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HALL OF FAME
2021 INDUCTEE



BRUCE BANKS

BRUCE BANKS' 50-PLUS-YEAR CAREER AS A RESEARCHER, INVENTOR, AND MANAGER INCLUDES THE INVENTION, DEVELOPMENT, AND COMMERCIALIZATION OF A WIDE RANGE OF TECHNOLOGIES INVOLVING ELECTRIC PROPULSION, THIN-FILM COATINGS, SURFACE TEXTURING, AND ATOMIC OXYGEN PROTECTION. HIS BREAKTHROUGH DISCOVERY THAT ION BEAMS COULD BE USED TO MODIFY OR COAT SURFACES LED TO AN ARRAY OF NEW APPLICATIONS, FROM THERMAL PROTECTION TO DECONTAMINATION. BANKS SPECIALIZED IN IDENTIFYING TERRESTRIAL APPLICATIONS IN THE PRIVATE SECTOR FOR NASA'S SPACEFLIGHT TECHNOLOGIES. HE HOLDS THE MOST PATENTS IN CENTER HISTORY AND HAS CONTRIBUTED TO HUNDREDS OF TECHNICAL PAPERS. BANKS ALSO LEAVES A LEGACY OF MENTORING COLLEAGUES AND STUDENTS.



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OLGA GONZÁLEZ-SANABRIA

OLGA GONZÁLEZ-SANABRIA CONTRIBUTED TO THE DEVELOPMENT OF NICKEL-HYDROGEN BATTERY TECHNOLOGIES, MOST NOTABLY IN THE AREA OF BATTERY SEPARATORS, AND THE STUDY OF ENERGY STORAGE OPTIONS FOR RADIOISOTOPE THERMOELECTRIC GENERATORS. GONZÁLEZ-SANABRIA ALSO SERVED AS A LIAISON TO NASA HEADQUARTERS FOR THE CENTER'S IN-SPACE TECHNOLOGIES ACTIVITIES. IN 1995 SHE BECAME THE CENTER'S FIRST LATINA TO ENTER THE SENIOR EXECUTIVE SERVICE. GONZÁLEZ-SANABRIA HELD SEVERAL EXECUTIVE POSITIONS AT THE CENTER, CULMINATING IN DIRECTOR OF ENGINEERING. IN EACH OF THESE POSITIONS, GONZÁLEZ-SANABRIA IMPLEMENTED NOVEL APPROACHES TO HER WIDE RANGE OF INSTITUTIONAL AND MANAGERIAL RESPONSIBILITIES.


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DR. HEINRICH “HENRY” KOSMAHL

DR. HEINRICH “HENRY” KOSMAHL WAS AN INTERNATIONALLY RECOGNIZED PIONEER IN THE ADVANCEMENT OF TRAVELING WAVE TUBE TECHNOLOGY FOR SATELLITE COMMUNICATIONS SYSTEMS. HIS INVENTION AND DEVELOPMENT OF THE MULTISTAGE DEPRESSED COLLECTOR REVOLUTIONIZED MICROWAVE TUBE AMPLIFIERS BY NEARLY DOUBLING EFFICIENCY AND ENABLING ACCESS TO PREVIOUSLY IMPENETRABLE REGIONS OF THE ELECTROMAGNETIC SPECTRUM AND THE SATELLITE COMMUNICATIONS INFRASTRUCTURE. THE IMPROVED DEVICES BECAME A STANDARD COMPONENT ON NEARLY ALL NASA AND INDUSTRY COMMUNICATIONS SATELLITES. UNDER KOSMAHL, THE CENTER BECAME A LEADER IN SPACE COMMUNICATIONS.



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DR. PATRICIA O'DONNELL

DR. PATRICIA O'DONNELL'S 44 YEARS OF TECHNICAL EXPERTISE AND LEADERSHIP HAD SIGNIFICANT IMPACTS ON NASA'S ENERGY CONVERSION AND STORAGE SYSTEMS. SHE BECAME INTERNATIONALLY RENOWNED FOR HER WORK WITH FLUORINE BEFORE TRANSITIONING INTO EARTH-BASED SOLAR POWER SYSTEMS THAT WERE INSTALLED ACROSS THE GLOBE. O'DONNELL SUBSEQUENTLY LED THE CENTER'S EFFORTS TO DEVELOP ENERGY STORAGE SYSTEMS FOR SPACE APPLICATIONS. HER TECHNICAL INSIGHT INTO THE LIFE-CYCLE ISSUES OF NICKEL-HYDROGEN BATTERY SYSTEMS LED TO IMPROVEMENTS THAT ENABLED THEIR USE IN NASA'S PREMIER SPACE PROGRAMS. AS ONE OF THE CENTER'S EARLY FEMALE RESEARCHERS AND ITS FIRST PATENTED FEMALE INVENTOR, O'DONNELL HELPED PAVE THE WAY FOR FUTURE GENERATIONS OF FEMALE PROFESSIONALS.



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J. ANTHONY POWELL

J. ANTHONY POWELL WAS INTERNATIONALLY RECOGNIZED AS A PIONEERING LEADER IN THE DEVELOPMENT OF HIGH-TEMPERATURE ELECTRONICS BASED ON SILICON CARBIDE (SiC). HE REALIZED EARLY ON THAT THE KEY TO SiC-BASED ELECTRONICS LIES IN THE DEVELOPMENT OF A VIABLE LOW-DISLOCATION SUBSTRATE. THROUGH HIS APPLICATION OF CHEMICAL VAPOR DEPOSITION AND HIS SUBSEQUENT IMPROVEMENTS, POWELL BECAME THE FIRST TO ACHIEVE THE DESIRED SUBSTRATE. HIS BREAKTHROUGH LED TO A WORLD-CLASS SiC ELECTRONICS PROGRAM AT THE CENTER, THE ESTABLISHMENT OF A GROWING MULTIMILLION-DOLLAR COMMERCIAL SiC MARKET, AND THE INCORPORATION OF SiC-BASED ELECTRONICS IN NASA'S VENUS LANDER.


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BOBBY W. SANDERS

BOBBY W. SANDERS WAS A WIDELY RECOGNIZED NATIONAL TECHNICAL AUTHORITY IN HIGH-SPEED INLET TECHNOLOGY. HE CONDUCTED RESEARCH ON ALL ASPECTS OF MILITARY AND COMMERCIAL ENGINE AIRCRAFT INLETS, INCLUDING CONCEPTUAL DEFINITION, COMPLETE DESIGN, AND TESTING FOR MILITARY AND COMMERCIAL APPLICATIONS. HE CONCEIVED, MANAGED, AND GUIDED THE TECHNICAL IMPLEMENTATION OF THE CENTER'S INLET RESEARCH FOR SUBSONIC THROUGH HYPERSONIC PROPULSION SYSTEMS. HIS 50-YEAR LEGACY INCLUDES OVER SIXTY PUBLICATIONS, EIGHT PATENTS, AND THE MENTORING OF TWO GENERATIONS OF CENTER ENGINEERS.



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JOHN L. SLOOP

JOHN L. SLOOP SPEARHEADED THE CENTER'S ANALYSIS OF NOVEL HIGH-ENERGY FUELS AND THE EARLY STUDY OF FUNDAMENTAL ROCKET ENGINE DESIGN. SLOOP'S ADVOCACY FOR LIQUID HYDROGEN CONTRIBUTED TO ITS EVENTUAL USE IN THE SATURN AND CENTAUR UPPER-STAGE ROCKETS. IN SUBSEQUENT POSITIONS AT NASA HEADQUARTERS, SLOOP CONTRIBUTED TO THE SELECTION OF LAUNCH VEHICLES FOR THE EARLY SPACE PROGRAM AND MANAGED THE POWER AND PROPULSION WORK AT THE RESEARCH CENTERS. AFTER RETIRING, SLOOP AUTHORED A BOOK THAT DOCUMENTED THE HISTORY OF LIQUID HYDROGEN DEVELOPMENT, EMPHASIZING THE CENTER'S CONTRIBUTIONS.



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O. FRANK SPURLOCK

O. FRANK SPURLOCK DEVELOPED AND OPERATED AN UNSURPASSED COMPUTER PROGRAM FOR LAUNCH VEHICLE TRAJECTORY OPTIMIZATION THAT ESTABLISHED THE CENTER AS NASA'S LEAD FOR MISSION TRAJECTORY ANALYSIS. THIS COMPUTER CODE WAS USED TO DESIGN MOST OF THE PREMIER NASA MISSIONS FROM THE 1960s INTO THE 1990s, INCLUDING SPACE PROBES, SATELLITES, AND SPACE TELESCOPES. SPURLOCK WAS AN ESSENTIAL ELEMENT OF THE CENTER'S SPACE AND AERONAUTICS COLLABORATION WITH THE RUSSIAN SPACE AGENCY, PARTICULARLY THE INVESTIGATION INTO THE USE OF RUSSIAN LAUNCH VEHICLES TO SUPPORT THE NASCENT SPACE STATION. SPURLOCK WAS AN ACTIVE PERSONNEL RECRUITER AND MENTOR WHO, LEADING BY EXAMPLE, INSISTED ON HIGH TECHNICAL QUALITY AND INTEGRITY.



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JESSE STRICKLAND

JESSE STRICKLAND WAS AN ARCHITECT WHO CONTRIBUTED TO THE DESIGN OF SEVERAL OF THE CENTER'S NEW BUILDINGS IN THE 1950s AND 1960s AND BECAME RENOWNED IN THE 1970s FOR HIS ABILITY TO TRANSFORM THE INTERIORS OF MANY OF THE CENTER'S OLDER BUILDINGS INTO APPEALING WORKSPACES. STRICKLAND ALSO LED THE AGENCY'S EFFORT TO STANDARDIZE CONSTRUCTION SPECIFICATIONS. STRICKLAND WAS AN ACTIVE COMMUNITY VOLUNTEER, EQUAL EMPLOYMENT OPPORTUNITY COUNSELOR, AND MEMBER OF THE CENTER'S SPEAKERS BUREAU.


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ERWIN “ERV” ZARETSKY

ERWIN “ERV” ZARETSKY’S RESEARCH IN INCREASING LIFE AND RELIABILITY OF MECHANICAL COMPONENTS HAS SIGNIFICANTLY ADVANCED THE STATE OF THE ART OF BEARINGS AND GEARS FOR AN ARRAY OF AIRCRAFT, HELICOPTER, AND SHUTTLE PROPULSION SYSTEMS. ZARETSKY PERFORMED PIONEERING RESEARCH IN ROLLING-ELEMENT FATIGUE, LUBRICATION, AND PROBABILISTIC LIFE PREDICTION. HIS 50-PLUS YEARS OF WORK AT THE CENTER CONTRIBUTED SIGNIFICANTLY TO NASA MISSIONS AND ENABLED THE CENTER TO DEVELOP A STRONG TECHNICAL COMPETENCY IN TRIBOLOGY AND ADVANCED MECHANICAL SYSTEMS. ZARETSKY REACHED THE GOVERNMENT’S HIGHEST ENGINEERING RANK AND SERVED AS A DISTINGUISHED RESEARCH ASSOCIATE. HE AUTHORED TWO BOOKS AND OVER 200 PAPERS.