FUNDED AJF&E COE GRANTS – FY2020 ACTION MEMO #1
Status: Memo was signed by the Secretary of Transportation on February 5, 2020.

Project	University (State)	Work Description	Amount
P0 - COE Program Office	Washington State University (WA)	Provide program office support for the Center of Excellence for Alternative Jet Fuels and Environment.	$ 399,713
P1 - Alternative Jet Fuel Supply Chain Analysis	Washington State University (WA)	Provide scientific data and analysis to support the evaluation of fossil and renewable jet fuels for potential inclusion in the ICAO Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). Evaluate regional alternative jet fuel supply chains in terms of their potential for domestic fuel production and rural economic development.	525,001
	Massachusetts Institute of Technology (MA)		$ 400,000
	Purdue University (IN)		$ 523,000
	University of Tennessee (TN)		$ 250,000
P10 - Aircraft Technology Modeling and Assessment	Georgia Institute of Technology (GA)	Evaluate supersonic aircraft technologies and evolution of the fleet in response to the introduction of these technologies to support decision making by the FAA in ICAO CAEP.	$ 1,200,000
	Purdue University (IN)		$ 222,116
P19 - Development of Aviation Air Quality Tools for Airport Specific Impact Assessment - Air Quality Modeling	University of North Carolina (NC)	Improve modeling tools that are used as a part of mandatory National Environmental Policy Act (NEPA) reviews.	$ 350,064
P23 - Analytical Approach for Quantifying Noise from Advanced Operational Procedures	Massachusetts Institute of Technology (MA)	Use noise analysis framework to develop advanced operational procedure concepts.	$ 250,000
P31 - Alternative Jet Fuel Test and Evaluation to support the ASTM International Approval Process	University of Dayton (OH)	In collaboration with industry, conduct combustion testing of novel drop-in jet fuels to ensure they are safe for use.	$ 1,926,434
P33 - Alternative Fuels Test Database Library	University of Illinois (IL)	Develop a comprehensive database of test results that have been conducted on jet fuels with varied chemical composition.	$ 130,000
P34 - National Jet Fuels Combustion Program – Overall Program Integration and Analysis	University of Dayton (OH)	Characterize how jet fuel composition affects the likelihood that combustion gas turbine engines would stop.	$ 582,983
P37 - Continuous Lower Energy Emissions and Noise (CLEEN) II Aircraft Technology Modeling and Assessment	Georgia Institute of Technology (GA)	Assess the reductions in fuel consumption, emissions, and noise that could result from the	$ 240,000

		fleet-wide introduction of CLEEN technologies.	
P38 - Rotorcraft Noise Abatement Procedures Development	Pennsylvania State University (PA)	Develop rotorcraft noise abatement procedures through computational and analytical modeling.	$ 150,000
P43 - Noise Power Distance Re-Evaluation	Georgia Institute of Technology (GA)	Develop an improved noise prediction architecture for the AEDT.	$ 200,000
P46 - Surface Analysis to support AEDT APM Development	Massachusetts Institute of Technology (MA)	Identify and evaluate methods for improving taxi performance modeling in the AEDT to better reflect actual operations.	$ 200,000
P47 - Clean Sheet Supersonic Aircraft Engine Design and Performance	Massachusetts Institute of Technology (MA)	Analyze performance of gas turbine engines specifically designed for use on civil supersonic aircraft.	$ 400,000
P49 - Urban Air Mobility Noise Reduction Modeling	Pennsylvania State University (PA)	Extend helicopter noise modeling efforts to urban air mobility vehicles to identify means for noise reduction.	$ 280,000
P50 - Over-Wing Engine Placement Evaluation	Georgia Institute of Technology (GA)	Analyze potential reduction in fuel burn and noise from changing the placement of aircraft engines on modern aircraft.	$ 590,000
P51 - Combustion concepts for next-generation aircraft engines	Massachusetts Institute of Technology (MA)	Analyze combustion concepts that could be used to reduce particulate matter emissions from future aircraft engines.	$ 300,000
P52 - Comparative assessment of electrification strategies for aviation	Massachusetts Institute of Technology (MA)	Analyze the relative economic and environmental benefits of using electricity to power future aircraft via batteries versus liquid fuels produced from electricity.	$ 300,000
P53 - Validation of low exposure noise modeling by open source data management and visualization systems integrated with AEDT	Stanford University (CA)	Use AEDT to improve noise prediction methods in an open-source overflight analysis tool and leverage noise monitor data and Stanford software expertise to improve AEDT capabilities.	$ 169,903
P54 - AEDT Evaluation and Development Support	Georgia Institute of Technology (GA)	Identify and evaluate methods that could be used to improve the performance modeling within AEDT to better reflect actual operations.	$ 700,000
P55 - Noise Generation and Propagation from Advanced Combustors	Georgia Institute of Technology (GA)	Conduct experiments and analysis to develop analytical tools that can be used by industry to reduce the noise generated by combustors in modern jet engines.	$ 1,499,984

P56 - Turbine Cooling Through Additive Manufacturing	Pennsylvania State University (PA)	Conduct experiments and analysis to determine how new manufacturing techniques could be used to improve the fuel efficiency of modern jet engines.	$ 400,000
P57 - Support for Supersonic Aircraft Noise Efforts in ICAO CAEP	Pennsylvania State University (PA)	Support development of certification processes for future civilian supersonic aircraft	$ 200,000

FUNDED AJF&E COE GRANTS – FY2020 ACTION MEMO #2
Status: Memo was signed by the Secretary of Transportation on February 5, 2020.

Project	University (State)	Work Description	Amount
P18: Community Measurements of Aviation Emissions Contributions to Ambient Air Quality	Boston University (MA)	Examine community air quality measurements to determine the contributions of aircraft to ground based concentrations.	$1,299,991
P22: Evaluation of FAA Climate Tools	University of Illinois (IL)	Use state-of-the-art geophysical models of the earth system to evaluate costs and benefits of technologies that could enable supersonic aviation.	$ 200,000
P58: Improving Policy Analysis Tools to Evaluate Aircraft Operations in the Stratosphere	Massachusetts Institute of Technology (MA)	Use state-of-the-art science to improve existing analytical tools to enable rapid assessments of the effects of high altitude emissions on the atmosphere.	$ 500,000

PROPOSED AJF&E COE GRANTS – FY2020 ACTION MEMO #3
Status: Grant memo approved by Assistant Administrator for Policy, International Affairs, and Environment (APL-1) on Jan 9, 2020. Grant memo being processed by the FAA Technical Center for FAA/DOT signature process. Grants in this memo use FY2018 and FY2019 appropriations.

Project	University (State)	Work Description	Amount
P1: Alternative Jet Fuel Supply Chain Analysis	University of Hawaii (HI)	Conduct a systems-level analysis of technology option packages for converting construction and demolition waste streams to precursors for jet fuel production for use with conventional petroleum and domestically produced renewable oils.	$200,000
P9: Geospatially driven noise estimation module	Georgia Institute of Technology (GA)	Develop a novel geospatially driven noise estimation module to support computation of noise resulting from the operation of Unmanned Aircraft Systems (UAS) and other upcoming vehicle concepts.	$250,000
P59: Jet Noise Modeling and Measurements to Support Low Noise Supersonic Aircraft Technology Development	University of Illinois (IL)	Use state-of-the-art multi-fidelity modeling approaches to identify methods for jet noise reduction from civil supersonic jet transports.	$200,000
	Stanford University (CA)		$200,000
	Pennsylvania State University (PA)		$100,000
	Georgia Institute of Technology (GA)		$350,000
P60: Analytical Methods for Expanding the AEDT Aircraft Fleet Database	Georgia Institute of Technology (GA)	Improve the accuracy of AEDT noise and emissions modeling of aircraft not currently in the Aircraft Noise and Performance (ANP) database.	$150,000
P61: Noise Certification Streamlining	Georgia Institute of Technology (GA)	Examine the process of noise certification and develop a streamlined approach that is flexible enough for current, emerging, and future air vehicles.	$250,000
P62: Noise Model Validation for AEDT	Georgia Institute of Technology (GA)	Assess the accuracy of AEDT in calculating noise in both the vicinity of airports as well as further afield	$235,000
	Pennsylvania State University (PA)		$115,000

P63: Parametric Noise Modeling For Boundary Layer Ingesting Propulsors	Georgia Institute of Technology (GA)	Identify, develop, and validate a parametric fan noise module for a generic boundary layer ingesting gas turbine engine.	$300,000
P64: Alternative Design Configurations to meet Future Demand	Georgia Institute of Technology (GA)	Investigate alternative design configurations to meet the forecasted passenger demand of the future while minimizing the environmental footprint.	$250,000
P65: Fuel Testing Approaches for Rapid Jet Fuel Pre-Screening	University of Dayton (OH)	Establish a formal tiered fuel prescreening process to provide very early indications of candidate fuel blend limits and operability pitfalls.	$160,000
	University of Illinois (IL)		$150,000
P66: Evaluation of High Thermal Stability Fuels	University of Dayton (OH)	Evaluate potential improvements in jet engine fuel burn when fuels with high thermal stability are used as coolants.	$185,000
P67: Impact of Fuel Heating on Combustion and Emissions	Purdue University (IN)	Investigate the effects of heated fuel on combustion performance and the level of emissions for a modern, lean burn combustor.	$250,000
P68: Combustor Wall Cooling Concepts for Dirt Mitigation	Pennsylvania State University (PA)	Develop more effective combustor wall cooling concepts for operation in “dirty” environments.	$150,000
P69: Transitioning a Research nvPM Mass Calibration Procedure to Operations	Missouri University of Science and Technology (MO)	Validate an advanced calibration method that reduces the time needed for nvPM mass instrument calibration and also reduces measurement uncertainty during certification.	$ 846,707
P71: Predictive Simulation of Soot Emission in Aircraft combustors	Georgia Institute of Technology (GA)	Advance the state-of-art in modeling nvPM formation and emission processes for aircraft engine combustors to enable innovative means to reduce these emissions.	$500,000

POTENTIAL AJF&E COE GRANTS FOR FUTURE FY2020 ACTION MEMO #4

Note: P70 grant being developed. If it is developed sufficiently soon, it could be added to Memo #3. P72 grant awaiting APL-1 approval. Grants would use FY2019 appropriation.

Project	University (State)	Work Description	Amount
P70: Reduction of nvPM Emissions via Innovation in Aero-Engine Fuel Injector Design	Georgia Institute of Technology (GA)	Investigate how fuel injector design could be used to reduce nvPM emissions from jet engines.	$500,000
P72: Aircraft Noise Exposure and Market Outcomes in the US	Massachusetts Institute of Technology (MA)	Examine home prices in the U.S. to gain insights into the impacts of aircraft noise on human behavior over the past decades.	$300,000

Note: Project ideas listed below approved by APL-1 on Jan 27, 2020. Grants would use FY2020 appropriation.

Project	University (State)	Work Description	Amount
P0 - COE Program Office	Washington State University (WA)	Provide program office support for the Center of Excellence for Alternative Jet Fuels and Environment.	$ 400,000
P1 - Alternative Jet Fuel Supply Chain Analysis	Washington State University (WA)	Provide scientific data and analysis to support the evaluation of fossil and renewable jet fuels for potential inclusion in the ICAO Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). Evaluate regional alternative jet fuel supply chains in terms of their potential for domestic fuel production and rural economic development.	$525,000
	Massachusetts Institute of Technology (MA)		$ 400,000
	Purdue University (IN)		$ 523,000
	University of Tennessee (TN)		$ 250,000
P10 - Aircraft Technology Modeling and Assessment	Georgia Institute of Technology (GA)	Evaluate supersonic aircraft technologies and evolution of the fleet in response to the introduction of these technologies to support decision making by the FAA in ICAO CAEP.	$ 900,000
	Purdue University (IN)		$ 225,000

P19 - Development of Aviation Air Quality Tools for Airport Specific Impact Assessment - Air Quality Modeling	University of North Carolina (NC)	Improve modeling tools that are used as a part of mandatory National Environmental Policy Act (NEPA) reviews.	$ 569,000
P23 - Analytical Approach for Quantifying Noise from Advanced Operational Procedures	Massachusetts Institute of Technology (MA)	Use noise analysis framework to develop advanced operational procedure concepts.	$ 250,000
P25 - Shock Tube and Flow Reactor Studies of the Kinetics of Jet Fuels	Stanford University (CA)	Develop novel methods to enable rapid fuel screening using novel techniques involving infrared inspection.	$300,000
P31 - Alternative Jet Fuel Test and Evaluation to support the ASTM International Approval Process	University of Dayton (OH)	In collaboration with industry, conduct combustion testing of novel drop-in jet fuels to ensure they are safe for use and conduct research to improve the certification process.	$ 1,050,000
P33 - Alternative Fuels Test Database Library	University of Illinois (IL)	Develop a comprehensive database of test results that have been conducted on jet fuels with varied chemical composition.	$ 130,000
P37 - Continuous Lower Energy Emissions and Noise (CLEEN) II Aircraft Technology Modeling and Assessment	Georgia Institute of Technology (GA)	Assess the reductions in fuel consumption, emissions, and noise that could result from the fleet-wide introduction of CLEEN technologies.	$ 240,000
P38 - Rotorcraft Noise Abatement Procedures Development	Pennsylvania State University (PA)	Develop rotorcraft noise abatement procedures through computational and analytical modeling.	$ 150,000
P43 - Noise Power Distance Re-Evaluation	Georgia Institute of Technology (GA)	Develop an improved noise prediction architecture for the AEDT.	$ 200,000
P44 - Aircraft Noise Abatement Procedure Modeling and Validation	Massachusetts Institute of Technology (MA)	Utilize existing flight and noise monitor data to identify potential means to reduce noise through advanced operational procedure concepts.	$370,000
P46 - Surface Analysis to support AEDT APM Development	Massachusetts Institute of Technology (MA)	Identify and evaluate methods for improving taxi performance modeling in the AEDT to better reflect actual operations.	$ 200,000
P47 - Clean Sheet Supersonic Aircraft Engine Design and Performance	Massachusetts Institute of Technology (MA)	Analyze performance of gas turbine engines specifically designed for use on civil supersonic aircraft.	$ 400,000
P48 - Analysis to Support the Development of an Engine nvPM Emissions Standard	Massachusetts Institute of Technology (MA)	Conduct analyses to support the implementing an aircraft engine non-volatile particulate matter (nvPM) standard.	$200,000

P49 - Urban Air Mobility Noise Reduction Modeling	Pennsylvania State University (PA)	Extend helicopter noise modeling efforts to urban air mobility vehicles to identify means for noise reduction.	$ 280,000
P51 - Combustion concepts for next-generation aircraft engines	Massachusetts Institute of Technology (MA)	Analyze combustion concepts that could be used to reduce particulate matter emissions from future aircraft engines.	$ 300,000
P52 - Comparative assessment of electrification strategies for aviation	Massachusetts Institute of Technology (MA)	Analyze the relative economic and environmental benefits of using electricity to power future aircraft via batteries versus liquid fuels produced from electricity.	$ 300,000
P53 - Validation of low exposure noise modeling by open source data management and visualization systems integrated with AEDT	Stanford University (CA)	Use AEDT to improve noise prediction methods in an open-source overflight analysis tool and leverage noise monitor data and Stanford software expertise to improve AEDT capabilities.	$ 200,000
P54 - AEDT Evaluation and Development Support	Georgia Institute of Technology (GA)	Identify and evaluate methods that could be used to improve the performance modeling within AEDT to better reflect actual operations.	$ 700,000
P55 - Noise Generation and Propagation from Advanced Combustors	Georgia Institute of Technology (GA)	Conduct experiments and analysis to develop analytical tools that can be used by industry to reduce the noise generated by combustors in modern jet engines.	$ 1,500,000
P56 - Turbine Cooling Through Additive Manufacturing	Pennsylvania State University (PA)	Conduct experiments and analysis to determine how new manufacturing techniques could be used to improve the fuel efficiency of modern jet engines.	$ 400,000
P57 - Support for Supersonic Aircraft Noise Efforts in ICAO CAEP	Pennsylvania State University (PA)	Support development of certification processes for future civilian supersonic aircraft	$ 200,000
P65 - Fuel Testing Approaches for Rapid Jet Fuel Prescreening	University of Dayton (OH)	Examine novel methods to reduce the time and costs required to ensure novel jet fuels are safe for use	$250,000
P66 - Evaluation of High Thermal Stability Fuels	University of Dayton (OH)	Conduct experimental work to understand how changes in fuel composition can benefit future aircraft designs	$100,000
P73 - Combustor Durability Evaluation with use of Alternative Jet Fuels	University of Dayton (OH)	Conduct experiments to understand changes in combustor and turbine life with fuels that lack sulfur content and have reduced soot emissions.	$300,000

P74 - Low Emission Premixed Combustion Technology for Supersonic Civil Transport	Georgia Institute of Technology (GA)	Conduct modeling and measurements to enable the development of combustors for supersonic engines that have reduced NOx and nvPM emissions	$1,000,000

New project ideas – Approved by APL-1 on Jan 27, 2020. Grants would use FY2020 appropriation. Notice of Funding Opportunities being developed by FAA

Project Idea	University (State)	Work Description	Amount (per year for 3 years)
Development of improved engine fan broadband noise prediction capabilities	TBD	Conduct computational modeling of jet engine fan broadband noise and conduct measurements of simplified experimental setups, to enable the development of improved engine design tools. Effort needs to capture operation over wide flight envelop as there can be considerable flow distortion during high angles of attack and this has a strong impact on takeoff noise.	TBD
Development of improved open rotor noise prediction capabilities	TBD	Conduct computational modeling of noise generation from the fan of an open rotor engine, and compare to existing measurements taken during CLEEN, to enable the development of improved engine design tools.	TBD
Measurements to support noise certification of UAS/UAM vehicles and identify noise reduction opportunities	TBD	Use existing UAS/UAM vehicles at a test site to measure noise generation under operating conditions to understand range of noise that could be generated to inform means of future noise reduction and appropriate means of conducting noise certification.	TBD

OST ACTION MEMOS THAT WERE APPROVED DURING FY2018 and FY2019

FUNDED AJF&E COE GRANTS – FY2018 ACTION MEMO #1

Status: Memo was signed by the Secretary of Transportation on September 24, 2018

Project	University (State)	Work Description	Amount
P1 - Alternative Jet Fuel Supply Chain Analysis	Washington State University (WA)	Evaluate regional alternative jet fuel supply chains in terms of their potential for U.S. fuel production and rural economic development.	$510,918
	Massachusetts Institute of Technology (MA)	Provide scientific data and analysis to support domestic and international decision making on alternative jet fuels.	$575,000
P10 - Aircraft Technology Modeling and Assessment	Georgia Institute of Technology (GA)	Assess potential evolution of the commercial airline fleet, including the introduction of supersonic aircraft, and evaluate how the introduction of new aircraft and technologies could impact aviation fuel burn, noise, and emissions.	$650,000
	Purdue University (IN)	Assist Georgia Tech in the fleet evolution studies.	$114,185
P31 - Alternative Jet Fuel Test and Evaluation	University of Dayton Research Institute (OH)	Conduct validation testing of potential methods to quantify composition of jet fuels.	$199,966
P38 - Rotorcraft Noise Abatement Procedures Development	Pennsylvania State University (PA)	Develop rotorcraft noise abatement procedures through computational and analytical modeling.	$150,000
P42 - Acoustical Model of Mach Cut-off Flight	Pennsylvania State University (PA)	Evaluate the feasibility of Mach Cut-off Flight as a means to enable supersonic flight over land.	$170,000
P44 - Aircraft Noise Abatement Procedure Modeling and Validation	Massachusetts Institute of Technology (MA)	Validate noise reductions from advanced operational flight procedure concepts that use modified configurations and reduced speed.	$350,000
P46 - Surface Analysis to support Aviation Environmental Design Tool (AEDT) Development	Massachusetts Institute of Technology (MA)	Identify and evaluate methods for improving taxi performance modeling in the AEDT to better reflect actual operations.	$75,000

FUNDED AJF&E COE GRANTS – FY2019 ACTION MEMO #1

Status: Memo was signed by the Secretary of Transportation on March 29, 2019

Project	University (State)	Work Description	Amount
P0 - Program Office for Center of Excellence for Alternative Jet Fuels and Environment	Washington State University (WA)	Provide program office support for the Center of Excellence for Alternative Jet Fuels and Environment.	$390,911
P1 - Alternative Jet Fuel Supply Chain Analysis	Pennsylvania State University (PA)	Evaluate various partners involved in alternative jet fuel (AJF) supply chains.	$207,623
	Purdue University (IN)	Provide scientific data and analysis to support domestic and international decision making on alternative jet fuels.	$400,000
	University of Tennessee (TN)	Evaluate regional alternative jet fuel supply chains in terms of their potential for U.S. fuel production and rural economic development.	$260,000
P8 - Outreach Project	Pennsylvania State University (PA)	Provide educational information on aviation noise to stakeholders through the NoiseQuest website	$30,000
P19 - Development of Aviation Air Quality Tools for Airport-Specific Impact Assessment: Air Quality Modeling	University of North Carolina (NC)	Improve modeling tools that are used as a part of mandatory National Environmental Policy Act (NEPA) reviews.	$300,000
P23 - Analytical Approach for Quantifying Noise from Advanced Operational Procedures	Massachusetts Institute of Technology (MA)	Develop a noise analysis method for advanced operational procedure evaluation.	$250,000
P27 - Advanced Combustion (National Jet Fuels Combustion Program: Area #3)	Georgia Institute of Technology (GA)	Characterize how jet fuel composition affects the likelihood that combustion gas turbine engines would stop.	$30,000
P29 - Atomization Tests and Models (National Jet Fuels Combustion Program: Area #5)	Purdue University (IN)	Use experiments to understand how fuel composition affects spray properties within a combustor.	$120,000
P33 - Alternative Fuels Test Database Library	University of Illinois (IL)	Develop a comprehensive database of test results that have been conducted on jet fuels with varied chemical composition.	$130,000
P37 - Continuous Lower Energy Emissions and Noise (CLEEN) II System Level Assessment	Georgia Institute of Technology (GA)	Assess the reductions in fuel consumption, emissions, and noise that could result from the fleet-wide introduction of CLEEN technologies.	$170,000
P41 - Identification of Noise Acceptance Onset for Noise Certification Standards of Supersonic Airplane	Pennsylvania State University (PA)	Support development of certification processes for future civilian supersonic aircraft	$390,000
P43 - Noise Power Distance Re-Evaluation	Georgia Institute of Technology (GA)	Develop an improved noise prediction architecture for the AEDT	$220,000

P45 - Takeoff / Climb Analysis to Support AEDT Aircraft Performance Module Development	Georgia Institute of Technology (GA)	Provide data and methods to improve the aircraft weight and takeoff thrust modeling capabilities within the AEDT	$175,000
P47 - Clean Sheet Supersonic Engine Design and Performance	Massachusetts Institute of Technology (MA)	Analyze performance of gas turbine engines specifically designed for use on civil supersonic aircraft	$250,000

FUNDED AJF&E COE GRANTS – FY2019 ACTION MEMO #2

Status: Memo was signed by the Secretary of Transportation on May 31, 2019

Project	University (State)	Work Description	Amount
P1 - Alternative Jet Fuel Supply Chain Analysis	University of Hawaii (HI)	Evaluate regional alternative jet fuel supply chains in Hawaii and tropical regions.	$200,000
P2 - Re-Examination of Engine to Engine PM Emissions variability using an ARP Reference Sampling and Measurement System	Missouri University of Science and Technology (MO)	Quantify the effects of ambient atmospheric conditions and fuel composition on particulate matter (a.k.a. soot) from aircraft engines.	$1,217,221
P25 - Shock Tube and Flow Reactor Studies of the Kinetics of Jet Fuels (National Jet Fuels Combustion Program: Area #1)	Stanford University (CA)	Develop experimental database to test and refine computer models of jet fuel chemistry and its impact on combustion.	$110,000
P36 - Parametric Uncertainty Assessment for AEDT	Georgia Institute of Technology (GA)	Provide a robust uncertainty evaluation of the AEDT to inform future development of the tool.	$300,000
P39 - Naphthalene Removal Assessment	Massachusetts Institute of Technology (MA)	Assess the costs and benefits of reducing the naphthalene content in jet fuel.	$350,000
P40 - Quantifying Uncertainties in Predicting Aircraft Noise in Real-World Situations	Purdue University (IN)	Understand and quantify uncertainties in the prediction of noise from aircraft operations that accounts for real-world situations such as actual weather conditions.	$85,000
	Pennsylvania State University (PA)		$170,000
P48 - Analysis to Support the Development of an Engine nvPM Emissions Standard	Massachusetts Institute of Technology (MA)	Assess the costs and benefits of implementing an aircraft engine non-volatile particulate matter (nvPM) standard.	$200,000

FUNDED AJF&E COE GRANTS – FY2019 ACTION MEMO #3
Status: Memo was signed by the Secretary of Transportation on June 14, 2019

Project	University (State)	Work Description	Amount
P3 - Cardiovascular Disease and Aircraft Noise Exposure	Boston University (MA)	Evaluate impacts of civil aircraft noise on health in terms of heart disease.	$1,729,286