F LABOR							
17.600	Mine health and safety grants	USLAB-FY2002-YEAR1-Mi Mine Safety USLAB-FY2003-YEAR2-Mi Mine Safety	n/a n/a	E4R2001919 E4R3001919-MOD 1	103,294 101,076 204,370			
NATIONAL F	OUNDATION ON THE ARTS AND THE H	UMANITIES						
45.312	Institute of Museum and Library Service: National leadership grants	s - IMLS - Advancing the New Museum	n/a	CM-10023-01	88,908			
NATIONAL S	CIENCE FOUNDATION							
47.076	Education and human resources " " " " " "	NSF-Engineering in Pre-College Ed NSF-Engineering in Pre-College Ed NSF-Engineering in Pre-College Ed NSF-Engineering in Pre-College Ed NSF-Knowledge Mgmt Infrastructure NSF-Katerina Aifantis Fellowship NSF-Grad/Undergrad Engg Initiatives	n/a n/a n/a n/a n/a n/a	DUE-9953189 AMD 002 DUE-9953189 AMD 002 DUE-9953189 AMD 002 DUE-9953189 AMD 002 EHR-0125380 DGE-0004144 AMD 004 DUE-0220500	37,796 5,508 34,249 35,514 165,145 3,520 47,837			
U.S. DEPARTMENT OF ENERGY								
81.086	Conservation research and development	USENE-Ignition Improvement-Lean Gas	n/a	DE-FC26-02NT41443-AMD A001	27,823			
U.S. DEPARTMENT OF EDUCATION								
84.116	Fund for the improvement of post secondary education	USEDU-YR 1-N. Am Mobility-Higher Ed USEDU-YR 2-N. Am Mobility-Higher Ed USEDU-YR 3-N. Am Mobility-Higher Ed	n/a n/a n/a	P116N000021-03-ACTION NO. 04 P116N000021-03-ACTION NO. 04 P116N000021-03-ACTION NO. 04	2,706 13,810 11,755 28,271			

Federal Agency/

CFDA#	Program title/major subdivision	Grant/contract title	Pass thru entity if applicable	Contract #	Expenditures		
84.281	Eisenhower professional development -	MIEDU Louis Taka Qualita Deaf Day De	Michigan December of Education	030290-205	\$ 15,794		
	state grants	MIEDU-Impr Tchr Quality Prof Dev Pr	Michigan Department of Education	030290-203	\$ 13,794		
84.367B	Improving teacher quality state grants	MIEDU-2001/2002 Educ Science & Math	Michigan Department of Education	GRANT # 020290-202	13,497		
momer repo							
TOTAL FEDI	TOTAL FEDERAL AWARD PROGRAMS NOT INCLUDED IN RESEACH & DEVELOPMENT OR STUDENT FINANCIAL AID CLUSTERS - WITH CFDA#S						
FEDERAL AWARD PROGRAMS NOT INCLUDED IN RESEACH & DEVELOPMENT OR STUDENT FINANCIAL AID CLUSTERS - CFDA# NOT AVAILABLE							
U.S. DEPARTI	MENT OF COMMERCE						
	Economic Development Administration	Advanced Technology Design ATDC/EDA	n/a	06-01-04694	197,141		
U.S. DEPARTI	MENT OF AGRICULTURE						
	U S Forest Service	USAGR-Lk States Silviculture Course	n/a	43-56A1-3-0043-SUB 02	3,893		
HC DEDART	MENT OF TRANSPORTATION						
U.S. DEPARTI	MENT OF TRANSPORTATION						
	Federal Highway Administration	USTRA-MTTI-Const Warranty Symposium	n/a	2302PMW050596 000 - AMD 0002	832		
	"	USTRA-MTTI-Const Warranty Symposium MITRA-MTTI-Const Warranty Symposium	n/a Michigan Department of Transportation	DTFH61-03-P-00185 CHK# 4803179	10,000 30,964		
		WITKA-WITTI-Collst Walfality Symposium	Wichigan Department of Transportation	CHK# 4803179	30,904		
					41,796		
NATIONAL A	ERONAUTICS AND SPACE ADMINISTR	ATION					
MIIOMEN	n/a - no subdivisions	UNIVE-Mich Space Grant Cons Adm	University of Michigan	CH #465764	385		
	"	UNIVE-M Chye-High Effic Oxygen Sep	University of Michigan	CHECK # 655990	2,086		
	"	UNIVE-O Sorensen-Laha Hzrd/Tung Vol	University of Michigan	CHECK # 655990	4,000		
	"	UNIVE-Field TrainTeachers Earth Sys	University of Michigan	CHECK # 655990	5,000		
	"	UNIVE-MI Spc Grant Administrative	University of Michigan	CHECK # 655990	3,176		
		UNIVE-Amer Indian Bio Comput Math	University of Michigan	CHECK # 655990	3,500		
		UNIVE-Summer Youth Program Spee Sci	University of Michigan	CHECK # 655990	4,225		
		UNIVE-A Kieckhafer-Sty Plm/Thrus UNIVE-H Sherman-Ana/Ura Jacobsville	University of Michigan	CHECK # 655990 CHECK # 655990	4,720 1,750		
	"	UNIVE-C Bergstrom-Mosb Spectra/Naro	University of Michigan University of Michigan	CHECK # 655990 CHECK 655990	2,264		
	"	UNIVE-I Kowalczyk-Pred/Fail Aero Ap	University of Michigan	CHECK # 655990	1,879		
	ii .	UNIVE-D- Nezich-Mosbauer Absorp/Com	University of Michigan	CHECK # 655990	2,500		
	"	UNIVE-K Harvey-CBE-Mech Black Bears	University of Michigan	CHECK # 65590	1,250		
	"	UNIVE-A Guth-Stdy/Nyam SO2 Emiss	University of Michigan	CHECK # 655990	2,500		
	"	UNIVE-C Applin-CONCAM Shade Project	University of Michigan	CHECK # 655990	2,499		
	"	UNIVE-CBE-L Godin-Fluid Flw/Calc	University of Michigan	CHECK # 655990	1,250		
	"	UNIVE-Field Stdy for Urban Students	University of Michigan	CHECK # 659110	5,000		
	"	UNIVE-Virtual Field Experience	University of Michigan	CHECK #834014	2,000		
	"	UNIVE-FAK/MAPK Signal Transduction	University of Michigan	CHECK #834014	1,781		
	"	UNIVE-Rdar Refl & Rain Est fr Space	University of Michigan	CHECK #834014	2,200		
	"	UNIVE-Multisp Analysis Erupt Clouds	University of Michigan	CHECK #834014	2,500		
	**	UNIVE-JAK/STAT Signal Mscl Mechan	University of Michigan	CHECK #834014	1,937		

Federal Agency/ CFDA#	Program title/major subdivision	Grant/contract title	Pass thru entity if applicable	Contract #	Expe	nditures 58,402
NATIONAL SCIENCE FOUNDATION						
n	n/a - no subdivisions	UCAID-NSF Middle Init A West UCAID-NSF Middleware Initiative	n/a n/a	MTU AGREEMENT # 011032 INTERNET 2 AGREEMENT	\$	76,707 15,537
						92,244
U.S. DEPARTMENT OF EDUCATION						
τ	Unknown	COPPE-02/03 Su Inst for Tech	Copper County ISD	LETTER DATED NOVEMBER 8, 2002		2,735
TOTAL FEDERAL AWARD PROGRAMS NOT INCLUDED IN RESEACH & DEVELOPMENT OR STUDENT FINANCIAL AID CLUSTERS - CFDA# NOT AVAILABLE						396,211
TOTAL EXPENDITURES OF FEDERAL AWARDS					\$ 3	38,456,431

1) Basis of presentation -

The Schedule of expenditures of fedral awards includes the federal grant activity of the University and is presented on the modified accrual basis of accounting. The information in this schedule is presented in accordance with the requirements of OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations. Therefore some amounts presented in this schedule may differ from amounts presented or used in the preparation of the basic financial statements.

Michigan Technological University Schedule of Findings and Questioned Costs For the Year Ended June 30, 2003

SECTION 1 - SUMMARY OF AUDITORS RESULTS:

Financial Statements

Type of Auditor's report issued:

Unqualified

Internal control over financial reporting:

Material weakness identified?

Reportable conditions identified not

considered to be material weaknesses?

None reported

Noncompliance material to financial statements

noted?

Federal Awards

Internal control over major programs:

Material weaknesses identified?

Reportable conditions identified not

considered to be material weaknesses?

None reported

Type of auditor's report issued on compliance

for major programs:

Unqualified

Any audit findings disclosed that are required

to be reported in accordance with

Circular A-133, Section .510(a)?

Identification of major programs:

CFDA # Name of Program

84.033,84.038,84.063,84.268 Student financial assistance cluster

Various Research and development cluster

Dollar threshold to distinguish

between type A and type B programs: \$1,153,000

Auditee qualified as a low risk auditee? Yes

SECTION II – FINANCIAL STATEMENT FINDINGS

No financial statement findings are reported.

SECTION III – FEDERAL AWARD FINDINGS AND QUESTIONED COSTS

No federal award findings or questioned costs are reported.