COMPLIANCE REPORTS

For the Year Ended June 30, 2017

And Independent Auditor Reports



TABLE OF CONTENTS

REPORT OF INDEPENDENT AUDITOR ON INTERNAL CONTROL OVER	
FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS	
BASED ON AN AUDIT OF THE FINANCIAL STATEMENTS PERFORMED	
IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS	1-2
REPORT OF INDEPENDENT AUDITOR ON COMPLIANCE FOR EACH MAJOR	
PROGRAM AND REPORT ON INTERNAL CONTROL OVER COMPLIANCE	
REQUIRED BY THE UNIFORM GUIDANCE	3-5
Schedule of Expenditures of Federal Awards	6-30
Notes to Schedule of Expenditures of Federal Awards	31
Schedule of Findings and Questioned Costs	32-33



Report of Independent Auditor on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of the Financial Statements Performed in Accordance with Government Auditing Standards

The Board of Trustees of Georgia Tech Research Corporation and Georgia Tech Applied Research Corporation Atlanta, Georgia

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the business-type activities and each major fund of Georgia Tech Research Corporation and Georgia Tech Applied Research Corporation (collectively "GTRC") as of and for the year ended June 30, 2017, and the related notes to the financial statements which collectively comprise GTRC's basic financial statements, and have issued our report thereon dated September 12, 2017.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered GTRC's internal control over financial reporting ("internal control") to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements but not for the purpose of expressing an opinion on the effectiveness of GTRC's internal control. Accordingly, we do not express an opinion on the effectiveness of GTRC's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of GTRC's financial statements will not be prevented, or detected and corrected, on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether GTRC's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, 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 or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

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The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Atlanta, Georgia September 12, 2017



Report of Independent Auditor on Compliance for Each Major Program and Report on Internal Control over Compliance Required by the Uniform Guidance

The Board of Trustees of Georgia Tech Research Corporation Georgia Tech Applied Research Corporation Georgia Institute of Technology Atlanta, Georgia

Report on Compliance for Each Major Federal Program

We have audited the compliance of Georgia Tech Research Corporation, Georgia Tech Applied Research Corporation, and the Georgia Institute of Technology (collectively hereinafter referred to as the "Organization") with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of the Organization's major federal programs for the year ended June 30, 2017. As part of the coordinated audit, we did not audit compliance requirements as described in OMB Compliance Supplement related to equipment and real property management and procurement and suspension and debarment for the Research and Development Cluster major federal program. Those compliance requirements were audited by State of Georgia Department of Audits and Accounts whose report thereon has been furnished to us, and our opinion, insofar as it relates to those requirements, is based solely on the reports of the State of Georgia Department of Audits and Accounts dated December 19, 2017, which reports no findings in relation to internal control over compliance in accordance with the *OMB Compliance Supplement*. The Organization's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with the requirements of laws, regulations, contracts, and grants applicable to its federal programs.

Auditor's Responsibility

Our responsibility is to express an opinion on the Organization's compliance for each of the Organization's major federal programs based on our audit of the types of compliance requirements referred to above and the report of other auditors. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and Title 2 U.S. *Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* ("Uniform Guidance"). Those standards and the Uniform Guidance 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 the Organization'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 on compliance for each major federal program. However, our audit does not provide a legal determination of the Organization's compliance.

Opinion on Each Major Federal Program

In our opinion, the Organization complied, in all material respects, with the compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2017.

Report on Internal Control over Compliance

Management of the Organization is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the Organization's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the Organization's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A material weakness in internal control over compliance is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A significant deficiency in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance

We have audited the financial statements of the business-type activities and each major fund of Georgia Tech Research Corporation and Georgia Tech Applied Research Corporation (collectively, "GTRC") as of and for the year June 30, 2017, and the related notes to the financial statements, which collectively comprise GTRC's basic financial statements. We issued our report thereon dated September 12, 2017, which contained an unmodified opinion on those financial statements. Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise GTRC's basic financial statements. The accompanying schedule of expenditures of federal awards for Georgia Tech Research Corporation, Georgia Tech Applied Research Corporation, and Georgia Institute of Technology is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements.

The State of Georgia Department of Audits and Accounts has audited the basic financial statements of the Georgia Institute of Technology as of and for the year ended June 30, 2017 and has issued its report thereon based on the audit of the basic financial statements performed in accordance with auditing standards generally accepted in the United States of America dated December 19, 2017. We did not audit the financial statements of Georgia Institute of Technology which represent approximately 35% of the expenditures in the accompanying schedule of expenditures of federal awards. Such information related to GTRC has been subjected to the auditing procedures applied in our audit of GTRC's basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion the schedule of expenditures of federal awards, in relation to GTRC, is fairly stated in all material respects in relation to the basic financial statements of GTRC taken as a whole.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Atlanta, Georgia

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January 26, 2018 except for the Schedule of Expenditures of Federal Awards, as to which the date is September 12, 2017.

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Federal Grantor/Pass-Though	Federal CFDA Number	Pass-through Entity ID Number	Amount Passed Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
Research and Development-Cluster:				
Department of Agriculture				
Agricultural Research_Basic and Applied Research	10.001			\$ 40,815
Agriculture and Food Research Initiative (AFRI)	10.310		\$ 243,955	576,367
Forestry Research	10.652			163,469
Agricultural Research_Basic and Applied Research				
Passed through from:				
GORDON & BETTY MOORE FOUNDATION / SAN FRANCISCO, CA	10.001	#4308.07		27,053
Specialty Crop Block Grant Program - Farm Bill				
Passed through from:				
GEORGIA DEPARTMENT OF AGRICULTURE/ATLANTA, GA	10.170	AGR DTD 10/2/14		5,447
GEORGIA DEPARTMENT OF AGRICULTURE/ATLANTA, GA	10.170	AGR DTD 10/23/13		13,679
Small Business Innovation Research				
Passed through from:				
TECHNICAL DATA ANALYSIS INC/FALL CHURCH, VA	10.212	SBIR DTD 30 OCT 2015		21,147
Agriculture and Food Research Initiative (AFRI)				
UNIVERSITY OF MINNESOTA/MINNEAPOLIS, MN	10.310	A005124701		89,406
Forestry Research				
Passed through from: U.S ENDOWMENT FOR FORESTRY AND COMMUNITIES/ GREENVILLE, SC	10.652	P3-2		94,545
otal Department of Agriculture	10.032	1 3-2	243,955	1,031,928
our separation of Agriculture			240,000	1,001,020
Department of Commerce				
Economic Development-Technical Assistance	11.303			128,592
Climate and Atmospheric Research	11.431			181,695
Measurement and Engineering Research and Standards	11.609		6,000	635,391
Manufacturing Extension Partnership	11.611			71,110
Science, Technology, Business and/or Education Outreach	11.620			266,177
Integrated Ocean Observing System (IOOS)				
Passed through from:				
SE COASTAL OCEAN OBSERVING REGIONAL ASSN/				
JOHNS ISLAND, SC	11.012	IOOS.16(028)GATECH.FZ.GLD.1		29,661
Coastal Zone Management Administration Awards				
Passed through from:				
GA DEPT NATURAL RESOURCES	11.419	AGR T 8/23/16		1,795
Applied Meteorological Research				
Passed through from:				
FLORIDA STATE UNIVERSITY/TALLAHASSEE, FLA	11.468	R01856		2,593
otal Department of Commerce			6,000	1,317,014
Department of the Army				
Basic and Applied Scientific Research	12.300			393,927
Military Medical Research and Development	12.420		6,942	763,179
Basic Scientific Research	12.431		7,249,419	54,792,903
Basic, Applied, and Advanced Research in Science and Engineering	12.630		2,216,495	15,316,946
Science, Technology, Engineering and Mathematics (STEM): Science, Mathematics And Research for Transformation (SMART)	12.631		14,455	808,274
Air Force Defense Research Sciences Program	12.800			1,837,263
Aquatic Plant Control				
Passed through from:				
DHPC TECHNOLOGIES INC./WOODBRIDGE, NJ	12.100	SD01508		411

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

deral Grantor/Pass-Though	Federal CFDA	Pass-through Entity ID	Amount Passed Through to	Federal
antor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
Basic and Applied Scientific Research				
Passed through from:				
INTUITIVE RESEARCH AND TECHNOLOGY CORP/ GRAND PRAIRIE, TX	12.300	AE-T-GTR-001 TASK ORDER 0003		58,090
Military Medical Research and Development				
Passed through from:				
E'OIR INCORPORATED/SPOTSLYVANIA, VA	12.420	LTR AGMT, DTD 01/08/2015		346,87
WAKE FOREST UNIVERSITY/WINSTON SALEM, NC	12.420	WFUHS 441052 ER-02		95,18
Basic Scientific Research				
Passed through from:				
ALTUS ARCHITECTURE STUDIOS/OMAHA, NE	12.431	AGR DTD 10.1.2015		276,59
ATA ENGINEERING INC / SAN DIEGO, CA	12.431	AGT DTD JUNE 16, 2016		26,01
BAE SYSTEMS/NASHUA, NH	12.431	329420		195,47
BAE SYSTEMS/NASHUA, NH	12.431	899091-4		75,34
BATTELLE/	12.431	US001-0000560752		221,72
BOEING AEROSPACE COMPANY/	12.431	1177404		129,60
CORNELL UNIVERSITY/ITHACA, NY	12.431	76091-10525		246,16
DIGITAL ANALOG INTEGRATION INC/AUBURN,AL	12.431	AGMT DTD 18-NOV-2015		170,53
DYNETICS INCORPORATED//HUNTSVILLE, AL	12.431	SB600004		281,96
DYNETICS INCORPORATED//HUNTSVILLE, AL	12.431	TO 30		141,06
ENVISTACOM LLC/ATLANTA, GA	12.431	AGR DTD 11/07/16		28,47
GENERAL DYNAMICS/	12.431	40239678		47,33
GEORGE MASON UNIVERSITY/FAIRFAX, VA	12.431	E2027851		8,99
GRAF LLC/BLACKSBURG,VA	12.431	AGR DTD 01-05-17		49,90
IAP WORLDWIDE SERVICES/ABERDEEN PROVING GROUND, MD	12.431	JRS-000062		
				10,28
JACOBS TECHNOLOGY INC/FT. WALTON BEACH, FL LEIDOS INC	12.431	1153-01-00-02		179,40
	12.431	4102781916		196,40
MICROWAVE PACKAGING TECHNOLOGIES INC (MPT)/BREA,CA	12.431	W911W-14-C-0014		182,99
NANO TERRA INC/BRIGHTON, MA	12.431	AGR DTD 8/17/2013		23,36
NATIONAL ADVANCED MOBILITY CONSORTIUM/ANN ARBOR, MI	12.431	70-201708 T01		33,98
NATIONAL INSTITUTE OF AEROSPACE/HAMPTON, VA	12.431	8502-GTRC		262,11
NATIONAL INSTITUTE OF AEROSPACE/HAMPTON, VA	12.431	8504-GTRC		105,74
NORTH CAROLINA A&T STATE UNIV/GREENSBORO, NC	12.431	W900KK-16-R-0013		133,50
PENNSYLVANIA STATE UNIV/UNIV PARK, PA	12.431	5274-GTRC-VLC-5328		22,69
ROLLS-ROYCE/INDIANAPOLIS, IN	12.431	5003246516		188,80
ROLLS-ROYCE/INDIANAPOLIS, IN	12.431	15-05-03; P.O. # 5003424790		8,76
SAIC	12.431	4600005751/3		231,95
SAIC	12.431	4600005751/5		178,03
SCIENTIFIC RESEARCH CORP/ATLANTA, GA	12.431	SR20160260 TO-002		12
SCIENTIFIC RESEARCH CORP/ATLANTA, GA	12.431	SR20160726 TO-003		79,17
SCIENTIFIC RESEARCH CORP/ATLANTA, GA	12.431	SR20160954 TO-004		309,95
SCIENTIFIC RESEARCH CORP/ATLANTA, GA	12.431	SR2017525 (JP02)		42,56
SCIENTIFIC RESEARCH CORP/ATLANTA, GA	12.431	W900KK-15-D-0005		47,84
SIGMATECH INC/HUNTSVILLE,AL	12.431	17PO-00014		250,62
SOUTH CAROLINA RES AUTH/CHARLESTON, SC	12.431	2017-311 PROJECT AGREEMENT 01	155,121	565,11
SOUTH CAROLINA RES AUTH/CHARLESTON, SC	12.431	2017-311 PROJECT AGREEMENT 02	308,894	753,99
SOUTH CAROLINA RES AUTH/CHARLESTON, SC	12.431	2017-311 PROJECT AGREEMENT 03		315,38
SOUTH CAROLINA RES AUTH/CHARLESTON, SC	12.431	2017-311 PROJECT AGREEMENT 04	84,130	383,57
SUBSYSTEM TECHNOLOGIES INC/CRYSTAL CITY, VA	12.431	3474-070		22,1
UCLA/LOS ANGELES, CA	12.431	1000GSA785		39,64
UNIV OF FLORIDA/	12.431	UFDSP00011015		7,50
UNIV OF ILLINOIS/URBANA, ILLINOIS	12.431	2010-04989-04 /051487-12673		11,04

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

eral Grantor/Pass-Though ntor/Cluster or Program Title	Federal CFDA Number	Pass-through Entity ID Number	Amount Passed Through to Subrecipient	Federal Expenditures
UNIV OF WASHINGTON/SEATTLE, WA	12.431	UWSC7915 P.O. # BPO 3109		65,945
UNIVERSITY OF MARYLAND/COLLEGE PARK, MD	12.431	46331-Z8425103		28,244
UNIVERSITY OF SOUTHERN CALIFORNIA/LOS ANGELES, CA	12.431	43941439 P.O. #10127130		29,290
UNIVERSITY OF WASHINGTON/SEATTLE, WA	12.431	UWSC9283		1,470
VERTICAL LIFT CONSORTIUM INC (CRI)/GLEN MILL, PA	12.431	NRTC-FY15-W-01		1,47
Basic, Applied, and Advanced Research in Science and Engineering	12.401	Will of the Wor		
Passed through from:				
APPLIED COMMUNICATION SCIENCES	12.630	PO-0005491		40,466
CACI	12.630	P000013085		19,06
CORPORATE FLIGHT MANAGEMENT INC. (CFM)/SMYRNA, TN	12.630	CFMGS-NIE16.2-GTRI.SO.SME		11-
DHPC TECHNOLOGIES INC./WOODBRIDGE, NJ	12.630	SD01641-01		251,24
DUKE UNIVERSITY/DURHAM, NC	12.630	313-0639		673,44
ERC INC	12.630	PS160005		60,21
METOVA FEDERAL LLC./CABOT, AR	12.630	PO CBL-048		29,21
PAR TECHNOLOGY CORP/	12.630	SC-111751-001		353,16
RADIANCE TECHNOLOGIES/HUNTSVILLE, AL	12.630	16S-3074		172,87
SAIC	12.630	4600005751/4		87,55
TORCH TECHNOLOGIES INC/HUNTSVILLE, AL	12.630	BA9811646		49,64
Air Force Defense Research Sciences Program	12.030	DA3011040		43,04
Passed through from: ADVANCED ROTORCRAFT TECHNOLOGY INC./ MOUNTAINVIEW, CA	12.800	AGT DTD FEB 29, 2012		73
Research and Technology Development				
Passed through from:				
SRI INTERNATIONAL	12.910	206-000114		100,45
I Department of the Army			10,035,456	83,149,62
artment of the Navy				
Basic and Applied Scientific Research	12.300		6,188,812	28,200,05
Basic, Applied, and Advanced Research in Science and Engineering	12.630		764,065	306,94
Research and Technology Development	12.910			120,48
Basic and Applied Scientific Research				
Passed through from:				
AMEWAS/LEXINGTON PARK, MD	12.300	PO16-00314		2
AMEWAS INC/LEXINGTON PARK, MD	12.300	PO17-00842		13,75
CONTINUUM DYNAMICS INC/EWING, NJ	12.300	AGMT DTD 31-JULY-2015		10,00
FLORIDA STATE UNIVERSITY/TALLAHASSEE, FLA	12.300	R01804		23,72
JOHNS HOPKINS APPLIED PHYSICS LAB/LAUREL, MD	12.300	BPS/STP-14-170		13,44
LEIDOS INC	12.300	P01067131		49,24
LUNA INNOVATIONS/BLACKBURG, VA	12.300	AGR DTD 12/19/16		63,55
NORTH CAROLINA STATE UNIVERSITY/RALEIGH, NC	12.300	2010-1710-01		87,96
NORTHROP GRUMMAN/BALTIMORE, MD	12.300	8140000889		10,20
NORTHROP GRUMMAN/BALTIMORE, MD	12.300	8140000893		231,27
NORTHWESTERN UNIVERSITY/EVANSTON, IL	12.300	SP0036191-PROJ0009974		130,10
PAE APPLIED TECHNOLOGIES LLC./PARK, MD	12.300	M600005982		40
TAL ALT LIED TECHNOLOGIES ELG./TAKK, MID				
PRINCETON LINIVERSITY/DI AINSPORO NI	12.300	SUB0000041 AGR DTD 05/26/17		255,09 3,10
PRINCETON UNIVERSITY/PLAINSBORO, NJ	12 300			3,10
SOAR TECHNOLOGY INC/ANN ARBOR, MI	12.300			4 70
SOAR TECHNOLOGY INC/ANN ARBOR, MI STTR:ADVANCED ROTORCRAFT TECHNOLOGY INC	12.300	AGT DTD AUG 17, 2015		
SOAR TECHNOLOGY INC/ANN ARBOR, MI STTR:ADVANCED ROTORCRAFT TECHNOLOGY INC SYSTEMS TECHNOLOGY INC/HAWTHORNE, CA	12.300 12.300	AGT DTD AUG 17, 2015 AGT DTD 03/31/2017		19,00
SOAR TECHNOLOGY INC/ANN ARBOR, MI STTR:ADVANCED ROTORCRAFT TECHNOLOGY INC SYSTEMS TECHNOLOGY INC/HAWTHORNE, CA TUFTS UNIVERSITY/MEDFORD, MA	12.300 12.300 12.300	AGT DTD AUG 17, 2015 AGT DTD 03/31/2017 ONR029	005.000	19,00 2,56
SOAR TECHNOLOGY INC/ANN ARBOR, MI STTR:ADVANCED ROTORCRAFT TECHNOLOGY INC SYSTEMS TECHNOLOGY INC/HAWTHORNE, CA	12.300 12.300	AGT DTD AUG 17, 2015 AGT DTD 03/31/2017	265,336	1,78 19,00 2,56 6,366,55 162,15

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Federal Grantor/Pass-Though Grantor/Cluster or Program Title	Federal CFDA Number	Pass-through Entity ID Number	Amount Passed Through to Subrecipient	Federal Expenditures
University of California	12.300	8975		(2,434)
UNIVERSITY OF SOUTHERN CALIFORNIA/LOS ANGELES, CA	12.300	51110592		82,618
Basic Scientific Research				
Passed through from:				
LOCKHEED MARTIN/FORTWORTH, TEXAS	12.431	7226687		22,846
Research and Technology Development				
Passed through from:				
PURDUE UNIVERSITY/WEST LAFAYETTE, IN	12.910	4104-70902		8,058
Total Department of the Navy			7,218,213	36,188,848
Department of the Air Force				
Basic and Applied Scientific Research	12.300			542,534
Basic Scientific Research	12.431		243,441	245,441
Basic, Applied, and Advanced Research in Science and Engineering	12.630		450,763	11,321,269
Air Force Defense Research Sciences Program	12.800		24,834,625	137,598,946
Research and Technology Development	12.910			272,517
Basic and Applied Scientific Research				
Passed through from:				
GUERCI CONSULTING LLC/ARLINGTON, VA	12.300	AGR DTD 8/28/15		408
Basic, Applied, and Advanced Research in Science and Engineering				
Passed through from:				
GE GLOBAL RESEARCH/NISKAYUNA, NY	12.630	401048011		74,116
LEIDOS INC	12.630	10170252-1		97,641
LEIDOS INC	12.630	P010179649		132,853
Air Force Defense Research Sciences Program				
Passed through from:				
AECOM CONSULT INC	12.800	LV0003177		98,060
AGING AIRCRAFT CONSULTING LLC/WARNER ROBINS, GA	12.800	AGMT DTD 3/31/17		18,072
ALION SCIENCE AND TECHNOLOGY CORP/MCLEAN, VA	12.800	STM1139913		118,443
AMERICAS MAKES	12.800	#129247	512,442	646,013
ATK ALLIANT TECHSYSTEMS INC/PLYMOUTH, MN	12.800	MP00139150		11,633
ATK ALLIANT TECHSYSTEMS INC/PLYMOUTH, MN	12.800	PO MP00105823		(3)
AVARINT/BUFFALO, NY	12.800	SUBCONTRACT NO. A0050.04S1		109,093
AZIMUTH CORPORATION/BEAVERCREEK, OH	12.800	238-5404-GIT		297,518
AZIMUTH CORPORATION/BEAVERCREEK, OH	12.800	238-5404-GIT2		31,624
BAE SYSTEMS/NASHUA, NH	12.800	944838		192,155
BERRIEHILL RESEARCH CORP/DAYTON, OH	12.800	2204		82,137
BINGHAMTON UNIVERSITY/BINGHAMTON, NY	12.800	77723/1138629		37,526
BOEING/PHANTOM WORKS BERKELEY, MO	12.800	1404360		7,718
BOOZ, ALLEN AND HAMILTON INC		106445SB18		1,226,850
BOOZ, ALLEN AND HAMILTON INC	12.800	106445SB18/TASK ORDER 2		137,255
CARNEGIE MELLON INSTITUTE/PITTSBURGH, PA	12.800	1150119-299956		327,172
CASE WESTERN RESERVE UNIVERSITY/CLEVELAND, OH	12.800	RES506638		104,979
CLARKSON AEROSPACE/HOUSTON, TX	12.800	13-S7700-02-C2		94,814
CLARKSON AEROSPACE/HOUSTON, TX	12.800	GTRI CS 15-S-0234		384,731
CLEAR CREEK APPLIED TECHNOLOGIES/FAIRBORN, OH COMBUSTION SCIENCE AND ENGINEERING LTD	12.800	4050-015-01-015		62,178
	12.800	AGT DTD 12/28/2015 AGMT DTD 2-DEC-2015		175,712
ENERGY RESEARCH CONSULTANTS/LAGUNA HILLS, CA ERC INC	12.800			4,565 20,815
	12.800	PS160094 GTRI-GRAF 133750		
GRAF LLC/BLACKSBURG,VA HARPER LABS/HUNTSVILLE, AL	12.800 12.800	AGT DTD 04/15/2016		2,717 93,745
	12.800			
INNOVATIVE ADVANCED MATERIALS INC/HAMPTON, GA	12.800	AGT DTD JULY 6, 2016		54,993

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

ederal Grantor/Pass-Though rantor/Cluster or Program Title	Federal CFDA Number	Pass-through Entity ID Number	Amount Passed Through to Subrecipient	Federal Expenditures
antonouster or Program Title	Nulliber	Number	Subrecipient	Expenditures
JT3 LLC	12.800	4W16000006		67,904
KARAGOZIAN AND CASE STRUCTURAL ENGINEERS/ GLENDALE, CA	12.800	AGT DTD DECEMBER 23, 2016		51,129
KITWARE INC/CLIFTON PARK, NY	12.800	K000886-00-S01		117,221
L3 COMMUNICATIONS/ROCKWALL, TEXAS	12.800	4501494922		104,729
L3 DISPLAY SYSTEMS/ALPHARETTA,GA	12.800	A119893		476,868
MASSTECH INC	12.800	FA8650-17-C-9104-GT		71,562
MATRIX RESEARCH AND ENGINEERING / DAYTON, OH	12.800	SCRTS-005		8
MATRIX RESEARCH AND ENGINEERING / DAYTON, OH	12.800	TASK ORDER 01		127,32
MATRIX RESEARCH AND ENGINEERING / DAYTON, OH	12.800	TASK ORDER 02		100,808
MITRE CORPORATION/BEDFORD,MA	12.800	114372		49,362
NEXTFLEX/SAN JOSE, CA	12.800	AGREEMENT DATED 21-FEB-2017		23,166
NORTHROP CORPORATION/	12.800	7500119051		969,66
NORTHROP GRUMMAN/HUNTSVILLE, AL	12.800	7500136376		453,16
NORTHWESTERN UNIVERSITY/EVANSTON, IL	12.800	SP0024930-PROJ0006374		160,23
OBJECT VIDEO/RESTON,VA	12.800	AGR DTD 5/7/16		36,62
OHIO AEROSPACE INSTITUTE/CLEVELAND, OH	12.800	OAI-VATO2-17005		22,76
PENNSYLVANIA STATE UNIV/UNIV PARK, PA	12.800	4791-GIT-AFOSR-0004		109,49
PRATT & WHITNEY AIRCRAFT/	12.800	24102 TASK 24		26,86
RADIANCE TECHNOLOGIES/HUNTSVILLE, AL	12.800	15S-0094		3,78
RELIANCE TEST AND TECHNOLOGY/HOLLOMAN, AFB, NM	12.800	R17N0095		32,95
RIVERSIDE RESEARCH INST/	12.800	AGMT DTD 5/4/15		(1,84
ROLLS-ROYCE	12.800	5100002774		283,74
SCIENTIFIC RESEARCH CORP/ATLANTA, GA	12.800	TO-004		250,09
SENTAR INC./HUNTSVILLE, AL	12.800	AGR DTD 04/12/17		62,77
SINOORA INC/SUWANEE,GA	12.800	AGR DTD 10/04/2013		(21,24
SOUTH CAROLINA RES AUTH/CHARLESTON, SC	12.800	2016-404	54,366	113,57
SOUTHWEST RESEARCH INSTITUTE/	12.800	J99080CT		26,23
SPACE DYNAMICS LAB/LOGAN, UTAH	12.800	CP003XXXX		(7,87
SPECTRAL ENERGIES LLC / DAYTON, OH	12.800	AGT DTD 08/30/16		95,18
SSAI/MELBOURNE, FL	12.800	DESP-093-RJ02-01		69,02
STATE UNIV OF NEW YORK/ALBANY, NY	12.800	AGR DTD 3/16/2017		42,03
SURVICE ENGINEERING CO/BELCAMP, MD	12.800	LTR SUBCONTRACT DTD 6/25/14		143,19
TEXAS ENGINEERING STATION-TAMU/COLLEGE STATION, TX	12.800	C2611		50,97
UES INC/DAYTON, OH	12.800	S-124-001-004		3,94
UES INC/DAYTON, OH	12.800	S-953-21-MR015		68,68
UES INC/DAYTON, OH	12.800	S-953-21-MR016		120,66
UES INC/DAYTON, OH	12.800	S-977-022-001		22,19
UNIV OF CENTRAL FL/	12.800	287381		304,43
UNIV OF MICHIGAN/	12.800	3002629732		73,77
UNIVERSAL TECHNOLOGY CORP/ DAYTON, OH	12.800	12-S7114-01-C1		71,95
UNIVERSAL TECHNOLOGY CORP/ DAYTON, OH	12.800	17-S7700-01-C4		52,42
UNIVERSAL TECHNOLOGY CORP/ DAYTON, OH	12.800	17-S8401-03-C1		21,78
UNIVERSITY OF CALIFORNIA	12.800	2015-3219/ PO#45933		176,88
UNIVERSITY OF COLORADO/BOULDER, CO	12.800	1552069/PO# 1000394545		5,55
UNIVERSITY OF FLORIDA	12.800	UFDSP00010759		(12,46
Research and Technology Development				
Passed through from:				
HONEYWELL INC	12.910	PO 3501541994		154,27
otal Department of the Air Force			26,095,637	159,931,477

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Federal Grantor/Pass-Though	Federal CFDA	Pass-through Entity ID	Amount Passed Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
Department of Defense				
Basic Scientific Research - Combating Weapons of Mass Destruction	12.351		102,181	428,808
Basic, Applied, and Advanced Research in Science and Engineering	12.630		11,675,847	111,009,793
Air Force Defense Research Sciences Program	12.800			153,534
Research and Technology Development	12.910		94,808	441,933
Basic Scientific Research - Combating Weapons of Mass Destruction				
Passed through from: MONTEREY INSTITUTE OF INTERNATIONAL STUDIES/ MONTEREY,CA	12.351	DTRA GTARC 1		129,972
ROTC Language and Culture Training Grants				
Passed through from:				
INSTITUTE OF INTERNATIONAL EDU	12.357	#2603-GT17		12,675
Basic Scientific Research				
Passed through from:				
HONEYWELL INTERNATIONAL/COONS RAPID,MN	12.431	3501701149E		7,531,805
INMONDO TECH/ATLANTA, GA	12.431	AGMT DTD FEB 26, 2016		24,581
Basic, Applied, and Advanced Research in Science and Engineering				
Passed through from:				
AEGIS TECHNOLOGIES GROUP INC	12.630	105-STTR-GTRI-7160		(12
BAE SYSTEMS/NASHUA, NH	12.630	957935		5,974
BATTELLE	12.630	601190-6		48,441
BINERGY SCIENTIFIC INC/SALT LAKE CITY,UT	12.630	AGR DTD 09/30/16		44,550
CAMBRIDGE SYSTEMATICS INC./RALEIGH, NC	12.630	TBD TASK ORDER #2		16,083
CARBICE NANOTECHNOLOGIES INC/ATLANTA,GA	12.630	AGMT, DTED 9/8/16		69,042
DHPC TECHNOLOGIES INC./WOODBRIDGE, NJ	12.630	D161130-01		187,698
DHPC TECHNOLOGIES INC./WOODBRIDGE, NJ	12.630	SD01641-0002		51,355
DYNETICS INCORPORATED	12.630	DI-SC-09-20/16		(173
DYNETICS INCORPORATED	12.630	DI-SC-16-01 TASK ORDER 21		161,373
DYNETICS INCORPORATED	12.630	SB500011		54,616
DYNETICS INCORPORATED//HUNTSVILLE, AL	12.630	DI-SC-15-05 / TO 03		16,943
DYNETICS INCORPORATED//HUNTSVILLE, AL	12.630	DI-SC-16-01/TO 72		3,511
DYNETICS INCORPORATED//HUNTSVILLE, AL	12.630	DI-SC-16-01/TO 73		352
DYNETICS INCORPORATED//HUNTSVILLE, AL	12.630	DI-SC-17-22-NTP		34,746
DYNETICS INCORPORATED//HUNTSVILLE, AL	12.630	TASK ORDER 02		34,300
EMORY UNIVERSITY/ATLANTA, GA	12.630	T803614		239,157
GATR TECHNOLOGIES/HUNTSVILLE, AL	12.630	AGR DTD 11/15/16		24,123
GENERAL DYNAMICS	12.630	10204267_14-SC-0102 LS		166,160
HARRIS CORPORATION	12.630	A000388201		103,455
HIFUNDA LLC	12.630	W911NF-16-P-0020		42,188
HONEYWELL INC	12.630	3501085955E		946
HONEYWELL INC	12.630	3501196815E		44,527
HONEYWELL INC	12.630	3501508791E		321,346
HONEYWELL INC	12.630	3501700183E		369,698
IERUS TECHNOLOGIES/HUNTSVILLE,AL	12.630	AGMT DTD 10.1.15		18,622
IJIS INSTITUTE/ASHBURN, VA	12.630	572-GTRI-PI-01		75,960
INFOSCITEX CORPORATION/ DAYTON, OH	12.630	PO 161754		90,847
IQM RESEARCH INSTITUTE	12.630	#129285		66,556
JACOBS TECHNOLOGY INC/FT. WALTON BEACH, FL	12.630	4/20/17 NOTICE TO PROCEED		17,791
JOHNS HOPKINS APPLIED PHYSICS LAB/LAUREL, MD KARAGOZIAN AND CASE STRUCTURAL ENGINEERS/ GLENDALE, CA	12.630 12.630	125083 AGT DTD MAY 29, 2017		573,711 14,907

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

deral Grantor/Pass-Though	Federal CFDA	Pass-through Entity ID	Amount Passed Through to	Federal
antor/Cluster or Program Title	Number	Number	Subrecipient	Expenditure
LEIDOS INC	12.630	P010176583		135,35
LEIDOS INC	12.630	P010192863		664,46
LEIDOS INC	12.630	PO10173808		64,95
LOCKHEED - FORT WORTH/FORT WORTH, TX	12.630	7253165		(
LOCKHEED MARTIN ADVANCED TECHNOLOGY LAB/ CHERRY HILL,NJ	12.630	4101794768		109,22
MACAULEY-BROWN INC/	12.630	DSC 2124-01		400,48
MICROSEMI CORPORATION/ALISO VIEJO,CA	12.630	PB92205BV	1,809	344,64
MODERNA THERAPEUTICS/CAMBRIDGE,MA	12.630	RESEARCH AGREEMENT DTD 7/30/13		39,54
MORSECORP INC./CAMBRIDGE, MA	12.630	ICARUS-1-06		81,05
NATIONAL CENTER FOR MANUFACTURING SCIENCES / ANN ARBOR, MI	12.630	201726-130194		47,34
NORTHROP GRUMMAN/BALTIMORE, MD	12.630	LINE ITEM 200 FOR PHASE 2		116,00
NOUR LLC./WILMETTE/IL	12.630	AGT DTD JULY 6, 2016		32,00
OHIO STATE UNIVERSITY/COLUMBUS, OH	12.630	60057838		285.51
PHOSPHOR TECH CORPORATION/MABLETON, GA	12.630	AGE DTD 03/10/16		25,07
PHYSICAL SCIENCES INC/ANDOVER, MA	12.630	AGR DTD 10/27/16		20,57
POLY-ORTH INTERNATIONAL/SHARON, MA	12.630	AGRMT DTD 12/23/16		121,04
RADIABEAM TECHNOLOGIES LLC./SANTA MONICA, CA	12.630	AGR DTD 04/06/16		18,0
RAYTHEON	12.630	10102015		330,60
RAYTHEON	12.630	4201228030		20,94
RAYTHEON	12.630	4201579340		4,1
SAIC	12.630	PO10105875		378,1
SANOFI PASTEUR	12.630	70040-GATECH	62,839	276,87
			02,039	19,63
SCIENTIFIC RESEARCH CORP/ATLANTA, GA	12.630	SR20130873		75,00
SIERRA NEVADA CORPORATION/DENVER, CO	12.630	S16FME333		
SRC INC/NORTH SYRACUSE, NY	12.630	SCAS02001		2,96
STEVENS INST OF TECHNOLOGY	12.630	2102524-GT-01		69,32
STEVENS INST OF TECHNOLOGY	12.630	2102620-01		80,6
STEVENS INST OF TECHNOLOGY	12.630	RT- 147		33,0
STEVENS INST OF TECHNOLOGY	12.630	TASK ORDER 0061, RT-161		46,00
STEVENS INST OF TECHNOLOGY	12.630	TASK ORDER 0064, RT-164		95,52
STEVENS INST OF TECHNOLOGY	12.630	TASK ORDER 0067, RT-167		67,34
STEVENS INST OF TECHNOLOGY	12.630	TASK ORDER 0070, RT-170		83,22
SYSTEM HIGH/ ARLINGTON,VA	12.630	DAR 400		321,50
TDA RESEARCH INC	12.630	1917.GA.GTRC.2013-01		•
UI LABS/CHICAGO, IL	12.630	320170002		38,90
UI LABS/CHICAGO, IL	12.630	320170004		23,59
UI LABS/CHICAGO, IL	12.630	320170007		12,80
UNIVERSAL TECHNOLOGY CORP/ DAYTON, OH	12.630	16-S8206-02-C1		71,97
UNIVERSITY OF MICHIGAN	12.630	3002565188		144,49
WILLCOR INC./COLLEGE PARK, MD	12.630	WILL-16-100-GTRI-1		34,92
WYLE LABORATORIES	12.630	APSC02082		37,20
WYLE LABORATORIES	12.630	APSCCO2077		2,328,46
ZETA ASSOCIATES INC//FAIRFAX, VA	12.630	LTR AGMT 100064-GTARC-01		363,29
Research and Technology Development				
Passed through from:				
EMORY	12.910	T680127		97,27
IBM Thomas J. Watson Research Center	12.910	5004876066		188,1
RUTGERS UNIVERSITY/PISCATAWAY, NJ	12.910	SUB00000007		34,42
SIEMENS CORPORATE RESEARCH/PRINCETON, NJ	12.910	126-003		110,43
SYSTEM HIGH/ ARLINGTON, VA		DAR500		522,36
tal Department of Defense	.2.5.0		11,937,484	131,050,39

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Federal	Pass-through	Amount Passed	
Federal Grantor/Pass-Though	CFDA	Entity ID	Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
Department of the Interior				
Wildland Fire Research and Studies	15.232			5,359
Assistance to State Water Resources Research Institutes	15.805		22,662	61,325
Earthquake Hazards Reduction Program	15.807			77,868
U.S. Geological Survey_ Research and Data Collection	15.808			29,410
Research Grants (Generic)				
Passed through from:				
GALLUP/WASHINGTON, DC	15.650	D17PC00002		295,171
GALLUP/WASHINGTON, DC	15.650	D17PC00002		27,230
NORTH CAROLINA STATE UNIVERSITY/RALEIGH, NC	15.650	2016-2910-02		15,571
Total Department of the Interior			22,662	511,934
Department of Justice				
Law Enforcement Assistance_Narcotics and Dangerous Drugs_Laboratory Analysis	16.001			281,654
Law Enforcement Assistance_FBI Advanced Police Training	16.300			373,279
Law Enforcement Assistance_FBI Crime Laboratory Support	16.301			141,749
National Institute of Justice Research, Evaluation, and Development Project Grants	16.560			96,641
Edward Byrne Memorial Justice Assistance Grant Program	16.738			1,186,524
Regional Information Sharing Systems				
Passed through from:				
CRIMINAL INFORMATION SHARING ALLIANCE/FOLSOM, CA	16.610	001-98-07SA		210,980
Edward Byrne Memorial Competitive Grant Program				
Passed through from:				
UNIV OF ALABAMA/TUSCALOOSA, AL	16.751	UA15-034		31,643
Total Department of Justice				2,322,470
Department of Labor				
Occupational Safety and Health-Susan Harwood Training Grants	17.502			86,784
Consultation Agreements	17.504			1,359,878
Disability Employment Policy Development				
Passed through from:				
VISCARDI CENTER/ALBERTSON, NY	17.720	#128255		63,322
WIA/WIOA Adult Program				
Passed through from:				
GA DEPT OF ECONOMIC DEVELOPMENT/ATLANTA, GA	17.258	2		405,564
Total Department of Labor				1,915,548
Department of State				
Academic Exchange Programs - Scholars				
Passed through from:				
INSTITUTE OF INTERNATIONAL EDUCATION/WASHINGTON, DC	10.404	S-13-05	82,162	102,789
Total Department of State	19.401	0-10-00	82,162	102,789
Total Separation of Otale			02,102	102,709

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Federal Grantor/Pass-Though	Federal CFDA	Pass-through Entity ID	Amount Passed Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
Department of Transportation				
Aviation Research Grants	20.108			540,690
Air Transportation Centers of Excellence	20.108		4,614	
·				1,556,925
Highway Planning and Construction	20.205		190,915	253,160
Highway Training and Education	20.215		444 449	9,178
University Transportation Centers Program	20.701		441,143	457,100
Research Grants Aviation Research Grants	20.762			427,254
Passed through from:	20.400	V40 0000 OTDO		00.000
NATIONAL INSTITUTE OF AEROSPACE/HAMPTON, VA	20.108	X16-8329-GTRC		83,696
Highway Research and Development Program				
Passed through from: ATMOSPHERIC TECHNOLOGY SERVICES COMPANY/ NORMAN, OK	20.200	TASK ORDER 0001/BOA 953		(3,391)
HDR ENGINEERING INC/PITTSBURGH, PA	20.200	PO#1000100006996		30,860
THE COLLEGE OF NEW JERSEY/EWING, NJ	20.200	F1668NJDOT2		27,944
THE NATIONAL ACADEMIES	20.200	HR 24-37/ SUB0000130	67,020	119,455
TRANSPORTATION RESEARCH BOARD/WASHINGTON, DC	20.200	ACRP 11-04 2016-2017	07,020	7,517
TRANSPORTATION RESEARCH BOARD/WASHINGTON, DC	20.200	NCHRP-187		30,550
UNIV OF FLORIDA	20.200	UF-EIES-1200024-GAT		37,615
	20.200	0F-EIE3-1200024-GAT		37,013
Highway Planning and Construction UNIVERSITY OF NEBRASKA/LINCOLN, NE	20.205	26-1122-0057-002		7,000
	20.205	20-1122-0037-002		7,000
National Motor Carrier Safety Passed through from:				
TEXAS A & M UNIVERSITY/COLLEGE STATION, TX	20.218	S151227		55,659
	20.210	3131221		55,659
University Transportation Centers Program				
Passed through from:	20.701	10 0171007		72.060
TEXAS A & M UNIVERSITY/COLLEGE STATION, TX	20.701	12-S171237		73,868
Research Grants				
Passed through from:	20.702	#4.00705		20.045
AMERICAN PLANNING ASSOCIATION/WASHINGTON, DC	20.762	#126765		20,915
ARIZONA STATE UNIVERSITY/TEMPE, AZ	20.762 20.762	17-166		34,523
GA DEPT OF TRANSPORTATION/		2014-19, RES PROJ 14-15		75,445
IOWA STATE UNIVERSITY/AMES, IA	20.762	428-17-20		(7,148)
TRANSPORTATION RESEARCH BOARD/WASHINGTON, DC	20.762	HR 08-102 ITEM 12		118,449
UNIV OF FLORIDA	20.762	UF-EIES-1200024-GAT		80,457
UNIVERSITY OF CALIFORNIA/DAVIS, CA	20.762	201302432-04		126,970
UNIVERSITY OF CALIFORNIA/DAVIS, CA	20.762	201302432-05		8,807
UNIVERSITY OF FLORIDA	20.762	UF-EIES-1200024-GAT		28,502
Total Department of Transportation			703,692	4,202,000
National Aeronautics and Space Administration				
Science	43.001		988,912	8,192,230
Aeronautics	43.002		265,184	1,724,889
Exploration	43.003		9,993	427,899
Space Operations	43.007			164,950
Education	43.008		297,233	1,812,860
Cross Agency Support	43.009			163,403
Space Technology	43.012			347,704
Science				
Passed through from:				
AURORA FLIGHT SCIENCES/CAMBRIDGE, MA	43.001	AFSA4-2379		39,073
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.001	1537800		759

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Federal Grantor/Pass-Though Grantor/Cluster or Program Title	Federal CFDA Number	Pass-through Entity ID Number	Amount Passed Through to Subrecipient	Federal Expenditures
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JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.001	1538346		12,501
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.001	1538428		16,866
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.001	1538433		18
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.001	1541852	41,489	56,561
MASSACHUSETTS INST OF TECH (MIT)/CAMBRIDGE, MA MILLENNIUM ENGINEERING AND INTEGRATION COMPANY/ ARLINGTON, VA	43.001 43.001	5710004050 2014-0138		187,902 1,938
	43.001			23,784
ROLLS-ROYCE SMITHSONIAN INSTITUTE/WASHINGTON, DC	43.001	5100002593		27,084
SOUTHWEST RESEARCH INSTITUTE/		13-SUBC-440-0000279842		147,514
	43.001	699054X/15.12029		
UCLA/LOS ANGELES, CA UNIVERSITY OF CALIFORNIA RIVERSIDE/RIVERSIDE, CA	43.001 43.001	2090-S-RB151 S-000728		60,028 258,554
YALE UNIVERSITY/NEW HAVEN, CT	43.001	C16N12519 (N00231)		48,650
Aeronautics				
Passed through from: ADVANCED ROTORCRAFT TECHNOLOGY INC./SUNNYVALE, CA	43.002	AGT DTD AUG 19, 2016		91,772
ADVANCED SYSTEMS & TECHNOLOGIES INC./SUNINTVALE, CA	43.002	AGT DTD AGG 19, 2016 AGT DTD OCT. 12, 2015		76,775
ANALYTICAL MECHANICS ASSOCIATES INC/HAMPTON, VA	43.002	1601-TEAMS-GEO		109,21
	43.002			156,72
BOOZ, ALLEN AND HAMILTON INC CFD RESEARCH CORPORATION/HUNTSVILLE, AL	43.002	N00189-16-D-Z039		
CROWN CONSULTING INC.	43.002	AGMT DTD 26-JUNE-2015 TASK ORDER NO. 01		65,242 77,493
CROWN CONSULTING INC	43.002	TASK ORDER NO. 6		39,88
CROWN CONSULTING INC/ARLINGTON,VA	43.002	TASK ORDER 03		45,00
CROWN CONSULTING INC/ARLINGTON,VA	43.002	TASK ORDER 04		459,362
CROWN CONSULTING INC/ARLINGTON,VA	43.002	TASK ORDER 05		36,96
DNC PARKS & RESORTS AT KSC INC./KENNEDY SPACE CENTER, FL	43.002	13410	04.000	198,61
DNC PARKS & RESORTS AT KSC INC./KENNEDY SPACE CENTER, FL	43.002	TO 1 DTD 11/18/15	94,092	478,932
DZYNE TECHNOLOGIES INC./IRVINE, CA	43.002	2016-209		65,298
GE GLOBAL RESEARCH/NISKAYUNA, NY	43.002	401070378		57,98
IRVINE SENSORS CORPORATION/COSTA MESA, CA	43.002	AGT DTD SEPTEMBER 9, 2016		39,000
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.002	1345180		31,12
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.002	1531811		54,72
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.002	1548418		75,759
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.002	1553919		40,779
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.002	1562787		8,13
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.002	1562866		21,37
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.002	1570950		8,443
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.002	1577710		14,99
JOHNS HOPKINS APPLIED PHYSICS LAB/LAUREL, MD	43.002	117822		14,220
JOHNS HOPKINS APPLIED PHYSICS LAB/LAUREL, MD	43.002	134620		9,067
JOHNS HOPKINS APPLIED PHYSICS LAB/LAUREL, MD	43.002	MSA # 115841		10,81
KWJ ENGINEERING INC/NEWARK, CA	43.002	AGR DTD 09/08/15		(1,360
LIGHTSEY SPACE RESEARCH LLC./ATLANTA, GA	43.002	AGT DTD JANUARY 15, 2016		69,799
LMI/MCLEAN,VA	43.002	#1542		(9,198
LOCKHEED MARTIN	43.002	PO 4102584271		17,193
NATIONAL SPACE BIOMEDICAL RESEARCH INSTITUTE/ HOUSTON,TX	43.002	PF04102		22,549
OPTO-KNOWLEDGE SYSTEMS INC/TORRANCE, CA				62,02
	43.002	AGMT DTD 1-DEC-2015		
ROLLS-ROYCE	43.002	5100002879 #21 1614 4977 CATECH2015		49,05
SAN JOSE STATE UNIVERSITY RESEARCH FOUNDATION	43.002	#21-1614-4877-GATECH2015		3,39
SETI INSTITUTE	43.002	SC3131		24,02
SETI INSTITUTE/MOUNTAIN VIEW, CA	43.002			7,190
SPACE TELESCOPE SCIENCE INSTITUTE	43.002	#HST-AR-13895.001-A		13,842 34,027
SPACE TELESCOPE SCIENCE INSTITUTE	43.002	HST-AR-143326.001		3

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Federal	Pass-through	Amount Passed	
Federal Grantor/Pass-Though	CFDA	Entity ID	Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
SPACE TELESCOPE SCIENCE INSTITUTE	43.002	HST-GO-13503.001-A		2,756
STONE AEROSPACE/DEL VALLE, TX	43.002	SUBCONTRACT DATED 1/1/16		10,739
TETHERS UNLIMITED	43.002	AGT DTD OCT. 11, 2016		20,353
THE INNOVATION LABORATORY INC./PORTLAND, OR	43.002	AGR DTD 8.10.2016		33,986
UNITED TECHNOLOGIES/EAST HARTFORD, CT	43.002	PO 2602355		300
UNIV OF MICHIGAN/	43.002	3003177064		9,729
UNIVERSITY OF COLORADO/BOULDER, CO	43.002	1554484		13,814
UNIVERSITY OF CONNECTICUT/STORRS, CT	43.002	106763		7,645
UNIVERSITY OF TEXAS AT AUSTIN/AUSTIN, TX	43.002	#133480		13,641
UNIVERSITY OF TEXAS AT AUSTIN/AUSTIN, TX	43.002	UTA16-000106		41,972
UNIVERSITY OF VIRGINIA/CHARLOTTESVILLE, VA	43.002	GD10052 152367		79,242
XAVIER UNIVERSITY OF LA/NEW ORLEANS	43.002	OSP-15-216811-00A		194,760
Exploration				
Passed through from:	40.000	000004750 000 10000474		4.000
NORTHWESTERN UNIVERSITY/EVANSTON, IL	43.003	SP0031759-PROJ0008471		1,802
Education				
Passed through from:	42.000	NASA2016-GT01		25.000
NORTHWEST NAZARENE UNIVERSITY/NAMPA, ID	43.008	NASA2016-G101	4.000.000	35,000
Fotal National Aeronautics and Space Administration			1,696,903	16,761,131
The National Endowment for the Humanities				
Promotion of the Humanities_Division of Preservation and Access	45.149			30,653
			_	30,653
Fotal The National Endowment for the Humanities Institute of Museum and Library Services National Leadership Grants				
nstitute of Museum and Library Services	45.312	X0159A-B		
nstitute of Museum and Library Services National Leadership Grants Passed through from:	45.312	X0159A-B		390
nstitute of Museum and Library Services National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Total Institute of Museum and Library Services	45.312	X0159A-B		390
nstitute of Museum and Library Services National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services		X0159A-B		390 390
nstitute of Museum and Library Services National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants	47.041	X0159A-B	1,431,445	390 390 20,500,352
nstitute of Museum and Library Services National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences	47.041 47.049	X0159A-B	- 1,431,445 1,178,128	390 390 20,500,352 13,430,904
nstitute of Museum and Library Services National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences	47.041 47.049 47.050	X0159A-B	1,431,445 1,178,128 464,559	390 390 20,500,352 13,430,904 4,834,118
National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences Computer and Information Science and Engineering	47.041 47.049 47.050 47.070	X0159A-B	1,431,445 1,178,128 464,559 538,598	390 390 20,500,352 13,430,904 4,834,118 15,329,350
nstitute of Museum and Library Services National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences Computer and Information Science and Engineering Biological Sciences	47.041 47.049 47.050 47.070 47.074	X0159A-B	1,431,445 1,178,128 464,559 538,598 14,086	390 390 20,500,352 13,430,904 4,834,118 15,329,350 2,398,524
National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences Computer and Information Science and Engineering Biological Sciences Social, Behavioral, and Economic Sciences	47.041 47.049 47.050 47.070 47.074 47.075	X0159A-B	1,431,445 1,178,128 464,559 538,598 14,086 18,514	390 390 20,500,352 13,430,904 4,834,118 15,329,350 2,398,524 785,260
National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences Computer and Information Science and Engineering Biological Sciences Social, Behavioral, and Economic Sciences Education and Human Resources	47.041 47.049 47.050 47.070 47.074 47.075 47.076	X0159A-B	1,431,445 1,178,128 464,559 538,598 14,086	390 390 20,500,352 13,430,904 4,834,118 15,329,350 2,398,524 785,260 10,947,036
National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences Computer and Information Science and Engineering Biological Sciences Social, Behavioral, and Economic Sciences Education and Human Resources Office of International Science and Engineering	47.041 47.049 47.050 47.070 47.074 47.075 47.076 47.079	X0159A-B	1,431,445 1,178,128 464,559 538,598 14,086 18,514	390 390 20,500,352 13,430,904 4,834,118 15,329,350 2,398,524 785,260 10,947,036 233,056
National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Total Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences Computer and Information Science and Engineering Biological Sciences Social, Behavioral, and Economic Sciences Education and Human Resources Office of International Science and Engineering Office of Cyberinfrastructure	47.041 47.049 47.050 47.070 47.074 47.075 47.076 47.079 47.080	X0159A-B	1,431,445 1,178,128 464,559 538,598 14,086 18,514	390 390 20,500,352 13,430,904 4,834,118 15,329,350 2,398,524 785,260 10,947,036 233,056 71,567
National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences Computer and Information Science and Engineering Biological Sciences Social, Behavioral, and Economic Sciences Education and Human Resources Office of International Science and Engineering Office of Cyberinfrastructure Trans-NSF Recovery Act Research Support	47.041 47.049 47.050 47.070 47.074 47.075 47.076 47.079	X0159A-B	1,431,445 1,178,128 464,559 538,598 14,086 18,514	390 390 20,500,352 13,430,904 4,834,118 15,329,350 2,398,524 785,260 10,947,036 233,056 71,567
National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences Computer and Information Science and Engineering Biological Sciences Social, Behavioral, and Economic Sciences Education and Human Resources Office of International Science and Engineering Office of Cyberinfrastructure Trans-NSF Recovery Act Research Support Engineering Grants	47.041 47.049 47.050 47.070 47.074 47.075 47.076 47.079 47.080	X0159A-B	1,431,445 1,178,128 464,559 538,598 14,086 18,514	390 390 20,500,352 13,430,904 4,834,118 15,329,350 2,398,524 785,260 10,947,036 233,056 71,567 19,603
National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences Computer and Information Science and Engineering Biological Sciences Social, Behavioral, and Economic Sciences Education and Human Resources Office of International Science and Engineering Office of Cyberinfrastructure Trans-NSF Recovery Act Research Support Engineering Grants Passed through from:	47.041 47.049 47.050 47.070 47.074 47.075 47.076 47.079 47.080 47.082		1,431,445 1,178,128 464,559 538,598 14,086 18,514	390 390 20,500,352 13,430,904 4,834,118 15,329,350 2,398,524 785,260 10,947,036 233,056 71,567 19,603
National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences Computer and Information Science and Engineering Biological Sciences Social, Behavioral, and Economic Sciences Education and Human Resources Office of International Science and Engineering Office of Cyberinfrastructure Trans-NSF Recovery Act Research Support Engineering Grants Passed through from: ARIZONA STATE UNIVERSITY	47.041 47.049 47.050 47.070 47.074 47.075 47.076 47.079 47.080 47.082	15-741	1,431,445 1,178,128 464,559 538,598 14,086 18,514	390 390 20,500,352 13,430,904 4,834,118 15,329,350 2,398,524 785,260 10,947,036 233,056 71,567 19,603
National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences Computer and Information Science and Engineering Biological Sciences Social, Behavioral, and Economic Sciences Education and Human Resources Office of International Science and Engineering Office of Cyberinfrastructure Trans-NSF Recovery Act Research Support Engineering Grants Passed through from: ARIZONA STATE UNIVERSITY/TEMPE, AZ	47.041 47.049 47.050 47.070 47.074 47.075 47.076 47.079 47.080 47.082	15-741 17-098	1,431,445 1,178,128 464,559 538,598 14,086 18,514	390 390 20,500,352 13,430,904 4,834,118 15,329,350 2,398,524 785,260 10,947,036 233,056 71,567 19,603
National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences Computer and Information Science and Engineering Biological Sciences Social, Behavioral, and Economic Sciences Education and Human Resources Office of International Science and Engineering Office of Cyberinfrastructure Trans-NSF Recovery Act Research Support Engineering Grants Passed through from: ARIZONA STATE UNIVERSITY ARIZONA STATE UNIVERSITY/TEMPE, AZ BIORASIS INC/STORRS,CT	47.041 47.049 47.050 47.070 47.074 47.075 47.076 47.079 47.080 47.082	15-741 17-098 AGMT DTD MARCH 3, 2016	1,431,445 1,178,128 464,559 538,598 14,086 18,514	390 390 20,500,352 13,430,904 4,834,118 15,329,350 2,398,524 785,260 10,947,036 233,056 71,567 19,603
National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences Computer and Information Science and Engineering Biological Sciences Social, Behavioral, and Economic Sciences Education and Human Resources Office of International Science and Engineering Office of Cyberinfrastructure Trans-NSF Recovery Act Research Support Engineering Grants Passed through from: ARIZONA STATE UNIVERSITY/TEMPE, AZ BIORASIS INC/STORRS,CT CITY COLLEGE OF NEW YORK/NEW YORK, NY	47.041 47.049 47.050 47.070 47.074 47.075 47.076 47.079 47.080 47.082 47.041 47.041 47.041 47.041	15-741 17-098 AGMT DTD MARCH 3, 2016 40888-B	1,431,445 1,178,128 464,559 538,598 14,086 18,514	390 390 20,500,352 13,430,904 4,834,118 15,329,350 2,398,524 785,260 10,947,036 233,056 71,567 19,603 572,212 48,336 30,606 4,325
National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences Computer and Information Science and Engineering Biological Sciences Social, Behavioral, and Economic Sciences Education and Human Resources Office of International Science and Engineering Office of Cyberinfrastructure Trans-NSF Recovery Act Research Support Engineering Grants Passed through from: ARIZONA STATE UNIVERSITY ARIZONA STATE UNIVERSITY/TEMPE, AZ BIORASIS INC/STORRS,CT CITY COLLEGE OF NEW YORK/NEW YORK, NY CLEMSON UNIVERSITY	47.041 47.049 47.050 47.070 47.074 47.075 47.076 47.079 47.080 47.082 47.041 47.041 47.041 47.041	15-741 17-098 AGMT DTD MARCH 3, 2016 4088-B 1678-206-2009494	1,431,445 1,178,128 464,559 538,598 14,086 18,514	390 390 20,500,352 13,430,904 4,834,118 15,329,350 2,398,524 785,260 10,947,036 233,056 71,567 19,603 572,212 48,336 30,606 4,325 17,226
National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences Computer and Information Science and Engineering Biological Sciences Social, Behavioral, and Economic Sciences Education and Human Resources Office of International Science and Engineering Office of Cyberinfrastructure Trans-NSF Recovery Act Research Support Engineering Grants Passed through from: ARIZONA STATE UNIVERSITY ARIZONA STATE UNIVERSITY/TEMPE, AZ BIORASIS INC/STORRS,CT CITY COLLEGE OF NEW YORK/NEW YORK, NY CLEMSON UNIVERSITY/CLEMSON, SC	47.041 47.049 47.050 47.070 47.074 47.075 47.076 47.079 47.080 47.082 47.041 47.041 47.041 47.041 47.041 47.041	15-741 17-098 AGMT DTD MARCH 3, 2016 40888-B 1678-206-2009494 1825-206-2010995	1,431,445 1,178,128 464,559 538,598 14,086 18,514	390 390 20,500,352 13,430,904 4,834,118 15,329,350 2,398,524 785,260 10,947,036 233,056 71,567 19,603 572,212 48,336 30,606 4,325 17,226 39,169
National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences Computer and Information Science and Engineering Biological Sciences Social, Behavioral, and Economic Sciences Education and Human Resources Office of International Science and Engineering Office of Cyberinfrastructure Trans-NSF Recovery Act Research Support Engineering Grants Passed through from: ARIZONA STATE UNIVERSITY ARIZONA STATE UNIVERSITY/TEMPE, AZ BIORASIS INC/STORRS,CT CITY COLLEGE OF NEW YORK/NEW YORK, NY CLEMSON UNIVERSITY/CLEMSON, SC COLUMBIA UNIVERSITY/NEW YORK, NY	47.041 47.049 47.050 47.070 47.074 47.075 47.076 47.079 47.080 47.082 47.041 47.041 47.041 47.041 47.041 47.041 47.041	15-741 17-098 AGMT DTD MARCH 3, 2016 40888-B 1678-206-2009494 1825-206-2010995 1(GG012359)	1,431,445 1,178,128 464,559 538,598 14,086 18,514	390 390 20,500,352 13,430,904 4,834,118 15,329,350 2,398,524 785,260 10,947,036 233,056 71,567 19,603 572,212 48,336 30,606 4,325 17,226 39,169 32,804
National Leadership Grants Passed through from: OREGON STATE UNIVERSITY/CORVALLIS, OR Fotal Institute of Museum and Library Services National Science Foundation Engineering Grants Mathematical and Physical Sciences Geosciences Computer and Information Science and Engineering Biological Sciences Social, Behavioral, and Economic Sciences Education and Human Resources Office of International Science and Engineering Office of Cyberinfrastructure Trans-NSF Recovery Act Research Support Engineering Grants Passed through from: ARIZONA STATE UNIVERSITY ARIZONA STATE UNIVERSITY/TEMPE, AZ BIORASIS INC/STORRS,CT CITY COLLEGE OF NEW YORK/NEW YORK, NY CLEMSON UNIVERSITY/CLEMSON, SC	47.041 47.049 47.050 47.070 47.074 47.075 47.076 47.079 47.080 47.082 47.041 47.041 47.041 47.041 47.041 47.041	15-741 17-098 AGMT DTD MARCH 3, 2016 40888-B 1678-206-2009494 1825-206-2010995	1,431,445 1,178,128 464,559 538,598 14,086 18,514	390 390 20,500,352 13,430,904 4,834,118 15,329,350 2,398,524 785,260 10,947,036 233,056 71,567 19,603 572,212 48,336 30,606 4,325 17,226 39,169

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Federal	Pass-through	Amount Passed		
eral Grantor/Pass-Though ntor/Cluster or Program Title	CFDA Number	Entity ID Number	Through to Subrecipient	Federal Expenditure	
FLORIDA STATE UNIVERSITY/TALLAHASSEE, FLA	47.041	R01706		223,3	
KWJ ENGINEERING INC/NEWARK, CA	47.041	AGT DTD NOVEMBER 17, 2015		20,0	
MA INSTITUTE OF TECHNOLOGY	47.041	5710002868	427	6,2	
MASSACHUSETTS INST OF TECH (MIT)/CAMBRIDGE, MA	47.041	5710003968	339,703	1,131,8	
MICHIGAN STATE UNIVERSITY/EAST LANSING, MI	47.041	RC104008GTRC		73,	
MICHIGAN STATE UNIVERSITY/EAST LANSING, MI	47.041	RC105453GT		122,	
MOREHOUSE COLLEGE/ATLANTA, GA	47.041	PO# P0044575		2,	
STANFORD UNIVERSITY/STANFORD, CA	47.041	61361340-29913		106,	
STATE UNIV OF NEW YORK AT BINGHAMTON/BINGHAMTON, NY	47.041	73033		155,	
UNIVERSITY OF CALIFORNIA/BERKELEY, CA	47.041	9367		1,	
UNIVERSITY OF CALIFORNIA/IRVINE,CA	47.041	#2016-3324		112	
UNIVERSITY OF GEORGIA/ATHENS, GA	47.041	RR740-010/S000900		53,	
UNIVERSITY OF GEORGIA/ATHENS, GA	47.041	RR740-010/S000901		5	
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN/					
CHAMPAIGN, IL	47.041	083276-16293/GRANT CODE AC291		6	
UNIVERSITY OF MINNESOTA	47.041	T5306692101			
UNIVERSITY OF MINNESOTA/MINNEAPOLIS, MN	47.041	A005261901		174	
UNIVERSITY OF SOUTHERN CALIFORNIA/LOS ANGELES, CA	47.041	43415275		9	
UNIVERSITY OF TEXAS AT AUSTIN	47.041	UTA15-001072		72	
Mathematical and Physical Sciences					
Passed through from:					
EMORY UNIVERSITY/ATLANTA, GA	47.049	T662130 YEAR 5		360	
NATIONAL SCIENCE FOUNDATION/GENERAL	47.049	1560165		86	
UNIV. OF WISCONSIN - TRACE CENTER/MADISON, WI	47.049	632K273		137	
UNIVERSITY OF NORTH CAROLINA/CHAPEL HILL, NC	47.049	5105685		31	
Geosciences					
Passed through from:					
DUKE UNIVERSITY/DURHAM, NC	47.050	#14-NSF-1074		94	
UNIV OF CALIFORNIA/SAN DIEGO/LAJOLLA, CA	47.050	PO# 10313411		42	
UNIVERSITY OF GEORGIA	47.050	RR534-098 / S001108		117	
UNIVERSITY OF MINNESOTA/ST. PAUL, MN	47.050	H002949503		14	
UNIVERSITY OF NEW HAMPSHIRE/DURHAM, NH	47.050	#14-059		19	
UNIVERSITY OF SOUTHERN CALIFORNIA/LOS ANGELES, CA	47.050	62150108		30	
Computer and Information Science and Engineering					
Passed through from:					
BROWN UNIVERSITY/PROVIDENCE, RI	47.070	1039		34	
COMPUTING RESEARCH ASSOCIATION/WASHINGTON, DC	47.070	#BDHUB005	5,000	118	
COMPUTING RESEARCH ASSOCIATION/WASHINGTON, DC	47.070	CCC-GT-07012016		45	
COMPUTING RESEARCH ASSOCIATION/WASHINGTON, DC	47.070	CCC-GT-072014		106	
CORNELL UNIVERSITY/ITHACA, NY	47.070	72954-10595		32	
FLORIDA INTERNATIONAL UNIVERSITY/MIAMI, FL	47.070	800004907-02		391	
MASSACHUSETTS INST OF TECH (MIT)/CAMBRIDGE, MA	47.070	5710004130		53	
PENNSYLVANIA STATE UNIV/UNIV PARK, PA	47.070	5481-GTRC-NSF-6743		22	
RAYTHEON/BBN SYSTEM AND TECHNOLOGIES/CAMBRIDGE, MA	47.070	1947			
RAYTHEON/BBN SYSTEM AND TECHNOLOGIES/CAMBRIDGE, MA	47.070	2008		47	
SEARCH TECHNOLOGY INC/	47.070	1645237		1	
UNIV OF LOUISVILLE/LOUISVILLE, KY	47.070	ULRF 16-0870-01		24	
UNIV OF NOTRE DAME/SOUTH BEND, IN	47.070	202917GT		47	
UNIV OF NOTRE DAME/SOUTH BEND, IN	47.070	202917GT		33	
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN	47.070	083276-16241/GRANT CODE AC291		8	
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN/					

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Federal Grantor/Pass-Though	Federal CFDA	Pass-through Entity ID	Amount Passed Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN/				
CHAMPAIGN, IL UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN/	47.070	083842-16099		55,345
CHAMPAIGN, IL	47.070	2011-00318-31		85,610
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN/ CHAMPAIGN, IL	47.070	2014-07138-01		125,304
UNIVERSITY OF ILLNOIS AT URBANA	47.070	2007-01077-59		36,296
Biological Sciences				
Passed through from:				
ARIZONA STATE UNIVERSITY/TEMPE, AZ	47.074	T.O. 1		164,058
DUKE UNIVERSITY/DURHAM, NC	47.074	14-NSF-1112		3,043
IOWA STATE UNIVERSITY/AMES, IA	47.074	420-61-87A		30,460
IOWA STATE UNIVERSITY/AMES, IA	47.074	420-62-61A		30,461
MONTANA STATE UNIVERSITY/BOZEMAN, MONTANA	47.074	G124-14-W4596		88,329
Social, Behavioral, and Economic Sciences				
Passed through from:				
ARIZONA STATE UNIVERSITY/TEMPE, AZ	47.075	11-483 / PO # SC 19111M00171		8,901
ARIZONA STATE UNIVERSITY/TEMPE, AZ	47.075	14-364		28,362
EMORY UNIVERSITY/ATLANTA, GA	47.075	T610300		92,600
OLD DOMINION UNIVERSITY RESEARCH FOUNDATION/NORFOLK, VA	47.075	16-217-100580-010		269,992
Education and Human Resources				
Passed through from:				
GEORGIA STATE UNIV/ATLANTA, GA	47.076	SP00011669-01		47,541
KENNESAW STATE UNIVERSITY/MARIETTA, GA	47.076	431317-14-01		31,809
SEARCH TECHNOLOGY INC/	47.076	STI-GTRC-14-1		161,388
UNIVERSITY OF COLORADO/BOULDER, CO	47.076	1554503		158,101
UNIVERSITY OF GEORGIA/ATHENS, GA	47.076	RR740019/S001256		47,999
Office of International Science and Engineering				
Passed through from:				
UNIVERSITY OF MINNESOTA/MINNEAPOLIS, MN	47.079	A003418201		133,010
CIVILIAN RES & DEVL FOUN (CRDF)/ARLINGTON, VA	47.079	OISE-15-61220-0		14,148
Office of Cyberinfrastructure				
Passed through from: UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN/ CHAMPAIGN, IL	47.080	2007-01077-49		5,383
Office of Integrative Activities				
Passed through from:				
UNIV OF KY RESEARCH FDN/LEXINGTON,KY	47.083	3200000271-16-075		100,451
Total National Science Foundation			4,254,003	75,430,604
Department of Veteran Affairs				
Research and Development	64.054			885,510
Total Department of Veteran Affairs	04.004			885,510
Total Sopulation of Votoral Analis				000,010
Environmental Protection Agency				
Science To Achieve Results (STAR) Research Program	66.509		16,321	697,949
Science To Achieve Results (STAR) Fellowship Program	66.514			11,742
P3 Award: National Student Design Competition for Sustainability	66.516			1,145
Pollution Prevention Grants Program	66.708			116,809
Ozone Transport Commission				
Passed through from:				
HEALTH EFFECTS INSTITUTE	66.033	4943-RFA13-2/14-4-3		155,692
Surveys, Stdies, Rsch, Invstigtns, Demos, & SpecPurp Activ Rel to Clean Air Act				
Passed through from:		##### ==		
HEALTH EFFECTS INSTITUTE/CAMBRIDGE, MA	66.034	#4912-RFA11-1/12-6	21,522	144,304

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Federal	Pass-through	Amount Passed	
Federal Grantor/Pass-Though	CFDA	Entity ID	Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
SOUTHEASTERN STATES AIR RESOURCE MANAGERS INC/FOREST PARK,GA	66.034	S-2010-04-01		42,390
Congressionally Mandated Projects				
Passed through from: THE CONSORTIUM FOR PLANT BIOTECH RES INC/ ST SIMONS ISLAND, GA	66.202	EPA8348801-339		25,262
Science To Achieve Results (STAR) Research Program				
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	66.509	S553711		110,309
EMORY UNIVERSITY/ATLANTA, GA	66.509	S553712		53,170
EMORY UNIVERSITY/ATLANTA, GA	66.509	S553713		88,293
UNIVERSITY OF WISCONSIN/MADISON WISCONSIN	66.509	UA15-045		43,387
Total Environmental Protection Agency			37,843	1,490,452
Nuclear Pegulatary Commission				
Nuclear Regulatory Commission U.S. Nuclear Regulatory Commission Scholarship and Fellowship Program	77.008			13,831
U. S. Nuclear Regulatory Commission Nuclear Education Grant Program	77.008			13,031
Passed through from:				
M. TUTTLE AND ASSOCIATES/GEORGETOWN,ME	77.006	MTA-SC2011-GT-1		2,307
Total Nuclear Regulatory Commission	77.000	332011 31 1		16,138
				10,100
Department of Energy				
Office of Science Financial Assistance Program	81.049		1,124,888	5,850,852
Conservation Research and Development	81.086		41,638	1,171,857
Renewable Energy Research and Development	81.087		303,195	636,644
Fossil Energy Research and Development	81.089		(1,454)	1,311,206
Stewardship Science Grant Program	81.112			49,545
Defense Nuclear Nonproliferation Research Energy Efficiency and Renewable Energy Information Dissemination, Outreach, Training and Technical Analysis	81.113 81.117			17,163 139,936
Nuclear Energy Research, Development and Demonstration	81.121		622,729	1,797,264
Electricity Delivery and Energy Reliability, Research, Development and Analysis	81.122		022,723	57,825
Advanced Research and Projects Agency – Energy	81.135		380,747	2,869,983
Inventions and Innovations	01.100		000,141	2,000,000
Passed through from:				
SANDIA NATL LABS/SANDIA CORP	81.036	1614313		39,079
Office of Science Financial Assistance Program				
Passed through from:				
AECOM ENERGY & CONTRUCTION, INC	81.049	RES1505183		8,827
AECOM ENERGY AND CONSTRUCTION INC.	81.049	RES1505184		8,585
AECOM ENERGY AND CONSTRUCTION INC	81.049	RES1505185		6,439
ARGONNE NATL LAB/UCHICAGO ARGONNE LLC/ARGONNE, IL	81.049	4F-30541		2,283
ARGONNE NATL LAB/UCHICAGO ARGONNE LLC/ARGONNE, IL	81.049	6F-30981		29,523
ARGONNE NATL LAB/UCHICAGO ARGONNE LLC/ARGONNE, IL	81.049	6F-32101		3,379
ARGONNE NATL LAB/UCHICAGO ARGONNE LLC/ARGONNE, IL	81.049	7F-30062		13,526
ARIZONA STATE UNIVERSITY/TEMPE, AZ	81.049	12-727		24,930
ARIZONA STATE UNIVERSITY/TEMPE, AZ	81.049	DE-AR0000470		169,367
BECHTEL-BETTIS INCORPORATED	81.049	118626		156,032
CERAMATEC/SALT LAKE CITY, UTAH	81.049	AGR DTD 11/24/15		491,940
CONTINUUM DYNAMICS INC/EWING, NJ	81.049	STTR: AGRMT DTD 01 APR 2015		58,115
FLORIDA STATE UNIVERSITY/TALLAHASSEE, FLA	81.049	R01436		58,218
HIFUNDA LLC/SALT LAKE CITY,UT	81.049	STTR: AGMT DTD 02 MARCH 2015		130,751
HONEYWELL INC	81.049	N000186683		215,643
HONEYWELL INC	81.049	N000217778		30,029

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Federal	Pass-through	Amount Passed	
Federal Grantor/Pass-Though Grantor/Cluster or Program Title	CFDA Number	Entity ID Number	Through to Subrecipient	Federal Expenditures
IDAHO NATIONAL LAB/BEA/IDAHO FALLS	81.049	123590	444.044	2,839
IDAHO NATIONAL LAB/BEA/IDAHO FALLS Krell Institute	81.049 81.049	132015 Krell 2	144,641	566,055 897
LAWRENCE BERKELEY NATIONAL LAB/UNIVERSITY OF CALIFORNIA	81.049	7284683		48,926
LAWRENCE BERKELEY NATIONAL LAB/UNIVERSITY OF CALIFORNIA	81.049	7314277		10,900
LAWRENCE BERKELEY NATIONAL LAB/UNIVERSITY OF CALIFORNIA	81.049	7350495		29,970
LAWRENCE BERKELEY NATIONAL LAB/UNIVERSITY OF CALIFORNIA	81.049	SUBCONTRACT NO 7052309		925,398
LLNL/LAWRENCE LIVERMORE NATL SEC LLC/LIVERMORE,CA	81.049	B612613		13,70
LLNL/LAWRENCE LIVERMORE NATL SEC LLC/LIVERMORE,CA	81.049	B616640		44,50
LLNL/LAWRENCE LIVERMORE NATL SEC LLC/LIVERMORE,CA	81.049	B616700		1,09
LLNL/LAWRENCE LIVERMORE NATL SEC LLC/LIVERMORE,CA	81.049	B616705		5,98
LLNL/LAWRENCE LIVERMORE NATL SEC LLC/LIVERMORE,CA	81.049	B617458		105,68
LLNL/LAWRENCE LIVERMORE NATL SEC LLC/LIVERMORE,CA	81.049	B620403		79,523
LOS ALAMOS NATIONAL LAB/LOS ALAMOS NATIONAL SECURITY (LANS)	81.049	280217		10,304
LOS ALAMOS NATIONAL LAB/LOS ALAMOS NATIONAL SECURITY (LANS)	81.049	364502		81,119
LOS ALAMOS NATIONAL LAB/LOS ALAMOS NATIONAL SECURITY (LANS)	81.049	371097		104,952
LOS ALAMOS NATIONAL LAB/LOS ALAMOS NATIONAL SECURITY (LANS)	81.049	389971		173,572
LOS ALAMOS NATIONAL LAB/LOS ALAMOS NATIONAL SECURITY (LANS)	81.049	421807		12,78
NATL RENEWABLE ENERGY LAB (NREL)	81.049	XEJ-7-70103-01		36,014
NATL RENEWABLE ENERGY LAB (NREL)	81.049	XHQ-7-70094-01		30,33
NATL RENEWABLE ENERGY LAB/ALLNC FOR SUSTAIN ENGY	81.049	AFC-6-62057-01		36,00
NATL RENEWABLE ENERGY LAB/ALLNC FOR SUSTAIN ENGY	81.049	XAT-6-52273-01		34,75
NATL RENEWABLE ENERGY LAB/ALLING FOR SUSTAIN ENGY	81.049	XAT-6-62147-01		105,34
NATL RENEWABLE ENERGY LAB/ALLING FOR SUSTAIN ENGY	81.049	XEJ-7-62291-01		15,37
OAK RIDGE ASSOCIATED UNIV/OAK RIDGE, TENNESSEE	81.049	600891		12,26
OAK RIDGE NATL LAB/OAK RIDGE, TN	81.049	4000084578		6,46
OAK RIDGE NATE LAB/UT BATTELLE LLC	81.049	4000100062		14,89
OAK RIDGE NATE LAB/UT BATTELLE LLC	81.049	4000100002		149,22
OAK RIDGE INSTI OF SCI & EDU/OAK RIDGE, TN	81.049	WIRE TRANSFER 11/18		19,76
OG TECHNOLOGIES/ANN ARBOR, MI	81.049	AGT DTD SEPT. 9, 2014		182,93
PACIFIC NW NATL LAB/BATTELLE MEMORIAL INST	81.049	240628		
PACIFIC NW NATE LAB/BATTELLE MEMORIAL INST	81.049	262787		(93: 166,84:
PACIFIC NW NATL LAB/BATTELLE MEMORIAL INST	81.049	276966		32,70
PACIFIC NW NATE LAB/BATTELLE MEMORIAL INST	81.049	311544		1,491,76
PACIFIC NW NATE LAB/BATTELLE MEMORIAL INST	81.049	314108		90,97
PACIFIC NW NATE LAB/BATTELLE MEMORIAL INST	81.049	322234		123,71
PACIFIC NW NATL LAB/BATTELLE MEMORIAL INST	81.049	331867		24,72
PACIFIC NW NATE LAB/BATTELLE MEMORIAL INST	81.049	338787		37,75
PRAXAIR/TONAWANDA, NY	81.049			417,773
PROTON ONSITEMALLINGFORD,CT	81.049	DE-FE0026163 AGR DTD 6.29.2016 PO# 17224		95,28
QUES TEK INNOVATIONS LLC/EVANSTON, IL	81.049	1250		(12,02
QUES TEK INNOVATIONS LLC/EVANSTON, IL	81.049	1401		65,64
SANDIA NATL LABS/SANDIA CORP	81.049	1399026		75,49
SANDIA NATL LABS/SANDIA CORP	81.049	1580224		13,61
SANDIA NATL LABS/SANDIA CORP	81.049	1584460		(19,76
SANDIA NATL LABS/SANDIA CORP	81.049	1631181		55,40
SANDIA NATL LABS/SANDIA CORP	81.049	1643373		104,07
SANDIA NATL LABS/SANDIA CORP	81.049	1643445		38,28
SANDIA NATL LABS/SANDIA CORP	81.049	1643447		67,87
SANDIA NATL LABS/SANDIA CORP	81.049	1648378		37,26
	81.049	1670930		50,00
SANDIA NATL LABS/SANDIA CORP				

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Federal	Pass-through	Amount Passed	
ederal Grantor/Pass-Though	CFDA	Entity ID	Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
SANDIA NATL LABS/SANDIA CORP	81.049	1678585		16,213
SANDIA NATL LABS/SANDIA CORP	81.049	1681292		36,058
SANDIA NATL LABS/SANDIA CORP	81.049	1682950		41,879
SANDIA NATL LABS/SANDIA CORP	81.049	1683264		84,784
SANDIA NATL LABS/SANDIA CORP	81.049	1716584		70,084
SANDIA NATL LABS/SANDIA CORP	81.049	1716584		12,000
SANDIA NATL LABS/SANDIA CORP	81.049	1718996		81,910
SANDIA NATL LABS/SANDIA CORP	81.049	1719027		54,682
SANDIA NATL LABS/SANDIA CORP	81.049	1740357		19,89
SANDIA NATL LABS/SANDIA CORP	81.049	1740727		48,286
SANDIA NATL LABS/SANDIA CORP	81.049	1741850		41,790
SANDIA NATL LABS/SANDIA CORP	81.049	1742041		45,518
SANDIA NATL LABS/SANDIA CORP	81.049	1744348		59,87
SANDIA NATL LABS/SANDIA CORP	81.049	1745464		36,20
SANDIA NATL LABS/SANDIA CORP	81.049	1754500		74,236
SANDIA NATL LABS/SANDIA CORP	81.049	1755523		55,564
SANDIA NATL LABS/SANDIA CORP	81.049	1764531		9,36
SANDIA NATL LABS/SANDIA CORP	81.049	1767660		71,03
SANDIA NATL LABS/SANDIA CORP	81.049	1767699		73,43
SANDIA NATL LABS/SANDIA CORP	81.049	1782007		24,62
SANDIA NATL LABS/SANDIA CORP	81.049	1794432		9,69
SANDIA NATL LABS/SANDIA CORP	81.049	1804495		44,99
SAVANNAH RIV NATL LAB/SAVANNAH RIV NUCLEAR SOL LLC/ AIKEN, SC	81.049	19		3,80
SAVANNAH RIV NATL LAB/SAVANNAH RIV NUCLEAR SOL LLC/ AIKEN, SC	81.049	265739		73,19
SILA NANOTECHOLOGIES INC/ ATLANTA, GA	81.049	AGR DTD 5/11/15		48,75
STATE UNIV OF NY AT STONY BROOK	81.049	68856-TASK 3, PROJ. 1119493		109,88
SUNIVA/ ATLANTA, GA	81.049	AGMT,DATED 7/7/14		93,25
SUNIVA/ ATLANTA, GA	81.049	AGREEMENT DTD 10/14/15		151,46
UNIV OF NORTH CAROLINA/CHAPEL HILL, NC	81.049	5035981		67,65
UNIVERSITY OF ARIZONA/TUCSON, AZ	81.049	PO# 109150		120,84
UNIVERSITY OF DELAWARE	81.049	37792		98,57
UNIVERSITY OF MINNESOTA/MINNEAPOLIS, MN	81.049	A003127003		41,74
UNIVERSITY OF OKLAHOMA	81.049	2014-14		70,54
UNIVERSITY OF WISCONSIN/MADISON WISCONSIN	81.049	562K284		67,77
URS ENERGY AND CONSTRUCTION/MORGANTOWN,WV	81.049	RES1504355		20,38
URS ENERGY AND CONSTRUCTION/MORGANTOWN,WV	81.049	RES1504356		20,00
URS ENERGY AND CONSTRUCTION/MORGANTOWN,WV	81.049	RES1504737		78,67
URS ENERGY AND CONSTRUCTION/MORGANTOWN,WV	81.049	RES1504738		13,88
URS ENERGY AND CONSTRUCTION/MORGANTOWN,WV	81.049	RES1504914		28,00
US DEPT OF ENERGY/ARGONNE, IL	81.049	DE-FG02-07ER46394		144,48
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000116095		104,08
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000122911		(7,97
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000125663		57,11
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000125802		(20
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000126657		(12
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000127240		10,63
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000127240		44,57
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000128095		26,44
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000129251		47,71
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000134863		24,38
				,

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049 81.049 81.049 81.049 81.049 81.049 81.049 81.049 81.049	Number 4000136025 4000136270 4000136542 4000138727 4000138776 4000144319 4000145143 4000145803 4000147836	Subrecipient	29,47 12,50 3,52 58,80 (1,33
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049 81.049 81.049 81.049 81.049 81.049 81.049	4000136270 4000136542 4000138727 4000138776 4000144319 4000145143 4000145803		12,50 3,52 58,80 (1,33
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049 81.049 81.049 81.049 81.049 81.049	4000136542 4000138727 4000138776 4000144319 4000145143 4000145803		3,52 58,80 (1,33
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049 81.049 81.049 81.049 81.049 81.049	4000136542 4000138727 4000138776 4000144319 4000145143 4000145803		3,52 58,80 (1,33
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049 81.049 81.049 81.049	4000138727 4000138776 4000144319 4000145143 4000145803		58,80 (1,33
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049 81.049 81.049 81.049	4000138776 4000144319 4000145143 4000145803		(1,33
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049 81.049 81.049 81.049	4000144319 4000145143 4000145803		
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049 81.049 81.049	4000145143 4000145803		95,24
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN UT BATTELLE LLC/OAK RIDGE NATL LAB - TN UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049 81.049	4000145803		121,4
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049			20,4
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN				20,0
	01.010	4000150871		4,8
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000152624		26,1
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000152636		49,6
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000152786		5,7
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000153967		12,2
VANDERBILT UNIVERSITY/NASHVILLE, TN	81.049	#19067-S12		98,3
	81.049			112,4
VURONYX TECHNOLOGIES INC./BEVERLY, MA	81.049	AGMT DTD 16 JUN 2015 AGR DTD 2/18/2014		
XG SCIENCES/LANSING,MI				(1,1
XG SCIENCES/LANSING,MI	81.049	AGR DTD 7-OCT-2016		24,9
Renewable Energy Research and Development				
Passed through from:	04.007	A COMT DED 4/00/40		454.0
AMTECH SYSTEMS INC./TEMPE, AZ	81.087	AGRMT DTD 1/26/16		151,2
ARIZONA STATE UNIVERSITY/TEMPE, AZ	81.087	13-184 #10001646		74,9
ELECTRIC POWER RES INST/	81.087			176,1
PICASOLAR INC	81.087	AGR DTD 1/31/17		100,0
PURDUE UNIVERSITY/WEST LAFAYETTE	81.087	4106-71517		563,6
STANFORD UNIVERSITY/STANFORD, CA	81.087	60212339-51077-G		70.4
VANDERBILT UNIVERSITY/NASHVILLE, TN	81.087	UNIV58977		78,1
Fossil Energy Research and Development				
Passed through from: CLEMSON UNIVERSITY/CLEMSON, SC	81.089	1751-219-2020335		6,9
				170,0
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.089	#4000111432		
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.089	4000105765		1,9
Defense Nuclear Nonproliferation Research				
Passed through from: NORTH CAROLINA STATE UNIVERSITY/RALEIGH, NC Energy Efficiency and Renewable Energy Information Dissemination, Outreach, Training and Technical Analysis/Assistance	81.113	2014-0501-05		320,5
Passed through from:				
HONEYWELL INC	81 117	N000179484		73,0
Nuclear Energy Research, Development and Demonstration	01.117	11000173404		73,0
Passed through from:				
CONSOLIDATED NUCLEAR SECURITY LLC./OAK RIDGE, TN	81.121	AGREEMENT DTD 3.28.2016		68,6
IDAHO NATIONAL LAB/BEA/IDAHO FALLS	81.121	163747		32,7
NATL RENEWABLE ENERGY LAB/ALLNC FOR SUSTAIN ENGY	81.121	XGZ-6-52063-01		61,4
NATL RENEWABLE ENERGY LAB/ALLNC FOR SUSTAIN ENGY	81.121	XEJ-6-52279-01		50,8
PURDUE UNIVERSITY/WEST LAFAYETTE, IN	81.121	4105-77327		14,0
PURDUE UNIVERSITY/WEST LAFAYETTE, IN	81.121	4105-77465		13,2
SANDIA NATL LABS/SANDIA CORP	81.121	1617589		30,7
SANDIA NATL LABS/SANDIA CORP	81.121	1620729		127,
SANDIA NATL LABS/SANDIA CORP SAVANNAH RIV NATL LAB/SAVANNAH RIV NUCLEAR SOL LLC/ AIKEN, SC	81.121	218148		140,0
SYRACUSE UNIVERSITY/SYRACUSE, NY	81.121	27383-03825-S02		4,7
SYRACUSE UNIVERSITY/SYRACUSE, NY SYRACUSE UNIVERSITY/SYRACUSE, NY	81.121	27383-03825-S02 28643-04465-S02		36,0

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Federal Grantor/Pass-Though Grantor/Cluster or Program Title	Federal CFDA Number	Pass-through Entity ID Number	Amount Passed Through to Subrecipient	Federal Expenditures
UNIVERSITY OF ARKANSAS/FAYETTEVILLE, AR	81.121	SA1510069		87,036
UNIVERSITY OF NEBRASKA/LINCOLN, NE	81.121	25-1120-0014-004		6,015
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.121	4000142757		(16,002
Advanced Research Projects Agency - Energy				(,
Passed through from:				
UCLA/LOS ANGELES, CA	81.135	0130 G SB634		70,918
SILA NANOTECHNOLOGIES INC	81.135	133588		76,936
RENSSELAER POLYTECHNIC INSTIT/TROY, NY		A12820		69,917
Total Department of Energy			2,616,384	27,083,469
Department of Education				
Fund for the Improvement of Postsecondary Education	84.116		181,559	1,286,382
Graduate Assistance in Areas of National Need	84.200		101,000	25,893
Directed Grants and Awards	84.417			25,000
Mathematics and Science Partnerships	04.417			20,000
Passed through from:				
OHIO STATE UNIVERSITY/COLUMBUS, OH	84.366	60036997		24,733
	04.300	00030997		24,733
Supporting Effective Instruction State Grant (formerly Improving Teacher Quality State Grants)				
Passed through from:	04.007	DL 104.0. 0.50/0.004.000		20.050
UNIVERSITY OF GEORGIA/ATHENS, GA Fotal Department of Education	84.367	RH216-352/S001009	404.550	36,950
otal Department of Education			181,559	1,398,958
Department of Health and Human Services				
Innovations in Applied Public Health Research	93.061		307,736	1,284,847
Laboratory Training, Evaluation, and Quality Assurance Programs	93.064			37,991
Food and Drug Administration_Research	93.103		564,272	851,806
Environmental Health	93.113		79,190	412,402
Oral Diseases and Disorders Research	93.121		56,884	292,256
Human Genome Research	93.172		325,918	528,001
Research Related to Deafness and Communication Disorders	93.173			(2,917
Mental Health Research Grants	93.242		357,748	1,555,115
Alcohol Research Programs	93.273			(348
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286		485,553	3,221,896
Trans-NIH Research Support	93.310			120,119
Cancer Cause and Prevention Research	93.393		109,984	305,349
Cancer Detection and Diagnosis Research	93.394		64,324	540,241
Cancer Treatment Research	93.395		240,187	728,513
Cancer Biology Research	93.396			410,448
ACL National Institute on Disability, Independent Living, and Rehabilitation Research	93.433		61,622	1,330,114
CDC Undergraduate Public Health Scholars Program (CUPS)	93.456			54,222
ACL Assistive Technology	93.464		238,000	362,554
Trans-NIH Research Support	93.701		64,898	387,208
PPHF-CDC Partnership: Strengthening Public Health Laboratories	93.765		44,917	50,796
Cardiovascular Diseases Research	93.837		319,643	2,373,134
Lung Diseases Research	93.838			167,420
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		456,965	2,053,353
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847			163,010
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		928,036	2,557,822
Allergy and Infectious Diseases Research	93.855		441,303	1,328,544
Biomedical Research and Research Training	93.859		477,320	4,839,059
Child Health and Human Development Extramural Research	93.865		22,104	366,602
Aging Research	93.866		449,335	1,498,170
J J	93.867		377,848	.,,

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

leral Grantor/Pass-Though intor/Cluster or Program Title	Federal CFDA Number	Pass-through Entity ID Number	Amount Passed Through to Subrecipient	Federal Expenditures
Special Projects of National Significance	93.928			(1,681)
International Research and Research Training	93.989		495,475	1,313,059
Preventive Health and Health Services Block Grant	93.991		158,798	1,692,596
Technical Assistance and Provision for Foreign Hospitals and Health Organizations				,,
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	93.019	T679671		141,670
National Family Caregiver Support, Title III, Part E	00.010	10,007		,0.0
Passed through from:				
GA DEPT OF HEALTH & HUMAN SVCS/HUMAN RESOURCES	93.052	42700-373-0000045137		8,181
Food and Drug Administration Research	00.002	42700 070 0000040707		0,101
Passed through from:				
GEORGIA DEPARTMENT OF AGRICULTURE/ATLANTA, GA	93.103	1U18FD005565-01		49,917
Environmental Health	93.103	10 10 10 10000000-01		49,917
Passed through from:	00.440	D O T507000		05.045
EMORY UNIVERSITY/ATLANTA, GA	93.113	P.O.T567062		85,615
EMORY UNIVERSITY/ATLANTA, GA	93.113	T133127		30,201
Oral Diseases and Disorders Research				
Passed through from:				
UNIVERSITY OF ALABAMA	93.121	000412838-060		373,512
Research Related to Deafness and Communication Disorders				
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	93.173	S872546 (MAIN GRANT)		7,372
Research and Training in Complementary and Integrative Health				
Passed through from:				
VIRGINIA COMMONWEALTH UNIVERSITY/RICHMOND, VA	93.213	PT112083-SC107082		1,806
Research on Healthcare Costs, Quality and Outcomes				
Passed through from:				
GEORGIA STATE UNIV/ATLANTA, GA	93.226	SP00011579-03		8,160
Policy Research and Evaluation Grants				
Passed through from:				
DELOITTE CONSULTING	93.239	101055-1		136,357
Mental Health Research Grants				
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	93.242	T261757		35,399
Occupational Safety and Health Program				
Passed through from:				
THE CENTER FOR CONSTRUCTION RESEARCH AND TRAINING/SILVER				
SPRINGS, MD	93.262	16-I-PS		24,097
Discovery and Applied Research for Technological Innovations to Improve Human Health				
Passed through from:				
BME-Emory NIH	93.286	1T90DA032466-01		3,820
CORNELL UNIVERSITY/ITHACA, NY	93.286	16111826-GEORGIA		51,567
EMORY UNIVERSITY	93.286	T288334		21,670
EMORY UNIVERSITY/ATLANTA, GA	93.286	T087778		17,051
MICHIGAN STATE UNIVERSITY/EAST LANSING, MI	93.286	RC104170GT		122,203
NORTHEASTERN UNIVERSITY/BOSTON, MA	93.286	500396-78050		86,049
UNIV OF LOUISVILLE/LOUISVILLE, KY	93.286	ULRF 14-1431		61,982
UNIVERSITY OF MEMPHIS/MEMPHIS, TN	93.286	5-40604		312,391
UT SOUTHWESTERN MEDICAL CENTER/DALLAS, TX	93.286	GMO 160807		40,296
National Public Health Improvement Initiative				
Passed through from:				

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Trans-NIH Research Support Passed through from: EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA THE J. DAVID GLADSTONE INSTITUTES/SAN FRANCISCO, CA National Center for Advancing Translational Sciences Passed through from: EMORY UNIVERSITY EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA Research Infrastructure Programs Passed through from: EMORY UNIVERSITY/ATLANTA, GA Cancer Detection and Diagnosis Research Passed through from:	93.310 93.310 93.310 93.350 93.350 93.350 93.351	R22754 T491511 T491511 T662893 R02210-A RS00020084-01 T477965 T648282 T620910	41,94 23,46 17,08 28,05 (10,92 16,63 192,79 4,92
RICE UNIVERSITY/HOUSTON, TEXAS Trans-NIH Research Support Passed through from: EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA THE J. DAVID GLADSTONE INSTITUTES/SAN FRANCISCO, CA National Center for Advancing Translational Sciences Passed through from: EMORY UNIVERSITY EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA Research Infrastructure Programs Passed through from: EMORY UNIVERSITY/ATLANTA, GA Cancer Detection and Diagnosis Research Passed through from:	93.310 93.310 93.310 93.350 93.350 93.350 93.351	T491511 T491511 T662893 R02210-A RS00020084-01 T477965 T648282	23,46 17,08 28,05 (10,92 16,63 192,79
Trans-NIH Research Support Passed through from: EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA THE J. DAVID GLADSTONE INSTITUTES/SAN FRANCISCO, CA National Center for Advancing Translational Sciences Passed through from: EMORY UNIVERSITY EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA Research Infrastructure Programs Passed through from: EMORY UNIVERSITY/ATLANTA, GA Cancer Detection and Diagnosis Research Passed through from:	93.310 93.310 93.310 93.350 93.350 93.350 93.351	T491511 T491511 T662893 R02210-A RS00020084-01 T477965 T648282	23,46 17,08 28,05 (10,92 16,63 192,79
Passed through from: EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA THE J. DAVID GLADSTONE INSTITUTES/SAN FRANCISCO, CA National Center for Advancing Translational Sciences Passed through from: EMORY UNIVERSITY EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA Research Infrastructure Programs Passed through from: EMORY UNIVERSITY/ATLANTA, GA Cancer Detection and Diagnosis Research Passed through from:	93.310 93.310 93.310 93.350 93.350 93.350	T491511 T662893 R02210-A RS00020084-01 T477965 T648282	17,08 28,05 (10,92 16,63 192,79
Passed through from: EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA THE J. DAVID GLADSTONE INSTITUTES/SAN FRANCISCO, CA National Center for Advancing Translational Sciences Passed through from: EMORY UNIVERSITY EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA Research Infrastructure Programs Passed through from: EMORY UNIVERSITY/ATLANTA, GA Cancer Detection and Diagnosis Research Passed through from:	93.310 93.310 93.310 93.350 93.350 93.350	T491511 T662893 R02210-A RS00020084-01 T477965 T648282	17,08 28,05 (10,92 16,63 192,79
EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA THE J. DAVID GLADSTONE INSTITUTES/SAN FRANCISCO, CA National Center for Advancing Translational Sciences Passed through from: EMORY UNIVERSITY EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA Research Infrastructure Programs Passed through from: EMORY UNIVERSITY/ATLANTA, GA Cancer Detection and Diagnosis Research Passed through from:	93.310 93.310 93.310 93.350 93.350 93.350	T491511 T662893 R02210-A RS00020084-01 T477965 T648282	17,08 28,05 (10,92 16,63 192,79
EMORY UNIVERSITY/ATLANTA, GA THE J. DAVID GLADSTONE INSTITUTES/SAN FRANCISCO, CA National Center for Advancing Translational Sciences Passed through from: EMORY UNIVERSITY EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA Research Infrastructure Programs Passed through from: EMORY UNIVERSITY/ATLANTA, GA Cancer Detection and Diagnosis Research Passed through from:	93.310 93.310 93.350 93.350 93.350	T662893 R02210-A RS00020084-01 T477965 T648282	28,05 (10,92 16,63 192,79
THE J. DAVID GLADSTONE INSTITUTES/SAN FRANCISCO, CA National Center for Advancing Translational Sciences Passed through from: EMORY UNIVERSITY EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA Research Infrastructure Programs Passed through from: EMORY UNIVERSITY/ATLANTA, GA Cancer Detection and Diagnosis Research Passed through from:	93.310 93.350 93.350 93.350 93.351	R02210-A RS00020084-01 T477965 T648282	(10,92 16,63 192,79
National Center for Advancing Translational Sciences Passed through from: EMORY UNIVERSITY EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA Research Infrastructure Programs Passed through from: EMORY UNIVERSITY/ATLANTA, GA Cancer Detection and Diagnosis Research Passed through from:	93.350 93.350 93.350 93.351	RS00020084-01 T477965 T648282	16,63 192,79
Passed through from: EMORY UNIVERSITY EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA Research Infrastructure Programs Passed through from: EMORY UNIVERSITY/ATLANTA, GA Cancer Detection and Diagnosis Research Passed through from:	93.350 93.350 93.351	T477965 T648282	192,79
Passed through from: EMORY UNIVERSITY EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA Research Infrastructure Programs Passed through from: EMORY UNIVERSITY/ATLANTA, GA Cancer Detection and Diagnosis Research Passed through from:	93.350 93.350 93.351	T477965 T648282	192,79
EMORY UNIVERSITY EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA Research Infrastructure Programs Passed through from: EMORY UNIVERSITY/ATLANTA, GA Cancer Detection and Diagnosis Research Passed through from:	93.350 93.350 93.351	T477965 T648282	192,79
EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA Research Infrastructure Programs Passed through from: EMORY UNIVERSITY/ATLANTA, GA Cancer Detection and Diagnosis Research Passed through from:	93.350 93.350 93.351	T477965 T648282	192,79
EMORY UNIVERSITY/ATLANTA, GA Research Infrastructure Programs Passed through from: EMORY UNIVERSITY/ATLANTA, GA Cancer Detection and Diagnosis Research Passed through from:	93.350 93.351	T648282	
Research Infrastructure Programs Passed through from: EMORY UNIVERSITY/ATLANTA, GA Cancer Detection and Diagnosis Research Passed through from:	93.351		.,
Passed through from: EMORY UNIVERSITY/ATLANTA, GA Cancer Detection and Diagnosis Research Passed through from:		T620910	
EMORY UNIVERSITY/ATLANTA, GA Cancer Detection and Diagnosis Research Passed through from:		T620910	
Cancer Detection and Diagnosis Research Passed through from:		. 0200.10	191,12
Passed through from:			.0.,.2
EMORY UNIVERSITY/ATLANTA, GA	93.394	PO#T342893	3
		T542929	(9,53
		R22089	•
Cancer Treatment Research	93.394	K22009	
Passed through from:			
	93.395	RC100173GT	(7
	33.333	KC100173G1	(/
ACL National Institute on Disability, Independent Living, and Rehabilitation Research			
Passed through from: CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER/ CINCINNATI, OH	93.433	#136999	(25,57
Centers for Medicare and Medicaid Services (CMS) Research, Demonstrations and Evaluations			
Passed through from:			
GEORGIA DEPT OF COMMUNITY HEALTH/ATLANTA,GA Ebola Support: Transmission and Prevention Control, Public Health Preparedness, Vaccine Development	93.779	15005G	1,078,72
Passed through from:			
EMORY UNIVERSITY	93.823	T562794	191,37
Heart and Vascular Diseases Research			
Passed through from:			
BAYLOR COLLEGE OF MEDICINE/HOUSTON, TX	93.837	#P.O. 700000129	123,67
BOSTON CHILDREN'S HOSPITAL/BOSTON, MA	93.837	RSTFD0001137986	31,99
EMORY UNIVERSITY	93.837	T610484	192,81
EMORY UNIVERSITY/ATLANTA, GA	93.837	T586137	115,85
EMORY UNIVERSITY/ATLANTA, GA	93.837	T595904	58,63
UNIVERSITY OF PENNSYLVANIA	93.837	561713/PO 3406412	268,68
UNIVERSITY OF TEXAS AT AUSTIN	93.837	UTA13-000981	321,84
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	93.837	4000128353	1,53
Blood Diseases and Resources Research			
Passed through from:			
EMORY UNIVERSITY/ATLANTA, GA	93.840	HHSN268201400039C	4,76
Arthritis, Musculoskeletal and Skin Diseases Research			
Passed through from:			
EMORY UNIVERSITY/ATLANTA, GA	93.846	1U01AR067169-01	9,67

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

eral Grantor/Pass-Though ntor/Cluster or Program Title	Federal CFDA Number	Pass-through Entity ID Number	Amount Passed Through to Subrecipient	Federal Expenditure
Passed through from:				
COLUMBIA UNIVERSITY/NEW YORK, NY	93.847	G10156		41,552
EMORY UNIVERSITY/ATLANTA, GA	93.847	#T663443		90,336
Extramural Research Programs in the Neurosciences and Neurological Disorders				
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	93.853	T800420		309,37
UNIVERSITY OF CALIFORNIA/BERKELEY, CA	93.853	8937		135,09
UNIVERSITY OF CALIFORNIA/BERKELEY, CA	93.853	8936		165,41
WRIGHT STATE UNIVERSITY	93.853	AGMT DTD 9/18/15		15,58
Allergy, Immunology and Transplantation Research				
Passed through from:				
BOSTON UNIVERSITY/BOSTON, MA	93.855	4500001690		55,39
EMORY UNIVERSITY	93.855	T620207		22,55
EMORY UNIVERSITY/ATLANTA, GA	93.855	SP00012249-02		23,20
EMORY UNIVERSITY/ATLANTA, GA	93.855	T253685		139,02
EMORY UNIVERSITY/ATLANTA, GA	93.855	T365272		128,94
EMORY UNIVERSITY/ATLANTA, GA	93.855	T373210		(4
EMORY UNIVERSITY/ATLANTA, GA	93.855	T559136		109,70
EMORY UNIVERSITY/ATLANTA, GA	93.855	T662854		53,99
EMORY UNIVERSITY/ATLANTA, GA	93.855	T730377		141,20
GEORGIA STATE UNIV/ATLANTA, GA	93.855	SP00012355-01		288,18
NATIONWIDE CHILDREN'S HOSPITAL/COLUMBUS, OH	93.855	#82154216		27,37
UNIVERSITY OF LOUISIANA LAFAYETTE/LAFAYETTE, LA	93.855	87100-01		259,85
Biomedical Research and Research Training				_
Passed through from:				_
CALIFORNIA INSTITUTE OF TECH/PASEDENA, CA	93.859	21B-1094646		20,76
EMORY UNIVERSITY/ATLANTA, GA	93.859	T546559		222,71
EMORY UNIVERSITY/ATLANTA, GA	93.859	T674760		25,03
EMORY UNIVERSITY/ATLANTA, GA	93.859	T720873		72,23
HARVARD UNIVERSITY/BOSTON, MA	93.859	133233-5068506		132,54
	93.859			65,23
UNIV OF WASHINGTON/SEATTLE, WA	93.859	W000613112/ PO # 1001332609		
UNIV OF WASHINGTON/SEATTLE, WA	93.859	UWSC6607 (FORMERLY 759695)		189,56
Child Health and Human Development Extramural Research				
Passed through from:				
EMORY UNIVERSITY	93.865	T586094		179,58
EMORY UNIVERSITY/ATLANTA, GA	93.865	T586108		138,98
EMORY UNIVERSITY/ATLANTA, GA	93.865	T696074		23,88
UNIV OF ALABAMA/TUSCALOOSA, AL	93.865	UA13-001		51,66
Aging Research				
Passed through from:				
BOSTON UNIVERSITY/BOSTON, MA	93.866	4500002150		26,53
EMORY UNIVERSITY/ATLANTA, GA	93.866	T815795		57,46
UNIVERSITY OF MIAMI MEDICAL SCHOOL/MIAMI, FL	93.866	660372		214,87
Vision Research				
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	93.867	T431599		42,36
EMORY UNIVERSITY/ATLANTA, GA	93.867	T463131		15,60
EMORY UNIVERSITY/ATLANTA, GA	93.867	T806043		2,08
EMORY UNIVERSITY/ATLANTA, GA	93.867	T806043		26,02
EMORY UNIVERSITY/ATLANTA, GA	93.867	T806043		17,69
LEGACY EMANUEL HOSPITAL & HEALTH CENTER/PORTLAND,OR	93.867	AGREEMENT DATED 30-JUN-2016		93,59
MASSACHUSETTS INST OF TECH (MIT)/CAMBRIDGE, MA	93.867	#5710003266		(15,84

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Amount	
Passed	
Through to	Federal
Subrecipient	Expenditures
	35,492
	119,425
	172,963
	58,78
	8,449
	60,82
	45,80
	42,663
	24,50
	27,36
	90,04
	31,23
	26,25
	78,66
	137,88
	15,95
	40,11
	58,76
7,128,060	41,507,854
	(5,225
	(12,129
	(17,354
155,277	257,640
	3,249,970
240,592	987,777
	94,08
	30,776
	77,264
	121,536
	54,140
	323,596
	174,92
	111,37
	22,30
	7,15
	7,15 51,53
	22,52
	126,157 98,97

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Federal	Pass-through	Amount Passed	
Federal Grantor/Pass-Though	CFDA	Entity ID	Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
Centers for Homeland Security				
Passed through from:				
GEORGIA STATE UNIV/ATLANTA, GA	97.061	SP00011250-01		29,066
INTAN TECHNOLOGIES/LOS ANGELES, CA	97.061	AGT DTD JULY 31, 2014		22,719
PURDUE UNIVERSITY/WEST LAFAYETTE, IN	97.061	4112-31802		11,716
UNIVERSITY OF MINNESOTA/MINNEAPOLIS, MN	97.061	P001955401		100,355
Bio-Preparedness Collaboratory	37.001	1 001300401		100,000
Passed through from:				
SCRIPPS RESEARCH INSTITUTE/ LA JOLLA,CA	97.122	5-52937 PRIME # GM103368-05		83,537
Total Department of Homeland Security	37.122	3-32937 T KINIE # GIVI 103300-03	395,869	6,059,119
Agency for International Development				
USAID Foreign Assistance for Programs Overseas				
Passed through from: EMORY UNIVERSITY/ATLANTA, GA	98.001	T519239		66,081
FHI 360/DURHAM, NC	98.001	#PO16003387	83,247	521,834
Total Agency for International Development	96.001	#PO16003387	83,247	587,915
			05,247	307,913
Total Research and Development-Cluster			72,739,129	592,958,874
Student Financial Assistance-Cluster:				
Department of Education				
Federal Supplemental Educational Opportunity Grants	84.007			444,484
Federal Work-Study Program	84.033			558,696
Federal Perkins Loan Program_Federal Capital Contributions	84.038			7,424,686
Federal Pell Grant Program	84.063			10,119,438
Federal Direct Student Loans	84.268			83,259,385
Total Department of Education			-	101,806,689
Total Student Financial Assistance-Cluster				101,806,689
Other Programs:				
Department of Agriculture				
Agriculture and Food Research Initiative (AFRI)	10.310			3,334
Total Department of Agriculture				3,334
Department of Commerce				
Cluster Grants	11.020			187,369
Science and Research Park Development Grants	11.030		199,353	251,822
Economic Development_Support for Planning Organizations				
Passed through from:				
NORTHWEST GEORGIA REGIONAL COMMISSION/ROME, GA	11.302	AGR DTD 12/5/16		29,761
Economic Adjustment Assistance	11.307			(19,274)
Trade Adjustment Assistance	11.313		273,129	981,488
Manufacturing Extension Partnership	11.611		1,153	2,718,291
Minority Business Resource Development	11.802		40,000	150,974
MBDA Business Center	11.805		=	213,745
Total Department of Commerce			513,635	4,514,176
Department of the Navy	40.00-			= 4
Basic and Applied Scientific Research	12.300			7,826
Total Department of the Navy				7,826
Department of the Army				
Basic Scientific Research	12.431			28,356

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Federal	Pass-through	Amount Passed	
Federal Grantor/Pass-Though Grantor/Cluster or Program Title	CFDA Number	Entity ID Number	Through to Subrecipient	Federal Expenditures
	Number	Number	Cubrecipient	Experialtares
Passed through from:				
BATTELLE	12.431	PO# 546487		16,167
Total Department of the Army				44,523
Department of Defense				
ROTC Language and Culture Training Grants				
Passed through from:				
INSTITUTE OF INTERNATIONAL EDUCATION/WASHINGTON, DC	12.357	P.O.#2603-GT-16-GO-051-PO3		343,202
Basic, Applied, and Advanced Research in Science and Engineering	12.630			485,283
Total Department of Defense				828,485
Department of Labor				
H-1B Job Training Grants	17.268		23,000	32,378
Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grants	17.282			151,831
WIA/WIOA Adult Program				
Passed through from:				
GA DEPT OF ECONOMIC DEVELOPMENT/ATLANTA, GA	17.258	AGR DTD 1/15/16		92,555
WIA/WIOA Dislocated Worker Formula Grants				
Passed through from:				
GA DEPT OF ECONOMIC DEVELOPMENT/ATLANTA, GA	17.278	1		38,416
GA DEPT OF ECONOMIC DEVELOPMENT/ATLANTA, GA	17.278	3		19,693
Total Department of Labor			23,000	334,873
Department of Transportation				
Highway Training and Education	20.215			111,170
Total Department of Transportation			-	111,170
Library of Congress	42.001			544.450
Books for the Blind and Physically Handicapped Total Library of Congress Total	42.001			511,158 511,158
Total Library of Congress Total				311,130
National Aeronautics and Space Administration				
Aeronautics	43.002			103,543
Education	43.008			95,570
Cross Agency Support	43.009			10,078
Space Technology	43.012			19,910
Science				
Passed through from:	40.004	455004		00.544
UNIVERSITY OF COLORADO/BOULDER, CO	43.001	155694		23,511
Total National Aeronautics and Space Administration				252,612
M. National Endowment for the Arts				
National Leadership Grants	45.312			12,554
Total M. National Endowment for the Arts				12,554
National Science Foundation				
Education and Human Resources				
Passed through from:				
KENNESAW STATE UNIVERSITY/MARIETTA, GA	47.076	431204-12-01		36,873
Total National Science Foundation			-	36,873
Department of Environmental Protection Agency				
Science To Achieve Results (STAR) Fellowship Program	66.514			22,506
Total Department of Environmental Protection Agency			-	22,506
Nuclear Regulatory Commission				

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Federal Grantor/Pass-Though	Federal CFDA	Pass-through Entity ID	Amount Passed Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
U.S. Nuclear Regulatory Commission Scholarship and Fellowship Program	77.008			234,799
Total Nuclear Regulatory Commission				234,799
Department of Energy				
Office of Science Financial Assistance Program	81.049			247,643
Nuclear Energy Research, Development and Demonstration	81.121			213,446
Office of Science Financial Assistance Program				
Passed through from:				
Krell DOE-NNSA SSGF	81.049	Krell 1		46,632
Krell Institute	81.049	Krell 2		30,809
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000134863		7,231
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000136542		6,000
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000145143		3,000
Total Department of Energy				554,761
Department of Education				
Graduate Assistance in Areas of National Need	84.200			148,016
Centers for International Business Education	84.220			304,895
Gaining Early Awareness and Readiness for Undergraduate Programs	84.334		8,480	401,447
Rehabilitation Services_Vocational Rehabilitation Grants to States				
Passed through from: REHABILITIVE ENGR & ASSISTIVE TECH SOCIETY OF NA/ ARLINGTON, VA	84.126	#128046		6,593
Gaining Early Awareness and Readiness for Undergraduate Programs				
Passed through from:				
US DEPT OF EDUCATION/GENERAL	84.334	P378A13009	(160)	(160)
Supporting Effective Instruction State Grant (formerly Improving Teacher Quality State Grants)				
Passed through from:				
UNIVERSITY OF GEORGIA	84.367	RH216-352 / S001010		51,070
UNIVERSITY OF GEORGIA/ATHENS, GA	84.367	RH216-343 / 5054426		55
UNIVERSITY OF GEORGIA/ATHENS, GA	84.367	RH216-352/S001011		30,734
UNIVERSITY OF GEORGIA/ATHENS, GA	84.367	RH216-361/S001357		18,727
Total Department of Education			8,320	961,377
Department of Health and Human Services				
Alzheimer's Disease Demonstration Grants to States	93.051			9,306
ACL Assistive Technology	93.464		200,709	675,408
Special Projects of National Significance	93.928			(35,380)
Preventive Health and Health Services Block Grant	93.991			40,314
Total Department of Health and Human Services			200,709	689,648
Homeland Security				
Homeland Security Preparedness Technical Assistance Program	97.007			43,685
Homeland Security Grant Program	3007			40,000
Passed through from:				
GEORGIA EMERGENCY MANAGEMENT AGENCY/ATLANTA, GA GEORGIA EMERGENCY MGMT & HOMELAND SECURITY AGCY/	97.067	AGR DTD 9/22/15		5,781
ATLANTA, GA	97.067	SHO16-058		861
Total Homeland Security				50,327
Total Other Programs			745,664	9,171,002
Total Expenditures of Federal Awards			\$ 73,484,793	\$ 703,936,565

NOTES TO SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

FOR THE YEAR ENDED JUNE 30, 2017

Note 1—Basis of presentation

The accompanying schedule of expenditures of federal awards includes the federal grant activity of Georgia Tech Research Corporation ("GTRC"), Georgia Tech Applied Research Corporation ("GTARC"), and Georgia Institute of Technology ("GIT") and is presented on the accrual basis of accounting. The information in this schedule is presented in accordance with the requirements of the Uniform Guidance. Therefore, some amounts presented in this schedule may differ from amounts presented in or used in the preparation of the basic financial statements. Because the schedule of expenditures of federal awards presents only a selected portion of the activities of GIT, it is not intended to and does not present either the financial position, changes in fund balances, or cash flows of GIT.

Basis of Accounting – Expenditures reported on the schedule of expenditures of federal awards are reported on the accrual basis of accounting. Such expenditures are recognized following the cost principles contained in the Uniform Guidance, wherein certain types of expenditures are not allowable.

Indirect Cost Rate – GTRC, GTARC, and GIT have elected not to use the 10 percent de minimum indirect cost rate as allowed under the Uniform Guidance.

Note 2—Catalog of Federal Domestic Assistance ("CFDA") numbers

CFDA numbers that are available for each federal award program are indicated on the schedule of expenditures of federal awards.

Note 3—Student financial aid expenditures

Expenditures for student financial aid programs include the Federal Pell grants to students, the federal share of students' Federal Supplemental Educational Opportunity Grant ("FSEOG") program grants, the Federal Work Study ("FWS") program earnings, certain other federal financial aid for students, and administrative cost allowances, where applicable. During the fiscal year ended June 30, 2017, GIT disbursed \$83,259,325 in new loans under the Federal Direct Student Loan Programs which included Federal Stafford Loans and Federal PLUS loans.

The Federal Perkins Loan Program is administered directly by GIT and balances and transactions relating to the program are included in GIT's financial statements. During the fiscal year ended June 30, 2017, GIT disbursed \$991,837 in new loans under the Federal Perkins Loan Program. The balance of loans outstanding under the Federal Perkins Loan program was \$6,204,205 as of June 30, 2017.

Note 4—Contingencies

These award programs are subject to financial and compliance audits by grantor agencies. The amount, if any, of expenditures that may be disallowed by the grantor agencies cannot be determined at this time, although GTRC, GTARC, and GIT expect such amounts, if any, to be immaterial.

SCHEDULE OF FINDINGS AND QUESTIONED COSTS

FOR THE YEAR ENDED JUNE 30, 2017

I. Summary of the Auditor's Results

<u>Financial Statements – Georgia Tech Research Corporation and Georgia Tech Applied Research Corporation</u>

The auditor's report expresses an unmodified opinion on the financial statements of the Georgia Tech Research Corporation and the Georgia Tech Applied Research Corporation.

No significant deficiencies in internal control over financial reporting which would be required to be reported in the Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards* were reported as a result of the audit.

No instances of noncompliance material to the financial statements of the Georgia Tech Research Corporation and the Georgia Tech Applied Research Corporation, which would be required to be reported in accordance with *Government Auditing Standards*, were reported as a result of those audits.

Financial Statements - Georgia Institute of Technology

The State of Georgia Department of Audits and Accounts' audit report expresses an unqualified opinion on the financial statements of the Georgia Institute of Technology for the year ended June 30, 2017, and has issued reports thereon and reports on internal control structure and compliance with laws and regulations based on its audit of the financial statements dated December 19, 2017.

No significant deficiencies in internal control over financial reporting which would be required to be reported in the Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards* were reported by the State of Georgia Department of Audits and Accounts.

No instances of noncompliance material to the financial statements of Georgia Institute of Technology, which would be required to be reported in accordance with *Government Auditing Standards*, were reported as a result of the audit.

Federal Awards

The auditor's report on compliance for the major federal award programs for Georgia Tech Research Corporation, Georgia Tech Applied Research Corporation, and Georgia Institute of Technology expresses an unqualified opinion on all major programs.

No significant deficiencies in internal control over compliance applicable to major federal award programs which would be required to be reported in the Report on Compliance with Requirements Applicable to Each Major Program and on Internal Control over Compliance in Accordance with Section 200.516 of *Uniform Guidance* were reported as a result of the audit.

The audit disclosed no findings required to be reported in accordance with Section 200.516 of *Uniform Guidance*.

SCHEDULE OF FINDINGS AND QUESTIONED COSTS

FOR THE YEAR ENDED JUNE 30, 2017

None

I.	Summary of the Auditor's Results - Continued							
	Identification of Major Programs							
	The programs tested as major program were:							
	CFDA#	Name of Federal Program						
	Various	Research and Development Cluster						
	The dollar threshold for Type A programs was \$3,000,000. The auditee did qualify as a low-risk auditee.							
II.	Financial Statement Findings							
	Financial Statement Finding – Georgia Research Corporation, Georgia Tech Applied Research Corporation None Financial Statement Finding – Georgia Institute of Technology							
	None							
III.	Federal Award Findings and Questioned Costs							