

**ACRP** | AIRPORT  
COOPERATIVE  
RESEARCH  
PROGRAM

# ANNUAL REPORT OF PROGRESS 2023



**NATIONAL  
ACADEMIES** *Sciences  
Engineering  
Medicine*

**TRB** TRANSPORTATION RESEARCH BOARD

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\* Membership as of November 2023.

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**TRB** TRANSPORTATION RESEARCH BOARD

## AIRPORT COOPERATIVE RESEARCH PROGRAM

Airports are vital national resources. They serve a key role in transportation of people and goods and in regional, national, and international commerce. They are where the nation's aviation system connects with other modes of transportation and where federal responsibility for managing and regulating air traffic operations intersects with the role of state and local governments that own and operate most airports. Research is necessary to solve common operating problems, to adapt appropriate new technologies from other industries, and to introduce innovations into the airport industry. The Airport Cooperative Research program (ACRP) serves as one of the principal means by which the airport industry can develop innovative near-term solutions to meet demands placed on it.

The need for ACRP was identified in *TRB Special Report 272: Airport Research Needs: Cooperative Solutions* in 2003, based on a study sponsored by the Federal Aviation Administration (FAA). ACRP carries out applied research on problems that are shared by airport operating agencies and not being adequately addressed by existing federal research programs. ACRP is modeled after the successful National Cooperative Highway Research Program (NCHRP) and Transit Cooperative Research Program (TCRP). ACRP undertakes research and other technical activities in various airport subject areas, including design, construction, legal, maintenance, operations, safety, policy, planning, human resources, and administration. ACRP provides a forum where airport operators can cooperatively address common operational problems.

ACRP was authorized in December 2003 as part of the Vision 100—Century of Aviation Reauthorization Act. The primary participants in the ACRP are (1) an independent governing board, the ACRP Oversight Committee (AOC), appointed by the Secretary of the U.S. Department of Transportation with representation from airport operating agencies, other stakeholders, and relevant industry organizations such as the Airports Council International-North America (ACI-NA), the American Association of Airport Executives (AAAE), the National Association of State Aviation Officials (NASAO), Airlines for America (A4A), and the Airport Consultants Council (ACC) as vital links to the airport community; (2) TRB as program manager and secretariat for the governing board; and (3) the FAA as program sponsor. In October 2005, the FAA executed a contract with the National Academy of Sciences formally initiating the program.

ACRP benefits from the cooperation and participation of airport professionals, air carriers, shippers, state and local government officials, equipment and service suppliers, other airport users, and research organizations. Each of these participants has different interests and responsibilities, and each is an integral part of this cooperative research effort.

Research problem statements for ACRP are solicited periodically but may be submitted to TRB by anyone at any time. It is the responsibility of the AOC to formulate the research program by identifying the highest priority projects and defining funding levels and expected products.

Once selected, each ACRP project is assigned to an expert panel appointed by TRB. Panels include experienced practitioners and research specialists; heavy emphasis is placed on including airport professionals, the intended users of the research products. The panels prepare project statements (requests for proposals), select contractors, and provide technical guidance and counsel throughout the life of the project. The process for developing research problem statements and selecting research agencies has been used by TRB in managing cooperative research programs since 1962. As in other TRB activities, ACRP project panels serve voluntarily without compensation.

Primary emphasis is placed on disseminating ACRP results to the intended users of the research: airport operating agencies, service providers, and academic institutions. ACRP produces a series of research reports for use by airport operators, local agencies, the FAA, and other interested parties; industry associations may arrange for workshops, training aids, field visits, webinars, and other activities to ensure that results are implemented by airport industry practitioners.

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Cover photo: Courtesy of Eugene Airport.

# NATIONAL ACADEMIES

*Sciences*  
*Engineering*  
*Medicine*

The **National Academy of Sciences** was established in 1863 by an Act of Congress, signed by President Lincoln, as a private, non-governmental institution to advise the nation on issues related to science and technology. Members are elected by their peers for outstanding contributions to research. Dr. Marcia McNutt is president.

The **National Academy of Engineering** was established in 1964 under the charter of the National Academy of Sciences to bring the practices of engineering to advising the nation. Members are elected by their peers for extraordinary contributions to engineering. Dr. John L. Anderson is president.

The **National Academy of Medicine** (formerly the Institute of Medicine) was established in 1970 under the charter of the National Academy of Sciences to advise the nation on medical and health issues. Members are elected by their peers for distinguished contributions to medicine and health. Dr. Victor J. Dzau is president.

The three Academies work together as the **National Academies of Sciences, Engineering, and Medicine** to provide independent, objective analysis and advice to the nation and conduct other activities to solve complex problems and inform public policy decisions. The National Academies also encourage education and research, recognize outstanding contributions to knowledge, and increase public understanding in matters of science, engineering, and medicine.

Learn more about the National Academies of Sciences, Engineering, and Medicine at [www.nationalacademies.org](http://www.nationalacademies.org).

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The **Transportation Research Board** is one of seven major program divisions of the National Academies of Sciences, Engineering, and Medicine. The mission of the Transportation Research Board is to mobilize expertise, experience, and knowledge to anticipate and solve complex transportation-related challenges. The Board's varied activities annually engage about 8,500 engineers, scientists, and other transportation researchers and practitioners from the public and private sectors and academia, all of whom contribute their expertise in the public interest. The program is supported by state transportation departments, federal agencies including the component administrations of the U.S. Department of Transportation, and other organizations and individuals interested in the development of transportation.

Learn more about the Transportation Research Board at [www.TRB.org](http://www.TRB.org).

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# ACRP

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# Letter from the ACRP Oversight Committee Chair



ACRP's extensive library of tools and resources starts with research. Every year the ACRP Oversight Committee (AOC) reviews problem statements submitted by industry professionals and selects projects for funding. The 19 Fiscal Year 2024 projects we selected came from the biggest pool of problem statements we've received in more than five years.

The valuable contributions and active participation of our volunteers and contractors have helped keep ACRP at the forefront of providing actionable, evidence-based resources on emerging issues. This year, the industry wrestled with complex topics such as integrating unleaded aviation gasoline (AvGas), transitioning to a new fluorine-free foam (F3), planning for electric vertical take-off and landing aircrafts (eVTOLS) and other electric vehicles, resiliency, advanced air mobility (AAM),

and workforce development. To facilitate discussion on several of these topics, ACRP organized two successful Insight Events held in 2023 with another three approved by the AOC for 2024. ACRP also participated in events alongside the Airport Minority Advisory Council (AMAC) and the Airport Consultants Council (ACC), embracing the overlap between our missions to provide more opportunities to disadvantaged business enterprises (DBEs) and other underrepresented groups.

Encouraging new voices and building the workforce pipeline is important to the long-term success of our industry. To help achieve this goal, ACRP participated in a young professionals meet-up event, hosted by HOK, Faith Group, and the ACC. We were able to introduce these young professionals to ACRP, highlight ACRP's free resources, and invite the attendees to get engaged early and often. Several AOC members had the opportunity to share their own stories about how they entered the industry and why they love it. We are also in the process of reimagining our Champions program for young professionals to help guide them in their careers.

As we considered how ACRP can best meet the needs of established and new practitioners, we kicked off our next strategic planning effort by participating in the Transportation Research Board's (TRB's) National Aviation System Planning Symposium. At the symposium, industry experts shared their insights about critical issues facing the airport industry and how ACRP can evolve its support to meet those needs. ACRP also finalized a new dissemination plan, which emphasizes outreach to those not yet aware of ACRP and strategies to strengthen the ACRP community.

One constant in the airport industry is that there will always be new challenges, but with proactive planning, innovative thinking, and the continued engagement of our industry professionals, ACRP is confident that together we can lead the way to identify practical, implementable solutions.

As we look toward the future, we are thankful to the Federal Aviation Administration (FAA) for their continued sponsorship and we appreciate their longstanding support.

– Rhonda K. Hamm-Niebruegge

# Introduction

Following years of drastic shifts in industry trends, disruptions to daily life, and renewed travel demands, 2023 found industry practitioners continuing to adjust to a post-pandemic world and exploring new ways to improve resilience through emerging technologies and shared best practices.

The Airport Cooperative Research Program (ACRP) has been at the forefront of developments in the airport industry since its creation in 2005. It serves as a valuable platform for industry practitioners to contribute to and engage with cutting-edge research that has real-world impacts at airports around the globe. ACRP provides high-quality, industry-driven research to address day-to-day challenges in the airport industry in the form of research reports, case studies, Insight Events, webinars, and more.

In 2023, ACRP continued to grow its audience and disseminate research through a variety of channels to reach diverse stakeholders across the airport community. ACRP's 2023 Annual Report of Progress highlights the program's accomplishments, looks forward to key activities for the coming year, and demonstrates how ACRP continues to foster collaboration and innovation to solve the most pressing issues facing the airport industry.

## What Is ACRP?

ACRP is an applied research program managed by the Transportation Research Board of the National Academies of Sciences, Engineering, and Medicine, and sponsored by the Federal Aviation Administration. Together with public- and private-sector industry experts, ACRP produces myriad research products that cover a diverse set of topics, including safety, policy and planning, airport design, construction, legal issues, operations and maintenance, human resources, sustainability, and administration.

## Key Milestones

ACRP throughout the years has continued to grow and transform, consistently adapting to the evolving demands of the industry. Through innovative outreach and strategic partnering, ACRP cultivates industry-wide practitioner engagement and gets critical information into the hands of those who need it.

## ACRP Key Milestones

**2003**

ACRP authorized by act of Congress

**2005**

TRB formally launches ACRP

**2007**

First research report published

**2012**

Ambassador program started  
Social media presence initiated  
Impacts on Practice case studies introduced

**2015**

Champions program launched  
Extensive website redesign started  
First strategic plan adopted

**2018**

First Insight Event held

**2019**

200th research report published  
First ACRP Champion graduates from program

**2020**

ACRP launches the ACRP Champion portal  
ACRP holds its first virtual Insight Event  
ACRP adopts second strategic plan: Blueprint for the Future

**2021**

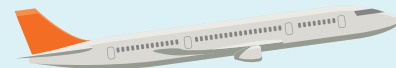
Implementation support panel meets for the first time

**2022**

Joint event with AMAC on Expanding Disadvantaged Business Enterprises (DBE) Participation

**2023**

ACRP updates dissemination plan



## Meet the ACRP Staff



**Marci A. Greenberger**  
ACRP Manager

Marci A. Greenberger is the ACRP Manager and has worked with the TRB of the National Academies since 2008. Prior to becoming ACRP's Manager, she served as a Senior Program Officer (SPO), managing projects on operations, maintenance, safety, and security, as well as legal issues that affect the industry. Before joining ACRP, she spent more than 18 years in airport operations and management in senior management positions at airports in Rhode Island, Indiana, and California. Marci is an Accredited Airport Executive through the American Association of Airport Executives (AAAE), holds a BS in Aviation Management from The Ohio State University, and earned an MBA from California State University, Northridge.



**Joseph D. Navarrete**  
Senior Program Officer

Joseph D. Navarrete joined ACRP as an SPO in 2009, bringing experience as both a principal investigator and panelist on ACRP projects from his previous job at a large consulting firm. His background is in airport planning for both large and small airports across the country. He began his career at the Metropolitan Washington Council of Governments, and he served as the chief of airport system planning for the Maryland Aviation Administration. He holds a BA in Geography and a certificate in Cartography from George Mason University.



**Matthew J. Griffin**  
Senior Program Officer

Matthew J. Griffin joined ACRP as an SPO in October 2019. He previously served as the Director of Regulatory Affairs and Education at the Airport Consultants Council (ACC). Matthew also served as the Senior Manager for Policy and Regulatory Affairs at the Airports Council International-North America and spent time with the Capital Region Airport Authority in Lansing, Michigan. Before joining the staff, he served on various ACRP panels. Matthew holds a BS in Aviation Management from Purdue University as well as a private pilot's certificate.



**Jordan Christensen**  
Senior Program Officer

Jordan Christensen joined ACRP staff as an SPO in July 2021. She previously worked at the Boise Airport as the Airport Security Manager where she was responsible for developing and managing the airport emergency operations program, airport security program, and credentialing and training, and co-managed airport operations. Jordan also previously served on the Board of Directors for National Safe Skies Alliance. She has a Certified Member designation from AAAE, graduated with a BA in Aviation Management from Westminster College, and recently completed her MBA at Boise State University.



**Edward K. McDonald III**  
Senior Program Officer

Edward K. McDonald III joined ACRP as an SPO in June 2022. He has over 30 years of leadership experience including over 25 years of experience in military and commercial aviation and aerospace at multimodal transportation organizations. Edward's core competencies include cognitive and behavioral neuroscience and organizational leadership. His disciplines include enterprise risk and safety management, and diversity, equity, inclusion, and accessibility. Edward served 15 years in the US Marine Corps and is a three-time combat veteran. He holds two undergraduate degrees in Business Administration, a Master of Science in Business Psychology, and is a Doctoral Candidate at Franklin University in Organizational Leadership.



**Sarah Kosling**  
Business Analyst

Sarah Kosling joined ACRP in 2020 as an Associate Program Officer/Business Analyst. She has a background in international development, specializing in the areas of strategic foresight and data analysis. Previously, she served in the Peace Corps in Nepal as a food security volunteer. She holds a BS in Biology from Denison University.



**Brittany Summerlin-Azeez**  
Program Coordinator

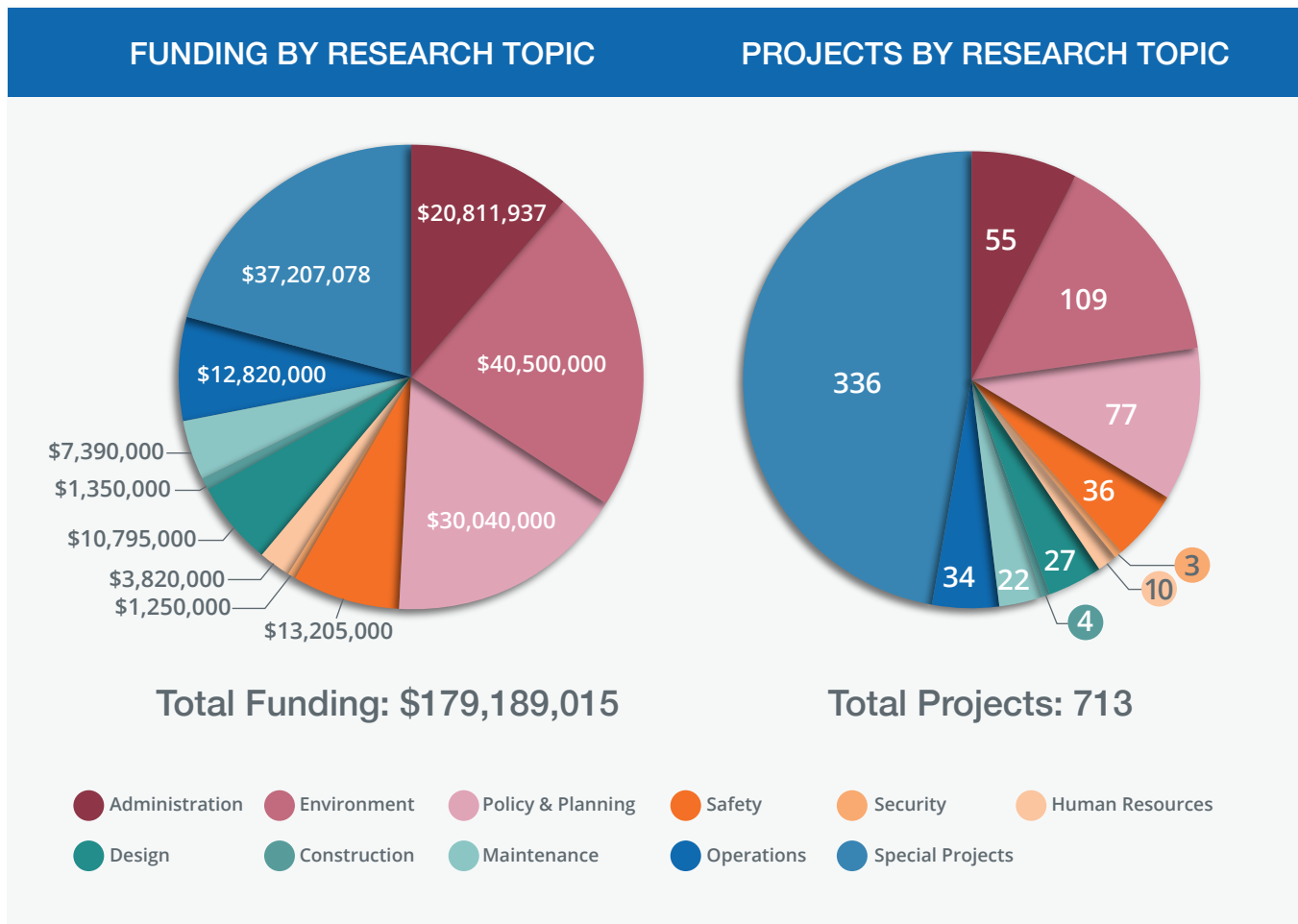
Brittany Summerlin-Azeez serves as ACRP's Program Coordinator and joined the program in 2017. She manages the day-to-day administrative and logistical aspects of meetings and correspondence between SPOs, committee members, and sponsors. She also assists with the Ambassador and Champion programs. Brittany has a background in human resources and sales. She holds a BS in English and Political Science from Howard University and has a green belt certificate from Lean Six Sigma.

# Research and Publications

ACRP's research cycle is driven by industry need and provides a critical opportunity for diverse stakeholders to shape the tools and resources the program produces. Through its annual problem statement process, ACRP solicits research ideas from airport operators, industry associations, federal and state transportation agencies, universities, aviation consultants, and others to understand what issues the industry needs addressed. The ACRP Oversight Committee (AOC) conducts a formal review of the submitted topics and identifies the priority issues that will best serve industry needs. Once the AOC has selected the problem statements that will become research projects, ACRP convenes volunteer project panels that provide technical oversight throughout the research project. In 2023, ACRP selected 19 new research projects, nine synthesis of practice topics, and three legal research topics that address alternative energy sources; seismic activity; easing the customer journey for all passengers, especially those with physical, sensory or cognitive challenges; the legalization of marijuana; and others. These research projects will result in actionable guidance, tools, and other resources that will help airport practitioners address pressing issues in the industry.

## Projects and Funding

ACRP has overseen more than \$179 million in funding for 713 research projects since its inception in 2005. These research projects cover various topics relevant to airports, from environment and safety to construction and maintenance. The charts below illustrate the breakdown of funding and projects by research topic.

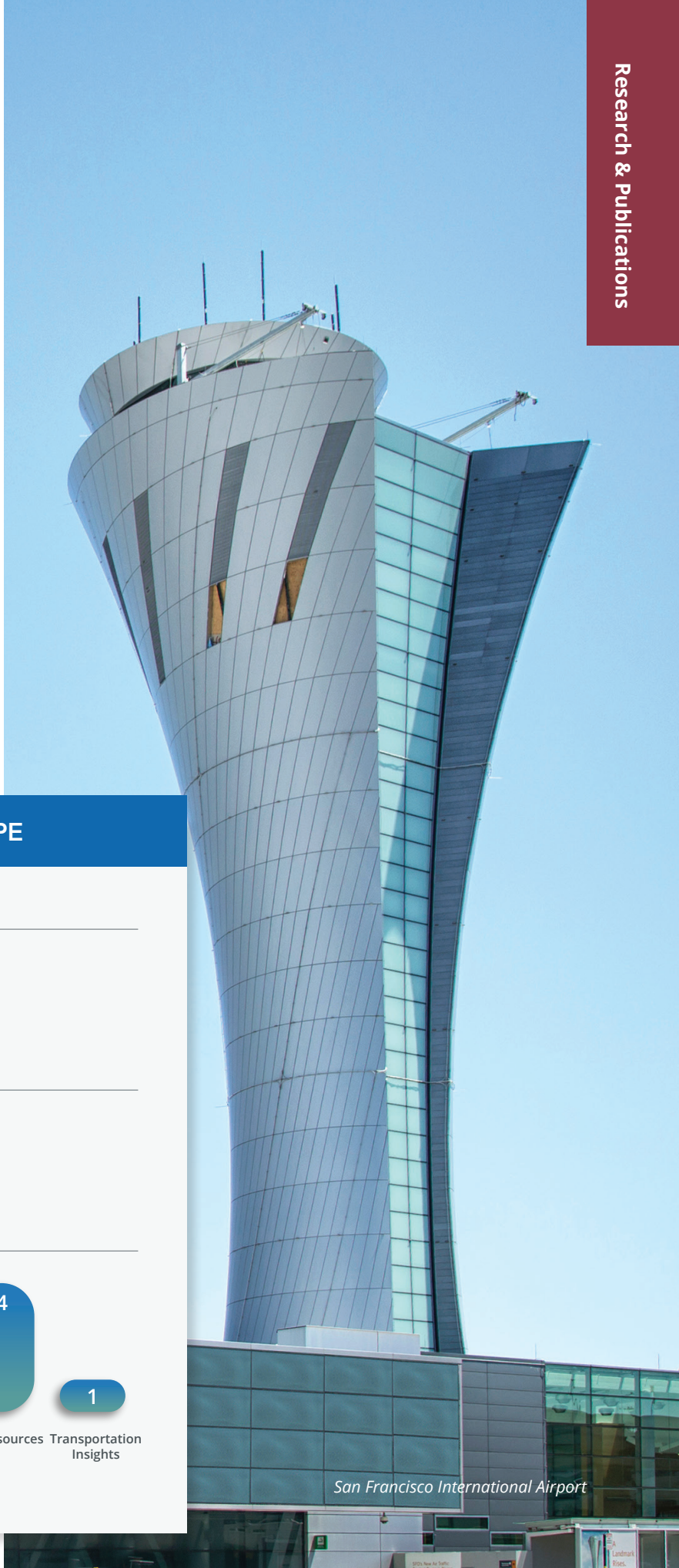




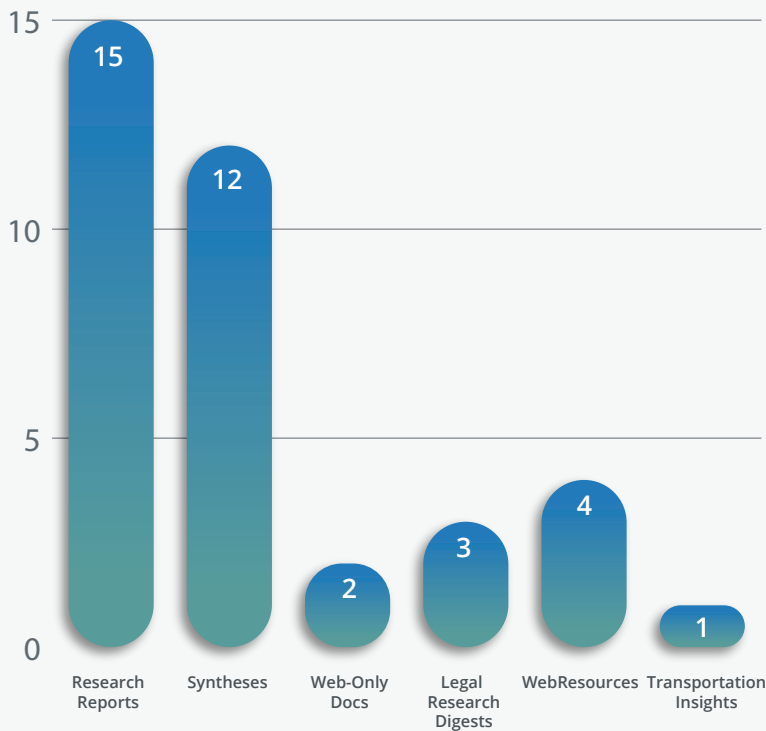
# Research in Action

## 2023 Publication Highlights

ACRP maintains a research library of more than 500 research products that are available online to practitioners around the globe to download for free. In 2023, ACRP published 37 new research products covering a variety of products from managing a flight diversion and emergency response at general aviation airports to applying digital marketing to enhance the customer experience. The reports noted below demonstrate the breadth of topics that ACRP covered in 2023. The full list of 2023 publications is available in Appendix A.

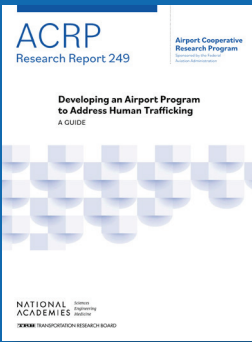


2023 PUBLICATIONS BY TYPE



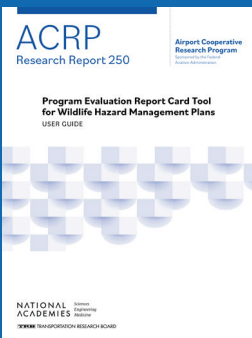
San Francisco International Airport

## 2023 Publication Highlights



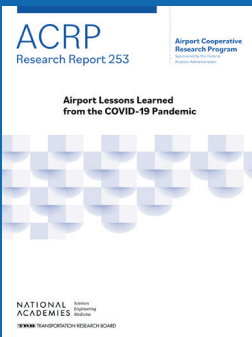
### ***ACRP Research Report 249: Developing an Airport Program to Address Human Trafficking: A Guide***

Human trafficking has emerged as a critical public concern, with tens of millions of global victims who are moved across international borders and between states using various forms of transportation, including buses, trains, and airplanes, among others. Traffickers may be transporting victims through airports, or victims may be traveling of their own accord, unaware that a promised job opportunity at the end of their journey is not legitimate. This guide provides a comprehensive, yet scalable, process to help airports identify and respond to possible human trafficking activity at their facilities.



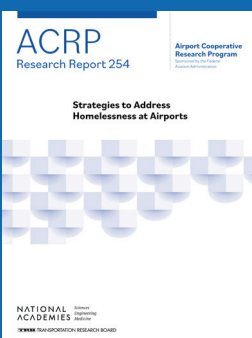
### ***ACRP Research Report 250: Program Evaluation Report Card Tool for Wildlife Hazard Management Plans: User Guide***

The threat of wildlife strikes with aircraft is increasing due to larger bird populations and quieter aircraft. The challenge of managing this risk has prompted the development of Wildlife Hazard Management Plans (WHMPs) by airport operators, which are required to be reviewed regularly. However, there is little information available to assess the effectiveness of these WHMPs over time. This research report is designed to assess the effectiveness of these plans in reducing the risk of wildlife strikes with aircraft over time.



### ***ACRP Research Report 253: Airport Lessons Learned from the COVID-19 Pandemic***

During the COVID-19 pandemic, airports faced challenges such as implementing health protocols, accessing trusted information, accommodating social distancing, and using effective technologies to control the spread of the virus. This research report is intended as a resource for continued response to COVID-19 and future communicable disease outbreaks. The report summarizes 124 interviews with representatives from 127 airports of all sizes and regions.

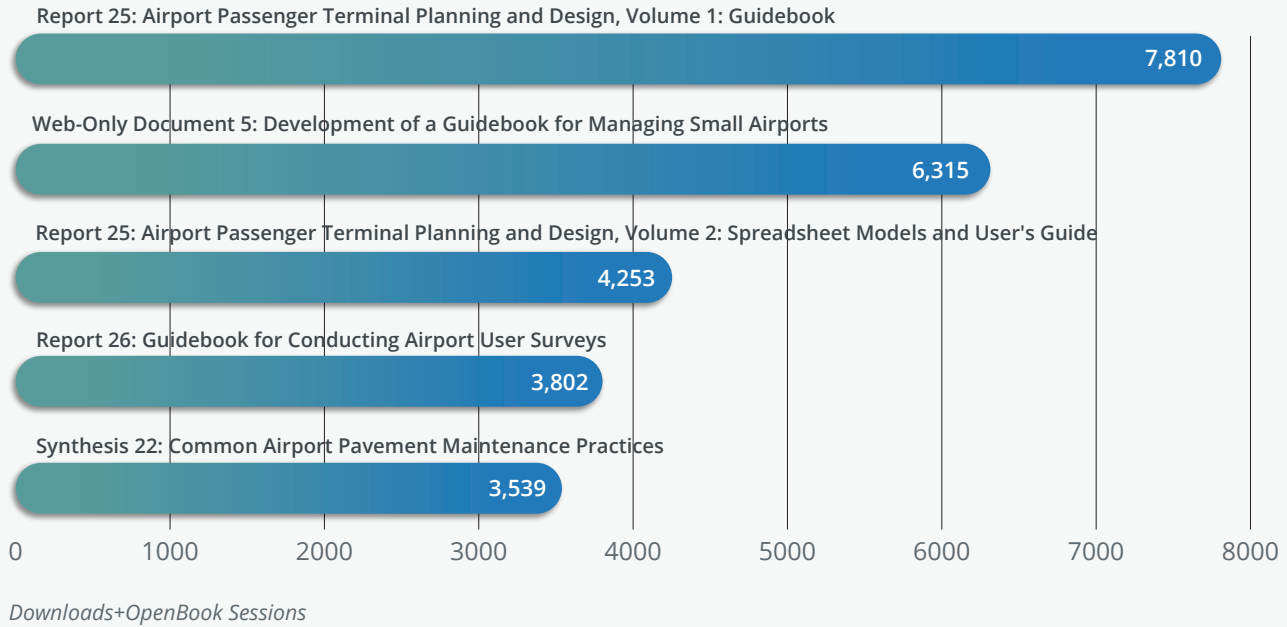


### ***ACRP Research Report 254: Strategies to Address Homelessness at Airports***

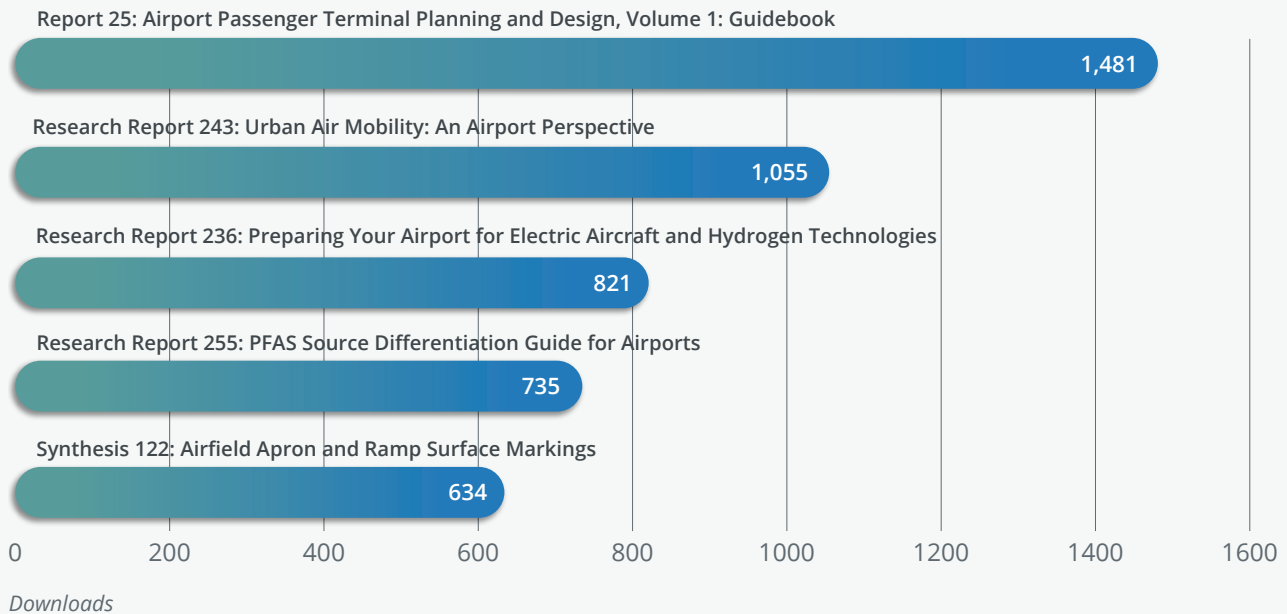
The purpose of this guide is to help airport operators understand and respond to people experiencing homelessness on airport property (i.e., at their built facilities and on surrounding airport-owned land). The guide provides airport operators with the fundamental knowledge needed to understand homelessness and its intersection with airports, an understanding of the contextual factors that influence the prevalence of homelessness in airport contexts, and detailed actions that airport practitioners can consider developing and implementing to support a program to address homelessness.

ACRP publications were downloaded or viewed online more than 192,000 times in 2023. The graphs below show the publications with the most engagement (including being viewed or read online without being downloaded) and the publications that were downloaded the most in 2023.

### PUBLICATIONS WITH MOST ENGAGEMENT IN 2023



### PUBLICATIONS WITH MOST DOWNLOADS IN 2023



# Strategic Planning

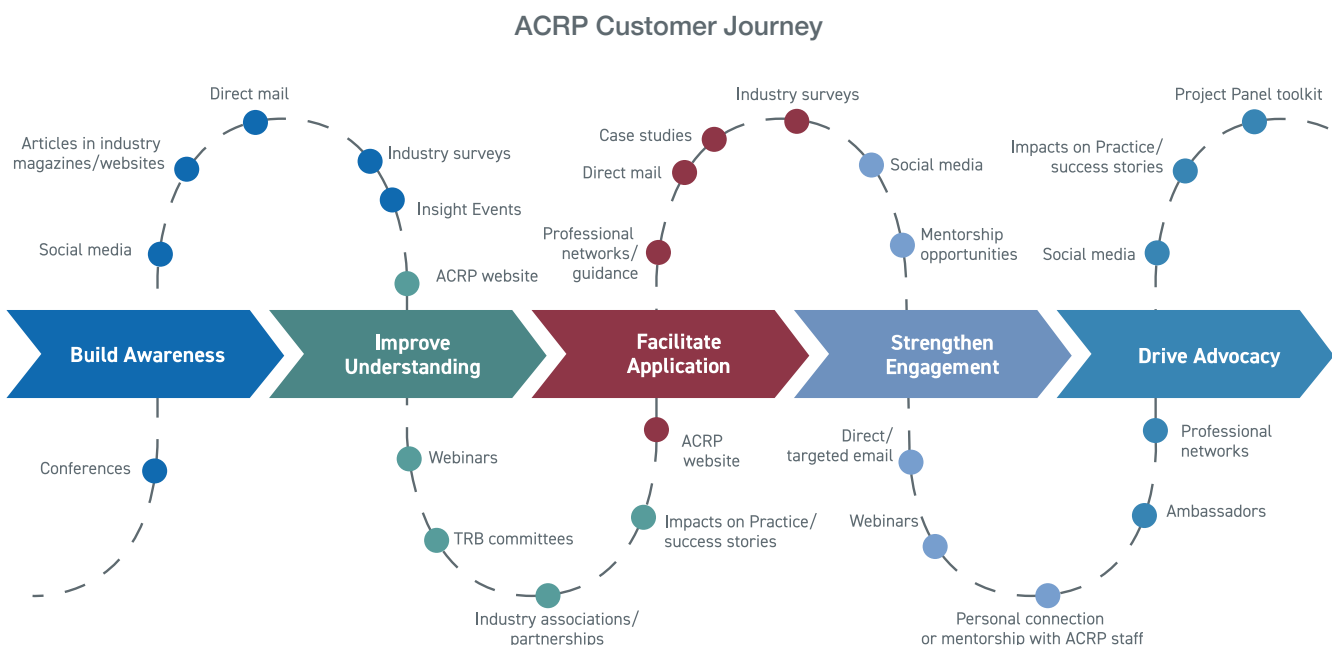
## 2023 Dissemination Plan

2023 saw the development of a new dissemination plan by ACRP. As stated in Goal 3 of ACRP’s Blueprint for the Future: Strategic Plan 2020–2024, improving dissemination and encouraging utilization of ACRP products continues to be a priority of the program. Guided by the objectives detailed in the 2020–2024 Strategic Plan and building on ACRP’s existing dissemination efforts, the 2023 Dissemination Plan establishes an actionable roadmap that:

- Identifies target audiences and their barriers and motivations to engaging with ACRP.
- Defines metrics to track progress across dissemination programs.
- Outlines recommendations to enhance dissemination activities and extend ACRP’s reach.
- Supports ACRP’s goal of delivering high-quality research products to practitioners across the aviation industry.

The activities outlined in the plan are guided by three pillars of dissemination—building awareness of ACRP, increasing access to ACRP resources, and strengthening engagement with practitioners. The activities supporting each pillar work together to enhance ACRP’s efforts to reach a diverse array of practitioners with practical research products, particularly those not yet aware of ACRP.

Leveraging a mix of dissemination tools, the plan aims to increase the number of individuals who have some awareness and understanding of ACRP and then guide them toward more engagement in which they use ACRP resources and are empowered to share ACRP’s message with their peers. ACRP considers airport practitioners to be its audience—that is, its customers—and has captured this journey in the five stages shown below. The supporting dissemination tools are shown as points woven through the customer journey and illustrate some of the ways an individual can receive information about and connect with ACRP.



## TRB’s National Aviation System Planning Symposium

ACRP’s Strategic Plan Blueprint for the Future 2020–2024 will be reviewed by former and current members of the AOC in January 2024 to assess the goals and identify action items. Because industry feedback has always been an important consideration in AOC decisions, members of the TRB aviation committees and other participants at the National Aviation System Planning Symposium in May of 2023 began the review of the strategic plan by providing constructive feedback on what ACRP is doing well, could be doing better, and which activities should and should not be continued. Their insights will be the starting point for determining ACRPs roadmap for the next five years.



*Participants at a session of the 2023 National Aviation System Planning Symposium*

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## Communication and Collaboration

ACRP engages industry practitioners through a variety of programs, competitions, and events. These activities create valuable opportunities for ACRP to interact and build relationships with stakeholders from seasoned industry executives to graduate and undergraduate researchers. In 2023, ACRP continued its outreach through established programs and laid the groundwork for new collaboration opportunities in 2024.

### Problem Statements

ACRP relies on feedback and insight from industry practitioners to help inform the research agenda. ACRP gathers this insight largely through the collection of problem statements, which can be submitted throughout the year using a streamlined online process. Users can submit problem statements regarding issues they encounter in their day-to-day experiences as airport practitioners. In 2023, ACRP received 82 problem statements from the industry, a 30% increase from the five-year average. TRB’s aviation committees also played an important role in the 2023 submission cycle, guiding practitioners in the development of 12 problem statements. Examples of themes that emerged in this year’s submissions included accommodating the cognitive and sensory diversity of travelers, resiliency, and engaging with new technologies.

## Insight Events

ACRP Insight Events bring airport industry leaders, subject-matter experts, and researchers together to discuss emerging topics of significance to airport operators. These in-depth, face-to-face gatherings are designed to promote communication and collaboration, foster innovation, and help identify areas of future interest and research. ACRP hosted two Insight Events in 2023 and has already started planning for three Insight Events to be held in 2024.



*Panel at the 2023 On-Demand Aviation Services Insight Event*

## The Future of Airport Finance

ACRP held the Future of Airport Finance event in March 2023. Participants in the event discussed the reality airports face with an uncertain recovery from the global pandemic, new and ongoing costs, and changing stakeholder expectations. The event brought together airport practitioners, industry experts, policymakers, and airport partners for discussion and dialog on the future of airport finance.

## On-Demand Aviation Services for Mobility, Logistics, Emergency Response, and Humanitarian Use Cases

ACRP held the On-Demand Aviation Services event in July 2023. The central theme of the event was a discussion of how modern technology has enabled ideas like advanced air mobility (AAM)—a broad concept in which consumers have on-demand access to air mobility, cargo and package delivery, healthcare applications, and emergency services through an integrated and connected multimodal transportation network. Attendees participated in presentations and breakout sessions that centered around:

- Supporting institutional readiness and capacity building for AAM among airports and public agencies.
- Helping public-sector stakeholders prepare and integrate emerging practices into planning, policy, and operations.
- Identifying research needs that could help inform public policy at all levels of government.



*The women attendees at the 2023 On-Demand Aviation Services Insight Event*



*Audience engagement at the 2023 The Future of Airport Finance Insight Event*

## Collaboration Initiatives

ACRP collaborates with airport stakeholders throughout the research process. This year, ACRP sought opportunities to ensure new voices were invited to provide their distinct perspectives on current challenges within the industry.

In July 2023, ACRP participated in the ACC’s Young Professional Meet Up that was hosted in the Saint Louis, Missouri, area. The event, sponsored by HOK, Faith Group, and the ACC, provided an opportunity for professionals in the early stages of their career to learn about opportunities in the airport industry. Three members of the AOC—Balram “B” Bheodari, General Manager of Hartsfield-Jackson Atlanta International Airport, Rhonda Hamm-Niebruegge, Director of Saint Louis Lambert International Airport and the current AOC Chair, and Cathryn Stephens, Director of Eugene Airport—shared their career stories and participated in a question and answer session. ACRP Manager Marci Greenberger provided an overview of the program and ways to get engaged.

ACRP also joined the Airport Minority Advisory Council’s (AMAC’s) 38th Annual Airport Business Diversity Conference held in San Antonio, Texas. ACRP is working with AMAC to foster greater participation of minorities and women in its program, including enhancing diversity on its project panels and among its research contractors. Marci Greenberger attended the conference on behalf of ACRP, which exhibited there for the first time. It was an excellent venue for meeting new people and educating them about ACRP.

In August 2023, ACRP decided to sunset the Champions program. Initially designed to close a gap in the industry by creating a space for young professionals to come together, this niche has now been filled by industry programs like the American Association of Airport Executives (AAAE) Young Professionals Committee, the ACC Young Professionals Forum, and the Airport Council International–North America (ACI-NA) Young Professionals Steering Committee. As such, ACRP will be focusing on helping all types of new practitioners—including young professionals and new entrants to the industry—connect with resources, community, and opportunities to advance their professional capabilities. ACRP looks forward to launching a variety of initiatives to support new practitioners and welcome them to the airport community.

## Industry Conferences

In 2023, ACRP participated in 10 conferences in nine states, encompassing a diverse audience of industry stakeholders. This year, ACRP debuted its newly designed exhibit booth to help visitors connect with ACRP staff and learn about the many resources available from the program. The new brighter and warmer design was part of an overarching effort to refresh the look and feel of ACRP's branded materials and enhance engagement. The booth includes key messaging to concisely convey ACRP's mission and value to industry stakeholders. ACRP also integrated more digital infrastructure into its display such as monitors displaying past and current projects and tablets to create visual interest and facilitate on-the-spot engagement with research products and other resources.

### ACRP-Attended Events in 2023

#### TRB Annual Meeting

January 8 – 12 | Washington, DC

#### Arizona Airports Association Spring Conference

April 30 – May 2 | Flagstaff, AZ

#### TRB National Aviation System Planning Symposium

May 15 – 18 | Irvine, CA

#### AAAE Annual Conference

June 3 – 5 | Denver, CO

#### AMAC Airport Business Diversity Conference

June 10 – 14 | San Antonio, TX

#### ACC Young Professional Meet Up

July 19 | St. Louis, MO

#### NASAO Annual Convention

September 9 – 13 | Rogers, AR

#### Michigan Airport Conference

September 11 – 14 | Muskegon, MI

#### ACI-NA Annual Conference

September 30 – October 3 | Long Beach, CA

#### HBCU Aviation Director's Summit

November 1-3 | Hampton, VA



ACRP's Marci Greenberger, Sarah Kosling, and Jordan Christensen at the 2023 AAAE Annual Conference



ACRP's Joe Navarette at the NASAO Annual Convention



## Ambassadors

The ACRP Ambassador program comprises a select group of experienced airport professionals who volunteer to attend industry conferences and events across the country to help amplify ACRP's presence. Ambassadors engage directly with industry practitioners and have a unique opportunity to make a personal connection with those not yet aware of ACRP. While attending these events, Ambassadors host exhibit booths and present ACRP research findings to encourage implementation, engage fellow practitioners in the research process, and share information to increase understanding of ACRP's research products and programs.

ACRP welcomed the new class of 2024–2026 Ambassadors, kicking off with an orientation in October 2023. During the orientation, Ambassadors discussed their roles and responsibilities, joined ACRP staff and their peers for discussions about emerging industry topics, and reviewed the new Ambassador exhibit materials.



*2024–2026 Class of ACRP Ambassadors at Orientation: back row (left to right): Abubaker Azam, Kent Penney, Shenghua Wu, Casey Ries, Andrew Ndolo; front row (left to right): Lynn Hampton, Xiaobo Liu, Catherine Young, Maria "Ita" Itati Moguilner, Max Li (Not pictured: Mike Hainsey, Valerie Churchwell, Gaël Le Bris)*



*The new class of Ambassadors is introduced to ACRP's many research product resources*



*Michael Whittaker, Ambassador Coordinator (Cadmus), addresses the new class of Ambassadors at the October Orientation*

## University Design Competition

The ACRP University Design Competition provides students with a unique opportunity to learn about and contribute to airport industry research. Through their work with airports and other stakeholders, the program also helps students lay the groundwork for careers as future airport employees and practitioners. This nationwide contest invites undergraduate and graduate students to form teams and—alongside their faculty advisors—devise novel approaches and solutions that address airport issues in four key areas: airport operation and maintenance, runway safety/runway incursions/runway excursions, airport environmental interactions, and airport management and planning. Participants have a chance to win cash prizes for their solutions, and top-ranking teams can showcase their work at a national award ceremony. For the first time, the award ceremony was live streamed to any interested parties and at one point during the event, more than 30 parties were watching!

**In 2023, the following teams received recognition:**

- Purdue University: *Implementing Airside Bioswales for Stormwater Management at the Airport* – 1st place in Airport Environmental Interactions Challenge.
- The Pennsylvania State University: *RunwAI* – 1st place in Airport Operation and Maintenance Challenge.
- Purdue University: *Active Runway Indication System (ARIS)* – 1st place in Runway Safety/Runway Incursions/Runway Excursions Challenge.
- Purdue University: *Accessible Air Travel Information System (A2TIS)* – 1st place in Airport Management and Planning Challenge.



2023 ACRP University Design Competition winners and ACRP staff

## Graduate Research Awards

The ACRP Graduate Research Awards promote critical thinking, interdisciplinary discussions, and research among future aviation managers, operators, designers, and policymakers. Geared toward graduate students, this program encourages applied research on airport and aviation system matters with the goal of enhancing the quality, reliability, safety, and security of civil aviation. In 2023, 11 students were granted ACRP funding to pursue their proposed research projects. Alongside financial support, awardees gain access to a panel of expert advisors in their research field, an opportunity to present their final papers at the TRB Annual Meeting, and the chance to have their papers considered for publication in the *Transportation Research Record: Journal of the Transportation Research Board*.

**The 2023–2024 Graduate Research Award winners are:**

**Yusra Alhadidi** is a doctoral student at the University of Illinois Urbana-Champaign majoring in civil and environmental engineering. Her paper is titled “Opting Non-recyclable Plastics as Modifier into Flexible Airfield Pavement.” Imad Al-Qadi is her faculty mentor.

**Navya Annapareddy** is a doctoral student at the University of Virginia majoring in data science. Her paper is titled “Utilizing Pose Estimation for Ergonomic Risk Analysis for Baggage Handling.” Stephen Baek is her faculty mentor.

**Akash Bajaj** is a doctoral student at the University of Illinois Urbana-Champaign majoring in civil engineering. His paper is titled “Prediction of Cracking Potential of Airfield Asphalt Pavements.” Imad Al-Qadi is his faculty mentor.

**Hong-Cheol Choi** is a doctoral student at Purdue University majoring in aerospace engineering. His paper is titled “Detection and Mitigation of Cyberattacks on ADS-B Data for Air Traffic Control.” Inseok Hwang is his faculty mentor.

**Luigi Raphael Dy** is a doctoral student at Purdue University majoring in technology. His paper is titled “Developing an Affordable Runway Incursion Prevention System.” John Mott is his faculty mentor.

**Daniel (Mac) Lang** is a master’s student at the Ohio State University majoring in city and regional planning. His paper is titled “Curating an Inclusive Journey: Examining Institutional Strategies for Promoting Diversity, Equity, and Inclusion in Airport Arts.” Amber Woodburn McNair is his faculty mentor.

**Bhaskar Mukherjee** is a doctoral student at the Pennsylvania State University majoring in aerospace engineering. His paper is titled “Impact of AAM Operations on Airport Noise.” Kenneth Brentner is his faculty mentor.

**Adebimpe Rasak-Usman** is a master’s student at American University majoring in environmental science. Her paper is titled “The Impact of Airport Activity on Local Air Quality.” Valentina Aquila is her faculty mentor.

**Jackson Stewart** is a master’s student at the University of Louisville Speed School majoring in civil engineering. His paper is titled “Sustainable Deicing Method for Airport Pavement.” Omid Ghasemi Fare is his faculty mentor.

**Atul Subedi** is a doctoral student at Utah State University majoring in civil and environmental engineering (transportation engineering). His paper is titled “Feasibility and Potential of Electric Air Taxis for Long-Distance Airport Access/Egress Trips.” Patrick A. Singleton is his faculty mentor.

**Abhilash Vyas** is a doctoral student at the University of Illinois Urbana-Champaign majoring in civil engineering. His paper is titled “Balanced Mix Design Framework for Designing Airfield Pavements Incorporating Reclaimed Asphalt Pavements.” Ramez M. Hajj is his faculty mentor.



*Representatives of the 2021-2022 class who presented their papers at the 2023 TRB Annual Meeting and ACRP staff*

# Digital Engagement

ACRP strives to expand its outreach to diverse audiences and to share its research with as many practitioners as possible by incorporating social media and the website to connect with new practitioners and keeping existing users informed and engaged.




## Social Media

Social media provides relevant and accessible platforms for ACRP to reach new users with links to resources, engage with its existing network, and highlight events and accomplishments. ACRP maintains an active presence on LinkedIn, Facebook, and X (formerly known as Twitter).

In 2023, ACRP’s social media strategy focused on increasing the number of social media followers, fostering more engagement with ACRP and related industry posts, and emphasizing opportunities for audiences to participate in ACRP’s research process. As a result of these efforts, ACRP has seen a combined 240% growth in Facebook and LinkedIn followers

corresponding with an increase in impression, reach, and engagement across both platforms. ACRP’s social media channels also received an aesthetic refresh, which included new profile pictures, updated biographies, and new branded social media graphics. By modernizing ACRP’s approach to social media, these updates will support wider and more meaningful engagement between ACRP and its network across digital platforms.



	X (formerly Twitter) 		LinkedIn 		Facebook 
	Impressions <sup>1</sup>	Engagements <sup>2</sup>	Impressions <sup>1</sup>	Engagements <sup>2</sup>	Reach <sup>3</sup>
January	710	17	811	20	161
February	605	18	3,613	214	754
March	1,395	22	3,587	142	395
April	1,861	15	2,265	101	304
May	2,530	24	3,152	166	480
June	1,085	7	3,243	129	426
July	1,770	31	2,040	136	545
August	1,531	31	4,189	242	1,896
September	1,533	24	4,796	294	2,475

<sup>1</sup>Number of times a post is displayed online.

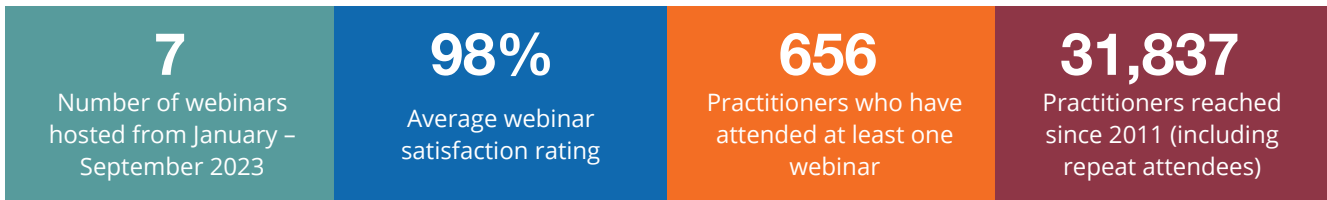
<sup>2</sup>Number of interactions a post or page receives (i.e., reactions, shares, comments, and link clicks).

<sup>3</sup>Number of times a post or page was viewed at least once.

Data runs through September 2023

## Webinars

TRB’s ACRP free-to-attend webinar series offers research teams and principal investigators (PIs) the opportunity to discuss their research findings, lessons learned, and cutting-edge solutions to issues facing the airport industry with a large audience of airport practitioners across the country and globally. These informational and interactive webinars allow attendees to engage with ACRP research by hearing firsthand accounts of the research process and having the opportunity to ask questions to the research teams.



**Most Attended Webinar of 2023 – Electrification and Hydrogen Technologies in Airports:** Airports of all sizes want to understand the broader industry shift toward alternative power solutions and how to prepare. TRB hosted a webinar on May 25, 2023, based on *ACRP Research Report 236: Preparing Your Airport for Electric Aircraft and Hydrogen Technologies* that introduced the emerging electric and hybrid electric aircraft industry. Presenters estimated potential market growth, provided guidance to help airports estimate the potential impact on their facilities, and suggested ways to prepare for this industry shift. Attendees were able to preview the corresponding toolkit, which includes a database of electric aircraft and estimations of electric power requirements. Presenters also discussed the broader industry landscape of alternative power in aviation.

**Of the 163 webinar attendees:**

100% felt the presenters helped them to understand the content.

93% have plans to use the content featured as a reference for their own work or as information to share with colleagues.

28% were first-time attendees of a TRB ACRP webinar.

## ACRP Website



**17,608**

Total Pageviews



**8,076**

Number of Users



**53,276**

Total Downloads

Data runs through September 30, 2023

The ACRP website is a central hub for practitioners and other industry stakeholders to access resources, tools, and opportunities for engagement such as Insight Events and problem statement submissions. In 2023, ACRP kicked off a refresh of its website design to ensure visitors can efficiently find the content that is most relevant to them. ACRP also explored ways to enhance and maintain search engine optimization to position ACRP as a high-ranking site in external search engine results.

# Appendix A: Publications of the Airport Cooperative Research Program, 2023

Research Reports		
No.	Project No.	Title, Pages, Publication Year
239	01-48	Assessing Airport Programs for Travelers with Disabilities and Older Adults (& WR 14), 126 p. (2023)
242	03-57	Transformations in Wireless Connectivity: Guide to Prepare Airports (& WR 15), 180 p. (2023)
243	03-50A	Urban Air Mobility: An Airport Perspective, 114 p. (2023)
248	01-44	Airport Insurance Requirements, 88 p. (2023)
249	04-24	Developing an Airport Program to Address Human Trafficking: A Guide, 126 p. (2023)
250	10-30	Program Evaluation Report Card Tool for Wildlife Hazard Management Plans: User Guide, 86 p. (2023)
251	01-39A	Digital Marketing to Enhance Customer Experience and Increase Airport Revenue, 138 p. (2023)
252	03-53	Airport Baggage Handling System Decision-Making Based on Total Cost of Ownership, 90 p. (2023)
253	03-49	Airport Lessons Learned from the COVID-19 Pandemic, 118 p. (2023)
254	03-59	Strategies to Address Homelessness at Airports, 78 p. (2023)
255	02-91	PFAS Source Differentiation Guide for Airports, 100 p. (2023)
256	10-31	Virtual Airport Ramp Control Operations Facilities: A Guide, 102 p. (2023)
257	02-96	Guide for Treatment of Airport Stormwater Containing Deicers: Update, 96 p. (2023)
258	01-49	The Evolution of Knowledge Management at Airports, 92 p. (2023)
259	04-27	Methods to Manage Tree Growth Near Airports, 140 p. (2023)

Syntheses (Project 11-03)		
No.	Topic No.	Title, Pages, Publication Year
121	S04-26	Managing a Flight Diversion with an Emergency Response at Small, Non-Hub, or General Aviation Airports, 168 p. (2023)
122	S07-03	Airfield Apron and Ramp Surface Markings, 150 p. (2023)
123	S03-16	State Aviation Funding: Project Prioritization and Selection Processes, 248 p. (2023)
124	S09-09	Automated Pavement Condition Survey Practices at Airports, 74 p. (2023)
125	S03-18	Communication, Implementation, and Outcomes of Airport Economic Impact Studies, 134 p. (2023)
126	S06-07	Impacts of COVID-19 on Airport Work Models and Strategies, 120 p. (2023)
127	S02-22	Airport Programs that Reduce Landside Vehicle Carbon Emissions, 68 p. (2023)
128	S09-10	Airport Turf and Vegetation Management Practices, 68 p. (2023)
129	S01-26	Landscape of the FBO Industry in 2022, 82 p. (2023)
130	S03-17	Airport-Centric Advanced Air Mobility Market Study, 94 p. (2023)
131	S01-27	State of Airport Loyalty Programs, 102 p. (2023)
132	S10-19	Airport Landside Data: Collection and Application, 70 p. (2023)

Web-Only Documents		
No.	Project No.	Title, Pages, Publication Year
55	03-65	ACRP Product Update: Prioritization of Policy and Planning Products, 25 p. (2023)
58	11-09/Topic 1	How New Corporate Environmental Standards Will Impact Airports, 40 p. (2023)

Legal Research Digests (Project 11-01)		
No.	Topic No.	Title, Pages, Publication Year
21	04-05	Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters as of December 31, 2021, Update, (2023)
44	14-01	Airports Responding to Public Health Emergencies: Legal Considerations, 60 p. (2023)
45	11-03	Airport Customer Facility Charges: Analysis of Laws, Regulations, and Case Law, 24 p. (2023)

WebResources		
No.	Project No.	Title, Publication Year
10	11-02/Task 37	Periodic Publication on Transformative Technologies at Airports (2023)
13	03-56	Airside Planning, Design, Construction, Operations, and Maintenance (2023)
14	01-48	Tools to Assess Airport Programs for Travelers with Disabilities and Older Adults (& Rep. 239) (2023)
15	03-57	Assessment Tool for Transformation in Wireless Connectivity (& Rep. 242) (2023)

Transportation Insights		
No.	Project No.	Title, Pages, Publication Year
1	11-08(21-02)	Systemic Inequality in the Airport Industry: Exploring the Racial Divide, 70 p. (2023)

**Notes:**

Publications in parentheses with an ampersand (&) are companion publications.

# Appendix B: Summary of Project Status Through December 31, 2023

Project No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison	Staff Officer
:: 1. Administration [57]									
01-01	Guidebook for Managing Small Airports	\$400,000(06)	\$397,230	University of Minnesota	1/24/07	3/31/09	Completed - Published as Report 16 and Web-Only Document 5		
01-02	Guidebook for Developing and Managing Airport Contracts	\$400,000(07)	\$315,000	HNTB Corporation	4/24/07	2/28/10	Completed - Published as Report 33		
01-03	Integrating Airport Information Systems	\$300,000(07)	\$300,000	Aero Tech Consulting, Inc.	10/23/07	11/22/08	Completed - Published as Report 13 and Web-Only Document 1		
01-04	Marketing Guidebook for Small Airports	\$200,000(07)	\$200,000	Oliver Wyman, Inc.	1/24/08	9/30/09	Completed - Published as Report 28		
01-05	Guidebook for Airport Capital Project Delivery Systems	\$100,000(07)	\$194,994	Northeastern University	10/30/07	5/30/10	Completed - Published as Report 21		
		\$25,000(08)							
		\$70,000(10)							
01-06	A Guidebook for Developing an Airport Performance Measurement System	\$400,000(08)	\$400,000	Infrastructure Management Group, Inc.	5/6/08	9/30/09	Completed - Published as Report 19		
01-07	Airport/Airline Agreements - Practices and Characteristics	\$400,000(08)	\$393,005	Ricondo & Associates, Inc.	5/30/08	12/15/09	Completed - Published as Report 36		
01-08	Guidebook for Developing and Leasing Airport Property	\$400,000(08)	\$350,000	R.W. Armstrong and Associates, Inc.	6/24/08	9/30/10	Completed - Published as Report 47		
01-09	Resource Guide to Airport Performance Indicators	\$400,000(09)	\$400,000	Oliver Wyman, Inc.	5/8/09	3/7/11	Completed - Published as Report 19A		
01-10	A Handbook for Developing, Implementing, and Overseeing Airport Capital Plans	\$400,000(09)	\$399,955	HNTB Corporation	7/10/09	3/10/11	Completed - Published as Report 49		
01-11	Understanding Airport In-Terminal Concession Programs	\$350,000(09)	\$350,000	LeighFisher, Inc.	6/17/09	5/31/11	Completed - Published as Report 54		
01-12	A Primer for Information Technology Systems at Airports	\$350,000(09)	\$348,843	Faith Group, LLC	7/7/09	5/31/11	Completed - Published as Report 59		
01-13	Developing a Database-Driven Web Application for Benchmarking Airport Performance	\$500,000(09A)	\$549,727	Amadeus Consulting	10/8/10	7/31/16	Completed		
01-14	Considering and Evaluating Airport Privatization	\$500,000(09A)	\$500,000	LeighFisher, Inc.	5/10/10	12/31/11	Completed - Published as Report 66		
01-15	Innovative Revenue Strategies - An Airport Guide	\$400,000(10)	\$400,000	Kramer Arotek, Inc.	5/14/10	12/31/14	Completed - Published as Report 121		
01-16	Asset and Infrastructure Management for Airports	\$400,000(10)	\$400,000	GHD Consulting, Inc.	6/16/10	12/1/11	Completed - Published as Report 69		
01-17	Guidebook for Developing General Aviation Airport Business Plans	\$400,000(10)	\$398,350	Aviation Management Consulting, Inc.	6/28/10	6/1/12	Completed - Published as Report 77		
01-18	Application of Enterprise Risk Management at Airports	\$350,000(10)	\$350,000	Marsh USA	6/30/10	9/30/11	Completed - Published as Report 74		
01-19	Airport Capital Improvements: A Business Planning and Decision-Making Approach	\$400,000(11)	\$400,000	MCR Federal, LLC	7/13/11	7/31/14	Completed - Published as Report 120 and Web-Only Document 18		
01-20	Procuring and Managing Professional Services for Airports	\$350,000(11)	\$350,000	HNTB Corporation	7/21/11	2/28/13	Completed - Published as Report 87		
01-21	A Guidebook for Airport-Airline Consortiums	\$400,000(12)	\$387,642	Airport & Aviation Professionals, Inc.	6/1/12	4/1/14	Completed - Published as Report 111		
01-22	Guidebook for Successfully Assessing and Managing Risks for Airport Capital and Maintenance Projects	\$300,000(12)	\$300,000	Direct Effect Solutions, Inc.	8/14/12	5/14/14	Completed - Published as Report 116		
01-23	A Guidebook for Mitigating Disruptive WiFi Interference at Airports	\$350,000(13)	\$349,489	System Planning Corporation	5/2/13	9/30/14	Completed - Published as Report 127		
01-24	Renewable Energy as an Airport Revenue Source	\$400,000(13)	\$399,612	Harris Miller Miller & Hanson Inc.	8/13/13	3/31/15	Completed - Published as Report 141		
01-25	A Guidebook for Increasing Diverse and Small Business Participation in Airport Business Opportunities	\$250,000(13)	\$250,000	Exstare Federal Services Group, LLC	8/7/13	9/6/14	Completed - Published as Report 126		
01-26	Improving the Airport Customer Experience	\$400,000(14)	\$400,000	Leigh Fisher Associates	7/11/14	2/15/16	Completed - Published as Report 157		
01-27	NextGen - A Primer	\$750,000(14)	\$750,000	Logistics Management Institute	6/16/14	1/31/17	Completed - Published as WebResource 5		
01-28	NextGen - Guidance for Engaging Airport Stakeholders	\$300,000(14)	\$300,000	Grafton Technologies	6/4/14	5/6/16	Completed - Published as Report 150, Volume 2		



Project No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison	Staff Officer
01-29	Design and Development of a State Aviation Information Database	\$150,000(16)	\$149,975	Engineering Corporation	8/31/16	3/31/19	Completed - database provided to NASAO		
01-30	Airport Management Guide for Providing Aircraft Fuel Services	\$350,000(16)	\$350,000	Kramer Aerotek, Inc.	10/1/16	6/30/18	Completed - Published as Research Report 192		
01-31	Innovative Solutions to Facilitate Accessibility for Airport Travelers with Disabilities	\$350,000(16)	\$349,973	Open Doors Organization	6/16/16	4/15/19	Completed - Published as Research Report 210		
01-32	Updating ACRP Report 16: Guidebook for Managing Small Airports	\$350,000(16)	\$349,948	Hanson Professional Services, Inc.	8/18/16	4/30/18	Completed - Published as WebResource 6 & Report 16 Second Edition		
01-33	Preparing for the Connected Airport and the Internet of Things	\$400,000(16)	\$400,000	Texas A&M Transportation Institute	6/22/16	3/30/18	Completed - Published as Research Report 191		
01-34	Developing Innovative Strategies for Aviation Education and Participation	\$400,000(16)	\$350,000	Mead & Hunt Inc.	9/21/16	12/31/18	Completed - Published as Research Report 202		
01-35	Transportation Network Companies (TNC's): Impacts To Airport Revenues and Operations	\$500,000(18)	\$498,512	Ritondo & Associates, Inc.	2/14/18	9/30/19	Completed - Published as Research Report 215		
01-36	Guidebook for Developing State Aviation System Plans	\$300,000(18)	\$299,999	Kimley-Horn & Associates	4/29/19	10/31/20	Completed - Published as Research Report 244	A. Velayos C. Nutting J. Raymond	
01-37	Performance Measures for State Aviation Agencies	\$250,000(18)	\$250,000	Mead & Hunt Inc.	6/18/18	9/17/19	Completed - Published as Research Report 223		
01-38	Market Characteristics for Property at Small Airports	\$200,000(18)	\$200,000	Aviation Management Consulting, Inc.	5/9/18	6/8/19	Completed - Published as Research Report 213		
01-39	Creating Marketing Techniques to Improve Revenue Generation Partnerships	\$300,000(19)	\$300,000	Global Dynamics Group I, LLC	8/6/19	8/5/20	Contract terminated: remaining research underway on Project 01-39A	D. Duchow	Joseph Navarrete
01-39A	Creating Marketing Techniques to Improve Revenue Generation Partnerships	AOC allocated an additional \$140,000 to be combined with unused funds from original contract.	\$200,000	Meethan Aviation Group	6/17/21	11/30/22	Completed - Published as Research Report 251	D. Duchow	
01-40	Evaluating the Traveler's Perspective to Improve the Airport Customer Experience	\$500,000(19)	\$500,000	IOS Partners, Inc.	5/1/19	9/30/20	Completed - Published as Research Report 231		
01-41	Blockchain Technology and Airports -A Primer	\$330,000(19)	\$330,000	InterVISTAS	6/14/21	8/13/22	Completed - Publication Pending		Matthew Griffin
01-42	Review of Airport Governance Structures	\$300,000(19)	\$300,000	Crawford, Murphy & Tilly Inc.	4/24/19	7/23/20	Completed - Published as Research Report 244	M. Vasconcelos	
01-43	Conducting Consumer Research of Air Passengers	\$450,000(19)	\$450,000	JD Franz Research Inc.	6/10/19	12/9/20	Completed - Published as Research Report 235		
01-44	Airport Insurance Requirements	\$300,000(20)	\$299,133	Eastern Research Group	7/20/20	4/22/22	Completed - Published as Research Report 248		C. Gillette
01-45	Updated Guidebook for Airport Project Delivery Systems	\$450,000(20)	\$450,000	HKA Global	5/8/20	7/29/22	Completed - Publication Pending		P. Dickerson Matthew Griffin
01-46	A Guide for Geospatial Data Governance Policies and Procedures	\$450,000(20)	\$349,911	Woolpert	5/5/21	11/4/22	Completed - Publication Pending	C. Criswell	Jordan Christensen
01-47	Guide to Airport Innovation—Creating an Organizational Fit for the Future	\$300,000(20)	\$300,000	Barich, Inc.	9/11/20	7/22/22	Completed - Published as WebResource 16	R. Didio	Matthew Griffin
01-48	Assessing the Effectiveness of Airport Services and Programs for Passengers with Disabilities	\$500,000(20)	\$500,000	IOS Partners	5/5/20	11/3/21	Completed - Published as Research Report 239 and WebResource 14	W. Major	
01-49	The Evolution of Knowledge Management at Airports	\$350,000(20)	\$350,000	Spy Pond Partners	3/15/20	11/29/22	Completed - Published as Research Report 258	C. Nutting	Marci Greenberger
01-50	Data Privacy Management Guidance for Airports	\$350,000(22)	\$349,085	Del Ray Solutions LLC	4/19/22	10/18/23	Completed - Publication Pending	N. Lomangino	Matthew Griffin
01-51	Improving Airport Organizational Practices to Enhance ACDBE/DBE Participation	\$400,000(22)	\$399,998	AMAC	6/16/22	12/14/23	Research in Progress	A. Horton	Joseph Navarrete
01-52	Championing the Airport System—Challenging the Paradigm	\$690,000(22)	\$649,945	Futron Aviation	7/14/22	1/15/24	Research in Progress	Donald Harper	Marci Greenberger

Project No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison	Staff Officer
01-53	Review and Update of ACRP Administration and Human Resources Products	\$500,000 (22)					Research in Progress		Matthew Griffin
01-54	Update to ACRP Report 49: Collaborative Airport Capital Planning Handbook		\$450,000	----			In Development		Marci Greenberger
01-55	Guidebook for In-Terminal Airport Concession Strategies and Business Models		\$500,000	----			In Development		Joseph Navarrete
01-56	New Revenue Sources and Financing Alternatives for Small and Mid-Sized Regional Airports		\$350,000	----			In Development		Matthew Griffin
02-01	Alternative Aircraft and Pavement Deicers and Anti-Icing Formulations with Improved Environmental Characteristics	\$600,000(06)	\$600,000	University of South Carolina	11/1/06	4/30/10	Completed - Interim report published as Web Only Document 3; summary of final report published as Research Results Digest 9; full final report published as Web-Only Document 8		
02-02	Deicing Planning Guidelines and Practices for Stormwater Management Systems	\$300,000(06)	\$300,000	CH2M Hill	10/9/06	9/15/09	Completed - Published as Report 14 and Deicing Practices 1-41		
02-03	Aircraft and Airport-Related Hazardous Air Pollutants: Research Needs and Analysis	\$100,000(06)	\$100,000	Aerodyne Research Inc.	12/19/06	3/14/08	Completed - Published as Report 7		
02-03A	Measurement of Gaseous HAP Emissions from Idling Aircraft as a Function of Engine and Ambient Conditions	\$500,000(06)	\$499,741	Aerodyne Research Inc.	1/12/09	3/30/12	Completed - Published as Report 63		
02-04	Research Needs Associated with Particulate Emissions at Airports	\$100,000(06)	\$99,897	Environmental Consulting Group, LLC	1/2/07	3/1/08	Completed - Published as Report 6		
02-04A	Summarizing and Interpreting Aircraft Gaseous and Particulate Emissions Data	\$350,000(07)	\$349,470	University of Missouri	4/12/07	7/11/08	Completed - Published as Report 9		
02-05	Aircraft Noise: A Toolkit for Managing Community Expectations	\$500,000(07)	\$399,982	Landrum & Brown	4/20/07	3/31/09	Completed - Published as Report 15		
02-06	Guidebook on Preparing Airport Greenhouse Gas (GHG) Emissions Inventories	\$200,000(07)	\$199,403	Wyle Laboratories, Inc.	10/9/07	9/8/08	Completed - Published as Report 11 and Web-Only Document 2		
02-07	Handbook for Analyzing the Costs and Benefits of Alternative Turbine Engine Fuels at Airports	\$500,000(07)	\$499,960	CSI, Inc.	10/22/07	10/29/10	Completed - Published as Report 46		
02-08	Quantifying Contributions to Local Air Quality Impacts from Airport-Related Emissions	\$600,000(08)	\$599,970	Wyle Laboratories, Inc.	6/4/08	4/30/12	Completed - Published as Report 71		
02-09	A Comprehensive Development Plan for a Multimodal Noise and Emissions Model	\$200,000(08)	\$199,630	Wyle Laboratories, Inc.	7/7/08	10/29/10	Completed - Published as Web-Only Document 11		
02-10	Handbook for Considering Practical Greenhouse Gas Emission Reduction Strategies for Airports	\$500,000(09)	\$499,921	CDM Federal Programs Corporation	6/9/09	6/9/11	Completed - Published as Report 56		
02-11	A Handbook for Addressing Water Resource Issues Affecting Airport Capacity Enhancement Planning	\$150,000(09)	\$150,000	Gresham, Smith and Partners	5/11/09	6/30/11	Completed - Published as Report 53		
02-12	Environmental Optimization of Aircraft Departures: Fuel Burn, Emissions, and Noise	\$300,000(09)	\$300,000	Wyle Laboratories, Inc.	4/20/09	3/29/13	Completed - Published as Report 86		
02-13	Guidebook of Practices for Improving Environmental Performance at Small Airports	\$200,000(09) \$75,000(08)	\$200,000	Gresham, Smith and Partners	6/16/09	8/20/10	Completed - Published as Report 43		
02-14	Guidebook for Selecting Methods to Monitor Airport and Aircraft Deicing Materials	\$200,000(09)	\$150,000	Gresham, Smith and Partners	6/3/10	5/31/12	Completed - Published as Report 72		
02-15	Recycling Best Practices - A Guidebook for Advancing Recycling from Aircraft Cabins	\$300,000(09)	\$300,000	Cascadia Consulting Group, Inc.	9/22/10	11/30/12	Completed - Published as Report 100		
02-16	Airport Ground Support Equipment (GSE) Inventory and Emission Reduction Strategies	\$600,000(09)	\$599,717	CDM Federal Programs Corporation	6/18/10	6/30/12	Completed - Published as Report 78		
02-17	Measuring PM Emissions from Aircraft Auxiliary Power Units, Tires and Brakes	\$500,000(09)	\$500,000	Missouri University of Science and Technology	9/3/10	5/31/13	Completed - Published as Report 97		
02-18	Guidelines for Integrating Alternative Jet Fuel into the Airport Setting	\$250,000(09)	\$249,982	Metron Aviation, Inc.	6/17/10	11/30/11	Completed - Published as Report 60		

Project No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison	Staff Officer
02-19	Winter Design Storm Factor Determination for Airports	\$300,000(09)	\$249,999	CH2M Hill	6/24/10	12/1/12	Completed - Published as Report 81		
02-20	The Role of Air Travel in the Transmission and Spread of Insect-borne Diseases	\$250,000(10)	\$249,995	University of Florida	9/7/10	12/31/17	Completed - Published as CRP-CD-137		
02-20A	Infectious Disease Mitigation in Airports and on Aircraft	\$200,000(11)	\$200,000	Environmental Health & Engineering, Inc.	7/16/11	5/31/13	Completed - Published as Report 91		
02-21	Guidebook for Preparing Airport Emissions Inventories for State Implementation Plans	\$500,000(10)	\$499,805	KB Environmental Sciences, Inc.	8/31/10	2/28/13	Completed - Published as Report 84		
02-22	Incorporating Sustainability into Traditional Airport Projects	\$300,000(09)	\$300,000	Landrum & Brown	7/12/10	5/31/12	Completed - Published as Report 80		
02-23	Alternative Fuels as a Means to Reduce PM2.5 Emissions at Airports	\$500,000(10)	\$499,798	Project Performance Corporation	7/16/10	4/30/12	Completed - Published as Web-Only Document 13		
02-24	Guidelines for Airport Sound Insulation Programs	\$200,000(10)	\$200,000	The Jones Payne Group, Inc.	8/27/10	3/8/13	Completed - Published as Report 89		
02-25	Evaluating Alternatives For Aircraft Ground Power, Heating, and Air Conditioning	\$200,000(10)	\$199,773	Environmental Science Associates	7/7/10	12/31/11	Completed - Published as Report 64		
02-26	Assessing Aircraft Noise Conditions Affecting Student Learning	\$450,000(10)	\$449,672	Wyle Laboratories, Inc.	6/26/10	11/30/13	Completed - Published as Web-Only Document 16		
02-27	Aircraft Taxi Noise Database for Airport Noise Modeling	\$150,000(10)	\$149,779	Wyle Laboratories, Inc.	6/11/10	3/29/13	Completed - Published as Web-Only Document 9, Volume 1		
02-27A	Developing a Generic Commercial Jet Taxi Noise Directivity Pattern for AEDT	\$75,000(12)	\$74,767	Combined	2/22/12	3/29/13	Completed - Published as Web-Only Document 9, Volume 2		
02-28	Prototype Airport Sustainability Rating System - Characteristics, Viability, and Implementation Options	\$800,000(11)	\$687,103	Vanasse Hangen Brustlin, Inc.	6/27/11	12/31/14	Completed - Published as Report 119		
02-29	Guidance for Treatment of Airport Stormwater Containing Deicers	\$600,000(11)	\$500,000	Gresham, Smith and Partners	6/6/11	6/30/13	Completed - Published as Report 99		
02-30	Enhancing the Airport-Industry Database of Sustainable Practices	\$500,000(11)	\$846,320	CDM Federal Programs Corporation	7/18/11	9/29/17	Completed - Transferred to DFW Airport		
02-31	Guidelines for Ensuring Longevity in Airport Sound Insulation Programs	\$350,000(11)	\$349,980	Wyle Laboratories, Inc.	7/8/11	9/15/13	Completed - Published as Report 105		
02-32	Understanding Microbial Biofilms in Receiving Waters Impacted by Airport Deicing Activities	\$400,000(11)	\$300,000	CH2M Hill	7/20/11	5/30/14	Completed - Published as Report 115		
02-33	Guidance For Estimating Airport Construction Emissions	\$350,000(11)	\$349,980	Wyle Laboratories, Inc.	7/1/11	9/30/13	Completed - Published as Report 102		
02-34	Best Practices Guidebook for Preparing Lead (Pb) Emission Inventories from Piston-Powered Aircraft	\$500,000(11)	\$500,000	Sierra Research, Inc.	6/3/11	10/21/14	Completed - Published as Report 133; and Web-Only Document 21		
02-35	Research Methods for Understanding Aircraft Noise Annoyance and Sleep Disturbance	\$600,000(11)	\$599,993	Harris Miller Miller & Hanson Inc.	9/20/11	6/30/14	Completed - Published as Web-Only Document 17		
02-36	Assessing Opportunities for Alternative Fuel Distribution Programs	\$500,000(11)	\$400,000	Metron Aviation, Inc.	6/7/11	12/6/12	Completed - Published as Report 83		
02-37	Integrated Noise Model Accuracy for General Aviation Aircraft	\$400,000(11)	\$350,000	Harris Miller Miller & Hanson Inc.	6/14/11	6/30/14	Completed - Published as Web-Only Document 19		
02-38	Guidebook for Energy Facilities Compatibility with Airports and Airspace	\$450,000(12)	\$449,850	Harris Miller Miller & Hanson Inc.	5/2/12	11/2/13	Completed - Published as Report 108		
02-39	Applying Whole Effluent Toxicity Testing to Aircraft Deicing Runoff	\$500,000(12)	\$339,603	NewFields Government Services, LLC	10/5/12	1/30/15	Completed - Published as Report 134		
02-40	Climate Change Adaptation Planning: Risk Assessment for Airports	\$500,000(12)	\$491,923	Dewberry & Davis, LLC	11/20/12	12/21/14	Completed - Published as Report 147		
02-41	Estimating Takeoff/Thrust Settings for Airport Emissions Inventories	\$450,000(12)	\$449,998	Cadmus Group, Inc.	9/1/12	10/31/14	Completed - Published as CD-161		

Project No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison	Staff Officer
02-42	Understanding Air Quality and Public Health Studies Related to Airports	\$200,000(12)	\$199,675	Wyle Laboratories, Inc.	9/25/12	2/28/15	Completed - Published as Report 135		
02-43	Development of NOx Chemistry Module for EMDS/AEDT to Predict NO2 Concentrations	\$400,000(13)	\$399,577	KB Environmental Sciences, Inc.	7/10/13	1/31/17	Completed - Published as Web-Only Document 30		
02-44	Recommended Community Noise Model Enhancements to Improve Prediction of Helicopter Activity Impacts	\$250,000(13)	\$249,811	Wyle Laboratories, Inc.	5/2/13	9/30/15	Completed - Published as Research Results Digest 24		
02-45	Methodology to Improve EDMS/AEDT Quantification of Aircraft Taxi/Idle Emissions	\$250,000(13)	\$249,959	KB Environmental Sciences, Inc.	7/8/13	1/29/16	Completed - Published as Web-Only Document 26		
02-46	Improving Ground Support Equipment (GSE) Operational Data for Airport Emissions Modeling	\$275,000(13)	\$275,000	KB Environmental Sciences, Inc.	7/15/13	12/15/16	Completed - Published as Report 149		
02-47	Assessing Aircraft Noise Conditions Affecting Student Achievement--Case Studies	\$600,000(14)	\$599,939	Harris Miller Miller & Hanson Inc.	5/22/14	8/31/17	Completed - Published as Web-Only Document 34		
02-48	Assessing Community Annoyance of Helicopter Noise	\$700,000(14)	\$699,778	Landrum & Brown	6/3/14	6/30/17	Completed - Published as Research Report 181		
02-49	Addressing Significant Weather Impacts on Airports	\$550,000(14)	\$550,000	ICF Consulting, Inc.	5/22/14	2/29/16	Completed - Published as Report 160		
02-50	Deriving Benefits from Alternative Aircraft-Taxi Systems	\$300,000(14)	\$300,000	Cadmus Group, Inc.	7/15/14	4/30/16	Completed - Published as Report 158		
02-51	Evaluating Methods for Determining Interior Noise Levels Used in Airport Sound Insulation Programs	\$300,000(14)	\$299,678	CSDA Design Group	6/9/14	10/30/15	Completed - Published as Report 152		
02-52	Improving AEDT Noise Modeling of Hard, Soft, and Mixed Ground Surfaces	\$250,000(14)	\$249,603	Wyle Laboratories, Inc.	6/11/14	4/28/17	Completed - Published as Web-Only Document 32		
02-53	Interpreting Airport Water Monitoring Results	\$250,000(14)	\$250,000	Gresham, Smith and Partners	8/8/14	6/30/16	Completed - Published as Research Report 166		
02-54	Measuring and Understanding Emission Factors for General Aviation (GA) Aircraft	\$500,000(14)	\$499,971	Aerodyne Research Inc.	5/20/14	6/30/16	Completed - Published as Research Report 164		
02-55	Enhanced AEDT Modeling of Aircraft Arrival and Departure Profiles	\$350,000(14)	\$349,921	ATAC Corporation	6/9/14	3/30/18	Completed - Published as Web-Only Document 36		
02-56	Developing a Business Case for Renewable Energy at Airports	\$300,000(14)	\$299,903	Harris Miller Miller & Hanson Inc.	5/27/14	10/26/15	Completed - Published as Report 151		
02-57	Reducing the Impact of Lead Emissions at Airports	\$200,000(14)	\$199,971	Sierra Research, Inc.	7/28/14	6/8/16	Completed - Published as Research Report 162		
02-58	Dispersion Modeling Guidance for Airports Addressing Local Area Quality Health Concerns	\$400,000(14)	\$399,999	University of North Carolina - Chapel Hill	6/10/14	1/31/17	Completed - Published as Research Report 179		
02-59	Water Efficiency Management Strategies at Airports	\$450,000(14)	\$449,999	Cadmus Group, Inc.	6/4/14	2/5/16	Completed - Published as Report 154		
02-60	Use and Potential Impacts of AFFF Containing Per and Polyfluoroalkyl Substances (PFAS) at Airports	\$480,000(15)	\$299,995	Dillon Consulting Limited	7/29/15	10/28/16	Completed - Published as Research Report 173		
02-61	Airport Stormwater Management: Electronic Resource Library	\$450,000(15)	\$489,056	Mead & Hunt Inc.	5/11/15	7/31/17	Completed - Published as WebResource 3		
02-62	Green Stormwater Infrastructure Strategies for Airports	\$350,000(15)	\$299,970	Cadmus Group, Inc.	4/30/15	11/21/16	Completed - Published as Research Report 174, Volumes 1 & 2		
02-63	Quantifying Airport Ground Access Vehicle Activity for Emissions Modeling	\$300,000(15)	\$299,874	KB Environmental Sciences, Inc.	6/1/15	4/28/17	Completed - Published as Research Report 180		
02-64	Guidance for Usage of Permeable Pavement at Airports	\$200,000(15)	\$199,906	Applied Pavement Technology	6/19/15	3/31/17	Completed - Published as Research Report 178		
02-65	Tracking Alternative Jet Fuel	\$250,000(15)	\$249,961	Metron Aviation, Inc.	6/19/15	7/29/16	Completed - Published as Research Report 165		
02-66	Commercial Spaceport Noise and Sonic Boom	\$600,000(15)	\$600,000	Wyle Laboratories, Inc.	7/29/15	5/29/17	Completed - Published as Research Report 183 and Web-Only Document 33		
02-67	Airport Air Quality Management Guidebook and Resource Library	\$400,000(15)	\$399,944	Booz-Allen & Hamilton	8/7/15	10/16/17	Completed - Published as Research Report 185 and WebResource 4		
02-68	Strategies for Reducing Local Stormwater Utility Fees for Airports	\$350,000(16)	\$325,000	Cadmus Group, LLC	9/21/16	6/29/18	Completed - Published as Research Report 193		

Project No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison	Staff Officer
02-69	Integrating Airport Sustainability and the NEPA Process	\$400,000(16)	\$400,000	Vanasse Hangen Brustlin, Inc.	9/29/16	1/31/19	Completed - Published as Research Report 209		
02-70	Wetland Mitigation—A Guidebook for Airports	\$400,000(16)	\$399,996	The Smart Associates, Environmental Consultants Inc.	9/29/16	9/30/18	Completed - Published as Research Report 198		
02-71	Guidebook and Decision Tool for Managing Airport Stormwater Containing Deicers	\$500,000(16)	\$400,000	Mead & Hunt Inc.	8/19/16	12/31/18	Completed - Publication Published as Report 14, Second Edition		
02-72	Developing a Comprehensive Renewable Resources Strategy	\$300,000(16)	\$300,000	Cadmus Group, LLC	9/29/16	8/31/18	Completed - Publication Published as Research Report 197		
02-73	Interactive Tool for Understanding NEPA at General Aviation Airports	\$250,000(16)	\$249,864	RS&H, Inc.	8/5/16	1/31/19	Completed - Published as Research Report 211		
02-74	Using Existing Airport Management Systems to Manage Climate Risk	\$400,000(16)	\$399,971	ICF Incorporated	9/23/16	10/31/18	Completed- Published as Research Report 188		
02-75	Benefit-Cost Analyses Guidebook for Airport Stormwater	\$450,000(16)	\$325,000	Cadmus Group, LLC	9/21/16	12/31/18	Completed - Published as Research Report 208		
02-76	Optimizing the Use of Electric Pre-Conditioned Air (PCA) and Ground Power Systems at Airports	\$300,000(17)	\$300,000	Harris Miller Miller & Hanson Inc.	7/6/17	3/8/19	Completed - Published as Research Report 207		
02-77	Revolving Funds for Sustainability Projects at Airports	\$350,000(17)	\$350,000	Rocky Mountain Institute	6/6/17	2/5/19	Completed - Published as Research Report 205		
02-78	Climate Resilience and Benefit Cost Analysis—A Handbook for Airports	\$450,000(17)	\$450,000	GRA, Incorporated	5/11/17	12/14/18	Completed - Published as Research Report 199		
02-79	AEDT Noise Model Improvements to Account for Terrain and Man-made Structures	\$500,000(17)	\$399,995	Blue Ridge Research and Consulting LLC	8/1/17	8/30/19	Completed - Published as Web-Only Document 43		
02-80	Quantifying Emissions Reductions at Airports from the Use of Alternative Jet Fuel	\$500,000(17)	\$499,927	Booz-Allen & Hamilton	5/15/17	5/31/19	Completed - Published as Web-Only Document 41		
02-81	Commercial Space Transportation Noise Measurements	\$600,000(17)		Blue Ridge Research and Consulting LLC	8/1/17	12/31/19	Completed - Published as Web-Only Document 47		
02-82	Developing a Roadmap to Achieve Zero-Emissions Status	\$350,000(18)	\$350,000	Cadmus Group, LLC	6/20/18	10/19/19	Completed - Published as Research Report 220		
02-83	Measuring Quality of Life in Communities Surrounding Airports	\$400,000(18)		Harris Miller Miller & Hanson Inc.	4/30/18	10/30/19	Completed - Published as Research Report 221		
02-84	Evaluating the Use of Spatially Precise Diurnal Population Data in Aviation Noise Studies	\$300,000(18)		Metron Aviation, Inc.	5/8/18	1/7/20	Completed - Published as Web-Only Document 48		
02-85	Commercial Space Vehicle Emissions Modeling	\$450,000(18)	\$449,973	Blue Ridge Research and Consulting LLC	6/1/18	11/30/20	Completed - Published as Web-Only Document 51		
02-86	Measuring the Impact of Temporary Flight Restrictions on Airports	\$400,000(18)	\$400,000	Metron Aviation, Inc.	5/25/18	11/30/19	Completed - Published as Research Report 224		
02-87	Determining Airfield Pavement Deice and Anti-Iceer Contributions to Airport Stormwater	\$400,000(18)	\$350,000	LimnoTech Inc.	6/1/18	12/31/20	Completed - Contractor's report available on request.	M. Lamprocht	Joseph Navarrete
02-88	Techniques for Modifying NextGen Flight Track Design to Reduce Noise Exposure and Annoyance	\$400,000					Cancelled		
02-89	A Primer and Framework for Considering an Airport Noise and Operations Monitoring System (NOMS)	\$250,000(20)	\$249,940	Landrum & Brown, Inc.	4/27/20	10/27/21	Completed - Published as Research Report 237	B. He	
02-90	Development of Airport Construction Emission Inventory Tool (ACEIT) Version 2.0	\$350,000(20)	\$349,982	C & S Companies	3/1/21	2/28/24	Research in Progress	T. Cuddy	Joseph Navarrete
02-91	Development of PFAS Source Differentiation Guidelines for Airports	\$490,000(20)	\$299,838	Terracon Consultants	5/11/21	11/10/22	Completed - Published as Research Report 295	M. Lamprocht	
02-92	General Aviation Airports and Resilience: Complete Toolkits for Self-Directed Planning	\$320,000(21)	\$320,000	The Cadmus Group	7/27/21	1/26/23	Completed - Publication Pending	T. Cuddy	Jordan Christensen
02-93	Guidebook for PFAS Management at Airports	\$350,000(21)	\$350,000	RS&H	6/4/21	8/31/23	Completed - Publication Pending	M. Lamprocht	Joseph Navarrete
02-94	ACRP Project Panel to Update ACRP WebResource 4: Airport Air Quality Resource Library	\$150,000(21)	\$149,862	Crawford, Murphy, Tilly, Inc	9/16/21	5/19/23	Research in Progress	S. Staehle	Matthew Griffin

Project No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison	Staff Officer
02-95	Update ACRP Report 135: Understanding Airport Air Quality and Public Health Studies Related to Airports	\$100,000(21)	\$99,979	SC&A	9/29/21	3/31/23	Research in Progress	A. Stasser	
02-96	Update ACRP Report 99: Guidance for Treatment of Airport Stormwater Containing Deicers	\$150,000(21)	\$150,000	Gresham Smith	11/3/21	4/28/23	Completed - Published as Research Report 257	M. Lamprecht	Joseph Navarrete
02-97	Update to the Guidelines, Tools, and Resources Related to ACRP Reports 11, 147, and 160	\$650,000(22)	\$449,953	ICF Incorporated	6/30/22	12/29/23	Research in Progress	A. Strasser	Joseph Navarrete
02-97A	Update ACRP Report 43: Improving Environmental Performance at Small Airports	\$300,000(22)	\$300,000	Gresham Smith	9/19/22	4/18/24	Research in Progress	A. Strasser	Joseph Navarrete
02-98	Airport Energy Resiliency	\$1,200,000(22)	\$400,000	Hanson Professional Services	4/4/22	10/4/23	Completed - To be Published as Research Report 260	Jean Wolfers-Lawrence	Marci Greenberger
02-99	Use of Equity and Environmental Justice Data to Support Airport Decision Making	\$400,000(22)	\$397,661	HMMH	5/16/22	11/15/23	Research in Progress	M. Washington	Joseph Navarrete
02-100	Carbon Removal and Reduction to Support Airport Net-Zero Goals: A Playbook and Tools	\$600,000(22)	\$600,000	Mead & Hunt	3/16/22	11/15/23	Completed - Publication Pending	A. Cohen	Marci Greenberger
02-101	Onboarding Employees to Airport Environmental Issues	\$400,000(22)	\$399,265	Aviation Planning Group, LLC	12/21/22	6/20/24	Research in Progress	D. Harper	Joseph Navarrete
02-102	A Balanced Look at Local Airport Activity and Climate Change	\$400,000(22)	\$400,000	GRA Incorporated	9/26/22	3/20/24	Research in Progress		
02-103	A Guide for Methods to Transition and Decontaminate PFAS from Firefighting Systems	\$310,000(23)					In Development		
:::3: Policy and Planning (78)									
03-01	Light Detection and Ranging (LIDAR) Deployment for Airport Obstructions Surveys	\$350,000(06)	\$350,000	University of Mississippi	1/30/07	12/31/09	Completed - Published as Research Results Digest 10		
03-02	Airport Passenger-Related Processing Rates Guidebook	\$200,000(06)	\$200,000	HNTB Corporation	1/16/07	6/30/09	Completed - Published as Report 23		
03-03	Enhancing Airport Land Use Compatibility	\$500,000(06)	\$500,000	Mead & Hunt Inc.	12/28/06	7/15/09	Completed - Published as Report 27, Volumes 1 and 2		
03-04	Guidebook for Airport-User Survey Methodology	\$250,000(06)	\$249,350	Jacobs Consultancy, Canada, Inc.	1/16/07	8/31/09	Completed - Published as Report 26		
03-05	Passenger Space Allocation Guidelines for Planning and Design of Airport Terminals	\$400,000(07)	\$399,928	TransSolutions, LLC	6/28/07	5/31/11	Completed - Published as Report 55		
03-06	Guidebook for Planning and Implementing Automated People Mover Systems at Airports	\$500,000(07)	\$395,341	Lea+Elliott, Inc.	6/12/07	11/30/10	Completed - Published as Report 37		
03-07	Guidebook for Measuring Performance of Automated People Mover Systems at Airports	\$300,000(07)	\$300,000	Lea+Elliott, Inc.	6/13/07	1/31/12	Completed - Published as Report 37A		
03-08	Passenger Air-Service Development Techniques	\$300,000(07)	\$300,000	Intervistas-ga2 Consulting, Inc.	6/21/07	5/15/09	Completed - Published as Report 18		
03-09	Guidebook for Strategic Planning in the Airport Industry	\$425,000(07)	\$321,049	Ricondo & Associates, Inc.	10/3/07	6/15/09	Completed - Published as Report 20		
03-10	Innovative Approaches to Addressing Aviation Capacity Issues in Coastal Mega-Regions	\$300,000(07)	\$300,000	Resource Systems Group, Inc.	2/5/08	9/30/09	Completed - Published as Report 31		
03-11	A Guidebook for the Preservation of Public-Use Airports	\$600,000(08)	\$522,430	L. Robert Kimball & Associates, Inc.	6/23/08	1/15/11	Completed - Published as Report 44		
03-12	Preparing Peak Period and Operational Profiles - Guidebook	\$350,000(08)	\$347,044	HNTB Corporation	8/13/08	10/30/12	Completed - Published as Report 82		
03-13	Understanding Airspace, Objects, and Their Effects on Airports	\$200,000(08)	\$199,938	Jacobs Consultancy	7/11/08	4/30/10	Completed - Published as Report 38		
03-14	Airport Passenger Conveyance System Planning Guidebook	\$300,000(08)	\$300,000	TransSolutions, LLC	8/26/08	3/31/12	Completed - Published as Report 67		
03-15	Impact of Jet Fuel Price Uncertainty on Airport Planning and Development	\$400,000(09)	\$399,970	GRA, Incorporated	3/4/09	4/30/11	Completed - Published as Report 48		
03-16	Guidebook for Estimating the Economic Impact of Air Cargo at Airports	\$500,000(09)	\$499,860	Battelle Memorial Institute	6/5/09	7/1/14	Completed - Published as Web-Only Document 20		

Project No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison	Staff Officer
03-17	Evaluating Airfield Capacity	\$525,000(09)	\$525,000	LeighFisher, Inc.	6/29/09	6/30/12	Completed - Published as Report 79		
03-18	Operational and Business Continuity Planning for Prolonged Airport Disruptions	\$350,000(10)	\$348,292	Risk Solutions International, LLC	6/3/10	6/28/13	Completed - Published as Report 93		
03-19	Passenger Value of Time, Benefit-Cost Analysis, and Capital Investment Decisions	\$350,000(10)	\$349,944	Economic Development Research Group, Inc.	7/26/10	3/15/15	Completed - Published as Web-Only Document 22		
03-20	Defining and Measuring Aircraft Delay and Airport Capacity Thresholds	\$250,000(10)	\$250,000	TransSolutions, LLC	8/30/10	12/31/13	Completed - Published as Report 104		
03-21	Developing and Maintaining Support for Your Airport Capacity Project	\$300,000(10)	\$299,980	Mead & Hunt Inc.	6/3/10	3/29/13	Completed - Published as Report 85		
03-22	Addressing Uncertainty about Future Airport Activity Levels in Airport Decision Making	\$350,000(10)	\$350,000	InterVISTAS Consulting LLC	7/15/10	7/31/12	Completed - Published as Report 76		
03-23	Integrating Aviation and Passenger Rail Planning	\$400,000(10)	\$399,452	Resource Systems Group, Inc.	7/29/10	6/30/14	Completed - Published as Report 118		
03-24	Guidebook for Air Cargo Facility Planning and Development	\$400,000(11)	\$400,000	CDM Federal Programs Corporation	7/13/11	7/31/15	Completed - Published as Report 143		
03-25	Impact of Regulatory Compliance Costs on Small Airports	\$300,000(11)	\$299,987	Unison Consulting, Inc.	6/13/11	1/31/13	Completed - Published as Report 90 and Web-Only Document 15		
03-26	Understanding Airline and Passenger Choice in Regions with Multi-Airport Regions	\$250,000(11)	\$250,000	InterVISTAS Consulting LLC	8/4/11	9/30/13	Completed - Published as Report 98		
03-27	Evaluating Methods for Counting Aircraft Operations at Non-Towered Airports	\$400,000(11)	\$400,000	Woolpert Inc.	11/21/11	2/28/15	Completed - Published as Report 129		
03-28	The Role of U.S Airports in the National Economy	\$400,000(12)	\$399,984	Economic Development Research Group, Inc.	7/17/12	1/30/15	Completed - Published as Report 132		
03-29	Effects of Airline Industry Changes on Small- and Non-Hub Airports	\$300,000(13)	\$299,972	GRA, Incorporated	7/22/13	7/31/15	Completed - Published as Report 142		
03-30	Unmanned Aircraft Systems (UAS) at Airports: A Primer	\$150,000(13)	\$199,000	Futron Aviation Corporation	8/7/13	6/19/15	Completed - Published as Report 144		
03-31	Aligning Community Expectations with Airport Roles	\$500,000(14)	\$500,000	Mead & Hunt Inc.	6/16/14	10/31/16	Completed - Published as WebResource 1		
03-32	Guidance for Preparing and Using Airport Design Day Flight Schedules	\$400,000(14)	\$349,966	HNTB Corporation	7/17/14	6/17/16	Completed - Published as Research Report 163		
03-33	NextGen - Airport Planning and Development	\$500,000(14)	\$500,000	Leigh Fisher Associates	7/11/14	7/29/16	Completed - Published as Report 150, Volume 5		
03-34	NextGen - Understanding the Airport's Role in Performance-Based Navigation (PBN)	\$500,000(14)	\$500,000	Architecture Technology Corporation	6/9/14	2/8/16	Completed - Published as Report 150, Volume 1		
03-35	Improving Airport Services for International Customers	\$600,000(14)	\$600,000	Landrum & Brown	6/6/14	6/10/16	Completed - Published as Research Report 161		
03-36	Using Disaggregated Socioeconomic Data in Air Passenger Demand Studies	\$500,000(15)	\$499,747	GRA, Incorporated	6/19/15	6/28/18	Completed - Published as Research Report 194		
03-37	Using GIS for Collaborative Land Use Compatibility Near Airports	\$350,000(15)	\$350,000	Arora Engineering Inc.	8/26/15	8/31/18	Completed - Published as Research Report 200		
03-38	Understanding FAA Grant Assurance Obligations	\$150,000(15)	\$150,000	Unison Consulting, Inc.	7/28/15	11/30/17	Completed - Published as Research Report 184		
03-39	Generating Revenue from Commercial Development On or Adjacent to Airports	\$375,000(15)	\$375,000	Mead & Hunt Inc.	5/11/15	1/31/17	Completed - Published as Research Report 176		
03-40	Air Demand in a Dynamic Competitive Context with the Automobile	\$500,000(16)	\$499,816	Resource Systems Group, Inc.	7/14/16	2/13/19	Completed - Published as Research Report 204		
03-41	Common Performance Metrics for Airport Infrastructure and Operational Planning	\$400,000(16)	\$399,981	Booz-Allen & Hamilton	9/23/16	3/22/18	Completed - Published as Research Report 190		
03-42	Airports and UAS	\$1,000,000(17)	\$999,957	Booz-Allen & Hamilton	2/3/17	6/1/19	Completed - Published as Research Report 212 Volume 1, 2, and 3		
03-43	Integrating Airport Ground Access and Metropolitan Surface Transportation Planning Efforts	\$500,000(17)	\$326,173	WSP USA Inc.	4/27/17	12/31/18	Completed - Published as Research Report 216		

Project No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison	Staff Officer
03-44	Best Practices in Building Air Service Through Incentive Programs	\$400,000(17)	\$324,863	GRA, Incorporated	4/11/17	7/31/19	Completed - Published as Research Report 218		
03-45	Collecting and Sharing of Operational and Safety Data	\$400,000(17)	\$400,000	Booz-Allen & Hamilton	5/17/17	8/31/19	Completed - Published as Research Report 222		
03-46	Implementing Privatization: Guidance for Airport Decision-Makers	\$350,000(18)	\$349,985	WSP USA Inc.	4/24/18	6/30/20	Completed - Published as Research Report 227		
03-47	Rethinking Airport Parking Facilities to Protect and Enhance Non-Aeronautical Revenue	\$450,000(18)	\$450,000	InterVISTAS Consulting LLC	4/18/18	5/15/20	Completed - Published as Research Report 225		
03-48	Advanced Ground Vehicle Technologies (AGVT) for Airside Operations	\$250,000(18)	\$250,000	Purdue University	7/9/18	10/8/19	Completed - Published as Research Report 219		
03-49	Effective Collaboration to Plan and Respond to Communicable Disease Threats	\$500,000(19)	\$500,000	Eastern Research Group Inc.	3/15/19	1/14/21	Completed - Published as Research Report 253		
03-50	An Airport-Centric Study of the Urban Air Mobility Market	\$350,000(19)	\$350,000	WSP USA Inc.	7/3/19	10/2/20	Completed - Published as Research Report 243	N. Sizov M. Washington	
03-51	Electric Aircraft on the Horizon-an Airport Planning Perspective	\$450,000(19)	\$449,820	WSP USA Inc.	6/14/19	12/13/20	Completed - Published as Research Report 236		Matthew Griffin
03-52	Airport Common Use Program Development Guidebook	\$400,000(20)	\$400,000	Barrich, Inc.	4/30/20	12/29/21	Completed - To Be Published as WebResource 17	L. Loarte	
03-53	Development of Baggage Handling System Decision Making Framework Based on Total Cost of Ownership	\$340,000(20)	\$344,666	Studdiford Technical Solutions, LLC	5/20/20	11/15/22	Completed - Published as Research Report 252	C. Nutting	
03-54	General Aviation Airports Runway Length Analysis	\$300,000(20)	\$300,000	Virginia Tech	6/12/20	12/11/21	Completed - Published as Web-Only Document 54	K. Duffy	
03-55	Airport Biometrics--A Primer	\$250,000(20)	\$250,000	InterVistas	5/7/20	2/8/21	Completed - Published as Research Report 233		
03-56	Airside Planning, Design, and Operations: Electronic Resource Library	\$300,000(20)	\$300,000	Hanson Professional Services, Inc.	5/5/20	10/31/21	Completed - Published as WebResource 13	K. Kennedy	Marci Greenberger
03-57	Guidebook to Prepare Airports for Transformations in Wireless Connectivity	\$400,000(20)	\$400,000	Skymanatics, LLC	6/22/20	12/22/21	Completed - Published as WebResource 15	R. Sanchez	Marci Greenberger
03-58	Measuring the Effect of Changes in Air Service Connectivity on Regional Economic Development	\$500,000(20)	\$500,000	InterVISTAS Consulting, Inc.	5/18/20	11/17/21	Published as Web-Only Document 53 & WebResource 12	S. Glasgow	
03-59	Airports and the Homeless	\$400,000(21)	\$400,000	The Cadmus Group	5/11/21	1/31/23	Completed - Published as Research Report 254	W. Reinhardt	
03-60	Incorporating Shock Events into Traffic and Forecasting and Airport Planning	\$450,000(21)	\$450,000	InterVistas Consulting Inc.	8/24/21	2/3/23	Research in Progress	M. Lawrance	Matthew Griffin
03-61	Assessing and Improving Data Analytic Capabilities in Airports	\$300,000(21)	\$299,950	ICF Incorporated, LLC	8/18/21	12/31/21	Completed - Publication Pending	S. Austin	Matthew Griffin
03-62	A Toolkit for Establishing Airport Catchment Areas	\$300,000(21)	\$300,000	Purdue University	6/4/21	6/30/23	Completed - Publication Pending	C. Criswell	Joseph Navarrete
03-63	Modernizing Air Cargo Operations in U.S. Airports	\$350,000(21)	\$349,847	SASI World	7/29/21	4/30/23	Contract Terminated--New Contract in Development	L. Loarte	Joseph Navarrete
03-63A	Modernizing Air Cargo Operations in U.S. Airports		\$234,893	-----			In Development		Joseph Navarrete
03-65	ACRP Policy and Planning Product Updates	\$500,000(22)	\$65,000	The Aviation Planning Group LLC	9/16/22	4/21/23	Completed - Published as Web-Only Document 55	J. Carlini	Matthew Griffin
03-65B	ACRP Policy and Planning Product Updates [Phase 2]		\$435,000	-----			Pending		Matthew Griffin
03-66	Digital Twins for Airports	\$350,000(22)	\$350,000	InterVISTAS Consulting Inc.	8/10/22	2/9/24	Research in Progress	A. Goldsmith	Matthew Griffin
03-67	Peer-to-Peer Car Sharing Challenges and Opportunities at Airports	\$400,000(22)	\$400,000	InterVISTAS	6/6/22	12/5/23	Research in Progress	S. Gill	Joseph Navarrete
03-68	Integrated Contingency Planning for Small and Non-Hub Airports	\$400,000(22)	\$400,000	ComReznick	6/1/22	12/1/23	Research in Progress	M. Cozad	
03-69	Identifying Congestion and Safety Risks Due to Heterogeneous Airport Curbside Activity and Remedial Solutions	\$350,000(23)					Project Canceled		Joseph Navarrete



Project No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison	Staff Officer
03-70	Incorporating Emerging Technologies into Airport In-Terminal Concession Programs	\$500,000 (23)	\$499,541	ICF SH&E	5/9/23	11/8/24	Research in Progress	--	Joseph Navarrete
03-71	Guidance for Planning for Future Electric Vehicle Growth at Airports	\$600,000 (23)					In Development		Matthew Griffin
03-72	A Guide on the Economic Impacts of E-Commerce on Airports and Airport Stakeholders	\$400,000 (23)					In Development		
03-73	Best Practices in Transitioning to Lead-Free AVGas	\$500,000 (23)	\$500,000	Trinity Consultants	4/19/23	4/18/24	Research in Progress	W. Reinhardt R. Lonivelli	Joseph Navarrete
03-74	ACRP Web Resource for Airport User Choice Modeling and Analysis	\$350,000 (23)					In Development		
03-75	Preparing for Hydrogen-Powered Aircraft and Other Vehicles at Airports		\$650,000	----			In Development		Matthew Griffin
03-76	Effectiveness of Technology to Improve Airport Customer Service		\$400,000	----			In Development		Joseph Navarrete
03-77	Understanding the Impact of Climate Change on Forecasting Future Airport Activity Levels		\$450,000	----			In Development		Joseph Navarrete
4: Safety (40)									
04-01	Analysis of Aircraft Overruns and Undershoots for Runway Safety Areas	\$250,000(06)	\$249,986	Applied Research Associates	10/18/06	1/31/08	Completed - Published as Report 3		
04-02	Lightning-Warning Systems for Use by Airports	\$200,000(06)	\$199,937	MDA Federal Inc.	11/7/06	11/6/08	Completed - Published as Report 8		
04-03	Guidebook for Approach Light System Hazard Assessment and Mitigation	\$300,000(07)	\$300,000	Virginia Polytechnic Institute & State University	10/3/07	4/30/09	Completed - Published as Research Results Digest 6 and Web-Only Document 4		
04-04	Simulation-Based Training and Exercise of Civil Aviation Emergency Response Personnel	\$500,000(07)	\$499,093	Applied Research Associates	9/12/07	12/31/11	Completed - Results to 04-04A		
04-04A	Evaluating the Airport Emergency Response Operations Simulation (AEROS) Tool	\$300,000(12)	\$290,000	Futron Aviation Corporation	6/18/13	9/17/14	Terminated		
04-04B	Transportation Emergency Response Application (TERA) Support Materials for Airport EOC Exercises			----					
04-04B1	Emergency Management Training for Airport Critical Incidents	\$125,000(15)	\$25,000	Combined	3/30/15	8/31/15	Completed - Published as Research Report 187		
04-04B2	Emergency Management Training for Airport Critical Incidents	\$125,000(15)	\$219,000	Emergency Preparedness Solutions, LLC	6/8/16	2/3/18	Completed - Published as Research Report 187		
04-05	A Guidebook for Airport Safety Management Systems	\$300,000(07)	\$300,000	Applied Research Associates	5/24/07	5/15/09	Completed - Published as Report 1, Volume 2		
04-06	A Guidebook for Addressing Aircraft/Wildlife Hazards at General Aviation Airports	\$300,000(08)	\$299,905	Biozone, Inc.	6/2/08	1/29/10	Completed - Published as Report 32		
04-07	Airport Apron Management and Control Programs	\$300,000(08)	\$300,000	Ricondo & Associates, Inc.	5/8/09	8/30/11	Completed - Published as Report 62		
04-07A	Use of Towbarless Tractors at Airports - Best Practices	\$300,000(08)	\$38,795	Ricondo & Associates, Inc.	4/20/09	3/31/12	Completed - Published as Research Results Digest 15		
04-08	Improved Models for Risk Assessment of Runway Safety Areas (RSA)	\$400,000(09)	\$400,000	Applied Research Associates	6/8/09	3/31/11	Completed - Published as Report 50		
04-09	Risk Assessment Method to Support Modification of Airfield Separation Standards	\$250,000(09)	\$250,000	Applied Research Associates	6/10/09	2/26/11	Completed - Published as Report 51		
04-10	Airport-to-Airport Mutual Aid Programs	\$300,000(09A)	\$300,000	Innovative Emergency Management, Inc.	7/6/10	3/1/12	Completed - Published as Report 73		
04-11	Guidebook on Integrating GIS in Emergency Management at Airports	\$350,000(11)	\$274,949	Barrich, Inc.	7/12/11	2/28/13	Completed - Published as Report 88		
04-12	Integrating Web-Based Emergency Management Collaboration Tools into Airport Operations - A Primer	\$400,000(11)	\$400,000	Innovative Emergency Management, Inc.	7/15/11	7/31/13	Completed - Published as Report 94		
04-13	Integrating Community Emergency Response Teams at Airports (A-CERTs)	\$400,000(11)	\$400,000	Innovative Emergency Management, Inc.	7/26/11	7/26/13	Completed - Published as Report 95		

Project No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison	Staff Officer
04-14	Development of a Runway Veer-Off Location Distribution Risk Assessment Model and Reporting Template	\$200,000(12)	\$200,000	Airport Safety Management Consultants, LLC	6/6/12	12/5/13	Completed - Published as Report 107		
04-15	Airport Terminal Incident Response Planning	\$325,000(12)	\$325,000	Innovative Emergency Management, Inc.	7/9/12	4/2/14	Completed - Published as Report 112		
04-16	Safety Risk Management for Airports	\$300,000(13)	\$299,992	Futron Aviation Corporation	6/18/13	11/14/14	Completed - Published as Report 131		
04-17	Applying an SMS Approach to Wildlife Hazard Management	\$250,000(13)	\$250,000	Bash Inc.	1/17/14	6/15/15	Completed - Published as Report 145		
04-18	Runway Protection Zone (RPZ) Risk Assessment Tool	\$400,000(14)	\$400,000	Applied Research Associates	6/4/14	7/11/16	Completed - Published as Research Report 168		
04-19	Airport Emergency Planning Template: NIMS - Incident Command System Compliance	\$300,000(15)	\$300,000	FTI Consulting, Inc	12/8/15	8/31/18	Completed- See 04-19A		
04-19A	Airport Emergency Planning Template Tool Enhancements	\$190,000 (19)	\$190,000	Ankura Consulting Group	3/15/19	8/31/21	Completed - Published as WebResource 9		
04-20	Design Considerations for Airport EDCs	\$400,000(16)	\$249,900	Faith Group, LLC	8/23/16	3/30/18	Completed - Published as Research Report 189		
04-21	Emergency Communication Models for Persons with Disabilities and Non-English Speakers	\$400,000(17)	\$400,000	Innovative Emergency Management, Inc.	4/18/17	8/17/18	Completed - Published as Research Report 201		
04-22	Evaluating Compatibility Zoning at General Aviation Airports	\$350,000(17)	\$350,000	Mead & Hunt Inc.	5/23/17	1/31/19	Completed - Published as Research Report 206		
04-23	Guidebook for Creating and Maintaining Social Media for Emergency Management at Airports	\$350,000(18)	\$350,000	Barich, Inc.	3/12/18	8/7/19	Completed - Published as WebResource 8		
04-24	Airport Contributions to the Study, Investigation, and Interdiction of Human Trafficking	\$500,000 (20)	\$400,000	Cadmus Group, LLC	6/8/20	8/31/22	Completed - Published as Research Report 249	E. Black	
04-25	Airports and Pandemics--Reducing the Spread of Communicable Diseases	\$900,000 (21)	\$900,000	The Cadmus Group	7/16/21	3/25/24	Research in Progress	C. Schweitzer	Joseph Navarrete
04-26	A Framework for Airport Evacuation: Assessment of Landside Capacity Using Micro-Meso Simulation Tool	\$400,000 (21)	\$400,000	Salus Solutions	1/30/21	1/31/24	Research in Progress	W. Reinhardt	Matthew Griffin
04-27	Alternative Methods to Manage Tree Growth Near Airports	\$300,000 (21)	\$300,000	Mead & Hunt	5/10/21	11/9/22	Completed - Published as Research Report 259	C. Criswell	Marci Greenberger
04-28	Developing Alternative Aircraft Arresting Systems	\$575,000 (21)	\$575,000	Dayton University	6/11/21	6/10/23	Research in Progress	N. Subbotin	Matthew Griffin
04-29	Transportation Emergency Response Application (TERA): Migration Options Beyond 2020	\$500,000 (21)	\$500,000				In Development		
04-30	Identifying and Developing the Core Capabilities of an Airport Emergency Management Program	\$450,000 (23)					In Development	P. Williams	Marci Greenberger
04-31	Providing Adequate and Balanced Trainer Facilities for Required and Recurrent Training for Airport Firefighters	\$350,000 (23)					In Development		Matthew Griffin
04-32	Guidance in Using Existing and Emerging Technologies to Identify and Mitigate Human Trafficking in Airports	\$400,000 (23)	\$399,873	Metro Analytics	6/20/23	6/19/25	Research in Progress		Joseph Navarrete
04-33	Guide for Measuring Financial Benefits of Airport Safety Management Systems	\$400,000 (23)					In Development		Marci Greenberger
04-34	Best Practices for Building and Improving an Aircraft Rescue and Firefighting Program	\$500,000 (23)					In Development	M. Tonnaciff	Matthew Griffin
:::5: Security (3)									
05-01	An Airport Guide for Regional Emergency Planning for CBRNE Events	\$250,000(06)	\$248,464	System Planning Corporation	11/15/06	9/30/08	Completed - Published as Report 12		
05-02	Guidebook on Best Practices for Airport Cybersecurity	\$350,000(13)	\$350,000	Grafton Technologies	8/27/13	1/31/15	Completed - Published as Report 140		
05-03	Mitigating and Responding to Airport Cybersecurity Events	\$600,000 (22)	\$450,000	The Cadmus Group LLC	8/16/22	2/15/24	Research in Progress	T. McKeever	Matthew Griffin

Project No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison	Staff Officer
6: Human Resources (10)									
06-01	Airport and Air Carrier Resource Manual: Employees Coping with Traumatic Events	\$300,000(07)	\$299,416	University of North Dakota	12/5/07	5/31/09	Completed - Published as Report 22		
06-02	Airport Leadership Development Program	\$100,000(10)	\$100,000	Ohio State University	9/29/10	6/30/12	Completed - Published as Report 75		
06-03	Establishing a Coordinated Local Family Assistance Program for Airports	\$300,000(15)	\$300,000	Tetra Tech, Inc.	5/8/15	10/14/16	Completed - Published as Research Report 171		
06-04	Identifying and Evaluating Airport Workforce Requirements	\$250,000(15)	\$380,760	ICF Incorporated	6/4/15	4/15/18	Completed - Published as Research Report 186		
06-05	Guidance for Diversity in Airport Businesses Contracting and Workforce Programs	\$500,000(18)	\$500,000	Cadmus Group, LLC	5/25/18	9/24/19	Completed - Published as Research Report 217		
06-06	Cultivating Talent in the Airport Environment	\$250,000(19)	\$250,000	ICF Incorporated	5/24/19	10/23/20	Completed - Published as Research Report 232		
06-07	Enhancing Academic Programs to Cultivate Future Airport Industry Professionals	\$300,000 (19)	\$300,000	Ohio State University	6/1/19	10/31/20	Completed - Published as Research Report 230		J. Carlini
06-08	Human Factors in Airport Operations	\$385,000 (19)	\$385,000	Futron Aviation Corporation	7/22/19	3/21/21	Completed - Published as Research Report 246		
06-09	Quantifying and Understanding Women and Minority Airport Employee Populations to Track Progress	\$800,000 (23)	\$799,972	Airport Minority Advisory Council	7/20/23	1/19/25	Research in Progress	L. Clemente	Joseph Navarrete
06-10	Guidance for Automation to Optimize Airport Efficiency		\$450,000	----			In Development		Matthew Griffin
7: Design (28)									
07-01	Innovations for Airport Terminal Facilities	\$400,000(06)	\$400,000	Corgan Associates, Inc.	1/9/07	3/31/09	Completed - Published as Report 10		
07-02	Airport Curbside and Terminal Area Roadway Operations	\$400,000(06)	\$28,000	Jacobs Consultancy	1/10/07	5/19/10	Completed - Published as Report 40		
07-03	Developing Improved Civil Aircraft Arresting Systems	\$500,000(07)	\$499,455	Protection Engineering Consultants, LLC	5/24/07	7/31/09	Completed - Published as Report 29		
07-04	Airport Passenger Terminal Planning and Design: Spreadsheet Models and User's Guide	\$400,000(07)	\$400,000	Landrum & Brown	6/6/07	8/31/09	Completed - Published as Report 25, Volume 2		
07-05	Airport Passenger Terminal Planning and Design: Guidebook	\$400,000(07)	\$400,000	Landrum & Brown	6/29/07	8/31/09	Completed - Published as Report 25, Volume 1		
07-06	Airport Signage and Wayfinding Information Guidelines	\$250,000(08)	\$250,000	Gresham, Smith and Partners	8/21/08	3/1/11	Completed - Published as Report 52		
07-07	Evaluating Terminal Renewal Versus Replacement Options	\$400,000(10)	\$400,000	Ricondo & Associates, Inc.	8/16/10	3/15/12	Completed - Published as Report 68		
07-08	Improving Terminal Design to Increase Revenue Generation and Customer Satisfaction	\$500,000(11)	\$496,888	Landrum & Brown	6/9/11	11/30/14	Completed - Published as Report 109		
07-09	Apron Planning and Design Guidebook	\$250,000(12)	\$250,000	Ricondo & Associates, Inc.	6/15/12	7/31/13	Completed - Published as Report 96		
07-10	General Aviation Facility Planning	\$300,000(12)	\$300,000	Delta Airport Consultants, Inc.	5/17/12	5/30/14	Completed - Published as Report 113		
07-11	Airport Escalators and Moving Walkways - Cost-Savings and Energy Reduction Technologies	\$250,000(12)	\$249,947	Cadmus Group, Inc.	9/18/12	7/31/14	Completed - Published as Report 117		
07-12	Guidebook for Airport Terminal Restroom Planning and Design	\$250,000(12)	\$249,986	Architectural Alliance	1/25/13	9/30/14	Completed - Published as Report 130		
07-13	Enhancing Airport Wayfinding for the Aging Travelers and Persons with Disabilities	\$450,000(14)	\$450,000	Gresham, Smith and Partners	6/9/14	2/17/17	Completed - Published as Research Report 177		
07-14	Improving Intelligibility of Airport Terminal Public-Address Systems	\$350,000(15)	\$350,000	Wilson, Ihrig & Associates	7/7/15	1/7/17	Completed - Published as Research Report 175		
07-15	Airport Passenger Terminal Design: Electronic Resources Library	\$300,000(15)	\$300,000	Intermodal Logistics Consulting, Inc.	7/7/15	5/15/17	Completed - Published as WebResource 2		
07-15A	Airport Passenger Terminal Design Library-Updates to ACRP WebResource 2	\$250,000(19)	\$250,000	Intermodal Logistics Consulting, Inc.	5/24/19	5/23/22	Completed - Published as WebResource 2 v1.1	W. Reinhardt	Joseph Navarrete

Project No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison	Staff Officer
07-16	Airport Terminal Ancillary Service Spaces and Restroom Planning and Design	\$350,000(18)	\$349,837	The Alliance, Inc. dba Alliance	2/28/18	5/29/20	Completed - Published as Research Report 226		
07-17	Update ACRP Report 40: Airport Curbside and Terminal Area Roadway Operations	\$500,000 (20)	\$500,000	INTERVISTAS Consulting Incorporated	10/1/20	8/15/23	Completed - Published as Research Report 238	W. Reinhardt	Matthew Griffin
07-18	Develop Airfield Design Guidelines for Unmanned Aerial Vehicles	\$400,000 (20)	\$399,918	Woolpert, Inc.	5/11/20	9/10/21	Completed - Published as Research Report 238	J. Schroeder	Marci Greenberger
07-19	Update to ACRP Report 25: Airport Passenger Terminal Planning and Design	\$500,000 (22)	\$499,880	Ricondo & Associates	5/24/22	8/16/24	Research in Progress	C. Nutting	Marci Greenberger
07-20	Unruly Airport Passengers	\$400,000 (23)	\$399,540	TransSolutions	7/7/23	1/6/25	Research in Progress	D. Weed	Joseph Navarrete
07-21	Understanding Opportunities with Deploying Private Wireless Network at Airports	\$400,000 (23)					In Development	B. Sorcoosh	Matthew Griffin
07-22	Accommodating Cognitive and Sensory Diversity of Airport Travelers		\$800,000	-----			In Development		Joseph Navarrete
07-23	Improving the Airport Experience of Travelers Using Wheelchairs		\$425,000	-----			In Development		Joseph Navarrete
07-24	Virtual Queuing at Airports		\$350,000	-----			In Development		Joseph Navarrete
07-25	Value Engineering Applied to Airports		\$350,000	-----			In Development		Joseph Navarrete
07-26	Augmented Reality and Virtual Reality in the Airport Environment		\$400,000	-----			In Development		Marci Greenberger
07-27	Seismic Resiliency for Horizontal Infrastructure at Airports		\$400,000	-----			In Development		Marci Greenberger
::: 8: Construction (4)									
08-01	Sustainable Airport Construction Practices	\$150,000(09)	\$150,000	Ricondo & Associates, Inc.	6/1/09	6/22/10	Completed - Published as Report 42		
08-02	Guidebook for Integrating Collaborative Partnering into Traditional Airport Practices	\$350,000(17)	\$350,000	University of Michigan	5/11/17	8/16/18	Completed - Published as Research Report 196		
08-03	Construction Safety and Phasing Plans	\$250,000(19)	\$250,000	Garver, LLC	8/21/19	11/20/20	Completed - Published as WebResource 11		
08-04	Use of Operational Readiness and Testing (ORAT) for Airport Projects		\$600,000	-----					Matthew Griffin
::: 9: Maintenance (23)									
09-01	Recommended Guidelines for the Collection and Use of Geospatially Referenced Data for Airfield Pavement Management	\$350,000(06)	\$299,636	Applied Research Associates	11/6/06	3/31/10	Completed - Published as Report 39		
09-02	Best Practices Manual for Working in or Near Airport Movement Areas	\$500,000(11)	\$325,000	Ricondo & Associates, Inc.	8/4/11	11/30/13	Completed - Published as Report 101		
09-03	Airport Parking Garage Lighting Solutions	\$300,000(12)	\$300,000	Virginia Polytechnic Institute & State University	6/4/12	10/31/14	Completed - Published as Report 124		
09-04	Optimizing Airport Building Operations and Maintenance Through Retrocommissioning: A Whole Systems Approach	\$250,000(12)	\$249,835	Sebesta Blomberg & Associates, Inc.	12/14/12	2/28/15	Completed - Published as Report 139		
09-05	Guidance on Successful Computer Maintenance Management Systems (CMMS) Selection and Practices	\$300,000(12)	\$300,000	Ross & Baruzzini, Inc	7/12/12	10/17/14	Completed - Published as Web-Only Document 23		
09-06	Evaluating Impacts of Sustainability Practices on Airport Operations and Maintenance	\$300,000(12)	\$312,000	Booz-Allen & Hamilton	9/27/12	4/25/14	Completed - Published as Report 110		
09-07	Airport Maintenance Roles in Planning, Design, Construction, Commissioning, and Activation	\$200,000(12)	\$200,000	Michigan State University	11/13/12	10/31/14	Completed		
09-08	Balancing Airport Stormwater and Bird Hazard Management	\$250,000(12)	\$249,209	Environmental Resource Solutions, Inc	10/1/12	8/29/14	Completed - Published as Report 125		
09-09	LED Airfield Lighting System Operation and Maintenance	\$340,000(13)	\$340,000	Burns Engineering, Inc.	8/9/13	9/30/15	Completed - Published as Report 148		

Project No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison	Staff Officer
09-10	Benchmarking and Profiling Airport Terminal End Uses	\$400,000(13)	\$399,331	Texas A&M Engineering Experiment Station (TEES)	9/16/13	9/30/15	Completed - Published as CRP CD 178		
09-11	Pavement Maintenance Guidelines for General Aviation Airport Management	\$350,000(14)	\$350,000	Texas A&M Transportation Institute	6/16/14	5/31/16	Completed - Published as Report 159		
09-12	NextGen - Leveraging NextGen Spatial Data to Benefit Airports	\$200,000(14)	\$200,000	Woolpert Inc.	6/13/14	6/3/16	Completed - Published as Report 150, Volume 4		
09-13	Considering Life Cycle Costs in Airport Asset Procurement	\$350,000(15)	\$349,897	CH2M Hill	5/19/15	11/18/16	Completed - Published as Research Report 172		
09-14	Advanced Computer Maintenance Management System (CMMS) Integration for Airports	\$375,000(16)	\$374,950	CH2M Hill	6/9/16	9/8/17	Completed - Published as Web-Only Document 23		
09-15	Building Information Modeling (BIM) Beyond Design	\$750,000(17)	\$400,000	CAD Concepts Inc dba CCI Engineering Services	5/12/17	4/30/19	Completed - Published as Research Report 214		
09-16	Best Practices for Airport Obstruction Management	\$300,000(17)	\$299,981	Hanson Professional Services, Inc	2/15/17	7/31/18	Completed - Published as Research Report 195 and WebResource 7		
09-17	Collecting, Applying, and Maintaining Pavement Condition Data at Airports	\$250,000(17)	\$250,000	Applied Pavement Technology	4/17/17	12/31/18	Completed - Published as Research Report 203		
09-18	Rapid Airfield Concrete Pavement Slab Replacement and Patching Guidance	\$400,000(19)	\$400,000	Nichols Consulting Engineers	4/17/19	10/16/20	Completed - Published as Research Report 234		
09-19	Airfield Pavement Markings- Effective Removal and Temporary Application Techniques	\$450,000(19)	\$450,000	Texas A&M Transportation Institute	6/1/19	3/31/21	Completed - Published as Research Report 247	J. Carlini	
09-20	Consequences of Delayed Maintenance of Airport Assets	\$300,000(20)	\$299,705	University of Nevada Las Vegas	1/15/21	7/15/22	Completed - Publication Pending	M. Woods	Matthew Griffin
09-21	Guidelines for the Effective Transition of Asset Data from Design/Construction to Operations and Maintenance	\$400,000(20)	\$299,063	Woolpert	8/24/21	2/24/23	Completed - Publication Pending		Jordan Christensen
09-22	Cost-Effective Training for Airfield Electricians at Small Airports	\$300,000(22)		The Aviation Planning Group LLC	8/12/22	7/10/24	Research in Progress	M. Woods	Joseph Navarrete
10-01	Optimizing the Use of Aircraft Deicing and Anti-Icing Fluids	\$300,000(06)	\$349,030	APS Aviation, Inc.	3/20/07	7/31/10	Completed - Published as Report 45		
10-02	Planning for Offsite Airport Terminals	\$350,000(06)	\$350,000	MarketSense Consulting LLC	12/18/06	6/15/09	Completed - Published as Report 35		
10-03	Guidebook for Evaluating Airport Parking Strategies and Supporting Technologies	\$300,000(07)	\$300,000	Jacobs Consultancy	9/14/07	7/1/09	Completed - Published as Report 24		
10-04	Airports and the Newest Generation of General Aviation Aircraft	\$500,000(07)	\$496,390	GRA, Incorporated	11/1/07	5/31/09	Completed - Published as Report 17, Volumes 1 and 2		
10-05	Reference Guide on Understanding Common Use at Airports	\$500,000(08)	\$399,981	Barich, Inc.	5/30/08	8/29/09	Completed - Published as Report 30		
10-06	Handbook to Assess the Impacts of Constrained Parking at Airports	\$400,000(08)	\$398,563	Ricondo & Associates, Inc.	6/16/08	3/8/10	Completed - Published as Report 34		
10-07	Current Status and Future Implications of Passenger Self-Tagging	\$350,000(09)	\$350,000	Barich, Inc.	6/16/09	7/30/10	Completed - Published as Report 41 and Web-Only Document 10		
10-08	Applying Intelligent Transportation Systems to Improve Airport Traveler Access Information	\$350,000(09)	\$350,000	Gresham, Smith and Partners	8/7/09	4/30/12	Completed - Published as Report 70		
10-09	Elimination or Reduction of Baggage Recheck for Arriving International Passengers	\$400,000(09)	\$400,000	InterVISTAS-ga2 Consulting, Inc.	7/22/09	10/31/11	Completed - Published as Report 61		
10-10	Guidebook for Airport Irregular Operations (IROPS) Contingency Planning	\$600,000(10)	\$599,976	Mead & Hunt Inc.	8/26/10	12/31/12	Completed - Published as Report 65		
10-11	Guidebook to Creating a Collaborative Environment Between Airport Operations and Maintenance	\$500,000(11)	\$399,840	Amadeus Consulting	7/27/11	4/30/13	Completed - Published as Report 92		
10-12	Guidebook for Through-the-Fence (TTF) Operations	\$350,000(12)	\$350,000	Mead & Hunt Inc.	7/30/12	2/28/14	Completed - Published as Report 114		

Project No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison	Staff Officer
10-13	A Guidebook for Integrating NIMS for Personnel and Resources at Airports	\$200,000(12)	\$200,000	System Planning Corporation	5/23/12	8/22/13	Completed - Published as Report 103		
10-14	Being Prepared for IROPS: A Business Planning and Decision-Making Approach	\$300,000(12)	\$299,395	MCR Federal, LLC	8/2/12	11/4/13	Completed - Published as Report 106		
10-15	Guidebook for Airport Winter Operations	\$400,000(12)	\$400,000	Gresham, Smith and Partners	6/25/12	8/29/14	Completed - Published as Report 123		
10-16	Commercial Ground Transportation at Airports: Best Practices	\$300,000(13)	\$300,000	Leigh Fisher Associates	7/10/13	6/30/15	Completed - Published as Report 146 and Web-Only Document 25		
10-17	Implementing Integrated Self-Service at Airports	\$450,000(13)	\$449,980	Barich, Inc.	8/5/13	2/4/15	Completed - Published as Report 136		
10-18	Preventative Maintenance at General Aviation Airports: Primer and Guidebook	\$400,000(13)	\$299,496	Delta Airport Consultants, Inc.	9/18/13	2/18/15	Completed - Published as Report 138		
10-19	Guidebook for Advancing Collaborative Decision Making (CDM) at Airports	\$300,000(13)	\$299,783	Mosaic-ATM, Inc	9/3/13	12/3/14	Completed - Published as Report 137		
10-20	Guidance for Planning, Design, and Operations of Airport Communications	\$300,000(13)	\$251,700	TranSecure, Inc.	8/9/13	11/8/14	Completed - Published as Research Report 182		
10-20A	Guidance for Planning, Design, and Operations of Airport Communications	\$98,325(13)	\$98,325	Burns Engineering, Inc.	3/9/16	3/8/17	Completed - Published as Research Report 182		
10-21	Complying with Federal Regulations: An Integrated Approach	\$350,000(14)	\$350,000	Aviation Management Consulting, Inc.	6/27/14	12/31/15	Completed - Published as Report 156		
10-22	Improving Stakeholder Engagement in Aircraft Accident Planning	\$500,000(14)	\$499,988	Futron Aviation Corporation	4/18/14	1/16/17	Completed - Published as Web-Only Document 31		
10-23	IROPS Stakeholder Communication and Coordination	\$400,000(14)	\$399,930	Metron Aviation, Inc.	6/9/14	12/8/15	Completed - Published as Report 153		
10-24	Guidance for Developing Ramp Control Facilities	\$400,000(15)	\$399,997	Metron Aviation, Inc.	4/24/15	7/23/16	Completed - Published as Research Report 167		
10-25	Public-Notification Programs at Airports	\$200,000(15)	\$194,600	SSI, Inc. (Safety & Security Instruction)	7/1/15	8/31/16	Completed - Published as Research Report 170		
10-26	Airport Microgrid Implementation Toolkit	\$450,000(18)	\$450,000	Rocky Mountain Institute	6/22/18	5/15/20	Completed - Published as Research Report 228		
10-27	Using Collaborative Decision Making to Enhance the Management of Adverse Conditions, IROPS, and Crises	\$300,000 (19)	\$300,000	WSP USA Inc.	7/8/19	9/15/20	Completed - Published as Research Report 229		
10-28	Guide for Integrating Crisis Management and Business Continuity at Airports	\$500,000 (20)	\$499,973	Hagerty Consulting, Inc.	5/27/20	2/26/22	Completed - Publication pending	S. Austin	Matthew Griffin
10-29	Aircraft Jet Blast Estimation Tool	\$450,000 (20)	\$449,983	Blue Ridge Research and Consulting	8/1/20	6/19/24	Research in Progress	R.Bale	Joseph Navarrete
10-30	Evaluating the Effectiveness of an Airport's Wildlife Hazard Management Program	\$400,000 (20)	\$400,000	Mead & Hunt	3/20/20	11/4/22	Completed - Published as Research Report 250	J. Weller	Marci Greenberger
10-31	Guidebook for Virtual Airport Ramp Control Operations Facilities	\$350,000 (20)	\$350,000	Ricondo	3/20/20	9/11/22	Completed - Published as Research Report 256	K. Duffy	Marci Greenberger
10-32	Airside Automated Ground Vehicle Technology (AGVT) Demonstration to Support Airport Operations	\$450,000(21)		Ernst & Young - Parthenon	6/1/21	4/1/24	Research in Progress	J. Torres	Matthew Griffin
10-33	Incorporating Emerging Ground Access Technologies at Airports	\$500,000 (22)	\$500,000	WSP	3/18/22	11/22/23	Completed - Publication Pending	P. Forrester	Jordan Christensen
10-34	Airport Microgrid Toolkit Upgrade to ACRP WebResource	\$100,000 (22)	\$98,252	Advance Computer and Network Concepts, LLC.	10/17/22	10/16/23	Research in Progress		Matthew Griffin
10-35	ADS-B Airport Traffic Count Validation and Recommendations	\$400,000 (23)					In Development	K. Duffy	Matthew Griffin
10-36	Review and Update of ACRP Products Related to Airport Operations		\$500,000	----			In Development		Matthew Griffin
.1: Special Projects (25)									

Project No.	Title	Allocation	Contract Amount	Contractor	Contract Activities	Start Date	End Date	Status	FAA Liaison	Staff Officer
11-01	Legal Aspects of Airport Programs	\$200,000(06) \$475,000(07) \$300,000(08) \$600,000(09) \$500,000(10) \$50,000(11) \$200,000(12) \$50,000(13) \$200,000(14) \$350,000(15) \$200,000(16) \$75,000(17) \$240,000(18) \$240,000(19) \$225,000(23)		TRB Technical Activities Division	2/1/06		Continuing Project: See 11-01 Table		D. Fuller	Jordan Christensen
11-02	Quick Response for Special Needs	\$590,000(06) \$467,000(07) \$1,000,000(08) \$25,000(09) \$250,000(10) \$100,000(11) \$40,000(12) \$216,000(13) \$123,576(14) \$250,000(15) \$149,500(17) \$230,000(18) \$300,000(19) \$200,000 (21) \$100,000 (22)		Various	2/1/06		Continuing Project: See 11-02 Table		L. Miller	
11-03	Synthesis of Information Related to Airport Practices	\$500,000(06) \$700,000(07) \$500,000(08) \$500,000(09) \$900,000(10) \$700,000(11) \$1,270,000(12) \$1,160,000(13) \$1,053,000(14) \$1,170,000(15) \$1,220,000(16) \$1,220,000(17) \$1,220,000(18) \$495,000(19) \$405,000(20) \$405,000(21) \$495,000(23) \$220,000 (24)		Transportation Research Board	2/1/06		Continuing Project: See 11-03 Table 3, 4, 8, 12, 13, 17, 18, 22, and 23		P. Magnotta	Jordan Christensen

Project No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison	Staff Officer
11-04	Graduate Research Award Program on Public-Sector Aviation Issues	\$100,000(08) \$100,000(09) \$100,000(10) \$140,000(11) \$140,000(12) \$140,000(13) \$140,000(14) \$907,580(16) \$568,779(15) \$507,409(17) \$632,627(18) \$596,000(19) \$605,589(20) \$550,000(21) \$682,078(22)	Various	Continuing Project: Papers Published as TRB E. Black TRR 2184, 2206, 2266, 2325, 2400, and 2471; Status Reports Published as Research Results Digests 14, 19, and 25.					
11-04A	Airport Research Competition for Universities	Included in 11-04 (15) (16) (17) (18) (19) (20) (21) (22)		Old Dominion University Research Foundation	5/9/14	1/31/20	Research in Progress	E. Black	Matthew Griffin
11-04C	Collegiate Engagement Programs		\$250,000	-----					Matthew Griffin
11-05	Implementation of ACRP Strategic Plan	\$600,000(10) \$148,947(11) \$200,000(12) \$600,000(13) \$600,000(14) \$650,000(15) \$1,250,000(16) \$600,000(17) \$900,000(18) \$900,000(19) \$900,000(20) \$900,000(21) \$900,000(22)	Various	Continuing Project				J. Showalter	
11-06	Evaluating ACRP Processes	\$250,000(10)	\$9,800	Stewart, Burr	5/5/10	9/15/10	Completed - Results to AOC		
11-07	ACRP Problem Statement Development	\$500,000(13) \$300,000(14)		Transportation Research Board			Completed - Published as Research Results Digest 20		
11-08	Convening ACRP Insight Events	\$600,000(16)	-----						
11-08 (16-01)	Forum on Challenges to Implementing Successful Land Use Strategies at Airports	\$100,000(16)	\$100,000	Cadmus Group, LLC	11/9/16	11/30/18	Completed - Published as Conference Proceedings 24 on the Web		
11-08 (16-02)	Forum on Economic and Social Sustainability at Airports	\$100,000(16)	\$100,000	Cadmus Group, LLC	11/9/16	11/30/18	Completed - Published as Conference Proceedings 23 on the Web		
11-08 (16-03)	Forum on Airport Roles in Reducing Communicable Diseases Transmission	\$100,000(16)	\$100,000	Eastern Research Group Inc.	12/13/16	12/11/19	Completed - Published as Conference Proceedings 55		
11-08 (16-04)	Public Private Partnerships - What Are the Lessons Learned?	\$100,000(16)	\$119,994	Eastern Research Group Inc.	10/13/17	12/11/19	Completed - Published as Conference Proceedings 26		
11-08 (19-01)	Blockchain Technology and Airports	\$120,000 (19)	\$119,929	Eastern Research Group Inc.	3/21/19	12/31/20	Completed - Published as Conference Proceedings 28		
11-08 (20-01)	Future of Aviation	\$120,000 (20)	\$119,932	HMMWH	1/31/20	1/31/23	Completed - Published as Conference Proceedings on the Web 29		
11-08 (20-02)	On Demand Aviation Services for Passengers and Goods	\$119,963 (20)	\$119,963	Eastern Research Group	3/23/20	6/30/23	Research in Progress	T. Hogan	Matthew Griffin



Project No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison	Staff Officer
11-08 (21-01)	ACRP Insight Event – Future of Airport Finances	\$170,000 (20)	HMMH	HMMH			Completed		Marci Greenberger
11-08 (21-02)	ACRP Insight Event – Issues on Systemic Racism	\$170,000 (20)	\$119,525	Metro Analytics	12/14/20	12/13/21	Contract Terminated. Remaining funds to be transferred to new ACRP Project 11-08/21-02A		Joseph Navarrete
11-08 (21-02A)	ACRP Insight Event--Issues on Systemic Racism		\$112,528	HMMH	8/24/21	7/23/22	Completed – Published as Transportation Insights 1		
11-08 (24-01)	ACRP Insight Event – Modernization of FIS Facilities at International Airports		\$170,000	----			In Development		Joseph Navarrete
11-08 (24-02)	ACRP Insight Event: Improving Extreme Weather Resiliency of Airport Infrastructure		\$135,000	----			In Development		Jordan Christensen
11-08 (24-03)	ACRP Insight Event – Airport Energy Resiliency		\$170,000	----			In Development		Matthew Griffin
11-11	Facilitating Implementation of ACRP Products	\$500,000 (20)					Research in Progress	Xue Li	Marci Greenberger
11-12	ACRP Strategic Activities	\$700,000 (22)					In Development		Marci Greenberger

**ACRP PROJECT 11-01**  
**Legal Aspects of Airport Programs**

Project No.	Title	Contractor	Start Date	Status	Staff Officer
11-01/Topic 01-01	Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters through December 31, 2018	Spiegel & McDiarmid LLP	12/1/06	Completed - Published as Legal Research Digest 4 (CRP-CD-68)	
11-01/Topic 01-02	Theory and Law of Airport Revenue Diversions	Paul Dempsey	1/18/07	Completed - Published as Legal Research Digest 2	
11-01/Topic 01-03	Compilation/List of Airport Law Resources	McGill University	12/1/06	Completed - Published as Legal Research Digest 1	
11-01/Topic 01-04	Survey of Airport Laws and Regulation of Commercial Ground Transportation	Smith Armundsen	4/1/07	Completed - Published as Legal Research Digest 3	
11-01/Topic 01-05	Responsibility for Implementation and Enforcement of Airport Land-Use Zoning Restrictions	William V. Cheek & Associates	4/1/07	Completed - Published as Legal Research Digest 5	
11-01/Topic 01-06	The Right to Self-Fuel	C. Daniel Prather, Ph.D.	1/1/08	Completed - Published as Legal Research Digest 8	
11-01/Topic 01-07	The Impact of Airline Bankruptcies on Airports	Jocelyn Waite	10/1/07	Completed - Published as Legal Research Digest 6	
11-01/Topic 01-08	Airport Governance and Ownership	Daniel S. Reimer	2/1/08	Completed - Published as Legal Research Digest 7	
11-01/Topic 01-09	Survey of Elements of Disparity Studies for Airport Disadvantaged Business Enterprise Programs			Cancelled	
11-01/Topic 02-01	Obstructions Affecting Navigable Airspace	Cheek & Associates	8/10/10	Incorporated into 02-05	
11-01/Topic 02-02	Use and Success of Aviation Easements and Other Tools for Airport-Compatible Land Use and Development of Model Language	Lemongrass Consulting	8/1/10	Incorporated into 02-05	
11-01/Topic 02-03	Case Studies on Community Challenges to Airport Development	Jaye Pershing Johnson	10/1/08	Completed - Published as Legal Research Digest 9	
11-01/Topic 02-04	Analysis of Federal Laws, Regulations, and Case Law Regarding Airport Proprietary Rights	Jodi Howick, Esq.	10/1/08	Completed - Published as Legal Research Digest 10	
11-01/Topic 02-05	Practices to Achieve Airport-Compatible Land Uses and Minimize Obstructions in Navigable Airspace	Jocelyn Waite	10/15/10	Completed - Published as Legal Research Digest 14	
11-01/Topic 03-01	Fair Disclosure and Airport Impact Statements in Real Estate Transfers	Larry Thomas, Esq.	8/1/09	Completed - Published as Legal Research Digest 12	
11-01/Topic 03-02	Compilation of State Aviation Authorizing Legislation	Jodi Howick, Esq.	8/1/09	Completed - Published as Legal Research Digest 15	
11-01/Topic 03-03	Survey of Minimum Standards: Commercial Aeronautical Activities at Airports	Kaplan Kirsch Rockwell, LLP	7/1/09	Completed - Published as Legal Research Digest 11	
11-01/Topic 03-04	Airport Rates and Charges: Law and Policy	Spiegel & McDiarmid LLP	11/1/09	Completed - Incorporated into 4-05	
11-01/Topic 03-05	State and Federal Regulations That May Affect Initiatives to Reduce Airports' GHG Emissions	Kaplan Kirsch Rockwell, LLP	11/1/09	Completed - Published as Legal Research Digest 17	
11-01/Topic 03-06	An Index and Digest of Decisions: Compilation of Airport Law Resources	Kaplan Kirsch Rockwell, LLP	12/1/09	Completed - Published as Legal Research Digest 13 (CRP-CD-108)	
11-01/Topic 04-01	Airport Responsibility for Wildlife Management	Broad & Cassel	1/1/11	Completed - Published as Legal Research Digest 20	
11-01/Topic 04-02	Legal Issues Related to Developing Safety Management Systems and Safety Risk Management at U.S. Airports	Foley Lardner LLP	7/1/11	Completed - Published as Legal Research Digest 19	
11-01/Topic 04-03	Analysis of Federal Laws, Regulations, Case Law, and Survey of Existing Airport NPDES Permits Regarding Tenant-Operator Responsibilities Under NPDES and Storm Water Management BMP's Under Owner/Airport's Operating Permits	CDM Federal Programs Corporation	9/1/13	Completed - Published as Legal Research Digest 25	
11-01/Topic 04-04	Buy America Requirements for Federally Funded Airports	Conner Gwyn Schenck PLLC	3/15/11	Completed - Published as Legal Research Digest 18	
11-01/Topic 04-05	Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters Through December 2012	Spiegel & McDiarmid LLP	2/24/12	Completed - Published as Legal Research Digest 21 (CRP-CD-141)	
11-01/Topic 04-06	The Role of the Airport Sponsor in Airport Planning and Environmental Reviews of Proposed Development Projects Under the National Environmental Policy Act (NEPA) and State Mini-NEPA Laws	Conner Gwyn Schenck PLLC	3/9/12	Completed - Published as Legal Research Digest 22	
11-01/Topic 04-07	Procurement of Airport Development and Planning Contracts	Broad & Cassel	4/15/11	Completed - Published as Legal Research Digest 16	
11-01/Topic 05-01	Regulations Affecting the Exercise of First Amendment Activities at Airports	Howick, Jodi	8/14/13	Completed - Published as Legal Research Digest 26	
11-01/Topic 05-02	Sovereign Immunity for Public Airport Operators	Seay Law International, PA	11/7/13	Completed - Published as Legal Research Digest 24	
11-01/Topic 05-03	The Fourth Amendment and Airports	Howick, Jodi	8/8/14	Completed - Published as Legal Research Digest 27	

Project No.	Title	Contractor	Start Date	Status	Staff Officer
11-01/Topic 05-04	A Guide for Compliance with Grant Agreement Obligations to Provide Reasonable Access to an AIP-Funded Public Use General Aviation Airport	Kaplan Kirsch Rockwell, LLP	7/26/13	Completed - Published as Legal Research Digest 23	
11-01/Topic 06-01	Operational and Legal Issues with Fuel Farms	Kaplan Kirsch Rockwell, LLP	9/18/14	Completed - Published as Legal Research Digest 28	
11-01/Topic 06-02	Contract Risk Management for Airport Agreements	Broad & Cassel	5/29/15	Completed - Published as Legal Research Digest 30	
11-01/Topic 07-01	Impact of Firearms Laws on Airports	The Thomas Law Firm	3/31/15	Completed - Published as Legal Research Digest 29	
11-01/Topic 07-02	Preemption of Worker Retention and Labor Peace Agreements at Airports	Kaplan Kirsch Rockwell, LLP	10/20/15	Completed - Published as Legal Research Digest 31	
11-01/Topic 08-01	Legal Issues Related to the Implementation and Operation of Safety Management Systems for Airports	Kaplan Kirsch Rockwell, LLP	6/6/17	Completed - Published as Legal Research Digest 36	
11-01/Topic 08-02	Legal Risks of Operating a Public Airport	Howick, Jodi	5/24/16	Completed - Published as Legal Research Digest 33	
11-01/Topic 08-03	Evolving Law on Airport Implications by Unmanned Aerial Systems Operations	Ravich Law Firm, P.A.	5/12/16	Completed - Published as Legal Research Digest 32	
11-01/Topic 08-04	Legal Consideration in the Funding and Development of Multi-Modal Facilities	Karaskiewicz, Timothy	5/3/16	Completed - Published as Legal Research Digest 35	
11-01/Topic 09-01	Airport Public Health Preparedness & Response: Legal Rights, Powers & Duties	University of Arizona	2/15/17	Completed - Published as Legal Research Digest 34	
11-01/Topic 09-02	Legal Issues Relating to Airports Promoting Competition	Kaplan Kirsch Rockwell, LLP	2/7/17	Completed - Published as Legal Research Digest 37	
11-01/Topic 09-03	Permitted Airport Involvement in Economic Development Efforts	Estes, William J	4/27/17	Terminated	
11-01/Topic 10-01	Update of Compilation of FAA/DOT Airport Legal Determinations	Ravich Law Firm, P.A.	4/25/18	Research in Progress	Marci Greenberger
11-01/Topic 10-02	Legal Issues Relating to Large Scale Airport Construction Projects	University of Nevada - Las Vegas	10/3/17	Completed - Published as Legal Research Digest 38	
11-01/Topic 10-03	Legal Issues Relating to Airport Commercial Contracts	Parker, Poe, Adams & Bernstein LLP	6/15/18	Completed - Published as Legal Research Digest 41	
11-01/Topic 10-04	Updated Survey of Laws and Regulations Applicable to Airport Commercial Ground Transportation	Sun, Carlos	11/1/18	Completed - Published as Legal Research Digest 39	
11-01/Topic 11-01	Permissible Uses of Airport Revenue and Property	Kaplan Kirsch Rockwell, LLP	9/1/18	Completed - Published as Legal Research Digest 40	
11-01/Topic 11-02	Accommodation of Federal Agencies Rights and Obligations of Host Airports	Kaplan Kirsch Rockwell, LLP	3/20/20	Completed - Published as Legal Research Digest 45	
11-01/Topic 11-03	Analysis of Laws, Regulations, and Case Laws Regarding Airport Customer Facility Charges	Crowznest	12/30/19	Completed - Published as Legal Research Digest 42	Jordan Christensen
11-01/Topic 12-01	Legal Implications of Data Collection at Airports	Midwest Airport Consultants	10/1/22	Research in Progress	
11-01/Topic 12-02	Developing Lease Terms for New General Aviation Development	Del Ray Solutions	5/9/23	Research in Progress	Jordan Christensen
11-01/Topic 15-01	Accommodating Federal Agencies at Airports and Related Contractual Concerns	JetLaw		In Development	Jordan Christensen
11-01/Topic 15-02	Legal Issues Concerning General Aviation Airports' Safety and Security			In Development	Jordan Christensen
11-01/Topic 15-03	Legal Impacts to Airports from State Legalization of Marijuana			In Development	Jordan Christensen
11-01/Topic 15-04	Civil Rights Requirements at Federally Obligated Airports			In Development	Jordan Christensen

**ACRP PROJECT 11-02  
Quick Response for Special Needs**

Project No.	Title	Contractor	Start Date	End Date	Status	Staff Officer
11-02/Task 01	Model for Improving Energy Use in U.S. Airport Facilities	Texas A&M University	10/13/06	7/31/07	Completed - Published as Research Results Digest 2	
11-02/Task 02	Ground Access to Major Airports by Public Transportation	Coogan, Matthew A.	8/16/06	9/30/07	Completed - Published as Report 4	
11-02/Task 03	Evaluation and Mitigation of Aircraft Slide Evacuation Injuries	George Washington University	1/1/07	1/1/08	Completed - Published as Report 2	
11-02/Task 04	Airport Safety Management Systems for Airports: Overview	MITRE Corporation	1/4/07	7/3/07	Completed - Published as Report 1, Volume 1	
11-02/Task 05	Quarantine Facilities for Arriving Air Travelers: Identification of Planning Needs and Costs	Combined	3/28/07	11/3/07	Completed - Published as Report 5	
11-02/Task 06	Interagency-Industry Collaboration on Pandemic Planning for Aviation: A Workshop	TRB Technical Activities Division	2/15/07	9/15/07	Completed - Workshop Held - Published as TRB Conference Proceedings 41	
11-02/Task 07	Current and Emerging Issues Facing the Airport Industry	Quest Corporation of America, Inc.	5/1/08	3/31/09	Completed - Published as Research Results Digest 5	
11-02/Task 08	Enhanced Modelling of Aircraft Taxiway Noise - Scoping	Wyle Laboratories, Inc.	2/5/08	8/31/09	Completed - Published as Web-Only Document 9, Volume 1	
11-02/Task 09	Visibility of Airfield Signs and Markings from Aircraft and Ground Vehicles	Cancelled			Cancelled	
11-02/Task 10	Estimate of National Use of Aircraft and Airfield Deicing Materials	CH2M Hill	10/15/07	6/14/08	Completed - Results to ACI-NA, AAAE, A4A	
11-02/Task 11	A Summary of How Proposed Firefighting Standards Would Impact Airports	GRA, Incorporated	12/1/08	6/23/09	Completed - Published as Web-Only Document 7 and Research Results Digest 7	
11-02/Task 12	Ramp Incident Data from Selected Large and Medium Hub Airports	Ricondo & Associates, Inc.	4/17/09	3/31/12	Completed - Results to FAA	
11-02/Task 13	Research Symposium on the Transmission of Disease in Airports and on Aircraft	TRB Technical Activities Division			Completed - Symposium Held - Published as TRB Conference Proceedings 47	
11-02/Task 14	Helping Airports Understand the Payment Card Industry Data Protection Standard (PCI DSS)	Barich, Inc.	1/6/10	7/1/10	Completed - Published as Research Results Digest 11	
11-02/Task 15	Aviation Industry Familiarization and Training for Part-Time Airport Policymakers	Delta Airport Consultants, Inc.	1/19/10	5/31/11	Completed - Published as Report 58	
11-02/Task 16	Analysis, Scoping, and Prioritizing ACRP Deicing Problem Statements	Cancelled			Cancelled	
11-02/Task 17	Risk Assessment of Proposed ARFF Standards	Robert E. David & Associates	3/16/10	1/14/11	Completed - Published as Web-Only Document 12	
11-02/Task 18	The Carbon Market: A Primer for Airports	Pace Global Energy Services, LLC	11/2/10	8/30/11	Completed - Published as Report 57	
11-02/Task 19	Symposium on Air Travel and the Spread of Disease				Cancelled	
11-02/Task 20	Developing Problem Statements on Information Technology Issues at Airports	Transportation Research Board	12/1/11	12/1/11	Completed - Workshop Held - Results to AOC	
11-02/Task 21	Innovative Airport Response to Threatened and Endangered Species	Environmental Science Associates	4/22/13	8/29/14	Completed - Published as Report 122	
11-02/Task 22	Best Practices for General Aviation Aircraft Fuel-Tank Sampling	Hagerty Environmental LLC	8/14/13	4/13/14	Completed - Published as Research Results Digest 21	
11-02/Task 23	Alternative IT Delivery Methods and Best Practices for Small Airports	Barich, Inc.	8/5/13	7/31/14	Completed - Published as Report 128	
11-02/Task 24	ACRP Electronic Product Options	Grafton Technologies	7/27/15	1/26/16	Completed - Final deliverables available for download	
11-02/Task 25	Developing Environmental Problem Statements	Harris Miller Miller & Hanson Inc.	10/24/14	4/23/15	Completed	
11-02/Task 26	AOC Strategic Planning	Ricondo & Associates, Inc.	10/25/14	8/31/15	Completed	
11-02/Task 27	Update to Models for Risk Assessment of Runway Safety Areas	Airport Safety Management Consultants, LLC	11/1/16	3/15/17	Completed - Published on website	
11-02/Task 28	Recovering International Recyclables from In-flight Service	GeneraCycle, Inc.	6/16/17	2/28/19	Completed - Published as Web-Only Document 46	
11-02/Task 29	ACRP Research Roadmap on Airport Operations and Maintenance	Harris Miller Miller & Hanson Inc.	7/17/17	11/16/18	Completed - Published Roadmap	
11-02/Task 30	ACRP Research Roadmap on Airport Design & Construction	Harris Miller Miller & Hanson Inc.	7/6/17	11/30/18	Completed - Published as Web-Only Document 40	
11-02/Task 31	ACRP Oversight Committee Workshop on Emerging Issues	VHB	1/1/18	9/30/18	Completed - Published as Research Results Digest 28	

Project No.	Title	Contractor	Start Date	End Date	Status	Staff Officer
11-02/Task 32	ACRP Research Roadmap on Environmental Issues	Harris Miller Miller & Hanson Inc.	5/9/18	9/30/19	Completed - Published as Web-Only Document 45	
11-02/Task 33	ACRP Research Roadmap on Policy and Planning Issues	Steer, Davies & Gleave Inc.	2/12/18	3/31/19	Completed - Published as Web-Only Doc 39	
11-02/Task 34	Business Process Review for TRB's Cooperative Research Program	Navigator, Inc.			Completed	
11-02/Task 35	Research Roadmap on Administration and Human Resources Issues	ICF Incorporated	4/2/19	4/1/20	Completed - Published as Web-Only Document 49	
11-02/Task 36	Research Roadmap on Safety Issues	Futron Aviation Corporation	5/1/19	7/31/20	Published as Web-Only Doc 50	
11-02/Task 37	Periodic Report on Transformative Technology for Airports	Barich, Inc.	6/6/19	12/5/21	Issue 3 Completed Published as WebResource 10	Marci Greenberger
11-02/Task 37A	Periodic Report on Transformative Technology at Airports	Barich, Inc.				
11-02/Task 38	Problem Statement Development from Thought Leader Forum, Roadmaps, and Insight Events	VHB	7/21/20	5/19/22		
11-02/Task 39	ACRP Environment Products Update	Harris Miller Miller & Hanson Inc.	7/21/20	3/20/21	Completed - Publication for Program use	
11-02/Task 40	Primer for Airport Organizational Redesign	ICF	2/24/21	2/24/22	Completed - Published as Research Report 240	
11-02/Task 41	Toward A Touchless Airport Journey	Barich, Inc.	3/5/21	2/25/22	Completed - Published as Research Report 241	
11-02/Task 42	Quick Response: Facilitation of AOC Thought Leader Forum	Eastern Research Group	11/4/20	4/2/22	Completed	
11-02/Task 43	Quick Response: Successful Community Integration of Advanced Air Mobility	Mead & Hunt, Inc.	3/30/22	10/31/23	Completed - To Be Published as Research Report 261	Joseph Navarrete
11-02/Task 44	Communicable Disease Response Plan Evaluation	The Cadmus Group	5/1/23	1/22/24	Research in Progress	Joseph Navarrete

**ACRP PROJECT 11-03**

**Synthesis of Information Related to Airport Programs**

Project No.	Title	Contractor	Start Date	Status	FAA Liaison(s)	Staff Officer
: 1: Administration (26)						
11-03/Topic S01-01	Innovative Finance and Alternative Sources of Revenue for Airports	Jacobs Consultancy	6/30/06	Completed - Published as Synthesis 1		
11-03/Topic S01-02	Airport Revenue Diversification	KRAMER aerotek, Inc.	4/15/08	Completed - Published as Synthesis 19		
11-03/Topic S01-03	Airport Insurance Coverage and Risk Management Practices	Ron Rakich & Assoc.	4/9/10	Completed - Published as Synthesis 30		
11-03/Topic S01-04	Airline and Airline-Airport Consortiums to Manage Terminals and Equipment	AVAirPros	4/9/10	Completed - Published as Synthesis 31		
11-03/Topic S01-05	Issues with Airport Organization and Reorganization	Kim Kenville Consulting	4/1/12	Completed - Published as Synthesis 40		
11-03/Topic S01-06	How Airports Measure Customer Service Performance	Kramer Aerotek, Inc.	4/1/12	Completed - Published as Synthesis 48		
11-03/Topic S01-07	Conducting Airport Peer Reviews	CTC & Associates LLC	4/1/12	Completed - Published as Synthesis 46		
11-03/Topic S01-08	Understanding the Value of Social Media at Airports for Customer Engagement	Leigh Fisher Associates	4/15/13	Completed - Published as Synthesis 56		
11-03/Topic S01-09	Practices to Develop Effective Stakeholder Relationships at Smaller Airports	Delta Airport Consultants, Inc.	5/13/14	Completed - Published as Synthesis 65		
11-03/Topic S01-10	Strategies for Maintaining Air Service	Sixel Consulting Group, Inc.	5/21/14	Completed - Published as Synthesis 68		
11-03/Topic S01-11	Planning for Operational Recovery at Small Airports	North Dakota State University	5/12/15	Completed - Published as Synthesis 78		
11-03/Topic S01-12	Airport Participation in Oil & Gas Development	Kramer Aerotek, Inc.	5/24/16	Completed - Published as Synthesis 87		
11-03/Topic S01-13	Food and Beverage and Retail Operators: The Costs of Doing Business at Airports	Unison Consulting, Inc.	6/7/16	Completed - Published as Synthesis 81		
11-03/Topic S01-14	Funding Industrial Aviation Development	Smith-Woolwine Associates, Inc.	5/24/16	Completed - Published as Synthesis 79		
11-03/Topic S01-15	Airport Operator Options for Delivery of FBO Services	Kramer Aerotek, Inc.	6/3/16	Completed - Published as Synthesis 86		
11-03/Topic S01-16	Microgrids and Their Application at Airports	Arup North America, Ltd.	6/15/17	Completed - Published as Synthesis 91		
11-03/Topic S01-17	Attracting Investment at General Aviation Airports Through Public-Private Partnerships and Leasing	Texas A&M Transportation Institute	5/23/17	Completed - Published as Synthesis 94		
11-03/Topic S01-18	Value, Benefits, and Limitations of Qualifications Based Selection (QBS) for Airport Project Delivery	Gransberg & Associates Inc.	6/26/18	Completed - Published as Synthesis 102		
11-03/Topic S01-19	Data Acquisition and Protocols for Risk Management	Dubque-Snyder Aviation Consultants LLC	10/4/18	Completed - Published as Synthesis 106		
11-03/Topic S01-20	Compilation of Data on the State of FBOs	Kramer Aerotek, Inc.	7/30/18	Completed - Published as Synthesis 108		
11-03/Topic S01-21	Benefits of Arts Programs to Airports and Stakeholders	Midwest Airport Consultants	6/1/19	Completed- Published as Synthesis 114		
11-03/Topic S01-22	Last Mile in General Aviation - Courtesy Vehicles and Other forms of Ground Transportation	AirportAdmin, LLC	6/14/19	Completed- Published as Synthesis 111		
11-03/Topic S01-26	Landscape of the FBO Industry in 2022	KRAMER Aerotek Inc.	5/13/22	Completed - Published as Synthesis 129	M. Fierro	Jordan Christensen
11-03/Topic S01-27	State of Airport Loyalty Programs	Purdue University	7/7/22	Completed - Published as Synthesis 131	No FAA Liaison	Jordan Christensen
11-03/Topic S01-28	Airport Arts Program Management	Nemon Consulting	8/31/23	Research in Progress	No FAA Liaison	Jordan Christensen
11-03/Topic S01-29	Preparing an Airport for a New Airline Starting Service	DPrather Aviation Solutions	9/25/23	Research in Progress	J. Carlini	Jordan Christensen
: 2: Environment (23)						
11-03/Topic S02-01	Effects of Airport Noise: Research Update on Selected Topics	Mestre Greve Associates	3/1/07	Completed - Published as Synthesis 9		
11-03/Topic S02-02	Airport Sustainability Practices	Arup North America	3/1/07	Completed - Published as Synthesis 10		
11-03/Topic S02-03	Compilation of Noise Programs in Areas Outside DNL 65	Harris Miller Miller, & Hanson, Inc.	4/1/08	Completed - Published as Synthesis 16		
11-03/Topic S02-04	Approaches to Integrating Airport Development and Federal Environmental Review Processes	RS & H / Synergy	4/1/08	Completed - Published as Synthesis 17		
11-03/Topic S02-05	Funding Opportunities for Airport Environmental Projects	Unison Consulting, Inc.	4/9/10	Completed - Published as Synthesis 24		
11-03/Topic S02-06	Airport Climate Adaptation and Resilience	AEA Group	5/1/11	Completed - Published as Synthesis 33		

Project No.	Title	Contractor	Start Date	Status	FAA Liaison(s)	Staff Officer
11-03/Topic S02-07	Integrating Environmental Sustainability into Airport Contracts	Leigh Fisher Associates	4/16/12	Completed - Published as Synthesis 42		
11-03/Topic S02-08	Environmental Assessment of Air and High-Speed Rail Corridors	Arizona State University	5/1/12	Completed - Published as Synthesis 43		
11-03/Topic S02-09	Environmental Management System Development Process	First Environment, Inc.	5/1/12	Completed - Published as Synthesis 44		
11-03/Topic S02-10	Outcomes of Green Initiatives: Large Airport Experience	First Environment, Inc.	4/1/13	Completed - Published as Synthesis 53		
11-03/Topic S02-11	Lessons Learned from Airport Sustainability Plans	A Ripple Effect, PLC	5/29/14	Completed - Published as Synthesis 66		
11-03/Topic S02-12	Airport Sustainability Practices - Drivers and Outcomes of Green Initiatives for Small and General Aviation Airports	DPrather Aviation Solutions LLC	4/30/15	Completed - Published as Synthesis 69		
11-03/Topic S02-13	Helicopter Noise Information for Airport Noise Managers	Landrum & Brown	5/12/15	Completed - Published as Synthesis 76		
11-03/Topic S02-14	Airport Sustainability Practices	Haley & Aldrich	4/30/15	Completed - Published as Synthesis 77		
11-03/Topic S02-15	Airport Experience with Alternative Fuels for Ground Transport	Cadmus Group, Inc.	6/24/16	Completed - Published as Synthesis 85		
11-03/Topic S02-16	Airport Experience with Implementing Notifications Required by the Aircraft Drinking Water Rule	Cadmus Group, Inc.	5/31/16	Completed - Published as Synthesis 88		
11-03/Topic S02-17	Sustainability's Role in Airport Growth	Cadmus Group, LLC	6/23/17	Completed - Published as Synthesis 93		
11-03/Topic S02-18	Airport Waste Management and Recycling Practices	Mead & Hunt Inc.	7/26/17	Completed - Published as Synthesis 92		
11-03/Topic S02-19	Clean Vehicles, Fuels, and Practices for Airport Private Ground Transportation Providers	University of South Florida	7/3/17	Completed - Published as Synthesis 89		
11-03/Topic S02-20	Lessons Learned from Airport Greenhouse Gas Reduction Efforts	Barrett Energy Resources Group LLC	6/7/18	Completed - Published as Synthesis 100		
11-03/Topic S02-21	Practices in Airport Renewable Energy Projects	Barrett Energy Resources Group LLC	6/24/19	Completed - Published as Synthesis 110		
11-03/Topic S02-22	Airport Programs that Reduce Landside Vehicle Carbon Emissions	INTERVISTAS	4/20/22	Completed - Published as Synthesis 127	No FAA Liaison	
11-03/Topic S02-23	Electric Vehicle Charging Stations at Airport Parking Facilities	Texas A&M		In Development	S. Tener	Jordan Christensen
<b>11-03/Topic S03-01 - Policy and Planning (19)</b>						
11-03/Topic S03-01	Aviation Forecasting Methodologies	GRA, Inc.	6/30/06	Completed - Published as Synthesis 2		
11-03/Topic S03-02	Airport Ground Access Mode Choice Models	Aviation Systems Consulting	10/1/06	Completed - Published as Synthesis 5		
11-03/Topic S03-03	Airport Economic Impact Methods and Models	Hoyle Tanner & Associates	3/1/07	Completed - Published as Synthesis 7		
11-03/Topic S03-04	Airport System Planning Practices	Wilbur Smith Associates	4/1/08	Completed - Published as Synthesis 14		
11-03/Topic S03-05	Effective Practices for Preparing Airport Improvement Program Benefit Cost Analysis	Economic Development Research Group	4/1/08	Completed - Published as Synthesis 13		
11-03/Topic S03-06	Strategies for Reuse of Underutilized or Vacant Airport Facilities	KRAMER aerotek, Inc.	5/1/10	Completed - Published as Synthesis 25		
11-03/Topic S03-07	Integrating Airport GIS Data with Public Agency GIS	Grafton Technologies	4/1/13	Completed - Published as Synthesis 59		
11-03/Topic S03-08	Backcountry Airstrip Preservation	T-O Engineering, Inc.	4/15/13	Completed - Published as Synthesis 55		
11-03/Topic S03-09	Cell Phone Lots at Airports	Kramer Aerotek, Inc.	5/19/14	Completed - Published as Synthesis 62		
11-03/Topic S03-10	Practices in Preserving and Developing Public-Use Seaplane Bases	Quilty, Stephen	5/29/14	Completed - Published as Synthesis 61		
11-03/Topic S03-11	Transportation Network Companies: Challenges and Opportunities for Airport Operators	INTERVISTAS Consulting LLC	6/28/16	Completed - Published as Synthesis 84		
11-03/Topic S03-12	Response Considerations for Communicable Diseases on Arriving Flights	Smith-Woolwine Associates, Inc.	5/25/16	Completed - Published as Synthesis 83		
11-03/Topic S03-13	Estimating Truck Trip Generation for Airport Air Cargo Activity	Resource Systems Group, Inc.	5/23/16	Completed - Published as Synthesis 80		
11-03/Topic S03-14	Simulation of Airside and Landside Operations in Airport Planning	Cignus Consulting LLC	6/23/17	Completed - Published as Synthesis 98		
11-03/Topic S03-15	How Airports Plan for Changing Aircraft Capacity-the Effects of Upgauging	DY Consulting Engineers PC dba DY Consultants	6/2/17	Completed - Published as Synthesis 97		
11-03/Topic S03-16	State Aviation Funding: Project Prioritization and Selection Processes	Mead & Hunt	12/6/20	Completed - Published as Synthesis 123		C. Nelmes

Project No.	Title	Contractor	Start Date	Status	FAA Liaison(s)	Staff Officer
11-03/Topic S03-17	Airport Centric Advanced Air Mobility Market Study	RSG	5/16/22	Completed - Published as Synthesis 130	J. Guan	Jordan Christensen
11-03/Topic S03-18	Communication, Implementation, and Outcomes of Airport Economic Impact Studies	Kimley-Horn	4/25/22	Completed - Published as Synthesis 125	J. Bryan	
11-03/Topic S03-19	On-Line Airport Parking Reservation Systems	Steer		In Development	No FAA Liaison	Jordan Christensen
<b>4: Safety (24)</b>						
11-03/Topic S04-01	General Aviation Safety and Security Practices	Reynolds, Smith and Hills, Inc.	10/1/06	Completed - Published as Synthesis 3		
11-03/Topic S04-02	Preventing Aircraft-Vehicle Incidents During Winter Operations and Periods of Low Visibility	Bowling Green State University	6/1/07	Completed - Published as Synthesis 12		
11-03/Topic S04-03	Identification of the Requirements and Training to Obtain Driving Privileges on Airfields	Airport Safety Consultants	5/1/08	Completed - Published as Synthesis 15		
11-03/Topic S04-05	Bird Repellent Techniques on Airports	Mississippi State University	5/1/10	Completed - Published as Synthesis 23		
11-03/Topic S04-06	Current Airport Inspection Practices Regarding FOD	Prather Airport Solutions	5/1/10	Completed - Published as Synthesis 26		
11-03/Topic S04-07	Lessons Learned from Airport Safety Management Systems Pilot Study	Landry Consultants, LLC	5/1/11	Completed - Published as Synthesis 37		
11-03/Topic S04-08	Managing Aerial Firefighting Activities on Airports	Critical Path International	5/1/11	Completed - Published as Synthesis 32		
11-03/Topic S04-09	Model Mutual Aid Agreements for Airports	Smith-Woolwine Associates, Inc.	4/16/12	Completed - Published as Synthesis 45		
11-03/Topic S04-10	Safety Reporting Systems at Airports	Landry Consultants, LLC	4/1/13	Completed - Published as Synthesis 58		
11-03/Topic S04-11	Effective Cooperation among Airports and Local and Regional Emergency Management Agencies for Disaster Preparedness and Response	Smith-Woolwine Associates, Inc.	4/1/13	Completed - Published as Synthesis 50		
11-03/Topic S04-12	Airport Emergency Post-event Recovery Practices	Smith-Woolwine Associates, Inc.	6/11/14	Completed - Published as Synthesis 60		
11-03/Topic S04-13	Combining Mixed Use Flight Operations Safely at Airports	Quilty, Stephen	4/30/15	Completed - Published as Synthesis 74		
11-03/Topic S04-14	Airport Safety Risk Management Panel Activities and Outcomes	Airport Safety Management Consultants, LLC	4/2/15	Completed - Published as Synthesis 71		
11-03/Topic S04-15	Flight Operations Advisories at Non-Towered Airports	DPrather Aviation Solutions LLC	4/30/15	Completed - Published as Synthesis 75		
11-03/Topic S04-16	Emergency Communications Planning for Airports	Smith-Woolwine Associates, Inc.	4/30/15	Completed - Published as Synthesis 73		
11-03/Topic S04-17	Tabletop and Full-Scale Emergency Exercises for General Aviation, Non-Hub, and Small Airports	Smith-Woolwine Associates, Inc.	5/12/15	Completed - Published as Synthesis 72		
11-03/Topic S04-18	Uses of Social Media to Inform Operational Response and Recovery During an Airport Emergency	Smith-Woolwine Associates, Inc.	5/26/16	Completed - Published as Synthesis 82		
11-03/Topic S04-19	Incorporating ADA and Functional Needs in Emergency Exercises	Smith-Woolwine Associates, Inc.	5/4/17	Completed - Published as Synthesis 90		
11-03/Topic S04-20	Airport Incident Reporting Practices	Quilty, Stephen	7/11/17	Completed - Published as Synthesis 95		
11-03/Topic S04-21	Models for Law Enforcement at Airports	Hickory Ridge Group LLC	2/8/19	Completed - Published as Synthesis 107		
11-03/Topic S04-22	Airport Surface Weather Observation Options for General Aviation Airports	Delta AirPort Consultants, Inc.	9/11/18	Completed - Published as Synthesis 105		
11-03/Topic S04-23	Airport Emergency Working Groups	Smith-Woolwine Associates, Inc.	7/9/18	Completed - Published as Synthesis 99		
11-03/Topic S04-24	Practices in Airport Emergency Plans	Tidal Basin Government Consulting	6/17/19	Completed - Published as Synthesis 115		
11-03/Topic S04-25	Escalator Falls	Zaworski, Katharine Hunter	6/18/19	Completed - Published as Synthesis 109		
<b>5: Security (1)</b>						
11-03/Topic S05-01	Intelligent Transportation System (ITS) Sensor Technology for General Aviation	Cancelled		Cancelled		
<b>6: Human Resources (8)</b>						
11-03/Topic S06-01	Aviation Workforce Development Practices	International Aviation Management Group	4/1/09	Completed - Published as Synthesis 18		



Project No.	Title	Contractor	Start Date	Status	FAA Liaison(s)	Staff Officer
11-03/Topic S06-02	Airport Self-Inspection Practices and Training Procedures	Prather Airport Solutions	6/1/10	Completed - Published as Synthesis 27		
11-03/Topic S06-03	Exploring Airport Employee Commuting and Parking Strategies	DMR Consulting	5/1/11	Completed - Published as Synthesis 36		
11-03/Topic S06-04	Adapting New Maintenance Hires to the Airport Environment	Quilty, Stephen	5/1/12	Completed - Published as Synthesis 49		
11-03/Topic S06-05	Promoting Aviation Career Education in High Schools and Community Colleges	DPrather Aviation Solutions LLC	9/4/18	Completed - Published as Synthesis 103		
11-03/Topic S06-06	Airport Workforce Programs Supporting Employee Well-being	ICF Incorporated	6/13/19	Completed - Published as Synthesis 113		
11-03/Topic S06-07	Evolution of Airport Work Models and Strategies	DPrather Aviation Solutions	4/12/22	Completed - Published as Synthesis 126	No FAA Liaison	Jordan Christensen
11-03/Topic S06-08	Airport Practices for Accommodating Employee Transportation and Parking Needs	DPrather Aviation Solutions		In Development	No FAA Liaison	Jordan Christensen
.: 7: Design (4)						
11-03/Topic S07-01	Impacts of Aging Travelers on Airports	Corgan Associates, Inc.	4/1/13	Completed - Published as Synthesis 51		
11-03/Topic S07-02	Communication Strategies for Airport Passenger Access and Mobility	Indiana University	6/18/18	Completed - Published as Synthesis 101		
11-03/Topic S07-04	Airport Property Used for Parks and Recreational Use	DPrather Aviation Solutions		In Development	D. Anderson	Jordan Christensen
11-03/Topic S07-05	Development of Airport Vehicle Service Road Systems	Ricondo & Associates		In Development	D. Wilson	Jordan Christensen
.: 8: Construction (1)						
11-03/Topic S08-01	Airport Terminal Facility Activation Techniques	Arup	5/1/09	Completed - Published as Synthesis 20		
.: 9: Maintenance (10)						
11-03/Topic S09-01	Impact of Rubber Removal Techniques on Runways	University of Oklahoma	6/1/07	Completed - Published as Synthesis 11		
11-03/Topic S09-02	Common Airport Pavement Maintenance Practices	Applied Research Associates	4/1/09	Completed - Published as Synthesis 22		
11-03/Topic S09-03	Subsurface Utility Engineering Information Management for Airports	J. H. Anspach Consulting	5/1/11	Completed - Published as Synthesis 34		
11-03/Topic S09-04	Issues with Use of Airfield LED Light Fixtures	Rensselaer Polytechnic Institute	5/1/11	Completed - Published as Synthesis 35		
11-03/Topic S09-05	Repairing and Maintaining Airport Parking Structures While in Use	Walker Restoration Consultants	4/1/12	Completed - Published as Synthesis 47		
11-03/Topic S09-06	Airside Snow Removal Practices for Small Airports with Limited Budgets	Quilty, Stephen	5/29/14	Completed - Published as Synthesis 67		
11-03/Topic S09-07	Building Information Modeling for Airports	Arbor Services, A Subsidiary of AT&C, Inc.	4/30/15	Completed - Published as Synthesis 70		
11-03/Topic S09-08	Approaches to Mitigate Alkali Silica Reaction (ASR) Effects at Airports	Applied Pavement Technology	7/11/17	Completed - Published as Synthesis 96		
11-03/Topic S09-09	Automated Pavement Condition Survey Practices at Airports	Woolpert, Inc.	12/1/20	Completed - Published as Synthesis 124	M. Brynick	
11-03/Topic S09-10	Airport Turf and Vegetation Management Practices	DPrather Aviation Solutions	7/11/22	Completed - Published as Synthesis 128	B. Hendry	
.: 10: Operations (18)						
11-03/Topic S10-01	Counting Aircraft Operations at Non-Towered Airports	Aerofinity	11/1/06	Completed - Published as Synthesis 4		
11-03/Topic S10-02	Common-Use Facilities and Equipment at Airports	Barich, Inc.	3/1/07	Completed - Published as Synthesis 8		
11-03/Topic S10-03	Impact of Airport Deicing Products on Aircraft and Airfield Infrastructure	Montana State University, Western Transportation Institute	3/1/07	Completed - Published as Synthesis 6		
11-03/Topic S10-04	Airport Energy Efficiency and Cost Reduction	Miller Dunwiddie Architecture, Inc.	4/1/09	Completed - Published as Synthesis 21		
11-03/Topic S10-05	Ramp Safety Practices	Landry Consultants, LLC	5/1/10	Completed - Published as Synthesis 29		
11-03/Topic S10-06	Investigating Safety Impacts of Energy Technologies on Airports and Aviation	Harris Miller Miller & Hanson, Inc.	6/1/10	Completed - Published as Synthesis 28		
11-03/Topic S10-07	Expediting Aircraft Recovery at Airports	Prather Airport Solutions	5/1/11	Completed - Published as Synthesis 38		
11-03/Topic S10-08	Conducting Aeronautical Special Events at Airports	Prather Airport Solutions, Inc.	4/1/12	Completed - Published as Synthesis 41		
11-03/Topic S10-09	Airport Wildlife Population Management	Bash Inc.	5/7/12	Completed - Published as Synthesis 39		

Project No.	Title	Contractor	Start Date	Status	FAA Liaison(s)	Staff Officer
11-03/Topic S10-10	Habitat Management to Deter Wildlife at Airports	Mississippi State University	5/1/13	Completed - Published as Synthesis 52		
11-03/Topic S10-11	Electric Vehicle Charging Stations at Airport Parking Facilities	Leigh Fisher Associates	4/1/13	Completed - Published as Synthesis 54		
11-03/Topic S10-12	Airport Response to Special Events	Kramer Aerotek, Inc.	4/1/13	Completed - Published as Synthesis 57		
11-03/Topic S10-13	Overview of Airport Fueling System Operations	Quilty, Stephen	5/29/14	Completed - Published as Synthesis 63		
11-03/Topic S10-14	Issues Related to Accommodating Animals Traveling through Airports	Smith-Woolwine Associates, Inc.	5/23/14	Completed - Published as Synthesis 64		
11-03/Topic S10-15	Evaluating Airport Performance with the Integration of UAS	DPrather Aviation Solutions LLC	9/4/18	Completed - Published as Synthesis 104		
11-03/Topic S10-16	Airport Operations Training at Small Airports	DPrather Aviation Solutions LLC	6/18/19	Completed - Published as Synthesis 112		
11-03/Topic S10-19	Airport Landside Operations Data and Collection Methods	InterVISTAS	9/2/22	Completed - Published as Synthesis 132	No FAA Liaison	Jordan Christensen
11-03/Topic S10-20	Identifying Military Resources and Strategies to Improve Civilian Airport Resiliency	Critical Ops LLC	9/20/22	Completed - To Be Published as Synthesis 133	No FAA Liaison	Jordan Christensen

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