Agenda Item X-E

Academic Quality and Workforce

60x30TX

Texas Higher Education Coordinating Board

Aerospace Technology Research Conducted by Public Universities

A Report to the Texas Legislature
Senate Bill 458, 84th Texas Legislature, Regular Session

DRAFT

October 2018

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Texas Higher Education Coordinating Board

Agency Mission

The mission of the Texas Higher Education Coordinating Board (THECB) is to provide leadership and coordination for Texas higher education and to promote access, affordability, quality, success, and cost efficiency through *60x30TX*, resulting in a globally competitive workforce that positions Texas as an international leader.

Agency Vision

The THECB will be recognized as an international leader in developing and implementing innovative higher education policy to accomplish our mission.

Agency Philosophy

The THECB will promote access to and success in quality higher education across the state with the conviction that access and success without quality is mediocrity and that quality without access and success is unacceptable.

The THECB's core values are:
Accountability: We hold ourselves responsible for our actions and welcome every opportunity to educate stakeholders about our policies, decisions, and aspirations.
Efficiency: We accomplish our work using resources in the most effective manner.
Collaboration: We develop partnerships that result in student success and a highly qualified, globally competent workforce.
Excellence: We strive for excellence in all our endeavors.

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Table of Contents

Tables and Figures

Executive Summary

This report provides a summary of aerospace technology research conducted by public senior colleges and universities. The report is required by Senate Bill 458, 84th Texas Legislature, Regular Session, and codified as Government Code Chapter 481, Subchapter A, Section 481.0066, Aerospace and Aviation Office:

> (d-2)(3) a summary of work performed as part of the aerospace and aviation office's partnership with the Texas Higher Education Coordinating Board, including a summary prepared by the board of the research conducted by public senior colleges or universities, as defined by Section 61.003, Education Code.

For biennium of Fiscal Years (FY) 2015 and 2016, the average annual research expenditure for all Texas institutions for aerospace technology research was $32.5 million per year. The annual expenditure in FY 2017 was $33.2 million. For FY 2017, this is 1.45 percent of all expenditures for research and development at public universities. (See the report Research Expenditures Summary, Sept. 1, 2016-August 31, 2017.)

Twelve institutions reported research expenditures for FY 2017. These institutions reported 328 awards as active during this year. The total award amount of active aerospace technology research grants is $175,809,633.

This report lists funding, award amount, and title information for all active awards. Aerospace technology grants were awarded predominantly in the research field of engineering. However, apart from engineering, a large number of other research fields received awards in aerospace technology, including multiple fields in the natural sciences. Awards also were given, for example, in mathematics, manufacturing, nanoscience, and health and human performance.

Overview of Aerospace Technology Research

Research Expenditures

The Texas Higher Education Coordinating Board (THECB) collects research expenditure data from Texas institutions of higher education in the special interest area of aerospace technology as part of each institution's annual financial report. Research expenditures are available on the THECB webpage www.thecb.state.tx.us/research. Table 1 shows total research expenditures in the special interest area of aerospace technology for the last three years. Table 2 shows the source of funding for these expenditures for the last three years.

Table 1. Aerospace Technology Research Expenditures by Institution, FY 2015-2017

Institution	FY 2015	FY 2016	FY 2017
Prairie View A&M University	$74,013		
Texas A&M University w/ System & Agencies	$3,956,536	$2,316,483	$1,451,603
Texas A&M University-Corpus Christi	$203,294	$178,340	$625,795
Texas Tech University	$147,890	$403,812	$510,790
The University of Texas at Arlington	$5,468,666	$6,548,876	$9,059,510
The University of Texas at Austin	$11,289,589	$10,312,497	$9,932,612
The University of Texas at Dallas	$4,696,031	$3,708,084	$3,354,792
The University of Texas at El Paso	$5,060,303	$3,280,937	$3,719,776
The University of Texas at San Antonio	$894,749	$203,662	$96,628
The University of Texas Rio Grande Valley	$214,158	$1,717,441	$2,159,679
University of Houston	$1,264,527	$2,031,143	$2,052,473
University of Houston-Clear Lake	$184,784	$95,183	$53,979
University of North Texas	$712,557	$43,346	$232,052
Total	**$34,167,097**	**$30,839,804**	**$33,249,689**

Source: Coordinating Board, Annual Financial Reports

Table 2. Aerospace Technology Research Expenditures by Source of Funds, FY 2015-2017

Source of Funds	FY 2015	FY 2016	FY 2017
Federal	$25,972,148	$24,710,009	$25,196,493
State Appropriation and Grants	$2,543,472	$2,373,448	$3,610,441
Institutional Resources	$4,169,679	$1,991,807	$2,055,244
Private For-Profit	$760,725	$737,536	$1,539,035
Private Nonprofit	$721,073	$1,027,004	$848,476
Total	**$34,167,097**	**$30,839,804**	**$33,249,689**

Source: Coordinating Board, Annual Financial Reports

The total expenditures for research and development at Texas public higher education institutions was $2.29 billion in FY 2017. (See the report Research Expenditures Summary, Sept. 1, 2016-August 31, 2017.) The research expenditures for aerospace technology were 1.45 percent of all research expenditures.

Awards for Aerospace Technology Research Grants

To compile a summary of work performed in the special interest area of aerospace technology research during Academic Year 2017, THECB staff identified the Texas public institutions of higher education that reported research expenditures in this area on their annual financial reports for FY 2017. THECB staff then contacted institutional representatives from those institutions and requested a list of their active awards for FY 2017. This information is presented in the section "Awards for Aerospace Technology Interest Area" beginning on page 4.

Research grant awards typically are multi-year awards, and therefore, the total award amounts for active grants during FY 2017 is higher than the year's total expenditures.

Table 3 shows research grant awards for aerospace technology according to the agency that funded the awards. More than half of the award funding was from the National Aeronautics and Space Administration (NASA) and the national defense agencies Department of Defense (DOD), the Air Force, Army, and Navy.

Table 3. Aerospace Technology Awards by Funding Agency, FY 2017

Funding Agency	Number of Awards	Funding Amount
NASA	101	$76,811,144
Defense (DOD, Air Force, Army, Navy)	60	$40,807,452
National Science Foundation	30	$17,173,228
Other (federal, state, and undisclosed)	21	$13,620,840
Private and Nonprofits	86	$17,337,824
Sub-Recipient Funds	30	$10,059,145
Total	**328**	**$175,809,633**

Source: Institutions of higher education with expenditures in the special interest area of aerospace technology.
Note: The original source of sub-recipient funds is not reported.

Research Fields

Aerospace technology grants were awarded predominantly in the research field of engineering. However, apart from engineering, a large number of other research fields received awards in aerospace technology, including multiple fields in the natural sciences. Awards also were given, for example, in mathematics, manufacturing, nanoscience, and health and human performance. The list below shows the diversity of the research fields that received awards under the special interest area of aerospace technology:

- Astronomy
- Biology
- Biochemistry
- Chemistry
- Computational Sciences
- Economic Development
- Energy Science

- Engineering: Aerospace Engineering, Chemical Engineering, Civil Engineering, Bioengineering, Electrical Engineering, Mechanical Engineering
- Geosciences, Earth & Atmospheric Sciences, and Climate Science
- Health and Human Performance
- Manufacturing and Systems Engineering
- Materials Science and Materials Engineering
- Mathematics
- Nanoscience
- Physics, Astrophysics, and Astrodynamics
- Space Science
- Technology

Awards for Aerospace Technology Interest Area

The following sections provide a summary of research awards in the special interest area of aerospace technology that were active during FY 2017. The compilation serves as a snapshot from one year and shows the array of research fields involved and the variety of research topics investigated within the aerospace technology interest area. The data were provided to the THECB by the institutions from their internal listings of research awards and were then compiled in a uniform format, which includes:

Department, Center, or Institute (discipline)
Principal Investigator(s)
Funding Agency, Award Number, Award Amount
Title of Research Project

Abstracts are available upon request.

Texas A&M University (TAMU) with Agencies

Texas A&M University and its service agencies listed 84 active awards in aerospace technology for FY 2017. The total award amount was $38,328,091. During that year, TAMU's research expenditures for awards in aerospace technology were $1,451,603. Information for the identified active awards is provided.

- Aerospace Engineering (aerospace engineering)
  Alfriend, Kyle T.
  Technology Service Corporation, $50,000
  Rapid Reaction Multi-mission Systems - Geo Safari.

- Aerospace Engineering (aerospace engineering)
  Alfriend, Kyle T.
  University Of Colorado, $259,401
  Modeling, Observability and Change Detection In Space Situational Awareness.

- Aerospace Engineering (aerospace engineering)
  Alfriend, Kyle T.
  Exoanalytic Solutions, Inc., $65,000
  Prototype for Rapid Reconstitution for Ground-Based Space Situational Awareness Capability for Near-geosynchronous Objects.

- Aerospace Engineering (aerospace engineering)
  Alfriend, Kyle T.
  Numerica Corporation, $500,000
  Commercial Space Catalog.

- Mechanical Engineering (Mechanical Engineering)
  Allaire, Douglas L.
  Massachusetts Institute Of Technology, $753,084
  A Unified Mathematical and Algorithmic Framework for Managing Multiple Information Sources of Multi-physics Systems.

- Aerospace Technology Research & Operations (aerospace engineering)
  Bhattacharya, Raktim
  DOD - Air Force - Office Scientific Research, $671,412
  Cloud Computing Based Robust Space Situational Awareness.

- Aerospace Engineering (aerospace engineering)
  Bowersox, Rodney D.
  Physics, Materials, and Applied Mathematics, $56,766
  High-Frequency Energy-Deposition Actuators for Effective Scramjet Control.

- Aerospace Engineering (aerospace engineering)
  Bowersox, Rodney D.
  Physics, Materials, And Applied Mathemat, $180,000
  Phase II: Energy-Deposition to Reduce Skin Friction in Supersonic Applications.

- Aerospace Engineering (aerospace engineering)
  Bowersox, Rodney D.
  DOD - Air Force - Office Scientific Research, $600,000
  Crossflow Instability Receptivity To Environmental Disturbances at Hypersonic Speeds.

- Aerospace Engineering (aerospace engineering)
  Bowersox, Rodney D.
  University Of Tennessee, $375,000
  A Systematic Characterization of the Structure and Dynamics of Transitional Shock/Boundary Layer Interactions.

- Aerospace Engineering (aerospace engineering)
  Bowersox, Rodney D.
  DOD - Office Of Naval Research, $252,315
  Hypervelocity Expansion Facility for Fundamental High-enthalpy Research.

- Aerospace Engineering (aerospace engineering)
  Bowersox, Rodney D.
  University Of Miami, $150,000
  Estol Performance for Heavy Lift Transports Using Ultra-high Lift High-efficiency CO-flow Jet Airfoil.

- Aerospace Engineering (aerospace engineering)
  Bowersox, Rodney D.
  Leidos, Inc., $337,651
  Design and Fabrication of a Mach 1.5 Wind Tunnel Facility.

- Aerospace Engineering (aerospace engineering)
  Bowersox, Rodney D.
  National Science Foundation, $1,999,999
  Iuse/Pfe: Red: Revolutionizing Diversity of Engineering (redo-E).

- Aerospace Engineering (aerospace engineering)
  Chakravorty, Suman
  National Science Foundation, $449,996
  Nri: A Model Based Approach to Distributed Adaptive Sampling of Spatio-Temporally Varying Fields.

- Aerospace Engineering (aerospace engineering)
  Chakravorty, Suman
  DOD-Air Force-Office Scientific Research, $567,476
  C1160: An Integrated Approach to Space Situational Awareness , Dated 03 Aug 2015 and Revised 28 Apr 2016.

- Aerospace Engineering (aerospace engineering)
  Chakravorty, Suman
  National Science Foundation, $50,000
  I-Corps: Accurate GPS-free Navigation and Localization.

- Aerospace Engineering (aerospace engineering)
  Chamitoff, Gregory E.
  The University Of Sydney, $306,069
  USYD Aerospace Collaboration and Research.

- Aerospace Engineering (aerospace engineering)
  Cizmas, Paul G.
  Florida International University, $78,412
  Development of Reduced Order Model for Reacting Gas-Solids Flow Using Proper Orthogonal Decomposition.

- Aerospace Engineering (aerospace engineering)
  Cizmas, Paul G.
  Ohio Aerospace Institute, $444,369
  A Z-coordinate Proper Orthogonal Decomposition Method With Dynamic Basis Functions for Turbomachinery Aeroelastic Analysis.

- Aerospace Engineering (aerospace engineering)
  Cizmas, Paul G.
  Slipstream Wind, $30,000
  Numerical Simulation of a Vertical Axis Wind Turbine.

- Aerospace Engineering (aerospace engineering)
  Donzis, Diego A.
  National Science Foundation, $421,240
  FFATA: Career: Discoveries in Compressible Turbulence and Turbulent Mixing Through Petascale Simulations and Analysis.

- Aerospace Engineering (aerospace engineering)
  Donzis, Diego A.
  National Science Foundation, $850,000
  XPS: Full: DSD: Asynchronous PDE Algorithms for Turbulent Flows At Exascale.

- Aerospace Engineering (aerospace engineering)
  Donzis, Diego A.
  National Science Foundation, $320,000
  Beyond Incompressible Phenomenology: Mixing In Compressible Turbulent Flows.

- Aerospace Engineering (aerospace engineering)
  Donzis, Diego A.
  DOD-Air Force-Office Scientific Research, $654,543
  Turbulence Control Through Thermal Non-Equilibrium: Molecular Relaxation Models and Implications for Turbulence Modeling.

- Aerospace Engineering (aerospace engineering)
  Girimaji, Sharath S.
  National Science Foundation, $35,365
  Collaborative Research: A Langevin Subgrid Scale Closure and Discontinious Galerkin Exascale Large Eddy Simulation.

- Aerospace Engineering (aerospace engineering)
  Girimaji, Sharath S.
  DOD-Air Force-Office Scientific Research, $269,998
  Non-Linear Growth and Breakdown Toward Turbulence In Hypersonic Boundary Layers: Investigation of Fundamental Physical.

- Aerospace Engineering (aerospace engineering)
  Hartl, Darren J.
  University Of Dayton Research Institute, $191,428
  Exploration of Design Methods for Bio-Inspired Compliant Load-Bearing Mechanisms Based On Evolutionary Algorithms.

- Aerospace Engineering (aerospace engineering)
  Hartl, Darren J.
  NASA-Johnson Space Center, $76,700
  Shape-Morphing Adaptive Radiator Technology.

- Aerospace Engineering (aerospace engineering)
  Hartl, Darren J.
  University Of Michigan, $360,000
  Avian-Inspired Multifunctional Morphing Vehicles.

- Aerospace Engineering (aerospace engineering)
  Hartl, Darren J.
  National Institute Of Aerospace, $118,148
  Superelastic SMAS.

- Aerospace Engineering (aerospace engineering)
  Hartl, Darren J.
  Texas A&M University, $61,500
  Morphing Alloy Radiator.

- Aerospace Engineering (aerospace engineering)
  Hurtado, John E.
  University At Buffalo - SUNY, $348,914
  OCVP Implementation and Validation To Support the AIRSS Sensor.

- Aerospace Engineering (aerospace engineering)
  Hurtado, John E.
  NTESS, LLC - National Technology & Engineering, $17,750
  IMU.

- Aerospace Engineering (aerospace engineering)
  Hurtado, John E.
  NTESS, LLC - National Technology & Engineering, $145,000
  Precision Navigation for Challenging Operational Environments.

- Aerospace Engineering (aerospace engineering)
  Junkins, John L.
  DOD - Air Force - Office Scientific Research, $625,340
  Extremal Field Maps for Maneuverable Satellites: Reachability Analysis for Space Situational Awareness.

- Aerospace Engineering (aerospace engineering)
  Junkins, John L.
  The Lynde And Harry Bradley Foundation, $475,000
  Cybersecurity Initiative.

- Aerospace Engineering (aerospace engineering)
  Junkins, John L.
  Numerica Corporation, $316,058
  Automated Attention List Processing and Improved Sensor-level Track Generation for Geo Odyssey.

- Aerospace Engineering (aerospace engineering)
  Junkins, John L.
  The Lynde And Harry Bradley Foundation, $25,000
  Research Fellowship - Bradley Foundation 2016-2017.

- Aerospace Engineering (aerospace engineering)
  Junkins, John L.
  Technology Service Corporation, $73,139
  Technical Support On Research and Development of A Small Satellite Constellation for Optically Tracking Near-geostationary.

- Aerospace Engineering (aerospace engineering)
  Lagoudas, Dimitris C.
  National Science Foundation, $383,116
  FFATA: REU: Aero-U: Aerospace Engineering Research Opportunities for Undergraduates.

- Aerospace Engineering (aerospace engineering)
  Lagoudas, Dimitris C.
  NASA-Shared Services Center, $9,971,116
  D.5 University Leadership Initiative.

- Aerospace Engineering (aerospace engineering)
  Limbach, Christopher M.
  Metrolaser, Inc., $66,238
  NASA SBIR Phase 2.

- Aerospace Engineering (aerospace engineering)
  Majji, Manoranjan
  University At Buffalo - SUNY, $121,555
  Dynamic Data Driven Framework for Accurate Tracking and Characterization of Resident Space Objects.

- Aerospace Engineering (aerospace engineering)
  Majji, Manoranjan
  University At Buffalo - SUNY, $32,313
  An Optimization Approach for Nonlinear Optimal Feedback Control Design and Uncertainty Propagation.

- Aerospace Engineering (aerospace engineering)
  Majji, Manoranjan
  University At Buffalo - SUNY, $95,958
  Optimal Sensor Tasking for Enhanced Space Situational Awareness.

- Aerospace Engineering (aerospace engineering)
  Moble, Benedict
  University Of Maryland, $225,000
  Conceptual Modeling of Novel Configurations for UAS Applications.

- Aerospace Engineering (aerospace engineering)
  Moble, Benedict
  University Of Maryland, $744,086
  Scalable Novel Configurations for UAS Applications.

- Aerospace Engineering (aerospace engineering)
  Mortari, Daniele
  NASA-Shared Services Center, $360,000
  Vision-Based Navigation for Orion.

- Aerospace Engineering (aerospace engineering)
  Naraghi, Mohammad
  DOD- Army Research Office, $88,675
  A Fundamental Study Into the Effect of Filler Alignment on Damping in Nanocomposites.

- Aerospace Engineering (aerospace engineering)
  Reed, Helen L.
  CFD Research Corporation, $46,000
  Prediction of Boundary Layer Transition on Hypersonic Vehicles in Large-Scale Wind Tunnels and Flight.

- Aerospace Engineering (aerospace engineering)
  Richard, Jacques C.
  National Science Foundation, $364,766
  REU Site: Aerospace Engineering Research Opportunities for Undergraduates.

- Aerospace Engineering (aerospace engineering)
  Reed, Helen L.
  DOD - Office Of Naval Research, $560,160
  Hypersonic Stability Predictions.

- Aerospace Engineering (aerospace engineering)
  Miles, Richard B
  Office Of The Governor - Budget, Planning, $5,000,000
  Governor's University Research Initiative (GURI) Grant Program for Richard B. Miles.

- Aerospace Engineering (aerospace engineering)
  Skelton, Robert E.
  NASA-Washington, $499,999
  Tensegrity Approaches To In-space Construction of a 1g Growable Habitat.

- Aerospace Engineering (aerospace engineering)
  Strganac, Thomas W.
  Tao Of Systems Integration, Inc., $225,000
  Sttr: Distributed, Passivity-Based, Aeroservoelastic Control (DPASC) of Structurally Efficient Aircraft.

- Aerospace Engineering (aerospace engineering)
  Talreja, Ramesh R.
  DOD - Office Of Naval Research, $518,521
  A Hybrid Approach To Composite Damage and Failure Analysis Combining Synergistic Damage Mechanics and Peridynamics.

- Aerospace Engineering (aerospace engineering)
  Talreja, Ramesh R.
  Lulea University Of Technology, $8,500
  Transverse Fiber/Matrix Debond Growth in Unidirectional Composites with Local Hexagonal Fiber Clustering.

- Aerospace Engineering (aerospace engineering)
  Unknown, Unknown
  NTESS, LLC - National Technology & Engineering, $17,783
  Verification and Validation of the Sandia National Laboratories (SNL) Roll Stable Inertial Measurement Unit (RSIMU) Emulator.

- Aerospace Engineering (aerospace engineering)
  Valasek, John L.
  DOT-Federal Aviation Administration, $1,444,938
  Pegasas FAA General Aviation Research Center of Excellence.

- Aerospace Engineering (aerospace engineering)
  Valasek, John L.
  DOD-Air Force-Research Laboratory, $85,389
  State Constrained Adaptive Flight Control.

- Aerospace Engineering (aerospace engineering)
  Whitcomb, John D.
  Clarkson Aerospace Corporation, $276,677
  AFRL Collaboration Program - Materials and Manufacturing Research.

- Aerospace Engineering (aerospace engineering)
  White, Edward B.
  NTESS, LLC - National Technology & Engineering, $135,000
  Experimental Studies of Leading Edge Erosion on an Inboard Wind Turbine Airfoil.

- Aerospace Engineering (aerospace engineering)
  White, Edward B.
  University Of Texas, $240,000
  New Approaches to Understanding Roughness-induced Transition.

- Aerospace Vehicle Systems Institute (aerospace engineering)
  Redman, David A.
  Various Nonprofit Sponsors, $47,695
  AVSI AFE 84: ISRP Planning With Lf Risk Reduction (government).

- Aerospace Vehicle Systems Institute (aerospace engineering)
  Redman, David A.
  DOT-Federal Aviation Administration, $45,693
  AFE 62r1 - Virtual Integration Process - Savi Version 1.0D (government).

- Aerospace Vehicle Systems Institute (aerospace engineering)
  Redman, David A.
  NASA-Langley Research Center, $34,454
  AFE 62r1 - Virtual Integration Process - Savi Version 1.0D (government).

- Aerospace Vehicle Systems Institute (aerospace engineering)
  Redman, David A.
  Airbus Americas, Inc., $33,458
  AFE 62r1 - Virtual Integration Process - Savi Version 1.0D (industry).

- Aerospace Vehicle Systems Institute (aerospace engineering)
  Redman, David A.
  The Boeing Company, $33,458
  AFE 62r1 - Virtual Integration Process - Savi Version 1.0D (industry).

- Aerospace Vehicle Systems Institute (aerospace engineering)
  Redman, David A.
  Embraer, $33,458
  AFE 62r1 - Virtual Integration Process - Savi Version 1.0D (industry).

- Aerospace Vehicle Systems Institute (aerospace engineering)
  Redman, David A.
  General Electric Aircraft Engines, $33,458
  AFE 62r1 - Virtual Integration Process - Savi Version 1.0D (industry).

- Aerospace Vehicle Systems Institute (aerospace engineering)
  Redman, David A.
  Honeywell, $33,458
  AFE 62r1 - Virtual Integration Process - Savi Version 1.0D (industry).

- Aerospace Vehicle Systems Institute (aerospace engineering)
  Redman, David A.
  Rockwell Collins, Inc., $33,458
  AFE 62r1 - Virtual Integration Process - Savi Version 1.0D (industry).

- Aerospace Vehicle Systems Institute (aerospace engineering)
  Redman, David A.
  Sikorsky, $33,458
  AFE 62r1 - Virtual Integration Process - Savi Version 1.0D (industry).

- Aerospace Vehicle Systems Institute (aerospace engineering)
  Redman, David A.
  The Boeing Company, $8,418
  AVSI AFE 77s1: Shape Memory Alloy Test Methods.

- Aerospace Vehicle Systems Institute (aerospace engineering)
  Redman, David A.
  Embraer, $8,418
  AVSI AFE 77s1: Shape Memory Alloy Test Methods.

- Aerospace Vehicle Systems Institute (aerospace engineering)
  Redman, David A.
  Rolls-Royce Canada Limited, $8,418
  AVSI AFE 77s1: Shape Memory Alloy Test Methods.

- Biology (biology)
  Smotherman, Michael S.
  National Science Foundation, $660,000
  Networking Strategies Used By Bats To Improve Social Sonar.

- Materials Science And Engineering (Materials Science And Engineering)
  Shamberger, Patrick J.
  Purdue University, $165,000
  Rechargeable Ammonia Salts for Highly Transient Thermal Management.

- Mechanical Engineering (mechanical engineering)
  Petersen, Eric L.
  Department of Defense - BMDO, $616,516
  Ignition of Composite Propellants with Advanced Additives.

- Mechanical Engineering (Mechanical Engineering)
  Allaire, Douglas L.
  Massachusetts Institute Of Technology, $300,000
  Dynamic Data Driven Methods for Self-aware Aerospace Vehicles.

- Mechanical Engineering (Mechanical Engineering)
  Muliana, Hanifah
  DOD-Air Force-Office Scientific Research, $599,629
  Multi-field Compliant Mechanisms of Adaptive Foldable Structures.

- Mechanical Engineering (Mechanical Engineering)
  Rathinam, Sivakumar
  National Science Foundation, $241,292
  RI: Small: Collaborative Research: Cooperative Autonomous Vehicle Routing Algorithms With Resource and Localization Constraints.

- Physics and Astronomy (astronomy)
  Depoy, Darren L.
  GMTO - Giant Magellan Telescope Organization, $285,488
  GMACS Conceptual Design (Multi-object Astronomical and Cosmological Spectograph).

Texas A&M University-Corpus Christi (TAMU-Corpus Christi)

Texas A&M University-Corpus Christi listed two active awards in aerospace technology for FY 2017. The total award amount was $1,108,452. During that year, TAMU-Corpus Christi's research expenditures for awards in aerospace technology were $625.795. Information for the identified active awards is provided.

- Armstrong Research Center (aerospace)
  Hendrix, Jerry
  National Aeronautics and Space Administration (NASA), NND15SA85B, $1,073,452
  UAS Traffic Management and Live Virtual and Constructive Architecture Development.

- Unmanned Aircraft System (UAS) Integration Office (aerospace)
  Hendrix, Jerry
  Federal Aviation Administration (FAA), DTACT15A-0004, $35,000
  UAS Detections in the NAS.

Texas Tech University (Texas Tech)

Texas Tech University listed 14 active awards in aerospace technology for FY 2017. The total award amount was $3,755,437. During that year, Texas Tech's research expenditures for awards in aerospace technology were $510,790. Information for the identified active awards is provided.

- Chemical Engineering (chemical engineering)
  Vanapalli, Siva A.
  NASA Shared Services Center (NXX15AL16G), $452,623
  Determining Muscle Strength in Space-flown Caenorhabditis Elegans.

- Chemistry (chemistry)
  Poirier, Lionel W.
  University of Maryland College Park (Z7680601) / NASA Johnson Space Center, $283,535
  Origins of Sulfur Mass-independent Fractionation: A Chemical Physics.

- Civil and Environmental Engineering (civil engineering)
  Jackson, William A.
  Paragon Space Development Corporation (S09600008) / NASA-Goddard Space Flight Center, $43,000
  Sustainable Wastewater Treatment for Long-term Space Habitation Using Coupled Biological and Ionomer Technologies.

- Civil and Environmental Engineering (civil engineering)
  Jackson, William A.
  NASA Shared Services Center (NNX16AP45H), $28,917
  Transformation of Chlorate in Martian Soils: Implications of Chlorate Stable Isotope Composition in Earth Mars Analogs.

- Geosciences (geosciences)
  Nagihara, Seiichi
  NASA Shared Services Center (NNX15AI82G), $266,561
  Processing an Addition of ALSEP High-order Data Products and Metadata to the Planetary Data System.

- Geosciences (geosciences)
  Nagihara, Seiichi
  National Aeronautics and Space Administration (80NSSC17K0120), $635,543
  Heat Flow Probe for Robotic Landing Missions to Europa and the Other Icy Moons.

- Mechanical Engineering (mechanical engineering)
  Kim, Jungkyu
  Georgia Tech Research Corp (RG016-G1) / NASA, $149,605
  The Small Bodies/Icy Moon Penetrator Organic Analyzer (SB/IM-POA): Early TRL Development.

- Mechanical Engineering (mechanical engineering)
  Coverstone, Victoria L.
  Northwestern University (SP003801-PROJ0011716) / NASA, $242,000
  Enhancements to a NIAC funded project, APERTURE, to Better Enable Space Deployable Membrane Mirrors.

- Mechanical Engineering (mechanical engineering)
  Coverstone, Victoria L.
  National Institute of Aerospace (AGREEMENT 4.14.17), $6,000
  Earth to Lunar Interchangeable Transportation Environment (ELITE).

- Mechanical Engineering (mechanical engineering)
  Idesman, Alexander V.
  DOD - Office of Naval Research (FA9550-16-1-0177), $326,157
  An Advanced Numerical Approach for Wave Propagation Problems in Isotropic and Anisotropic Inhomogeneous Materials. Application to High-frequency Pulse Propagation in the Hopkinson Pressure Bar.

- Physics (physics)
  Corsi, Alessandra
  NASA Shared Services Center (NNX17AF93G), $39,000
  Joint IPTF-VLA-swift Follow-up of Aligo Events.

- VP Research
  Moore, Alan L.
  DOD Army (MOOREIPA), $584,012
  IPA for A. Leigh Moore.

- Water Resources Center (engineering)
  Morse, Audra N.
  NASA Shared Services Center (NNX13AL52H), $230,000
  NASA FELLOWSHIP: Advancement of Membrane-aerated Biological Reactors via Post-inoculation Hibernation and Novel Membrane Fabrication for Enhanced Mission Sustainability (Dylan Christenson).

- Water Resources Center (engineering)
  Jackson, William A.
  NASA Shared Services Center (NNX15AC87A), $468,484
  Biological Treatment for Wastewater Stabilization in Support of Manned Space Exploration: Further Research Needs.

The University of Texas at Arlington (UT-Arlington)

The University of Texas at Arlington listed 43 active awards in aerospace technology for FY 2017. The total award amount was $17,436,098. During that year, UT-Arlington's research expenditures for awards in aerospace technology were $9,059,510. Information for the identified active awards is provided.

- Department of Bioengineering (bioengineering)
  Mohanty, Samarendra
  Cancer Prevention & Research Institute of Texas (RP150711), $199,999
  Biomechanical Profiling of Migrating Brain Cancer Genotypes in Tightly-Confined Space for Drug Screening.

- Department of Bioengineering (bioengineering)
  Tang, Liping
  Department of Defense (W81W81XWH-14-1-0459), $1,044,800
  Treating Post-traumatic Osteoarthritis by Promoting Autologous Stem Cell-mediated Cartilage Regeneration.

- Department of Bioengineering (bioengineering)
  Tang, Liping
  Department of Defense (W81XWH-14-1-0289), $553,650
  Tissue-engineered Constructs for Investigating the Effect of Lymph Node Micorenvinronment on Prostate Cancer Metastasis.

- Department of Chemistry and Biochemistry (biochemistry)
  Dasgupta, Purnendu
  National Aeronautics & Space Administration - NASA (NNX12AM76G), $983,311
  Detection of Amino Acids/Organics on an Open-tubular Ion/Liquid Chromatograph.

- Department of Electrical Engineering (electrical engineering)
  Zhou, Weidong
  Air Force Office of Scientific Research (AFOSR) (FA9550-16-0010), $935,952
  Single Sheet Lasers for Attojoule Optoelectronics.

- Department of Electrical Engineering (electrical engineering)
  Schizas, Ioannis
  Air Force Office of Scientific Research (FA9550-15-0103), $215,000
  A Distributed Dynamic Data Driven (DDDAS) Framework for Multi-threat Tracking.

- Department of Electrical Engineering (electrical engineering)
  Wetz, David
  Air Force Research Laboratory (AFRL) (FA9451-15-1-0077), $99,650
  Energy Storage Devices as a Prime Power Supplies for Low Energy, High Voltage Marx Generators.

- Department of Electrical Engineering (electrical engineering)
  Lee, Wei-Jen
  Boeing Company at Seattle (1366017), $29,300
  Preliminary Comparison between 50/60Hz and 400Hz Arc Flash Phenomena.

- Department of Electrical Engineering (electrical engineering)
  Davoudi, Ali
  Department of Defense (DoD) (N0014-16-1-3180), $220,000
  Testbed Acquisition for Resilient Self-organizing Microgrids.

- Department of Electrical Engineering (electrical engineering)
  Davoudi, Ali
  Department of Defense (DoD) (W911NF-16-1-0534), $300,000
  Realizing Resilient Self-organizing Microgrids.

- Department of Electrical Engineering (electrical engineering)
  Wan, Yan
  National Science Foundation (NSF) (1714519), $322,924
  CAREER: Co-Design of Networking and Decentralized Control to Enable Aerial Networks in an Uncertain Airspace.

- Department of Materials Science & Engineering (materials science)
  Aswath, Pranesh
  Boeing (98536), $130,123
  A Combinations Approach to Design of an Aerospace Grease.

- Department of Physics (physics)
  Deng, Yue
  Air Force Office of Scientific Research (AFOSR) (FA9550-16-0059), $248,665
  Geomagnetic Energy Distribution and Influence on the Ionosphere/Thermosphere in the Polar Region.

- Department of Physics (physics)
  Deng, Yue
  Air Force Office of Scientific Research (AFOSR) (FA9550-16-1-0364), $3,785,050
  Next Generation Advances in Ionosphere Thermosphere Coupling at Multiple Scales for Environmental Specification and Prediction.

- Department of Physics (physics)
  Liu, Ping
  Department of Defense (DoD) (W911NF-16-1-0164), $160,000
  Acquisition of a MPMS EverCool System for Characterization of Nanocomposite Magnets.

- Department of Physics (physics)
  Deng, Yue
  National Aeronautics & Space Administration - NASA (NNX13AD64G), $407,668
  The Altitudinal Distribution of Magnetospheric Energy Input and its Influence on the Upper Atmosphere.

- Department of Physics (physics)
  Deng, Yue
  National Aeronautics & Space Administration - NASA (NNX14AD46G), $534,124
  Vertical Wind: Possible Forcing and Influence.

- Department of Physics (physics)
  Lopez, Ramon
  National Aeronautics & Space Administration (NASA) (NNX15AJ03G), $502,956
  The Role of Solar Wind Fluctuations in Solar Wind-Geospace Coupling.

- Industrial, Manufacturing, & Systems Engineering (manufacturing)
  Componation, Paul
  National Science Foundation (NSF) (DUE-1650172), $75,421
  NSF Workshop on Advanced Manufacturing Research Needs for the Aerospace Industry.

- LINK Research Lab
  Siemens, George
  The Boeing Company (NS259417), $30,000
  ALTI MOOC Analysis.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Huang, Haiying
  Air Force Office of Scientific Research (FA9550-14-1-0319), $451,781
  An Integrated Experimental-Numerical Framework for Study of Early Fatigue Damage.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Subbarao, Kamesh
  Air Force Research Laboratory (AFRL) (FA9453-16-1-0058), $201,147
  Cooperative Control of Multiple Spacecraft Subject to Measurement Uncertainties and Time Delays.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Dancila, Dragos
  Arlington Chamber of Commerce Foundation, Inc. (0516WPB000), $36,000
  Unmanned Aircraft Systems Consortium.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Makeev, Andrew
  Bell Helicopter Textron, $200,000
  Innovative Tools for Strutural Diagnostic of Rotorcraft Composites.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Makeev, Andrew
  Boeing Research & Technology (1379012), $292,014
  Material Properties Testing to Generate Interlaminar Tensile Allowables for Tape Composites.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Makeev, Andrew
  Boeing Research & Technology (1404578), $440,000
  Advanced Inspection and Analysis of Common Feature Test Component for Composite Airframe Life Extension (CALE) Program.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Kim, Daejong
  Brayton Energy, LLC (OSD13-PR5-1), $63,184
  Improved Turbo/Supercharger for UAV Applications.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Makeev, Andrew
  Georgia Institute of Technology (RH541-G2), $193,426
  Novel High-performing Materials through Integration of Process and Structure Modeling.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Makeev, Andrew
  Georgia Institute of Technology (W911W6-11-2-0010), $506,928
  Affordable Material Qualification for Composite Rotorcraft Structures.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Jain, Ankur
  Inventek Corp, $21,810
  Rolled-ribbon Thermal Model Development.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Makeev, Andrew
  Lockheed Martin Corporation (PO XS305300E), $265,000
  Data Requirements for Progressive Damage Analysis (PDA) of Composite Structures.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Dennis, Brian
  National Aeronautics & Space Administration - NASA (NNL15AA08C), $513,356
  Microfluidic Electrochemical Reactor for Oxygen Recovery from Carbon Dioxide.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Subbarao, Kamesh
  National Aeronautics & Space Administration - NASA (NNX14AO82H), $67,000
  Unbiased Observation of Titan's Dynamic Ionosphere Using a Constellation of Miniature Satellites.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Makeev, Andrew
  Numerical Technology Company LLC (NTC2016-0704), $46,728
  Certification Modeling for Composites with Voids and Wrinkles for Engines and Structures.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Maddalena, Luca
  Office of Naval Research (ONR) (N00014-15-1-2942), $1,010,000
  National Hypersonic Research Facility for High-temperature Materials Development and Characterization.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Makeev, Andrew
  The Boeing Company (1189751), $64,500
  Characterization of Composite Damage Initiation and Propagation.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Makeev, Andrew
  The Boeing Company (1248395), $124,995
  High Fidelity Experimental and Analytical Characterization of Input Properties for Progressive Damage Analysis Methods.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Makeev, Andrew
  The Boeing Company (PO 1161311), $385,200
  Damage Tolerance Analysis and Test.

- Mechanical & Aerospace Engineering (mechanical and aerospace engineering)
  Subbarao, Kamesh
  University of Texas at San Antonio (1000001360), $4,000
  Developing Nonlinear Guidance, Control, and Estimation Laws for cCooperative UAVs to Detect and Track Centroid and Interface of The Plume.

- Texas Manufacturing Assistance Center (mechanical and aerospace engineering)
  Sessumes, Mark
  Aeroblaze Laboratories, $1,000
  Development and Assistance Starting up a Test Lab to Burn Aerospace Materials.

- UT Arlington Research Institute (materials science)
  Iarve, Endel
  Air Force Research Laboratory (AFRL), $550,000
  Post-Buckling Simulation of Laminated Composites by Using Discrete Damage Modeling.

- UT Arlington Research Institute (materials science)
  Iarve, Endel
  National Aeronautics & Space Administration (NASA) (NNL16AA02C), $1,047,436
  Development of Fatigue Life Prediction of Rotor Spars by Using Discrete Damage Modeling.

- UT Arlington
  Lu, Frank
  National Aeronautics & Space Administration - NASA (NNX13AR81H), $172000
  One Stop Shopping Initiative (OSSI).

The University of Texas at Austin (UT-Austin)

The University of Texas at Austin listed 55 active awards in aerospace technology for FY 2017. The total award amount was $47,662,583. During that year, UT-Austin's research expenditures for awards in aerospace technology were $9,932,612. Information for the identified active awards is provided.

- Center for Aeromechanics Research (engineering)
  Akella, Maruthi R.
  NASA, NNX14AK46A, $300,000
  Onboard Autonomy, Coordination, and Coverage Algorithms for Spacecraft Swarms.

- Center for Aeromechanics Research (engineering)
  Bakolas, Efstathios
  NSF, 1562339, $273,835
  Optimal Path Planning Among Mobile Sources of Threat in Complex Environments.

- Center for Aeromechanics Research (engineering)
  Bakolas, Efstathios
  Honeywell International Inc, UTA16-000224, PO 3501988081E, $170,000
  Autonomous, Fault-tolerant Spacecraft Guidance and Control.

- Center for Aeromechanics Research (engineering)
  Clemens, Noel T.
  Strategic Environmental Research and Development Program, W912HQ-11-C-0035, $1,969,166
  Development of Demonstrably Predictive Models for Emissions from Alternative Fuels Based Aircraft Engines.

- Center for Aeromechanics Research (engineering)
  Clemens, Noel T.
  Department of Energy, DE-FE0012053, $500,000
  Predictive LES modeling and Validation of High-pressure Turbulent Flames and Flashback in Hydrogen-enriched Gas-turbine Combustion.

- Center for Aeromechanics Research (engineering)
  Clemens, Noel T.
  Florida State University, R01748, $481,902
  A Comprehensive Study of 3-D Shock/Turbulent Boundary Layer Interaction Physics: Flow Morphology and System Dynamics.

- Center for Aeromechanics Research (engineering)
  Clemens, Noel T.
  NSF, 1511025, $166,000
  UNS: Collaborative Research: Experiments and Theory of Nonequilibrium Processes in Turbulent Combustion.

- Center for Aeromechanics Research (engineering)
  Clemens, Noel T.
  Spectral Energies, LLC, SB1201-001-2, $250,274
  Towards Closed-Loop Control of Unstart in Scramjets: Development of Tools for Optimal Design of Sensors.

- Center for Aeromechanics Research (engineering)
  Clemens, Noel T.
  University of Michigan, 3003932306, $159,125
  Collaborative Research: Experiments and Theory of Nonequilibrium Processes in Turbulent Combustion.

- Center for Aeromechanics Research (engineering)
  Clemens, Noel T.
  Nanohmics Inc, UTA16-000773, $41,850
  Demonstration of Plenoptic Imaging in UT Windtunnel.

- Center for Aeromechanics Research (engineering)
  Goldstein, David B.
  NASA, NNX11AD88G, $445,000
  Simulation of Gas Dynamics in the Pluto-Charon System.

- Center for Aeromechanics Research (engineering)
  Goldstein, David B.
  NASA, NNX13AH12A, $316,711
  Understanding the LCROSS Impact Event and Characterizing the Nature of the Permanently Shadowed Region on the Moon.

- Center for Aeromechanics Research (engineering)
  Goldstein, David B.
  DoD-Air Force, FA9550-15-1-0345, $535,774
  New Approaches to Understanding Roughness-induced Transition.

- Center for Aeromechanics Research (engineering)
  Goldstein, David B.
  NASA, NNX16AI52G, $276,854
  Using Detailed Physical Modeling and Bayesian Analysis to Interpret the Enceladus Plume Origin.

- Center for Aeromechanics Research (engineering)
  Raja, L L.
  Stanford Univ, 60300258-107109-A, $372,000
  Computational Modeling of Ultra-high Speed Neutral Plasma Jets and their Interactions with Materials Generating Extreme Conditions.

- Center for Aeromechanics Research (engineering)
  Raja, L L.
  DoD-Army, W911NF-14-1-0226, $384,295
  RailPAc : A Rail Electrode Based Plasma Actuator for High-authority Aerodynamic Flow Control.

- Center for Aeromechanics Research (engineering)
  Raja, L L.
  Stanford Univ, 60803373-114411, $1205,740
  Plasma-based Reconfigurable Photonic Crystals and Metamaterials.

- Center for Aeromechanics Research (engineering)
  Raja, L L.
  Stanford Univ, 61394691-125118, $220,000
  Computational Modeling of Ultra-high Speed Neutral Plasma Jets and their Interactions with Materials Generating Extreme Conditions.

- Center for Aeromechanics Research (engineering)
  Sentis, Luis
  Apptronik Systems Inc, UT-001-2017, $450,011
  Exoskeleton with Liquid Cooled Viscoelastic Actuators for Carrying Heavy Loads for Extended Periods of Time.

- Center for Mechanics of Solids, Structures, and Materials (engineering)
  Sirohi, Jayant
  University of Maryland, Z845803, $714,600
  Multi-functional Flaps for High-efficiency High-speed Coaxial Compounds.

- Center for Mechanics of Solids, Structures, and Materials (engineering)
  Sirohi, Jayant
  Dod-Army, W911NF-13-1-0463, $285,644
  Research Area 1: Mechanical Sciences: Detailed Measurements of the Aeroelastic Response of a Rigid Coaxial Rotor in Hover.

- Center for Mechanics of Solids, Structures, and Materials (engineering)
  Sirohi, Jayant
  New Mexico State University, Q01586; 830832-1, $398,972
  Comprehensive Reduced-order Modeling and Validation for Loads and Flight Stability of a Flapping Wing.

- Center for Aeromechanics Research (engineering)
  Trafton, Laurence M
  NASA, NNX14AO39G, $427,390
  An Investigation into the Unsteadiness of Tvashtar's Plume.

- Center for Aeromechanics Research (engineering)
  Varghese, Philip L.
  DoD-Air Force, FA9550-12-1-0460, $1,367,367
  The Multiscale Interaction of Vibrational Energy Transfer and Turbulent Combustion in Supersonic Flows.

- Center for Aeromechanics Research (engineering)
  Varghese, Philip L.
  NASA, NNX15AH17A, $500,000
  Development of an Inductively Coupled Plasma Torch Facility for Research on High Temperature Materials.

- Center for Space Research (engineering)
  Bettadpur, Srinivas V.
  California Institute of Technology Jet Propulsion Laboratory, 1478584, $8,157,897
  GRACE Follow-on Mission.

- Center for Space Research (engineering)
  Bettadpur, Srinivas V.
  NASA, NNX15AD24G, $204,035
  Integrating GRACE and GRACE Follow-on Data into Flood and Drought Forecasts for the Continental U.S..

- Center for Space Research (engineering)
  Bettadpur, Srinivas V.
  Geooptics Inc, UTA16-001038,EGO-XO-02, $262,006
  Science and Mission Architecture Studies for EGO-XO.

- Center for Space Research (engineering)
  Bettadpur, Srinivas V.
  Midwestern State University, UTA16-000053_AMD NO. 1, $1,350
  TexasView Research and Education Grant: Undergraduate research.

- Center for Space Research (engineering)
  Bettadpur, Srinivas V.
  California Institute of Technology Jet Propulsion Laboratory, 1561873, $50,000
  Gravity Recovery with Gravity Gradient Measurement Data.

- Center for Space Research (engineering)
  Bettadpur, Srinivas V.
  NASA, NNX17AG97G, $453,256
  Framework for Multi-technique, mm-Metrology at the McDonald Geodetic Observatory (MGO).

- Center for Space Research (engineering)
  Chen, Jianli
  NASA, NNX12AJ97G, $706,347
  Improved Estimation of Mass Variations Within the Earth Climate System from GRACE.

- Center for Space Research (engineering)
  Chen, Jianli
  NASA, NNX12AM86G, $643,385
  Long-term Variability of Earth Rotation, Low-degree Gravity,and Climate Change.

- Center for Space Research (engineering)
  Chen, Jianli
  NASA, NNX17AG96G, $191,682
  Geophysical Interpretations of Earth Rotation and Low-degree Gravitational Change and Implications on Core-Mantle Coupling.

- Center for Space Research (engineering)
  Cheng, Minkang
  NASA, NNX16AF20G, S02, $311,242
  Augmenting GRACE and GRACE Follow-on with Long Wavelength Variations of the Earth's Gravity Field from Satellite Laser Ranging Data.

- Center for Space Research (engineering)
  Davis, Edgar S.
  California Institute of Technology Jet Propulsion Laboratory, 1556838, $60,000
  EVI-3 Proposal.

- Center for Space Research (engineering)
  Davis, Edgar S.
  California Institute of Technology Jet Propulsion Laboratory, 1543389, $105,600
  MISR Optics Ghost Model.

- Center for Space Research (engineering)
  Davis, Edgar S.
  California Institute of Technology Jet Propulsion Laboratory, 1551021, $12,354
  APD/PEM Imaging Polarimeter Proof-of-Concept.

- Center for Space Research (engineering)
  Davis, Edgar S.
  California Institute of Technology Jet Propulsion Laboratory, 1579246, $48,000
  Engineering Support for Airborne Instrument Technology.

- Center for Space Research (engineering)
  Davis, Edgar S.
  California Institute of Technology Jet Propulsion Laboratory, 1569380, $177,937
  MAIA Systems Engineering Support.

- Center for Space Research (engineering)
  Jones, Brandon A.
  Orbit Logic Inc, FA9451-16-C-0405UT, UTA16-000246, $126,799
  Space Object Sensor Tasking Using Finite Set Statistics.

- Center for Space Research (engineering)
  Jones, Brandon A.
  Orbit Logic Inc, UTA16-001176, $173,972
  Optimal SSN Tasking to Enhance Real-time SSA.

- Center for Space Research (engineering)
  Ries, John C.
  California Institute of Technology Jet Propulsion Laboratory, 1479726, $501,782
  Geodetic Contributions to Data Records of Earth System Mass Flux.

- Center for Space Research (engineering)
  Russell, Ryan P.
  Emergent Space Technologies, Inc, UTA14-001102, $213,795
  Phase II Holistic RSO Awareness Algorithms.

- Center for Space Research (engineering)
  Russell, Ryan P.
  Analytical Mechanics Associates, Inc., C1292.001.P0319, $36,000
  Robust Trajectory Design in Highly Perturbed Environments Leveraging Continuation Methods.

- Center for Space Research (engineering)
  Save, Himanshu
  University of South Florida, 2500-1662-00-A, $160,596
  Quantifying Decadal Transport Variations of the Antarctic Circumpolar Current & Atlantic Meridional Overturning Circulation using GRACE and GRACE Follow-on Observations.

- Center for Space Research (engineering)
  Shelus, Peter J.
  NASA, NNG12VI01C, $3,701,373
  Satellite Laser Ranging Support Services for the Ground Network Project Office (MLRS).

- Center for Space Research (engineering)
  Shelus, Peter J.
  NASA, NNG17VI05C, $1,124,463
  McDonald Space Geodesy Services and Data Analysis.

- Center for Space Research (engineering)
  Tapley, Byron D
  NASA, NNL14AA00C, $14,216,598
  GRACE Extended Mission.

- Center for Space Research (engineering)
  Urban, Timothy J.
  NASA, NNX13AB40G, $2,850,610
  ICESat-2 Precision Orbit and Pointing Determination (POD/PPD).

- Center for Space Research (engineering)
  Wells, Gordon L.
  Texas Department of Public Safety, 201601650-001, $39,165
  March 2016 Texas Severe Weather Event (DR 4266).

- Center for Space Research (engineering)
  Wells, Gordon L.
  Texas Department of Public Safety, 00138, $15,160
  April 2016 Texas Severe Weather Event (DR-4269).

- Center for Space Research (engineering)
  Wells, Gordon L.
  Texas Department of Public Safety, 00072, $42,172
  May-June 2016 Texas Severe Weather Event - DR4272.

- Center for Space Research (engineering)
  Zanetti, Renato
  NASA, NNX17AI35A, S000002, $239,600
  Autonomous Onboard Space Navigation in the Absence of GPS.

- Institute for Computational Engineering and Sciences (applied research)
  Topcu, Ufuk
  DoD-ARPA, D14AP00084, $622,898
  Density Control: A Decentralized Control Paradigm Enabling Coordinated Autonomous Vehicle Swarms.

The University of Texas at Dallas (UT-Dallas)

The University of Texas at Dallas listed 12 active awards in aerospace technology for FY 2017. The total award amount was $5,676,202. During that year, UT-Dallas' research expenditures for awards in aerospace technology were $3,354,792. Information for the identified active awards is provided.

- Mechanical Engineering (mechanical engineering)
  Qian, Dong
  Engility, US Air Force Research Lab, GS04T09DBC0017/2015-S-EGL-0127, $391,413
  Advancing Multi-temporal Scale Method for Structural Response and Life Predictions of Aerospace Structures under Combined Extreme Environment.

- Physics (physics)
  King, Lindsay Jane
  Space Telescope Science Institute, HST-GO-12871.01-A, $54,078
  When Giants Collide: Mapping the Mass in the Cluster Merger Abell 2146.

- Space Sciences (space sciences)
  Heelis, Roderick A
  NASA, NNX14AF33G, $373,176
  Spatial and Temporal Characterization of Convection and Precipitation Boundaries in the Auroral Region using DMSP Multi-point Measurements.

- Space Sciences (space sciences)
  Coley, William R
  Natl Science Foundation, 1663763, $119,551
  RAPID: Improving DMSP SSIES-3 Data to Level-2 Quality.

- Space Sciences (space sciences)
  Stoneback, Russell A
  Natl Science Foundation, AGS-1259508, $314609
  Collaborative Research: Inferring High Latitude Convection Patterns Using SuperDARN, DMSP and ACE.

- Space Sciences (space sciences)
  Stoneback, Russell A
  Atmospheric & Space Tech Res Assoc., LLC, NASA, NNX14AP88G, $300,000
  Scintillation Observations and Response of The Ionosphere to Electrodynamics (SORTIE).

- Space Sciences (space sciences)
  Heelis, Roderick A
  NASA, NNX15AT31G, $945,000
  The Coupled Ion Neutral Dynamics Investigation (CINDI) Extended Mission (2016-18).

- Space Sciences (space sciences)
  Heelis, Roderick A
  The University of Texas at Arlington, US Air Force Office of Sci Res, FA9550-16-0364, $827,541
  Next Generation Advances in Ionosphere Thermosphere Coupling at Multiple Scales for Environmental Specification and Prediction.

- Space Sciences (space sciences)
  Chen, Lunjin
  NASA, NNX15AF55G, $391,859
  Quantify the Contribution of Electromagnetic Ion Cyclotron Waves in the Inner Magnetosphere to Radiation Belt Electron Loss.

- Space Sciences (space sciences)
  Anderson, Phillip Charles
  Aerospace Corporation, NASA, NNX16AH46G, $149,865
  High Resolution Modeling of the Cusp Region Density Anomaly.

- Space Sciences, (space sciences)
  Heelis, Roderick A
  University Corp for Atmospheric Research, Natl Science Foundation, W14-16198/1033112, $1,068,000
  COSMIC-2 Spacecraft IVM Support Project.

- Space Sciences (space sciences)
  Chen, Lunjin
  NASA, NNX17AI52G, $741,110
  Investigating Magnetosonic Wave Excitation in the Earth's Magnetosphere.

The University of Texas at El Paso (UT-El Paso)

The University of Texas at El Paso listed 52 active awards in aerospace technology for FY 2017. The total award amount was $20,054,179. During that year, UT-El Paso's research expenditures for awards in aerospace technology were $3,719,776. Information for the identified active awards is provided.

- Center for the Advancement of Space Safety and Mission Assurance Research (CASSMAR) (geology)
  Cone, Darren M.
  Jacobs Engineering; EN41520TMS, $169,936
  Jacobs-NASA JSC Planetary Geologist (FY17).

- Center for the Advancement of Space Safety and Mission Assurance Research (CASSMAR) (geology/materials science)
  Cone, Darren M.
  Jacobs Engineering; EN41520TMS, $426,200
  Jacobs-NASA JSC Astromaterials Research Scientist (FY17).

- Center for the Advancement of Space Safety and Mission Assurance Research (CASSMAR) (interdisciplinary)
  Olivas, John D. and Cone, Darren M.
  Jacobs Engineering; EN41520TMS, $160,475
  Jacobs-NASA JSC Engineering, Technology and Science (JETS) Subcontract (FY15-20).

- Center for the Advancement of Space Safety and Mission Assurance Research (CASSMAR) (materials science/physics)
  Cone, Darren M.
  Jacobs Engineering; EN41520TMS, $542,592
  Jacobs-NASA JSC Hypervelocity Impact Research Scientist (FY17).

- Center for the Advancement of Space Safety and Mission Assurance Research (CASSMAR) (materials science/physics)
  Cone, Darren M.
  Jacobs Engineering; S24622 / 8, $70,264
  Jacobs-NASA JSC Hypervelocity Impact (FY17).

- Center for the Advancement of Space Safety and Mission Assurance Research (CASSMAR) (materials science/physics)
  Cone, Darren M.
  Jacobs Engineering; EN41520TMS, $26,342
  Jacobs-NASA JSC Orbital Debris (FY17).

- Center for the Advancement of Space Safety and Mission Assurance Research (CASSMAR) (physics/astronomy)
  Cone, Darren M.
  Jacobs Engineering; EN41520TMS, $490,500
  Jacobs-NASA JSC Orbital Debris Astronomer (FY17).

- Center for the Advancement of Space Safety and Mission Assurance Research (CASSMAR) (physics/astronomy)
  Cone, Darren M.
  Jacobs Engineering; EN41520TMS, $444,132
  Jacobs-NASA JSC Orbital Debris Astronomer (FY17).

- Center for the Advancement of Space Safety and Mission Assurance Research (CASSMAR) (physics/computational sciences/applied mathematics)
  Cone, Darren M.
  Jacobs Engineering; EN41520TMS, $529,185
  Jacobs-NASA JSC Orbital Debris Computational Scientist (FY17).

- Center for Space Exploration Technology Research (engineering)
  Chessa, John F.
  Kyushu Institute Of Technology; NAID-OR20150202, $28,896
  WIRES Centennial Ground Support Equipment (GSE) Development.

- Center for Space Exploration Technology Research (engineering)
  Choudhuri, Ahsan
  University Research Foundation,Inc. Madl; PO 11647, $121,572
  Development of 20N Class ADN Thrusters for Fast-response Time DAC Propulsion Systems.

- Center for Space Exploration Technology Research (engineering)
  Choudhuri, Ahsan
  US Department Of Energy; DE-FE0026330, $250,000
  Metal 3D Printing of Low-NOX Fuel Injectors with Integra.

- Center for Space Exploration Technology Research (engineering)
  Love, Norman
  Missile Defense Agency; HQ0147-15-C-6001, $200,107
  HAN Based Advanced Hybrid Rocket Motor Technologies.

- Center for Space Exploration Technology Research (engineering)
  Prabhakar ,Pavana
  Defense Intelligence Agency; W911NF-15-1-0430, $594,000
  An Integrated Experimental and Computational Investigation.

- Center for Space Exploration Technology Research (engineering)
  Shafirovich, Evgeny
  US Department Of Energy; DE-FE0026333, $250,000
  Combustion Synthesis of Boride-Based Electrode Materials.

- Center for Space Exploration Technology Research (engineering)
  Shafirovich, Evgeny
  National Aeronautics And Space Admin; NNX16AT16H, $100,000
  Combustion Joining of Regolith Tiles for the In-Situ Fab.

- Center for Space Exploration Technology Research (engineering)
  Shafirovich, Evgeny
  National Science Foundation; 1658628, $249,965
  IRES: US-Canada Collaborative Research on Combustion.

- Center for Space Exploration Technology Research (engineering)
  Shafirovich,Evgeny
  Jet Propulsion Laboratory - Caltech; 1575045, $15,000
  High Energy Chemical Reactions for Potential Space Power.

- Center for Space Exploration Technology Research (engineering)
  Shafirovich,Evgeny
  National Aeronautics And Space Admin; 80NSSC17K0161, $132,052
  Combustion Synthesis of Thermoelectric Materials.

- Center for Space Exploration Technology Research (engineering)
  Lin, Yirong
  US Department Of Energy; DE-FE0027502, $250,000
  Additive Manufacturing of Energy Harvesting Material System for Active Wireless MEMS Sensors.

- Computer Science (engineering)
  Kiekintveld, Christopher D.
  National Science Foundation; IIS-1253950, $488,288
  Robust Strategic Reasoning For Multi-agent Systems.

- Computer Science (engineering)
  Teller, Patricia
  Army Research Laboratory; 60300261-107307-B, $300,000
  Towards Enabling Battlefield Decision-making.

- Computer Science (engineering)
  Teller, Patricia
  Army Research Laboratory; 60300261-107307-B, $225,000
  Towards Enabling Battlefield Decision-making; Sub B.

- Electrical & Computer Engineering (engineering)
  Rumpf, Raymond C.
  Lockheed Martin Aeronautics; XS3610790E, $79,386
  Modulated Reflective Metasurface.

- Electrical & Computer Engineering (engineering)
  Rumpf, Raymond C.
  Air Force Research Laboratory; FA8650-17-C-1011, $199,965
  3D Printed Microwave Circuits and Structures.

- Electrical & Computer Engineering (engineering)
  Velez-Reyes, Miguel
  City College Of New York; 49312-B, $243,760
  Center for Earth System Sciences and Remote Sensing Technologies.

- FAST (engineering)
  Carrasco, Cesar J.
  NASA; 122578, $314,170
  Solar Probe Light Phase C/D - Micrometroroid Risk Analysis.

- FAST (engineering)
  Carrasco, Cesar J.
  NASA; 41N0919033, $825,781
  LEIDOS Storefront.

- FAST (engineering)
  Carrasco, Cesar J.
  NASA; 4102574187, $110,189
  Facilities Development Operations Contract (FDOC).

- Industrial, Manufacturing & System Engineering (engineering)
  Tseng, Tzu-Liang
  Lockheed Martin Aeronautics; 6574009892, $93,049
  Robotic Crawler Integrated with Augmented Reality (AR).

- Mechanical Engineering (engineering)
  Kumar, Vinod
  Air Force Office Of Scientific Research; FA9550-17-1-0253, $100,053
  Remote Sensing and Imaging Physics.

- Mechanical Engineering (engineering)
  Ramana, Chintalapalle V.
  Clarkson Aerospace; UTEP RAM 16-S7700-03-C2, $298,499
  Coatings Based On Nitride And Oxynitride Nanostructures.

- Mechanical Engineering (engineering)
  Ramana, Chintalapalle V.
  National Science Foundation; ECCS-1509653, $367,474
  Refractory Metal Doped Gallium Oxide Sensors for Extreme.

- Mechanical Engineering (engineering)
  Ramana, Chintalapalle V.
  Washington State University; 125794_G003504, $189,999
  AOI-1: Low-Cost, Efficient and Durable High Temperature.

- Mechanical Engineering (engineering)
  Choudhuri, Ahsan
  National Aeronautics And Space Admin; NNX15AQ04A, $5256,058
  MIRO Center for Space Exploration and Technology Research.

- Metallurgical & Materials Engineering (engineering)
  Misra, Devesh
  Arcelormittal Global R&D; NAID-OR20150335, $221,112
  Streamlining Alloy Design.

- Metallurgical & Materials Engineering (engineering)
  Misra, Devesh
  Army Research Laboratory; W911NF-16-1-0475, $494,532
  Advanced Thermal Analysis and Imaging System.

- MRTI (materials science)
  Chianelli, Russell R
  Office Of Naval Research; N00014-15-1-2717 (R19011), $150,000
  Copper/Carbon Nanotube Ultraconductive.

- Vice President for Research (engineering)
  Robinson, Nathaniel
  Peraton Inc.; 2712-15-87, $153,295
  SCNS Telecom Security Assurance.

- Vice President for Research (engineering)
  Robinson, Nathaniel
  Fundacao Para A Ciencia E A Tecnologia; NOAID20170517, $85,160
  Atlantic Spaceport Complex.

- Vice President for Research (engineering)
  Robinson, Nathaniel
  Army Research Laboratory; W911QX-15-D-0011, $361,651
  Enterprise Radar Testbed.

- Vice President for Research (engineering)
  Robinson, Nathaniel
  Army Research Laboratory; W911QX-15-D-0011, $102,497
  White Sands Missile Range (WSMR) Engineering and Science Service Support (ESSS).

- Vice President for Research (engineering)
  Robinson, Nathaniel
  Army Research Laboratory; W911QX-15-D-0011, $47,278
  Radar Jammer Waveforms via Neural Networks.

- Vice President for Research (engineering)
  Robinson, Nathaniel
  Army Research Laboratory; W911QX-15-D-0011, $32,059
  Automated Vulnerability and Susceptibility Assessment.

- W.M. Keck Center for 3D Innovation (engineering)
  Wicker, Ryan
  AFRL (Through Clarkson Aerospace); UTEP WIC 16-S7700-03-C2, $105,000
  AFRL Collaboration Program - Materials and Manufacturing Research.

- W.M. Keck Center for 3D Innovation (engineering)
  Wicker, Ryan
  NASA; NNC17CA02C, $890,000
  Innovative Compact Additively Manufactured Electric Motor.

- W.M. Keck Center for 3D Innovation (engineering)
  Roberson, David
  Air Force Office Of Scientific Research; FA9550-14-1-0260, $360,000
  Synthesis of 3D Printable Polymer Matrix Composites.

- W.M. Keck Center for 3D Innovation (engineering)
  Wicker, Ryan
  AFRL (Through General Dynamics); 08ESM832597, $166,000
  Geometrically Sensitive Process Strategies for Electron Beam Powder Bed Additive Manufacturing Support.

- W.M. Keck Center for 3D Innovation (engineering)
  Wicker, Ryan
  Lockheed Martin; M7809009, $402,706
  Investigation and Testing of Direct Manufacturing Technology for Aerospace Tooling - Extension.

- W.M. Keck Center for 3D Innovation (engineering)
  Wicker, Ryan
  AFRL (Through The National Center For Defense Manufacturing And Machining; FA8650-12-2-7230, $1,000,000
  A Low-cost Industrial Multi3d System for 3d Electronics Manufacturing.

- W.M. Keck Center for 3D Innovation (engineering)
  Wicker, Ryan
  AFRL (Through The National Center For Defense Manufacturing And Machining; FA8650-12-2-7230, $980,000
  Multi-functional BAAM: Big Area Additive Manufacturing with Multi-purpose Wire Embedding.

- W.M. Keck Center for 3D Innovation (engineering)
  Roberson, David A.
  Air Force Office Of Scientific Research; FA9550-14-1-0260, $360,000
  Synthesis of 3D-printable Polymer Matrix Composites.

The University of Texas at San Antonio (UT-San Antonio)

The University of Texas at San Antonio listed one active award in aerospace technology for FY 2017. The total award amount was $577,110. During that year, UT-San Antonio's research expenditures for awards in aerospace technology were $96,628. Information for the identified active awards is provided.

- Electcrical Engineering (engineering)
  Guo, Ruyan
  US Dept of the Navy, $577,100
  Hybrid 3-D Digital Deposition Platform for Bottom-up Fabrication of Multicomponent-Multiferroic Composites (DURIP: H3DPlatform).

The University of Texas Rio Grande Valley (UT-RGV)

The University of Texas-Rio Grande Valley listed 12 active awards in aerospace technology for FY 2017. The total award amount was $12,462,806. During that year, UT-RGV's research expenditures for awards in aerospace technology were $2,159,679. Information for the identified active awards is provided.

- Center for Advanced Radio Astronomy (College of Sciences)
  Fredrick, Jenet A
  Office of the Governor 1788960, $4,050,500
  Texas Emerging Technology Fund Stargate.

- Center for Gravitational Wave Astronomy (College of Sciences)
  Diaz, Mario
  National Science Foundation HRD-1242090, $5,240,574
  The CGWA in the Era of Multimessenger Astronomy.

- Center for Gravitational Wave Astronomy (College of Sciences)
  Romano, Joseph
  National Science Foundation PHY-1430284, $622,293
  NANOGrav Physics Frontier Center.

- Center for Gravitational Wave Astronomy (College of Sciences)
  Diaz, Mario
  National Science Foundation 1461237, $395,000
  REU & RET Site in Physics at The University of Texas at Brownsville.

- Center for Gravitational Wave Astronomy (College of Sciences)
  Martirosyan, Karen
  National Science Foundation - Award No. 1138205, $210,000
  Development of the Nanoscale Engineering Concentration (NEC) at The University of Texas at Brownsville.

- Center for Gravitational Wave Astronomy (College of Sciences)
  Rakhmanov, Malik
  U.S. Department of Defense W911NF-13-1-0140, $539,260
  Modulation Spectroscopy and Opto-mechanics of Micro Toroidal Resonators.

- Center for Gravitational Wave Astronomy (College of Sciences)
  Romano, Joseph
  National Science Foundation 1505861, $450,000
  Support of LIGO Data Analysis Activities at The University of Texas at Brownsville.

- Center for Gravitational Wave Astronomy (College of Sciences)
  Creighton, Teviet
  National Science Foundation 1547443, $334,969
  Collaborative Research: Radio Frequency Interference Aware Radio Astronomy Systems.

- College of Engineering & Computer Science (mechanical engineering)
  Choutapalli, Isaac Manohar
  U.S. Department of Defense FA9550-14-1-0199, $302,910
  Vortex Dynamics & Boundary Layer Characteristics of Airfoils with Surface Modifications.

- College of Engineering & Computer Science (electrical engineering)
  Zhou, Yong
  Texas Space Grant Consortium, $1,300
  2017 Team CHRONOS.

- College of Sciences (biology)
  Hicks, David W
  Space Exploration Technologies Corp, $16,500
  SpaceX PreConstruction Monitoring.

- Research Translation (research, innovation & economic development)
  Michel, Jackie
  Office of the Governor 1788960, $299,500
  RGV ETF-Research Translation.

University of Houston (UH)

The University of Houston listed 35 active awards in aerospace technology for FY 2017. The total award amount was $14,425,558. During that year, UH's research expenditures for awards in aerospace technology were $2,052,473. Information for the identified active awards is provided.

- Biology/Biochemistry (natural science/mathematics)
  Fox, George E.
  NASA Headquarters; Contract #107026, $421,039
  Transitioning from an RNA World: The Origins of the Protein Synthesis Machinery.

- Biology/Biochemistry (natural science/mathematics)
  Fox, George E.
  NASA Goddard Space Flight Center; Contract #107122, $422,732
  Evolutionary History of the Translation Machinery.

- Chemical Engineering (engineering)
  Vekilov, Peter
  NASA Headquarters; Contract #106744, $841,142
  Research Opportunities in Complex Fluids and Macromolecular Biophysics-NRA-NNH13ZTT001N.

- Chemical Engineering (engineering)
  Balakotaiah, Vemuri
  NASA Glenn Research Center; Contract #106992, $300,000
  Modeling and Experimental Studies on Gas-Liquid Two-phase Flow through Packed Beds in Microgravity.

- Chemical Engineering (engineering)
  Vekilov, Peter
  NASA Marshall Space Flight Center; Contract #108045, $500,000
  Formation Mechanisms of the Protein-rich Clusters.

- Chemical Engineering (engineering)
  Balakotaiah, Vemuri
  NASA Glenn Research Center; Contract #113213, $100,000
  Gas-Liquid Two-phase Flow through Packed Beds in Microgravity Instrument Technology to Study the Auroral Ionosphere and Stratospheric Ozone Layer Using Ultralight Balloon Payloads.

- Civil Engineering (engineering)
  Lee, Hyongki
  NASA Goddard Space Flight Center; Contract #105108, $606,508
  Enhancement of GRACE Temporal Gravity Field Solutions to Study Terrestrial Water Dynamics in the Congo Basin.

- Civil Engineering (engineering)
  Lee, Hyongki
  NASA Goddard Space Flight Center; Contract #107387, $256,165
  Estimating Two-dimensional Surface Water Depths in the Congo Wetlands using Multiple Remote Sensing Measurements.

- Civil Engineering (engineering)
  Lee, Hyongki
  NASA Goddard Space Flight Center; Contract #108224, $221,869
  Towards Operational Water Resources Management in South Asia Exploiting Satellite Geodetic and Remote Sensing Technologies.

- Civil Engineering (engineering)
  Lee, Hyongki
  NASA Headquarters; Contract #109775, $60,000
  Diffusion Modeling of Water Flow in the central Congo Floodplain using Geodetic and Remote Sensing Measurements.

- Civil Engineering (engineering)
  Lee, Hyongki
  NASA Goddard Space Flight Center; Contract #110398, $81,640
  Integrating Lateral Contributions and Longitudinal Controls Along River Reaches to Improve SWOT Discharge Estimates.

- Civil Engineering (engineering)
  Lee, Hyongki
  NASA Goddard Space Flight Center; Contract #111937, $598,528
  Building Lasting Capacity for Water Management in Vulnerable Deltas of Indochina.

- Center for Life Sciences Technology (technology)
  Iyer, Rupa S.
  National Institute of Standards and Technology; Contract #110008, $74,887
  Integration of Standards, Models of Standardization and Science Policy for the 21st Century Biotechnology Workforce.

- Earth/Atmospheric Sciences (natural science/mathematics)
  Lapen, Thomas J.
  NASA Goddard Space Flight Center; Contract #109946, $60,000
  In Situ Investigations of Al-Mg Isotopes in Type B1 CAIs (Graduate Student Fellowship for A. Kerekgyarto).

- Earth/Atmospheric Sciences (natural science/mathematics)
  Brandon, Alan
  NASA Goddard Space Flight Center; Contract #110206, $375,000
  The Search for Nebular Heterogeneity and the Compositions of Terrestrial Planetary Materials Using Nd, Sm, and Os Isotopes.

- Earth/Atmospheric Sciences (natural science/mathematics)
  Bissada, Kadry K.
  NASA Johnson Space Center; Contract #1110842, $91,007
  Evaluating Aqueous Martian Environments through Coordinated Analysis of Carbonates in Martian Meteorite EETA 79001.

- Earth/Atmospheric Sciences (natural science/mathematics)
  Flynn III, James H.
  NASA Goddard Space Flight Center; Contract #110956, $172,285
  In Situ Measurements of Ozone and NO2 in the East Sea and Yellow Sea in Support of KORUS-OC and KORUS-AQ.

- Earth/Atmospheric Sciences (natural science/mathematics)
  Jiang, Xun
  NASA Goddard Space Flight Center; Contract #112944, $192,406
  Generating and Archiving Cassini ISS Long-term Multi-filter Global Maps for Jupiter and Saturn.

- Electrical Engineering (engineering)
  Prasad, Saurabh
  NASA Goddard Space Flight Center; Contract #107380, $261,105
  Novel Bayesian Image Analysis for Robust Multisensor Remote Sensing with Applications to Coastal Ecosystem Monitoring.

- Health/Human Performance (health and human performance)
  Layne, Charles S.
  Wyle Science Technology and Engineering; Contract #112427, $1,801,132
  Enhanced Development of the Office of Scientific Data Review and Dissemination.

- Health/Human Performance (health and human performance)
  Simpson, Richard J.
  NASA Johnson Space Center; Contract #109433, $594,114
  The Impact of Modeled Microgravity and Prior Radiation Exposure on Cytomegalovirus Reactivation and Host Immune Evasion.

- Health/Human Performance (health and human performance)
  Simpson, Richard J.
  NASA Johnson Space Center; Contract #102913, $712,412
  Effects of Long-term Exposure to Microgravity on Salivary Markers of Innate Immunity.

- Health/Human Performance (health and human performance)
  Paloski, William H.
  NASA Johnson Space Center; Contract #106319, $777,291
  NASA Intergovernmental Personnel Act (IPA) Agreement: Manager, Human Research Program.

- Health/Human Performance (health and human performance)
  Laughlin, Mitzi S.
  NASA Johnson Space Center; Contract #102912, $717,983
  Modulation of Muscle Function by Lower Limb Loading During Space Flight.

- Health/Human Performance (health and human performance)
  Simpson, Richard J.
  NASA Johnson Space Center; Contract #110826, $225,000
  The Impact of an ISS Mission on the Anti-viral and Functional Properties of NK-cells, T-cells, B-cells and Dendritic Cells.

- Human Development/Consumer Sciences (technology)
  Hines, Andrew L.
  NASA - National Aeronautics and Space Admin-Office of Biological/Physical Res; contract #175060, $24,950
  Wind Tunneling Plans Via Scenarios of The Future of Work.

- Mechanical Engineering (engineering)
  White, Kenneth W.
  NASA Headquarters; Contract #110343, $204,800
  An Investigation of Mechanisms in Bonding and Failure of Thermal Spray Coatings.

- Physics (natural science/mathematics)
  Freundlich, Alexandre
  Various Private Profit Agencies; Contract #94095, $496,148
  CAM Consortium Memberships.

- Physics (natural science/mathematics)
  Freundlich, Alexandre
  Arizona State University; Contract #99644, $1,343,141
  ERC for Quantum Energy and Sustainable Solar Technologies.

- Physics (natural science/mathematics)
  Li, Liming
  NASA Headquarters; Contract #98168, $319,717
  Energy Balance of Saturn and Jupiter.

- Physics (natural science/mathematics)
  Bering, Edgar A.
  NASA Headquarters; Contract #106783, $49,995
  An Undergraduate Student Instrumentation Project to Develop New Instrument Technology to Study the Auroral Ionosphere and Stratospheric Ozone Layer Using Ultralight Balloon Payloads.

- Physics (natural science/mathematics)
  Li, Liming
  NASA Headquarters; Contract #109160, $198,914
  Radiant Energy Budgets of Jupiter, Saturn, and Titan From Cassini Long-term Multi-instrument Observations.

- Physics (natural science/mathematics)
  Li, Liming
  NASA Goddard Space Flight Center; Contract #110546, $290,208
  Generating and Archiving Cassini ISS Long-term Multi-filter Global Maps for Jupiter and Saturn.

- Physics (natural science/mathematics)
  Bering, Edgar A.
  NASA Headquarters; Contract #111730, $100,000
  Students Improving Ultralight Balloon Technology for Auroral and Stratospheric Studies.

- Psychology ()
  Alfano, Candice A.
  NASA Johnson Space Center; Contract #108758, $933,441
  Characterization of Psychological Risk, Overlap with Physical Health, and Associated Performance in Isolated, Confined, Extreme (ICE) Environments.

University of Houston-Clear Lake (UH-Clear Lake)

The University of Houston-Clear Lake listed three active awards in aerospace technology for FY 2017. The total award amount was $142,148. During that year, UH-Clear Lake's research expenditures for awards in aerospace technology were $53,979. Information for the identified active awards is provided.

- Biology (biological sciences)
  Rohde, Larry
  NASA-Johnson Space Center (JSC), NNX16AR08G, $27,727
  DNA Damage Response in the ISS Astronaut's Lymphocytes and their Association with Stress-induced Immune Dysfunction.

- Biology (biological sciences)
  Rohde, Larry
  NASA-Johnson Space Center (JSC), NNX12AD35A, 1622978, $27,347
  Dependence of Radiation Quality on Charged Particle-induced Chromosomes.

- Engineering (mechanical engineering)
  Dabney, James
  NASA-Johnson Space Center (JSC), NNX16AD54G, $87,074
  IV & V of Software Developed Using Agile Methods.

University of North Texas (North Texas)

The University of Houston-Clear Lake listed 15 active awards in aerospace technology for FY 2017. The total award amount was $14,180,979. During that year, North Texas' research expenditures for awards in aerospace technology were $232,052. Information for the identified active awards is provided.

- College of Engineering (electrical engineering)
  Wan, Yan
  National Science Foundation, 1453722, $291,986
  CAREER: Communication and Control Co-design to Enable Aerial Networking in Uncertain Airspace Environment: Paradigm Shift From Ignorance and Constraints to Facilitators.

- College of Engineering (electrical engineering)
  Namuduri, Kameswara R.
  National Science Foundation, 1622978, $213,583
  EAGER: Networked Aerial Base Stations For Enabling Emergency Communications During Disaster Recovery.

- College of Engineering (material science &l engineering)
  Banerjee, Rajarshi
  Air Force Research Laboratory, FA8650-08-C-5226, $10,917,886
  Institute for Science and Engineering Simulation.

- College of Engineering (material science &l engineering)
  John, Kuruvilla
  Air Force Research Laboratory, FA8651-14-2-0007, $474,999
  Novel Experimental Techniques, Size Effect, and Damage Evolution for Heterogeneous Materials.

- College of Engineering (material science &l engineering)
  Mishra, Rajiv Sharan
  National Science Foundation, IIP-1157754, $192,982
  NSF IUCRC: Friction Stir Processing.

- College of Engineering (material science &l engineering)
  Mishra, Rajiv Sharan
  Air Force Research Laboratory, W911NF-13-2-0018 P00007, $48,000
  ARL Subcontract - I/UCRC for Advanced Non-Ferrous Structural Alloys (CANFSA) – Membership.

- College of Engineering (material science &l engineering)
  Mishra, Rajiv Sharan
  Air Force Research Laboratory, W911NF-13-2-0018, $35,000
  ARL Membership Fees.

- College of Engineering (material science &l engineering)
  Young, Marcus Lynn
  National Aeronautics & Space Administration, NNC16VA71P, $102,890
  Processing Studies on NiTi-based High Temperature Shape Memory Alloys.

- College of Engineering (material science &l engineering)
  Young, Marcus Lynn
  Texas A&M University - College Station (Boeing Prime), M1602601, $50,000
  Development and Characterization of High Temperature Shape Memory Alloys for Aerospace Actuation Devices.

- College of Information (learning technologies)
  Knezek, Gerald
  National Aeronautics & Space Administration, NNX1 6AL63A, $1,230,582
  NASA STEM Research.

- College of Science (chemistry)
  Marpu,Sreekar Babu
  Intelligent Optical Systems, Inc. (NASA Prime), $226,749
  Advanced Gas Sensing Technology for Space Suits.

- College of Science (physics)
  Shemmer, Ohad
  National Aeronautics & Space Administration, NNX1 7AC67G, $60,111
  Weak Line Quasars at High Redshift: Extremely High Accretion Rate Sources?

- College of Science (physics)
  Shemmer, Ohad
  National Aeronautics & Space Administration, NNX1 6AC06G, $62,313
  Weak Line Quasars at High Redshift: Extremely High Accretion Rate Sources.

- College of Science (physics)
  Schultz, David Robert
  University of Kansas Center for Research (NASA Prime), $177,272
  Energy Deposition in the Upper Atmosphere of Jupiter and Saturn by Energetic Particles: The Polar Aurora.

- College of Science (physics)
  Schultz, David Robert
  Auburn University (NASA Prime), NNX15AE47G, $96,626
  Atomic Fine-structure Diagnostic and Cooling Transitions for Far In-fared and Sub-millimeter Observations.

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Texas Higher Education Coordinating Board

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