ACRP

AIRPORT COOPERATIVE RESEARCH PROGRAM

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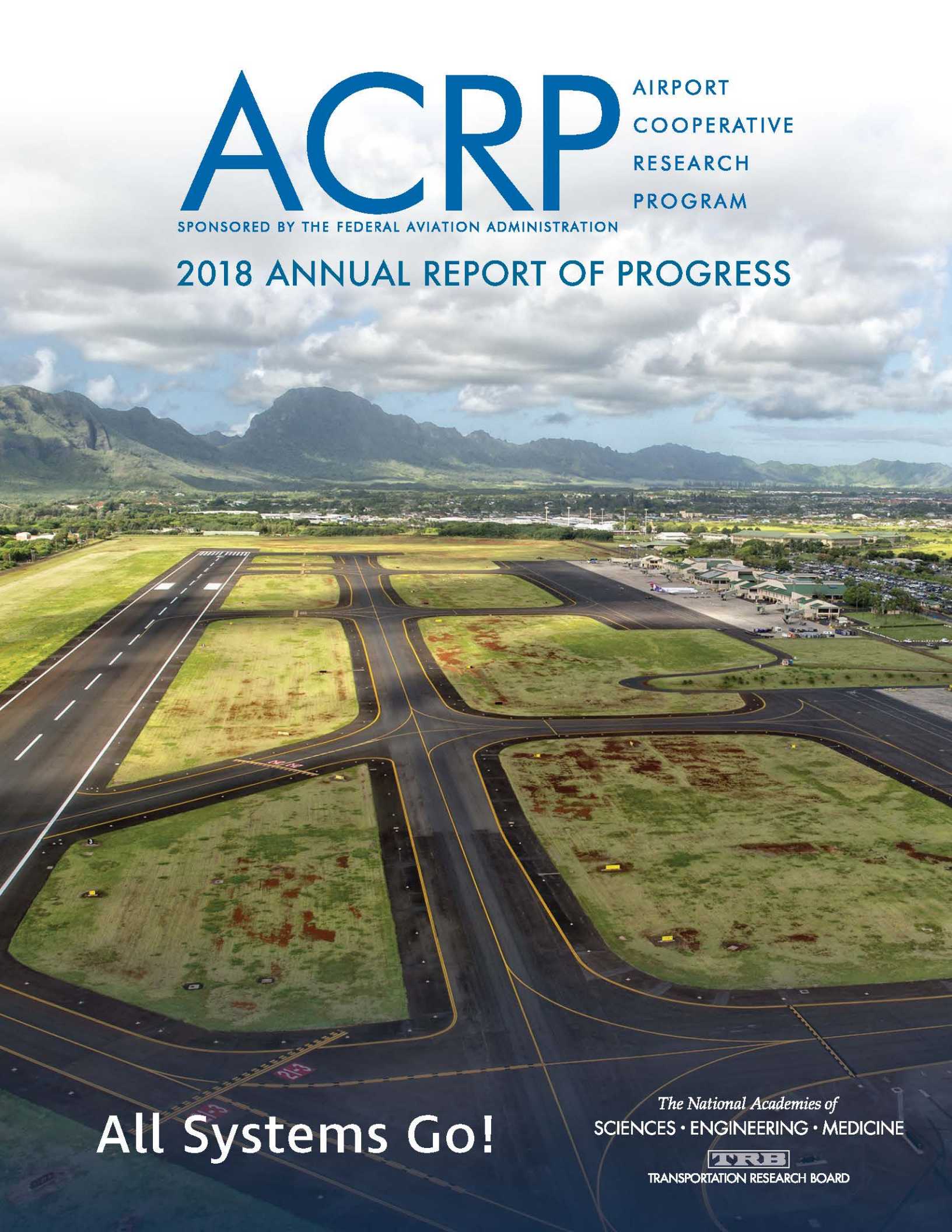
2018 ANNUAL REPORT OF PROGRESS



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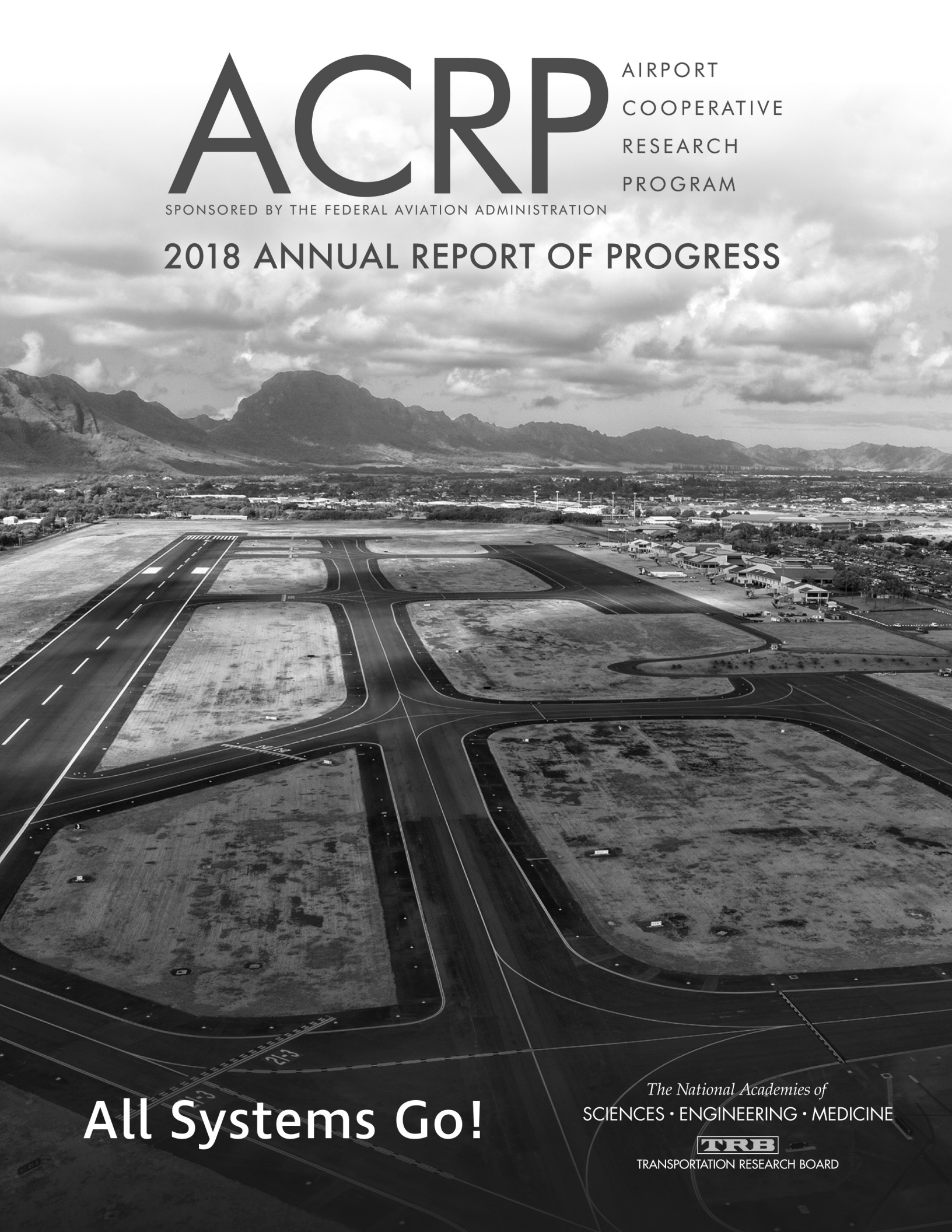

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AIRPORT COOPERATIVE RESEARCH PROGRAM

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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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. C. D. Mote, Jr., 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.national-academies.org**.

The **Transportation Research Board** is one of seven major programs of the National Academies of Sciences, Engineering, and Medicine. The mission of the Transportation Research Board is to increase the benefits that transportation contributes to society by providing leadership in transportation innovation and progress through research and information exchange, conducted within a setting that is objective, interdisciplinary, and multimodal. The Board's varied committees, task forces, and panels annually engage about 7,000 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**.

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Letter from AOC Chair

"All systems go!" It's a phrase that connotes teamwork within a complex, high-tech ecosystem about to launch a major program or mission. We selected this phrase as the theme for this annual report because it encapsulates ACRP's work to improve and align its efforts beyond research dissemination into new territory: more robust stakeholder engagement and implementation of research results.

For more than a decade, ACRP has successfully served the airport industry by eliciting research needs to address day-to-day challenges and then meeting those needs through a highly participatory process. Over the years, ACRP has built on this foundation with a first-in-class webinar program, peer-to-peer engagement programs like the ACRP Ambassador and Champion programs, and a 21st century website and social media presence, to name a few of its more high-profile dissemination efforts.

In 2018, ACRP added to these efforts by deploying IdeaHub to inspire collaboration on problem statements, Insight Events to engage thought leaders on issues of emerging importance to airports, and a much-improved website to bring its value and volunteer opportunities to the industry in new and dynamic ways. In addition, ACRP has begun an important effort to study how it can encourage its use of research results and data in the field.

While further work remains—airport problems continually arise and need solutions, airport practitioners continually enter the field and need to be introduced to the program—ACRP is making remarkable progress. Indeed, at ACRP, all systems are definitely going!

This report provides a snapshot of ACRP's achievements and metrics to measure progress toward its mission. I hope you find it timely, informative, and inspirational. There is no better time to get involved and support this important work than now.

—Deborah Flint

In Memoriam

The 2018 ACRP Annual Report of Progress is dedicated to
Michael R. Salamone, ACRP Manager, 2006–2018.

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Introduction

WHAT IS ACRP?

ACRP is an applied research program managed by the Transportation Research Board, part 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: safety, policy and planning, airport design, construction, legal issues, operations and maintenance, human resources, sustainability, and administration.

Airports are not merely portals linking destinations: they are an indispensable feature of our globalized, interconnected world. They facilitate the movement of goods and travelers and all they bring with them: sustained commerce and economic growth, the exchange of new ideas, technological innovations, and more. In addition, airports directly spur local and regional economic development, energy and environmental innovation, job creation, emergency preparedness, and placemaking, all of which render their surrounding communities more desirable, sustainable, and enriching.

Established in 2005, sponsored by the Federal Aviation Administration (FAA), and managed by the Transportation Research Board (TRB), ACRP helps foster and sustain these benefits mentioned above by conducting applied research to help the airport industry address day-to-day challenges. Offering hundreds of publications, compelling events, and a series of engaging and interactive initiatives, ACRP promotes the exchange of knowledge and best practices to help benefit and grow the airport industry. This report describes ACRP's activities and how they encourage collaboration to address shared concerns, foster professional networking across distance and generations, and identify and mitigate emerging challenges with timely information and tools.

Key Milestones in ACRP History

Since inception, ACRP has continued to forge new paths in engaging practitioners and disseminating its applied research. As web-based platforms and interactive initiatives have exploded in popularity, ACRP has successfully adjusted course and used new tools to reach an expanding audience. A few program milestones are highlighted below.

ACRP's Milestones

2005
TRB launches ACRP

2007
ACRP publishes first research report

2009
ACRP launches webinar program

2012
ACRP launches Ambassador program

2012
ACRP begins building social media presence

2014
ACRP begins its Impacts on Practice case studies

2015
ACRP Champions program is launched

2015
ACRP begins extensive website redesign

2016
ACRP holds its first Symposium on Research

2017
ACRP launches IdeaHub

2018
ACRP holds its first Insight Event

Overview of 2018 Key Accomplishments

ACRP is proud of its many accomplishments in 2018—from revamping its website to the full launch of IdeaHub, as well as hosting the program's first Insight Event. The program continues to publish research on an ever-increasing variety of topics; identifying areas of research that are meaningful to and needed by the airport industry is an ongoing priority.

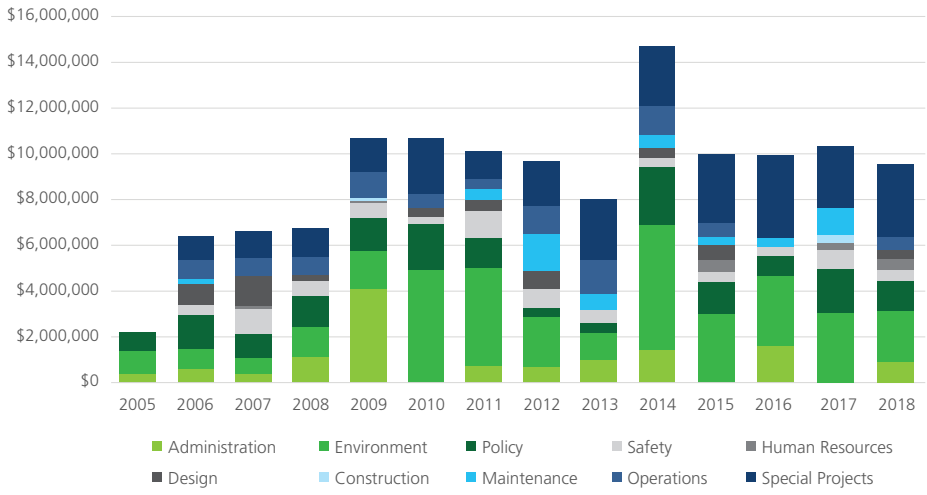
In 2018, ACRP received 55 problem statements for research from a wide range of airport operators, airlines, federal and state transportation agencies, universities, aviation consultants, and other entities. These problem statements touched on many areas of interest to airports, such as increasing sustainability via the use of renewable energy

Cumulative Funding and Projects by ACRP Research Topic Since 2005

# of projects	Funding	Research topic	Percentage of total
42	$15,217,104	1: Administration	**11**
92	$35,010,378	2: Environment	**26**
52	$19,894,152	3: Policy and Planning	**15**
25	$7,987,775	4: Safety	**6**
2	$648,459	5: Security	**<1**
8	$2,577,386	6: Human Resources	**2**
16	$5,874,305	7: Design	**4**
3	$750,000	8: Construction	**<1**
19	$6,489,818	9: Maintenance	**5**
27	$9,793,112	10: Operations	**7**
314	$31,146,838	11: Special Projects	**23**
600	**$135,389,327**		

and renewable fuels; using social media for emergency management; facilitating customer access to transportation network companies; and exploring how airports, local agencies, and government health organizations could reduce the transmission of communicable diseases.

In response to these problem statements, ACRP committed more than $9 million to support new research projects in 2018, which will yield new resources for airport practitioners. This investment will bring the total amount of project funding since 2005 to more than $135 million. Ultimately, projects undertaken in 2018 will bring the number of ACRP projects authorized since 2006 to 600.



In 2018, ACRP published 29 research products (reports, digests, syntheses, web-only documents, and WebResources) covering a wide range of topics relevant to airports that included water regulations, emergency planning and communications, public address systems, and much more. Each report is published to meet ACRP's standards for high quality.

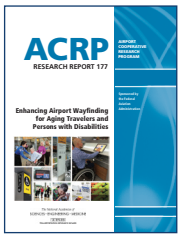
2018 Publications by Type	
Research reports	11
Legal research digests	3
Syntheses	8
Web-only documents	4
WebResources	3
TOTAL	29

Noteworthy 2018 Publications

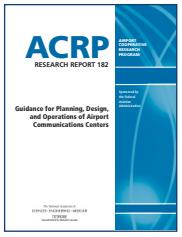
In 2018, practitioners downloaded the following 5 reports more than any other ACRP publications. The reports cover a variety of important topics including legal issues around unmanned aerial systems (UAS) and airport communications centers.

Top 5 Downloaded FY 2018 Publications	Downloads
ACRP Research Report 177: Enhancing Airport Wayfinding for Aging Travelers and Persons with Disabilities	1,426
ACRP Web-Only Document 44: Understanding FAA Grant Assurance Obligations	871
ACRP Research Report 182: Guidance for Planning, Design, and Operations of Airport Communications Centers	835
ACRP Legal Research Digest 32: Evolving Law on Airport Implications by Unmanned Aerial Systems	607
ACRP Synthesis 92: Airport Waste Management and Recycling Practices	594

RESEARCH REPORTS

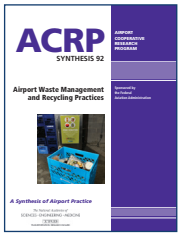


ACRP Research Report 177: Enhancing Airport Wayfinding for Aging Travelers and Persons with Disabilities uses the principles of universal design to help airports more successfully communicate information to individuals with cognitive, sensory, or mobility challenges. This guidebook discusses challenges and provides recommendations for each of the elements that constitute a complete passenger journey. The report also provides a Wayfinding Accessibility Audit Checklist to help airports create specific plans for each traveler's needs.



ACRP Research Report 182: Guidance for Planning, Design, and Operations of Airport Communications Centers assists airports in choosing the type of airport communications center (ACC) that best meets operational needs. The report encourages airports to develop a project management plan and a concept of operations (CONOPS) to guide the design, construction, activation, and operation of an ACC. The report also addresses various ACC functions including police dispatch, emergency response, maintenance requests, and airport systems monitoring.

SYNTHESIS REPORT

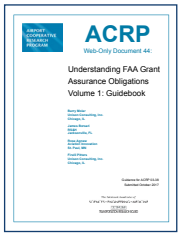


ACRP Synthesis 92: Airport Waste Management and Recycling Practices focuses on airport waste management and recycling practices that reduce impacts and costs to airports and their surrounding communities. It also includes survey results, case examples representing in-depth interviews on specific airport waste management and recycling practices, and toolkits of existing effective practices to assist airports in implementing their waste management and recycling programs.

LEGAL RESEARCH DIGEST

ACRP Legal Research Digest 32: Evolving Law on Airport Implications by Unmanned Aerial Systems is a practical guide for airport operators and legal counsel in understanding the current legal issues surrounding unmanned aerial systems (UAS) and to evaluate best practices for managing these issues. This guide discusses emerging problems, such as preemption of federal and state laws, tort law and invasion of privacy, and integration into existing airport operations. Using survey results, the guide creates a set of best practices that encourages proactive cooperation among airport managers, legal experts, and independent UAS operators.

WEB-ONLY DOCUMENT



ACRP Web-Only Document 44: Understanding FAA Grant Assurance Obligations, Volumes 1–4 help airport practitioners understand and comply with all Airport Improvement Program (AIP) requirements. Volume 1 is the primary guidebook that explains requirements for each of the 39 grant assurances as well as the consequences of noncompliance. Volume 2 contains the technical appendices and detailed supplemental information for airport staff, and Volume 3 is the research report that discusses the research efforts involved in creating the guidebook. Finally, Volume 4 is a customizable presentation that airport staff can use to share content and train new employees.

Since 2007, ACRP has released about 480 publications. Practitioners identified which ACRP publications they used most frequently in their work, as well as how they used those publications.

Top 5 Most Implemented/Impactful ACRP 2007–2018 Publications
ACRP Synthesis 72: Tabletop and Full-Scale Emergency Exercises for General Aviation, Non-Hub, and Small Hub Airports
ACRP Report 150 Vol 1: NextGen for Airports
ACRP Synthesis 39: Airport Wildlife Population Management
ACRP Report 131: A Guidebook for Safety Risk Management for Airports
ACRP Legal Research Digest 30: Contract Risk Management for Airport Agreements

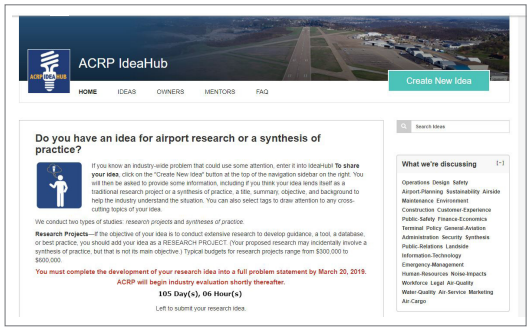
Based on survey responses to ACRP on impacts of publications.

Top 5 Most Cited Implementations/Impacts
As a guidance document
To recommend or make management decisions
To recommend or make changes to standards, specifications, or guidance documents
To improve operational efficiency
To recommend or make policy changes

Based on survey responses to ACRP on impacts of publications.

ACRP Initiatives: Reaching New Heights

Improving Research Ideas: IdeaHub



IdeaHub is a user-friendly website that is an activity center for all things related to potential problem statements for ACRP—the foundation of the ACRP research process. The goal of IdeaHub is to make collaboration easier for practitioners and is based on the notion that broad participation and collaboration among diverse stakeholders yields the best ideas for research and improvement. 2018 marked the completion of ACRP's first annual cycle of generating and harvesting research problem statements using IdeaHub. Anyone can become a registered user by following the IdeaHub link on ACRP's homepage or going to https://ideahub.trb.org/.

This year, practitioners shared nearly 100 ideas on IdeaHub. Using the tool's collaborative features, practitioners worked together on and offline and submitted 81 formal problem statements covering a variety of topics for consideration. IdeaHub retains all submissions, so practitioners may refine and resubmit them in future years.

KEY METRICS

- **Participants:** 600+
- **Comments:** 275 (229 for research projects, 46 for syntheses)
- **Submitted:** 81 (55 problem statements, 26 synthesis topics)
- **Number of problem statements approved for funding:** 18 projects, 5 syntheses

Dissemination

Throughout 2018, ACRP continued to grow its major dissemination initiatives, which draw attention to and interest in ACRP and its research products. The below sections summarize these efforts and highlight key accomplishments.

Ambassadors

ACRP Ambassadors are experienced airport professionals who voluntarily attend conferences across the country on ACRP's behalf, personally connecting practitioners to ACRP research by staffing exhibition booths and giving presentations. Ambassadors attended 27 events in 2018 and have interacted with over 34,000 professionals since the Ambassador program launched in 2012.

KEY METRICS

ACRP Ambassadors **Cumulative** Number of Practitioners Reached						
2012	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
2,901	7,383	13,127	19,227	25,965	30,802	34,576

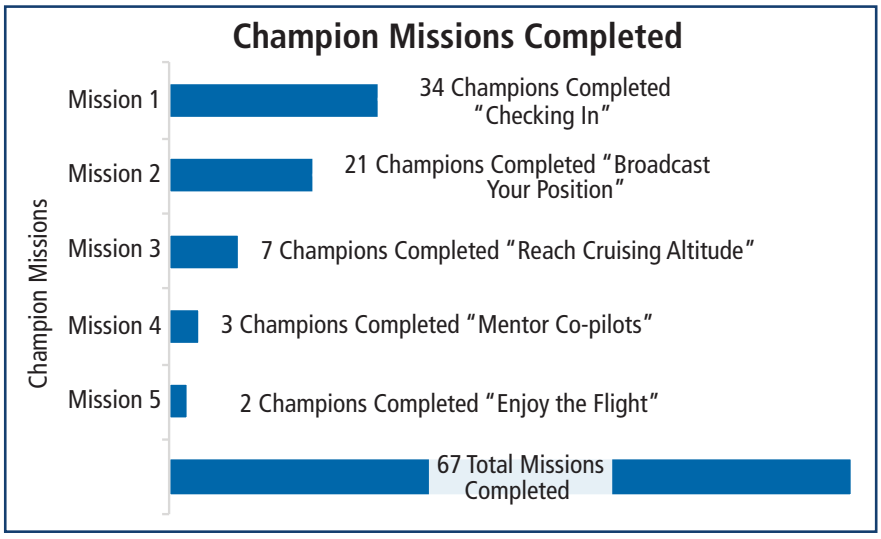
- Number of airport professionals inducted into the ACRP Ambassador program since 2012: **54**
- Number of states and provinces where Ambassadors have participated in conferences to disseminate ACRP's research results: **44 states and 2 Canadian provinces**
- Number of airport industry events ACRP Ambassadors have attended since 2012: **192**
- Number of airport industry professionals ACRP's Ambassadors have reached since 2012: **34,576**

Champions

Launched in 2015, the ACRP Champion program helps early- to mid-career professionals grow and excel in the airport industry. Each ACRP Champion is sponsored by his or her organization, including airport operating agencies and private-sector firms, and undertakes a series of "missions" that build knowledge of and drive engagement in ACRP's research and dissemination activities. To date, 49 ACRP Champions have completed a combined 67 missions through which Champions have, for example, contributed new research ideas, submitted project panel nominations, disseminated research results, and reported impacts on practice to ACRP. This year, ACRP formed a Champion advisory group to help guide future growth and implement several recommended changes identified through program evaluation surveys and interviews.

ACRP CHAMPION MISSIONS EXPLAINED

- **Mission 1, Checking In:** Learn how to find ACRP's research products, get involved in ACRP activities, and understand what ACRP can offer you and your colleagues.
- **Mission 2, Broadcast Your Position:** Inform colleagues that you are the "go-to" resource for ACRP information.
- **Mission 3, Reach Cruising Altitude:** Become more engaged in ACRP's activities.
- **Mission 4, Mentor Co-pilots:** Share your knowledge about ACRP and inspire others to get involved.
- **Mission 5, Enjoy the Flight:** Take your involvement in ACRP to the next level.



The *Establishing a Coordinated Local Family Assistance Program for Airports* webinar, which hosted 145 attendees, received ACRP's first-ever 100 percent satisfaction rating for webinars. Professionals from Reno-Tahoe International Airport and Denver International Airport presented case studies, which attendees cited as adding significant value to the webinar.

Webinars

ACRP hosts a robust webinar program, covering an array of themes and topics that allow principal investigators (PIs) and research teams to reach hundreds of airport practitioners in real time and talk about significant research findings and lessons learned. ACRP works closely with PIs to develop creative, interesting presentations and materials that showcase their research and results. In 2018, ACRP hosted 20 webinars.

KEY METRICS

- Average satisfaction rating webinar attendees have given to ACRP webinars since 2012: **90 percent**
- Number of people who have attended at least one ACRP webinar in 2018: **2,745**
- Practitioners reached since 2011: **19,345 (includes repeat attendees)**
- Number of webinars hosted in 2018: **20 (19 live and 1 straight to recording)**

Product Summary Cards

For each newly released publication, ACRP creates a corresponding Product Summary Card (PSC). Each printed card provides a synopsis of the ACRP research product, indicates the product's intended audience, offers a QR code that links to the product's landing page, and presents a list of related ACRP publications. The PSC highlights each report's key takeaways and provides practitioners with an easy reference point for downloading the report. In 2018, ACRP published 24 PSCs.

Social Media

Social media helps ACRP distribute research and engage practitioners through new avenues. ACRP maintains an evolving social media strategy that includes creating shareable and interactive content and maintaining a presence on Facebook, LinkedIn, and Twitter. This year, ACRP focused on gathering information about social media preferences and levels of engagement to better direct its resources to connect with practitioners via social media. ACRP also developed a social media calendar that consolidates key dates in ACRP's research cycle and subprograms to anticipate social media opportunities ahead of time and provide sample content.

In 2018, ACRP's social media accounts accounted for nearly 5,000 impressions per month.

Videos

ACRP also created two guidance videos, described below, for practitioners to use as references.

- The first is an ACRP orientation video for FAA representatives participating in the research process. The video assembles 23 separate videos into one YouTube-ready product and features ACRP Oversight Committee members and FAA representatives explaining ACRP's mission and processes.
- The second is a whiteboard animation video on how to craft and submit a quality problem statement through the IdeaHub portal. The whiteboard video helps industry practitioners cultivate their research ideas into clear and achievable research goals and requests.

ACRP works hard to make sure its research is useful and usable and gets into the hands of the people who need it. Developing Impacts on Practice (IOPs) case studies ensures that practitioners have access to important research that make a difference in their airports' operations.

Winsome Lenfert, Deputy Associate Administrator for Airports

ACRP Research in Action

Implementation Plan

After a decade of successfully conducting and disseminating research on critical airport issues, ACRP embarked on crafting an implementation plan to identify and recommend tactical approaches to realize greater practical application of ACRP research results throughout the airport industry. Through soliciting input from a broad array of airport practitioners, aviation associations, and other stakeholders via interviews, surveys, and other means, ACRP collected ideas to inform the implementation plan. Some ideas collected from the survey include:

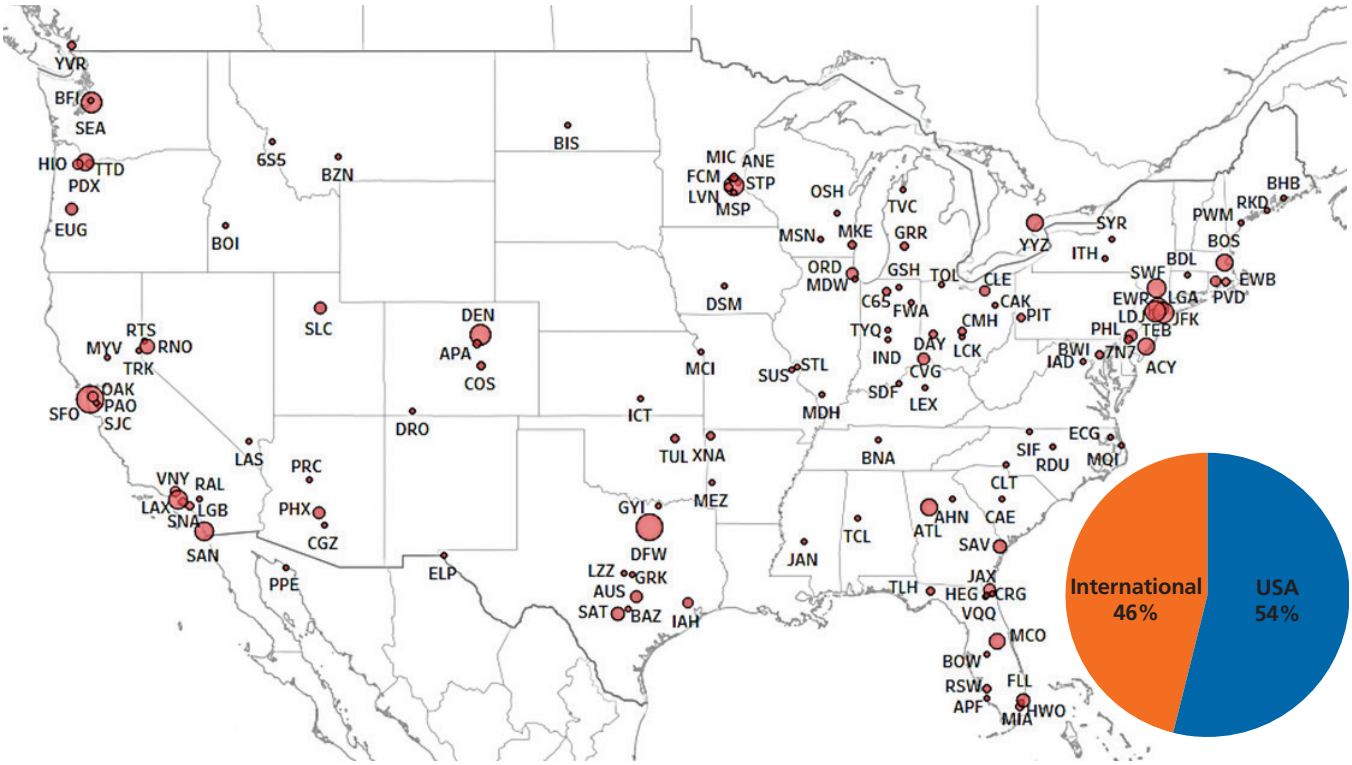
- Partnering with trade associations to produce training for practitioners,
- Conducting focused outreach to state associations and their conferences,
- Delivering presentations and training workshops on applying key ACRP products, and
- Planning a roadshow to engage universities and encourage them to integrate ACRP products into their aviation curricula.

ACRP will review and analyze these ideas as it concludes the first phase of this effort.

Impacts on Practice (IOPs)

IOPs are case studies that highlight airport industry practitioners who have used ACRP research results to assist with specific aspects of their work. ACRP publications can help improve airport administrative practices, develop safer and more effective operational techniques, and increase performance efficiency. ACRP administers surveys to garner insight about how airports across the country implement its research and uses these responses to identify which cases to pursue. In recent years, ACRP has received hundreds of survey responses and testimonials about the use of its research at domestic and international airports. In 2018, ACRP published six IOPs, three of which are summarized on the next page.

Airports Using Research Products



The map above shows airports in the United States that have implemented ACRP research. The larger the circle, the greater the number of mentions for implementation/impacts resulting from ACRP publications: www.trb.org/ACRP/ACRPImpactsMap.aspx. The pie chart above shows the proportion of international pageviews and downloads to domestic pageviews and downloads.

Noteworthy IOPs:

Preparing for the Big Game in 2018 with the Minneapolis–St. Paul Metropolitan Airports Commission features two general aviation airports in the Minneapolis region that used *ACRP Synthesis 57: Airport Response to Special Events* to prepare for Super Bowl LII, which was held in Minneapolis in January 2018. The IOP discusses the importance of creating project management plans to accommodate an influx of air traffic from major events and discusses how these airports used the report to prepare for further unexpected events.

A New Framework for Ground Transportation at Phoenix Sky Harbor Airport details the airport's experience integrating transportation network companies into its ground transportation framework. The IOP documents how the airport used *ACRP Report 146: Commercial Ground Transportation at Airports: Best Practices* to guide the background research for the project, establish a methodology for the integration, define goals for the airport, and critically evaluate best practices for implementation of new technologies.

Implementing Aircraft Rescue and Firefighting Trainings at Fresno Yosemite International Airport shows how the Fresno Yosemite International Airport (FAT) used *ACRP Report 103: A Guidebook for Integrating NIMS for Personnel and Resources at Airports* to train new aircraft rescue and firefighting (ARFF) personnel. By adapting the customizable matrix in the report, the airport staff were able to prepare new emergency responders by bridging a knowledge gap between traditional municipal firefighting techniques and those employed in ARFF.

4R

Engaging Practitioners to Develop Solutions

ACRP engages industry practitioners through a variety of interactive programs. In 2018, ACRP continued to grow these efforts and found new ways to involve stakeholders with ACRP.

ACRP Insight Events: Bringing Airport Practitioners Together to Address Emerging Challenges

Every day, airports face an array of quickly evolving issues and challenges that involve or have touched other industries from whose experiences airports can benefit. To help airports navigate these challenges, ACRP launched Insight Events as a new format for idea exchange and face-to-face learning. Insight Events are designed to feature subject matter experts from within and beyond the airport industry to promote communication and collaboration, foster innovation, and help identify areas of future interest and research among airport practitioners during a one- to two-day forum, facilitated by ACRP staff.

In 2018, ACRP made significant progress implementing its first series of Insight Events. The first three of these forums were approved and planned in 2017 to address the following emerging issues:

- Airport roles in reducing the transmission of communicable diseases,
- Economic and social sustainability at airports, and
- Challenges to implementing successful land use strategies at airports.

During the spring, airport practitioners gathered in Washington, D.C., to attend these Insight Events. The first event focused on communicable disease transmission. Over two days, experts in international public health, emergency management, security, and airport operations presented global perspectives on disease transmission and shared lessons learned from real-life examples of how airports handled outbreaks.

ACRP also hosted Insight Events on economic and social sustainability and challenges to implementing successful land use strategies at airports. These in-person forums provided the opportunity for domestic and international airport practitioners to share ideas and experiences on how airports innovate and frame planning to achieve social and economic sustainability goals and how they develop effective strategies for improving the ability of airports and community planners to partner on land use issues in the airport vicinity.

In addition to hosting these events, ACRP began planning three others: one designed to help airports navigate managerial, financial, legal, regulatory, and practical considerations; another designed to address complex issues pertaining to public-private partnerships; and the third to investigate blockchain technology and its impacts on airports. These events will take place in 2019.

Initial assessments of presenter and participant satisfaction are positive. For example, for the Insight Event on communicable disease transmission, 95 percent of respondents agreed or strongly agreed to engage with ACRP in the future based on their experience at the event. Respondents who attended the land use strategies and economic and social sustainability events on average rated the event a 9.3 and 9.4 out of 10, respectively.

"Events such as this are so very valuable for providing context to the importance and interdependence of each other's work."

— Feedback on Communicable Disease Transmission Insight Event

"It was really interesting to hear other people's viewpoints in the breakout sessions. I also liked to hear about how airports were dealing with land use, specifically presentations such as DFW's."

— Feedback on Land Use Insight Event

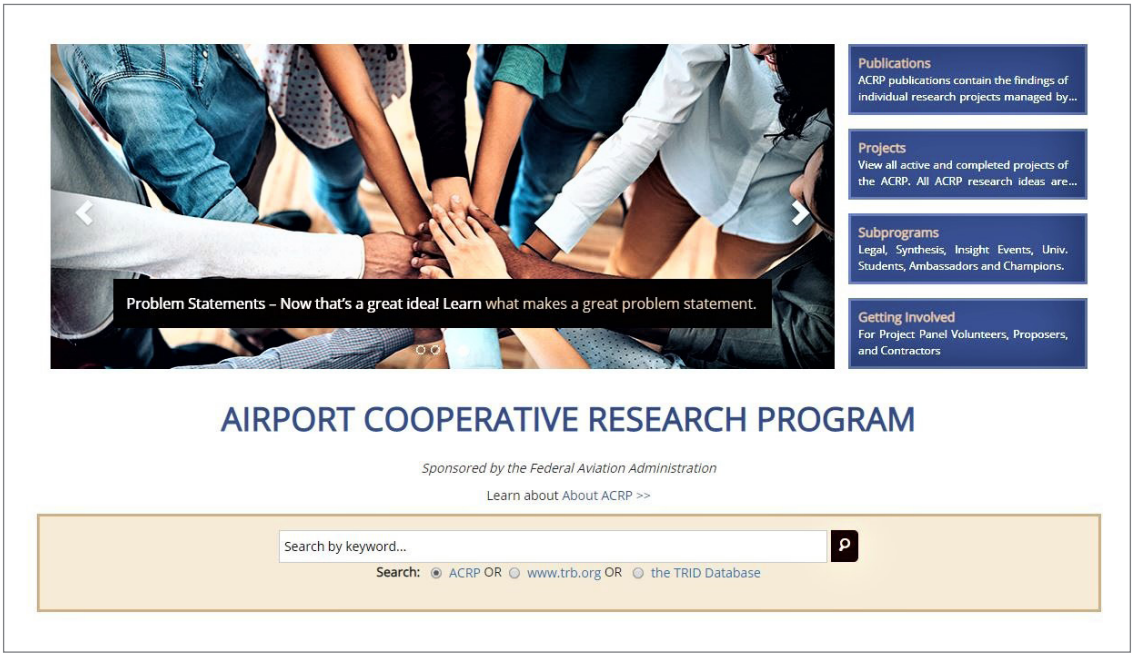
"The plenary speakers and the first keynote were fantastic! The event was very helpful in understanding the thinking of other professionals in the industry."

— Feedback on the Economic and Social Sustainability Insight Event

ACRP Website

ACRP's website is a hub for program information and dissemination. At the end of 2017, ACRP began a comprehensive overhaul of the site that included an engaging new design, user-friendly navigation, and enhanced search functionality. Throughout 2018, ACRP continued making improvements to the platform, as well as refining content and transitioning additional web pages into the new design template.

Website improvements included a fresh home page design, brand new web pages (e.g., one for webinars), and improved search optimization. ACRP's site now has a cleaner look and features prominent pages for important projects, including ACRP's latest initiative—IdeaHub.



KEY METRICS

- Total downloads of all research products since 2010: **470,437**
- Average annual growth rate: **44%**
- Total page views since 2006: **1,370,833**
- Average annual growth rate: **33%**

Annual Symposium on Research in Progress

ACRP's 3rd Annual Symposium on Research in Progress took place on Sunday, January 7, 2018, at the start of the TRB Annual Meeting. The Symposium hosted 60 attendees, both in-person and remote, and featured presentations by 14 PIs who discussed their research in progress. The program also included an "Alternatives to Surveys" interactive session, which was broadcast live via webinar. Among survey respondents who viewed the interactive session via the webinar, 92 percent felt the presentation was relevant to their research.

University Design Competition

ACRP's annual University Design Competition for Addressing Airport Needs builds upon the former FAA Design Competition for Universities and engages students in addressing issues related to airports and the National Airspace System.

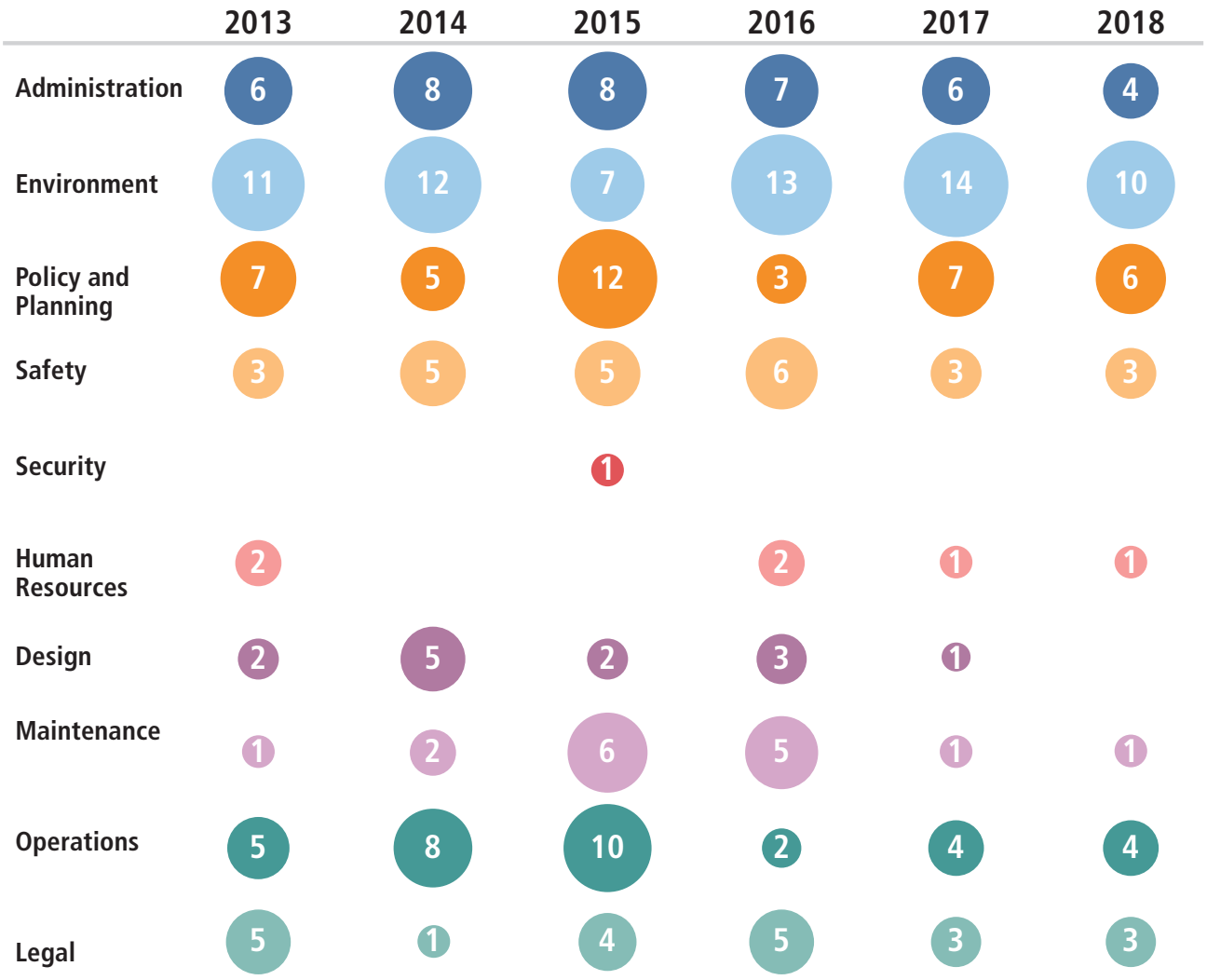
In 2018, competition winners presented their work and accepted their awards at the National Academies of Sciences, Engineering, and Medicine Keck Center. The following teams received honors:

- **Florida Institute of Technology**, *Airport Runway Incursions Preventative System*—First place, Runway safety/runway incursions/runway excursions
- **Mechanical, Industrial and Systems Engineering Department at the University of Rhode Island**, *Eagle Eye*—First place, Airport operations and planning
- **School of Aviation and Transportation Technology at Purdue University**, *Integrated Technologies to Improve Safety of Apron Operations: Apron Intelligent Monitoring and Reporting System (AIMRS)*—First place, Airport management and maintenance
- **Engineering Leadership Development Program at Pennsylvania State University**, *Localized Microgrid System for Energy Efficiency at Airports*—Honorable mention, Airport environmental interactions

REPORTING IMPACTS

ACRP consistently quantifies how airport practitioners, consultants, and businesses implement ACRP research by surveying industry members and analyzing publication download data.

Number of Publications by Area

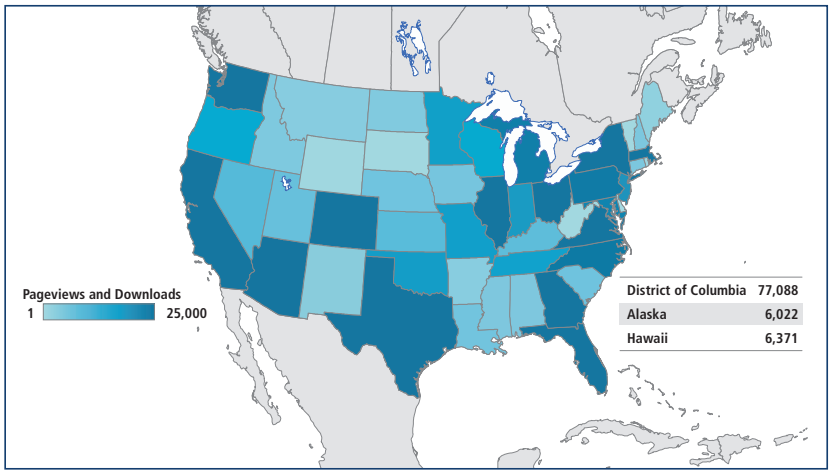


To determine how ACRP research impacts airport practitioners, consultants, and businesses, the program gathers data about use of its publications. ACRP surveys panel members, research teams, and PIs involved in developing publications, as well as practitioners who downloaded the publications. More than 350 respondents provided insight into how they use ACRP research.[1]

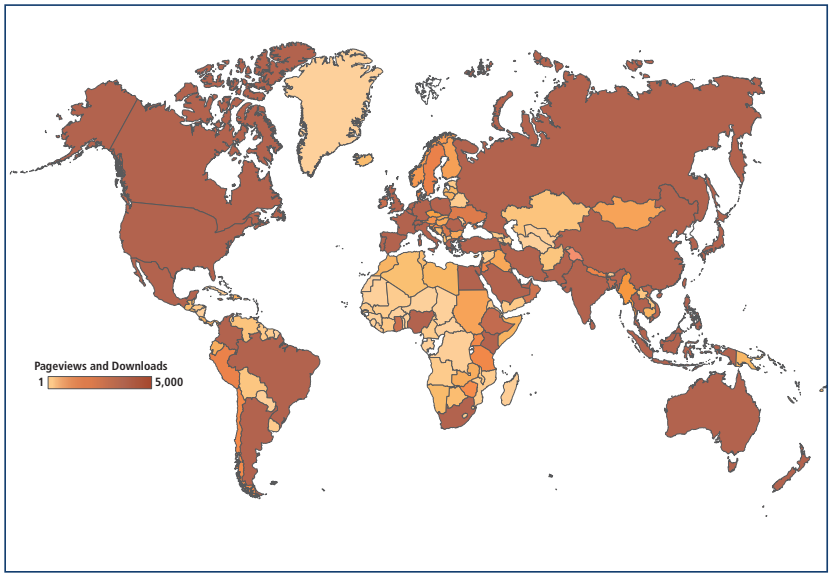
Since its inception, ACRP has consistently published reports in response to industry concerns regarding environment (92), administration (42), and policy and planning (52). Users viewed and downloaded reports focusing on environment, administration, operations, and design more than any others, and these four topic areas account for more than 60 percent of all reports viewed and downloaded.

[1] Survey participants were asked about 184 research products (Legal Research Digests, Research, Reports, and Syntheses). Respondents were aware of 144 (78%) publications being used.

In the United States, the highest number of pageviews and downloads came from states with major population centers and several airports—e.g., California, Texas, Florida, Virginia, and New York.



International pageviews and downloads follow a similar trend. In addition to the United States, Canada, and Western Europe, practitioners from several other populous countries frequently view and use ACRP research, including those with emerging economies such as Brazil, China, India, and South Africa.

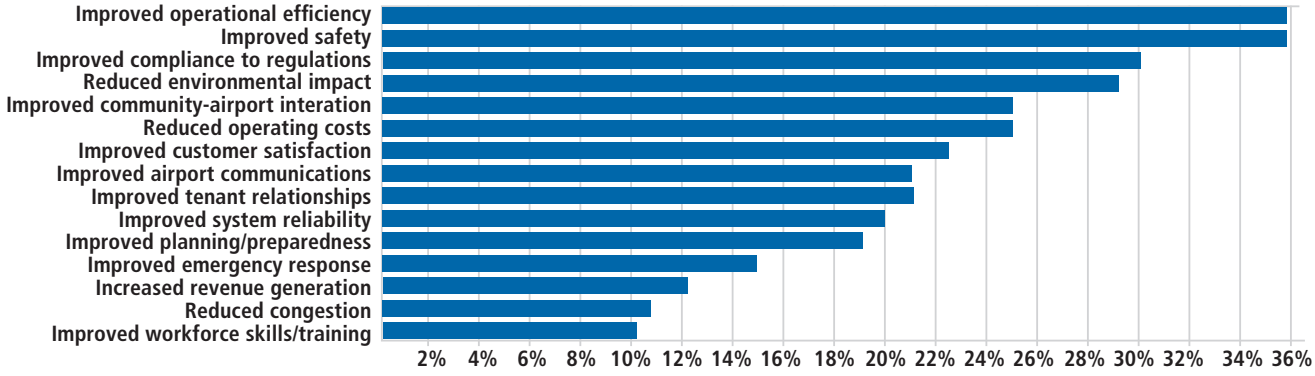


The graphics below illustrate the most often cited uses for ACRP products and the impact of those products.

What Were ACRP Products Used For?

Using the publication as a guidance document	67%
Recommending or making management decisions	46%
Recommending or making changes to standards, specifications, or guidance documents	42%
Validating current practice	32%
Implementing a new program	25%
Recommending or making changes to the design or layout of the airport	24%
Implementing new technology	19%
Getting ideas for new/effective practices used by other airports	17%
Recommending or implementing workforce development/workforce training	13%

The Impacts of the Use of the Research Products–Percentage of Respondents



ALL SYSTEMS GO!

With more than a decade of research success under its belt, ACRP has achieved significant dissemination achievements and is squarely entering a new phase of activity: not just *introducing* innovative approaches to disseminating research results but also *engaging* stakeholders in new ways. In the years to come, ACRP will continue to implement improvements and innovations to IdeaHub, Insight Events, web and digital products, and other initiatives to evolve to meet the needs of the airport industry.

Appendix A: Publications of the Airport Cooperative Research Program

Research Reports

No.	Proj. No.	Title, Pages, Publication Year
1	11-02/Task	Safety Management Systems for Airports, Vol. 1: Overview, 40 p. (2007)
1	04-05	Safety Management Systems for Airports, Vol. 2: Guidebook, 174 p. (2009)
2	11-02/Task	Evaluation and Mitigation of Aircraft Slide Evacuation Injuries, 86 p. (2008)
3	04-01	Analysis of Aircraft Overruns and Undershoots for Runway Safety Areas, 58 p. (2008)
4	11-02/Task	Ground Access to Major Airports by Public Transportation, 214 p. (2008)
5	11-02/Task	Quarantine Facilities for Arriving Air Travelers: Identification of Planning Needs and Costs, 34 p. (2008)
6	02-04	Research Needs Associated with Particulate Emissions at Airports, 64 p. (2008)
7	02-03	Aircraft and Airport-Related Hazardous Air Pollutants: Research Needs and Analysis, 64 p. (2008)
8	04-02	Lightning-Warning Systems for Use by Airports, 80 p. (2008)
9	02-04A	Summarizing and Interpreting Aircraft Gaseous and Particulate Emissions Data, 90 p. (2008)
10	07-01	Innovations for Airport Terminal Facilities, 78 p. (2008)
11	02-06	Guidebook on Preparing Airport Greenhouse Gas Emissions Inventories (& WOD 2), 62 p. (2009)
12	05-01	An Airport Guide for Regional Emergency Planning for CBRNE Events, 52 p. (2009)
13	01-03	Integrating Airport Information Systems, 98 p. (2009)
14	02-02	Deicing Planning Guidelines and Practices for Stormwater Management Systems, 208 p. (2009)
15	02-05	Aircraft Noise: A Toolkit for Managing Community Expectations (& CD 70), 162 p. (2009)
16	01-01	Guidebook for Managing Small Airports (& WOD 5), 140 p. (2009)
17	10-04	Airports and the Newest Generation of General Aviation Aircraft, Vol. 1: Forecast, 36 p. (2009)
17	10-04	Airports and the Newest Generation of General Aviation Aircraft, Vol. 2: Guidebook, 124 p. (2009)
18	03-08	Passenger Air Service Development Techniques, 168 p. (2009)
19	01-06	Developing an Airport Performance-Measurement System (& CD 79), 154 p. (2010)
19A	01-09	Resource Guide to Airport Performance Indicators (& CD 94), 288 p. (2011)
20	03-09	Strategic Planning in the Airport Industry (& CD 73), 136 p. (2009)
21	01-05	A Guidebook for Selecting Airport Capital Project Delivery Methods, 100 p. (2009)
22	06-01	Helping Airport and Air Carrier Employees Cope with Traumatic Events, 82 p. (2009)
23	03-02	Airport Passenger-Related Processing Rates Guidebook, 126 p. (2009)
24	10-03	Guidebook for Evaluating Airport Parking Strategies and Supporting Technologies, 162 p. (2009)
25	07-05	Airport Passenger Terminal Planning and Design, Vol. 1: Guidebook, 426 p. (2010)
25	07-04	Airport Passenger Terminal Planning and Design, Vol. 2: Spreadsheet Models and User's Guide (& CD 75), 82 p. (2010)
26	03-04	Guidebook for Conducting Airport Users Surveys, 256 p. (2009)
27	03-03	Enhancing Airport Land Use Compatibility, Vol. 1: Land Use Fundamentals and Implementation Resources, 316 p. (2010)
27	03-03	Enhancing Airport Land Use Compatibility, Vol. 2: Land Use Survey and Case Study Summaries, 296 p. (2010)
28	01-04	Marketing Guidebook for Small Airports, 196 p. (2010)
29	07-03	Developing Improved Civil Aircraft Arresting Systems, 206 p. (2010)
30	10-05	Reference Guide on Understanding Common Use at Airports (& CD 74), 244 p. (2010)
31	03-10	Innovative Approaches to Addressing Aviation Capacity Issues in Coastal Mega-regions, 178 p. (2010)
32	04-06	Guidebook for Addressing Aircraft/Wildlife Hazards at General Aviation Airports, 192 p. (2010)
33	01-02	Guidebook for Developing and Managing Airport Contracts (& CD 81), 82 p. (2011)
34	10-06	Handbook to Assess the Impacts of Constrained Parking at Airports (& CD 80), 112 p. (2010)
35	10-02	Planning for Offsite Airport Terminals, 94 p. (2010)
36	01-07	Airport/Airline Agreements—Practices and Characteristics, 112 p. (2010)
37	03-06	Guidebook for Planning and Implementing Automated People Mover Systems at Airports (& CD 82), 226 p. (2010)
37A	03-07	Guidebook for Measuring Performance of Automated People Mover Systems at Airports, 134 p. (2012)

Research Reports

No.	Proj. No.	Title, Pages, Publication Year
38	03-13	Understanding Airspace, Objects, and Their Effects on Airports, 164 p. (2010)
39	09-01	Recommended Guidelines for the Collection and Use of Geospacially Referenced Data for Airfield Pavement Management, 108 p. (2010)
40	07-02	Airport Curbside and Terminal Area Roadway Operations, 40 p. (2010)
41	10-07	Guide to the Decision-Making Tool for Evaluating Passenger Self-Tagging (& CD 83; & WOD 10), 70 p. (2011)
42	08-01	Sustainable Airport Construction Practices (& CD 88), 320 p. (2011)
43	02-13	Guidebook of Practices for Improving Environmental Performance at Small Airports (& CD 89), 364 p. (2011)
44	03-11	A Guidebook for the Preservation of Public-Use Airports (& CD 102), 62 p. (2011)
45	10-01	Optimizing the Use of Aircraft Deicing and Anti-Icing Fluids, 180 p. (2011)
46	02-07	Handbook for Analyzing the Costs and Benefits of Alternative Aviation Turbine Engine Fuels at Airports (& CD 91), 78 p. (2011)
47	01-08	Guidebook for Developing and Leasing Airport Property, 140 p. (2011)
48	03-15	Impact of Jet Fuel Price Uncertainty on Airport Planning and Development (& CD 93), 72 p. (2011)
49	01-10	Collaborative Airport Capital Planning Handbook, 136 p. (2011)
50	04-08	Improved Models for Risk Assessment of Runway Safety Areas (& CD 98), 182 p. (2011)
51	04-09	Risk Assessment Method to Support Modification of Airfield Separation Standards, 136 p. (2011)
52	07-06	Wayfinding and Signing Guidelines for Airport Terminals and Landside, 252 p. (2011)
53	02-11	A Handbook for Addressing Water Resource Issues Affecting Airport Development Planning, 170 p. (2011)
54	01-11	Resource Manual for Airport In-Terminal Concessions, 268 p. (2011)
55	03-05	Passenger Level of Service and Spatial Planning for Airport Terminals, 70 p. (2011)
56	02-10	Handbook for Considering Practical Greenhouse Gas Emission Reduction Strategies for Airports (& CD 95), 158 p. (2011)
57	11-02/Task	The Carbon Market: A Primer for Airports, 80 p. (2011)
58	11-02/Task	Airport Industry Familiarization and Training for Part-Time Airport Policy Makers, 64 p. (2011)
59	01-12	Information Technology Systems at Airports: A Primer, 108 p. (2012)
60	02-18	Guidelines for Integrating Alternative Jet Fuel into the Airport Setting, 136 p. (2012)
61	10-09	Elimination or Reduction of Baggage Recheck for Arriving International Passengers, 142 p. (2012)
62	04-07	Airport Apron Management and Control Programs, 64 p. (2012)
63	02-03A	Measurement of Gaseous HAP Emissions from Idling Aircraft as a Function of Engine and Ambient Conditions, 112 p. (2012)
64	02-25	Handbook for Evaluating Emissions and Costs of APUs and Alternative Systems (& CD 113), 90 p. (2012)
65	10-10	Guidebook for Airport Irregular Operations (IROPS) Contingency Planning, 258 p. (2012)
66	01-14	Considering and Evaluating Airport Privatization (& CD 109), 124 p. (2012)
67	03-14	Airport Passenger Conveyance Systems Planning Guidebook (& CD 110), 68 p. (2012)
68	07-07	Guidebook for Evaluating Terminal Renewal Versus Replacement Options (& CD 112), 152 p. (2012)
69	01-16	Asset and Infrastructure Management for Airports: Primer and Guidebook, 136 p. (2012)
70	10-08	Guidebook for Implementing Intelligent Transportation Systems Elements to Improve Airport Traveler Access Information (& CD 114), 138 p. (2012)
71	02-08	Guidance for Quantifying the Contribution of Airport Emissions to Local Air Quality (& CD 115), 76 p. (2012)
72	02-14	Guidebook for Selecting Methods to Monitor Airport and Aircraft Deicing Materials, 276 p. (2012)
72	02-61	Guidebook for Selecting Methods to Monitor Airport and Aircraft Deicing Materials, Second Edition, 128 p. (2017)
73	04-10	Airport-to-Airport Mutual Aid Programs, 192 p. (2012)
74	01-18	Application of Enterprise Risk Management at Airports (& CD 117), 72 p. (2012)
75	06-02	Airport Leadership Development Program (& CD 133), 334 p. (2013)
76	03-22	Addressing Uncertainty about Future Airport Activity Levels in Airport Decision Making, 152 p. (2012)

Research Reports

No.	Proj. No.	Title, Pages, Publication Year
77	01-17	Guidebook for Developing General Aviation Airport Business Plans (& CD 119), 174 p. (2012)
78	02-16	Airport Ground Support Equipment (GSE): Emission Reduction Strategies, Inventory, and Tutorial (& CD 123), 114 p. (2012)
79	03-17	Evaluating Airfield Capacity (& CD 124), 172 p. (2012)
80	02-22	Guidebook for Incorporating Sustainability into Traditional Airport Projects (& CD 125), 104 p. (2012)
81	02-19	Winter Design Storm Factor Determination for Airports, 60 p. (2012)
82	03-12	Preparing Peak Period and Operational Profiles—Guidebook (& CD 126; & WOD 14), 146 p. (2013)
83	02-36	Assessing Opportunities for Alternative Fuel Distribution Programs (& CD 129), 128 p. (2013)
84	02-21	Guidebook for Preparing Airport Emissions Inventories for State Implementation Plans (& CD 131), 68 p. (2013)
85	03-21	Developing and Maintaining Support for Your Airport Capacity Project, 40 p. (2013)
86	02-12	Environmental Optimization of Aircraft Departures: Fuel Burn, Emissions, and Noise (& CD 136), 104 p. (2013)
87	01-20	Procuring and Managing Professional Services for Airports, 120 p. (2013)
88	04-11	Guidebook on Integrating GIS in Emergency Management at Airports (& CD 139), 138 p. (2013)
89	02-24	Guidelines for Airport Sound Insulation Programs, 324 p. (2013)
90	03-25	Impact of Regulatory Compliance Costs on Small Airports (& WOD 15 Vol. 1; & WOD 15 Vol. 2), 92 p. (2013)
91	02-20A	Infectious Disease Mitigation in Airports and on Aircraft, 38 p. (2013)
92	10-11	Guidebook to Creating a Collaborative Environment Between Airport Operations and Maintenance, 148 p. (2013)
93	03-18	Operational and Business Continuity Planning for Prolonged Airport Disruptions (& CD 140), 152 p. (2013)
94	04-12	Integrating Web-Based Emergency Management Collaboration Tools into Airport Operations—A Primer, 56 p. (2013)
95	04-13	Integrating Community Emergency Response Teams (A-Certs) at Airports, Basic Training Instructor Guide, 52 p. (2013)
95	04-13	Integrating Community Emergency Response Teams (A-Certs) at Airports, Basic Training Student Guide, 40 p. (2013)
95	04-13	Integrating Community Emergency Response Teams (A-Certs) at Airports, What Is CERT and How Do I Use It?, 72 p. (2013)
96	07-09	Apron Planning and Design Guidebook, 168 p. (2013)
97	02-17	Measuring PM Emissions from Aircraft Auxiliary Power Units, Tires, and Brakes, 52 p. (2013)
98	03-26	Understanding Airline and Passenger Choice in Multi-Airport Regions, 100 p. (2013)
99	02-29	Guidance for Treatment of Airport Stormwater Containing Deicers, 330 p. (2013)
100	02-15	Recycling Best Practices—A Guidebook for Advancing Recycling from Aircraft Cabins, 86 p. (2014)
101	09-02	Best Practices Manual for Working In or Near Airport Movement Areas (& CD 150), 62 p. (2014)
102	02-33	Guidance for Estimating Airport Construction Emissions (& CD 142), 138 p. (2014)
103	10-13	A Guidebook for Integrating NIMS for Personnel and Resources at Airports, 128 p. (2014)
104	03-20	Defining and Measuring Aircraft Delay and Airport Capacity Thresholds, 74 p. (2014)
105	02-31	Guidelines for Ensuring Longevity in Airport Sound Insulation Programs, 56 p. (2014)
106	10-14	Being Prepared for IROPS: A Business-Planning and Decision-Making Approach (& CD 144), 88 p. (2014)
107	04-14	Development of a Runway Veer-Off Location Distribution Risk Assessment Model and Reporting Template (& CD 145), 136 p. (2014)
108	02-38	Guidebook for Energy Facilities Compatibility with Airports and Airspace, 94 p. (2014)
109	07-08	Improving Terminal Design to Increase Revenue Generation Related to Customer Satisfaction, 114 p. (2014)
110	09-06	Evaluating Impacts of Sustainability Practices on Airport Operations and Maintenance (& CD 149), 132 p. (2014)
111	01-21	A Guidebook for Airport-Airline Consortiums, 132 p. (2014)
112	04-15	Airport Terminal Incident Response Planning (& CD 151), 98 p. (2014)

Research Reports

No.	Proj. No.	Title, Pages, Publication Year
113	07-10	Guidebook on General Aviation Facility Planning, 146 p. (2014)
114	10-12	Guidebook for Through-the-Fence Operations, 186 p. (2014)
115	02-32	Understanding Microbial Biofilms in Receiving Waters Impacted by Airport Deicing Activities, 84 p. (2014)
116	01-22	Guidebook for Successfully Assessing and Managing Risks for Airport Capital and Maintenance Projects, 130 p. (2014)
117	07-11	Airport Escalators and Moving Walkways—Cost-Savings and Energy Reduction Technologies (& CD 156), 50 p. (2014)
118	03-23	Integrating Aviation and Passenger Rail Planning (& CD 157), 276 p. (2015)
119	02-28	Prototype Airport Sustainability Rating System—Characteristics, Viability, and Implementation Options, 242 p. (2014)
120	01-19	Airport Capital Improvements: A Business Planning and Decision-Making Approach (& CD 158; & WOD 18), 70 p. (2014)
121	01-15	Innovative Revenue Strategies—An Airport Guide, 304 p. (2015)
122	11-02/Task	Innovative Airport Responses to Threatened and Endangered Species (& CD 160), 60 p. (2015)
123	10-15	A Guidebook for Airport Winter Operations, 138 p. (2015)
124	09-03	Airport Parking Garage Lighting Solutions, 74 p. (2015)
125	09-08	Balancing Airport Stormwater and Bird Hazard Management (& CD 159), 56 p. (2015)
126	01-25	A Guidebook for Increasing Diverse and Small Business Participation in Airport Business Opportunities, 104 p. (2015)
127	01-23	A Guidebook for Mitigating Disruptive WiFi Interferences at Airports, 106 p. (2015)
128	11-02/Task	Alternative IT Delivery Methods and Best Practices for Small Airports, 122 p. (2015)
129	03-27	Evaluating Methods for Counting Aircraft Operations at Non-Towered Airports, 170 p. (2015)
130	07-12	Guidebook for Airport Terminal Restroom Planning and Design (& CD 164), 86 p. (2015)
131	04-16	A Guidebook for Safety Risk Management for Airports, 216 p. (2015)
132	03-28	The Role of U.S. Airports in the National Economy, 68 p. (2015)
133	02-34	Best Practices Guidebook for Preparing Lead Emission Inventories from Piston-Powered Aircraft with the Emission Inventory Analysis Tool (& CD 167; & WOD 21), 46 p. (2015)
134	02-39	Applying Whole Effluent Toxicity Testing to Aircraft Deicing Runoff, 120 p. (2015)
135	02-42	Understanding Airport Air Quality and Public Health Studies Related to Airports, 102 p. (2015)
136	10-17	Implementing Integrated Self-Service at Airports (& CD 168), 114 p. (2015)
137	10-19	Guidebook for Advancing Collaborative Decision Making (CDM) at Airports, 82 p. (2015)
138	10-18	Preventive Maintenance at General Aviation Airports, Vol. 1: Primer, 50 p. (2015)
138	10-18	Preventive Maintenance at General Aviation Airports, Vol. 2: Guidebook (& CD 170), 130 p. (2015)
139	09-04	Optimizing Airport Building Operations and Maintenance Through Retrocommissioning: A Whole-Systems Approach (& CD 169), 192 p. (2015)
140	05-02	Guidebook on Best Practices for Airport Cybersecurity (& CD 171), 160 p. (2015)
141	01-24	Renewable Energy as an Airport Revenue Source, 212 p. (2015)
142	03-29	Effects of Airline Industry Changes on Small- and Non-Hub Airports, 194 p. (2015)
143	03-24	Guidebook for Air Cargo Facility Planning and Development (& CD 174; & WOD 24), 120 p. (2015)
144	03-30	Unmanned Aircraft Systems (UAS) at Airports: A Primer, 94 p. (2015)
145	04-17	Applying an SMS Approach to Wildlife Hazard Management (& CD 173), 242 p. (2015)
146	10-16	Commercial Ground Transportation at Airports: Best Practices (& WOD 25), 156 p. (2015)
147	02-40	Climate Change Adaptation Planning: Risk Assessment for Airports (& CD 175), 128 p. (2015)
148	09-09	LED Airfield Lighting System Operation and Maintenance, 86 p. (2015)
149	02-46	Improving Ground Support Equipment Operational Data for Airport Emissions Modeling, 152 p. (2015)
150	01-27	NextGen for Airports: A Primer, 24 p. (2016)
150	03-34	NextGen for Airports, Vol. 1: Understanding the Airport's Role in Performance-Based Navigation: Resource Guide, 164 p. (2016)
150	01-28	NextGen for Airports, Vol. 2: Engaging Airport Stakeholders: Guidebook, 88 p. (2016)
150	01-27	NextGen for Airports, Vol. 3: Resources for Airports, 96 p. (2016)

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No.	Proj. No.	Title, Pages, Publication Year
150	09-12	NextGen for Airports, Vol. 4: Leveraging NextGen Spatial Data for Airports: Guidebook, 104 p. (2016)
150	03-33	NextGen for Airports, Vol. 5: Airport Planning and Development, 156 p. (2017)
151	02-56	Developing a Business Case for Renewable Energy at Airports (& CD 177), 168 p. (2016)
152	02-51	Evaluating Methods for Determining Interior Noise Levels Used in Airport Sound Insulation Programs, 148 p. (2016)
153	10-23	Guidebook for IROPS Stakeholder Communication & Coordination (& CD 180), 234 p. (2016)
154	02-59	Water Efficiency Management Strategies for Airports (& CD 181), 144 p. (2016)
155	09-14	Guidebook for Advanced Computerized Maintenance Management System Integration at Airports, 164 p. (2018)
156	10-21	Guidebook for Managing Compliance with Federal Regulations: An Integrated Approach (& CD 182), 64 p. (2016)
157	01-26	Improving the Airport Customer Experience, 240 p. (2016)
158	02-50	Deriving Benefits from Alternative Aircraft-Taxi Systems, 28 p. (2016)
159	09-11	Pavement Maintenance Guidelines for General Aviation Airport Management, 234 p. (2016) Addressing
160	02-49	Significant Weather Impacts on Airports: Quick Start Guide and Toolkit, 90 p. (2016) Guidelines for
161	03-35	Improving Airport Services for International Customers, 248 p. (2016)
162	02-57	Guidebook for Assessing Airport Lead Impacts, 32 p. (2016)
163	03-32	Guidebook for Preparing and Using Airport Design Day Flight Schedules, 158 p. (2016)
164	02-54	Exhaust Emissions from In-Use General Aviation Aircraft, 122 p. (2016)
165	02-65	Tracking Alternative Jet Fuel, 66 p. (2016)
166	02-53	Interpreting the Results of Airport Water Monitoring: A Guidebook, 200 p. (2017)
167	10-24	Guidebook for Developing Ramp Control Facilities, 104 p. (2017)
168	04-18	Runway Protection Zones (RPZs) Risk Assessment Tool Users' Guide, 76 p. (2017)
169	02-61	Clean Water Act Requirements for Airports, 40 p. (2017)
170	10-25	Guidebook for Preparing Public Notification Programs at Airports, 160 p. (2017)
171	06-03	Establishing a Coordinated Local Family Assistance Program for Airports, 156 p. (2017)
172	09-13	Guidebook for Considering Life-Cycle Costs in Airport Asset Procurement, 250 p. (2017)
173	02-60	Use and Potential Impacts of AFFF Containing PFASs at Airports, 232 p. (2017)
174	02-62	Green Stormwater Infrastructure, Vol. 1: Primer, 50 p. (2017)
174	02-62	Green Stormwater Infrastructure, Vol. 2: Guidebook, 116 p. (2017)
175	07-14	Improving Intelligibility of Airport Terminal Public Address Systems, 174 p. (2017)
176	03-39	Generating Revenue from Commercial Development On or Adjacent to Airports, 308 p. (2017)
177	07-13	Enhancing Airport Wayfinding for Aging Travelers and Persons with Disabilities, 318 p. (2017)
178	02-64	Guidance for Usage of Permeable Pavement at Airports, 88 p. (2017)
179	02-58	Dispersion Modeling Guidance for Airports Addressing Local Air Quality Health Concerns, 44 p. (2017)
180	02-63	Guidebook for Quantifying Airport Ground Access Vehicle Activity for Emissions Modeling, 52 p. (2017)
181	02-48	Assessing Community Annoyance of Helicopter Noise, 148 p. (2017)
182	10-20	Guidance for Planning, Design, and Operations of Airport Communications Centers, 172 p. (2017)
183	02-66	User Guides for Noise Modeling of Commercial Space Operations—RUMBLE and PCBoom (& WOD 33), 190 p. (2018)
184	03-38	Executive Summary for the Guidebook on Understanding FAA Grant Assurance Obligations (& WOD 44 Vol. 1; & WOD 44 Vol. 2; & WOD 44 Vol. 3; & WOD 44 Vol. 4), 36 p. (2018)
185	02-67	Airport Air Quality Management 101 (& WR 4), 66 p. (2018)
186	06-04	Guidebook on Building Airport Workforce Capacity, 232 p. (2018)
187	04-04B	Transportation Emergency Response Application (TERA) Support Materials for Airport EOC Exercises, 126 p. (2018)
188	02-74	Using Existing Airport Management Systems to Manage Climate Risk Smart Guide, 100 p. (2018)
189	04-20	Design Considerations for Airport EOCs, 100 p. (2018)
190	03-41	Common Performance Metrics for Airport Infrastructure and Operational Planning Reference Guide, 180 p. (2018)

Research Reports

No.	Proj. No.	Title, Pages, Publication Year
191	01-33	A Primer to Prepare for the Connected Airport and the Internet of Things, 88 p. (2018)
192	01-30	Airport Management Guide for Providing Aircraft Fueling Services (In Production)
193	02-68	Strategies for Airports to Reduce Local Stormwater Utility Fees, 88 p. (2018)

Research Results Digests

No.	Proj. No.	Title, Pages, Publication Year
1	11-03	Synthesis of Information Related to Airport Practices, 4 p. (2007)
2	11-02/Task	Model for Improving Energy Use in U.S. Airport Facilities, 20 p. (2007)
3	11-03	Synthesis of Information Related to Airport Practices, 4 p. (2008)
4	11-03	Synthesis of Information Related to Airport Practices, 4 p. (2009)
5	11-02/Task	Current and Emerging Issues Facing the Airport Industry, 32 p. (2009)
6	04-03	Guidance for Identifying and Mitigating Approach Lighting System Hazards, 16 p. (2009)
7	11-02/Task	A Summary of How Proposed Firefighting Standards Would Impact Airports, 20 p. (2009)
8	11-03	Synthesis of Information Related to Airport Practices, 4 p. (2010)
9	02-01	Alternative Aircraft and Pavement Deicers and Anti-Icing Formulations with Improved Environmental Characteristics, 12 p. (2010)
10	03-01	Light Detection and Ranging (LIDAR) Deployment for Airport Obstruction Surveys, 30 p. (2010)
11	11-02/Task	Helping Airports Understand Payment Card Industry Data Security Standard (PCI DSS), 30 p. (2010)
12	11-03	Synthesis of Information Related to Airport Practices, 6 p. (2011)
13	11-03	Synthesis of Information Related to Airport Practices, 8 p. (2012)
14	11-04	Graduate Research Award Program on Public-Sector Aviation Issues, 20 p. (2012)
15	04-07A	Use of Towbarless Tractors at Airports—Best Practices, 16 p. (2012)
16	11-01	Legal Aspects of Airport Programs, 12 p. (2012)
17	11-03	Synthesis of Information Related to Airport Practices, 8 p. (2013)
18	11-03	Synthesis of Information Related to Airport Practices, 8 p. (2014)
19	11-04	Graduate Research Award Program on Public-Sector Aviation Issues Update: 2008–2013, 20 p. (2014)
20	11-07	Taking Inventory of ACRP Research and the Next Challenges Facing the Airport Industry, 76 p. (2014)
21	11-02/Task	Best Practices for General Aviation Aircraft Fuel-Tank Sampling, 20 p. (2014)
22	11-03	Synthesis of Information Related to Airport Practices, 12 p. (2015)
23	11-03	Synthesis of Information Related to Airport Practices, 12 p. (2016)
24	02-44	Recommended Community Noise Model Enhancements to Improve Prediction of Helicopter Activity Impacts, 6 p. (2015)
25	11-04	Graduate Research Award Program on Public-Sector Aviation Issues Update: 2008–2017, 28 p. (2017)
26	11-03	Synthesis of Information Related to Airport Practices, 12 p. (2017)
27	11-01	Legal Aspects of Airport Programs—An Update, 24 p. (2017)

Legal Research Digests (Project 11-01)

No.	Topic No.	Title, Pages, Publication Year
1	01-03	Compilation of Airport Law Resources, 38 p. (2008)
2	01-02	Theory and Law of Airport Revenue Diversion, 30 p. (2008)
3	01-04	Survey of Laws and Regulations of Airport Commercial Ground Transportation, 186 p. (2008)

Legal Research Digests (Project 11-01)

No.	Topic No.	Title, Pages, Publication Year
4	01-01	Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters Through December 31, 2007 (CD 68), (2008)
5	01-05	Responsibility for Implementation and Enforcement of Airport Land-Use Zoning Restrictions, 68 p. (2009)
6	01-07	The Impact of Airline Bankruptcies on Airports, 62 p. (2009)
7	01-08	Airport Governance and Ownership, 72 p. (2009)
8	01-06	The Right to Self-Fuel, 82 p. (2009)
9	02-03	Case Studies on Community Challenges to Airport Development, 64 p. (2010)
10	02-04	Analysis of Federal Laws, Regulations, and Case Law Regarding Airport Proprietary Rights, 52 p. (2010)
11	03-03	Survey of Minimum Standards: Commercial Aeronautical Activities at Airports, 60 p. (2011)
12	03-01	Fair Disclosure and Airport Impact Statements in Real Estate Transfers, 70 p. (2011)
13	03-06	An Index and Digest of Decisions: Compilation of Airport Law Resources (CD 108), (2012)
14	02-05	Achieving Airport-Compatible Land Uses and Minimizing Hazardous Obstructions in Navigable Airspace, 74 p. (2012)
15	03-02	Compilation of State Airport Authorizing Legislation, 108 p. (2012)
16	04-07	Procurement of Airport Development and Planning Contracts, 50 p. (2012)
17	03-05	State and Federal Regulations That May Affect Initiatives to Reduce Airports' GHG Emissions, 70 p. (2012)
18	04-04	Buy America Requirements for Federally Funded Airports, 72 p. (2013)
19	04-02	Legal Issues Related to Developing Safety Management Systems and Safety Risk Management at U.S. Airports, 48 p. (2013)
20	04-01	Airport Responsibility for Wildlife Management, 162 p. (2013)
21	04-05	Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters Through December 2012 (CD 141), (2013)
22	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, 62 p. (2014)
23	05-04	A Guide for Compliance with Grant Agreement Obligations to Provide Reasonable Access to an AIP-Funded Public Use General Aviation Airport, 64 p. (2015)
24	05-02	Sovereign Immunity for Public Airport Operators, 188 p. (2015)
25	04-03	Analysis of Federal Laws, Regulations, Case Law, and Survey of Existing Airport NPDES Permits Regarding Tenant-Operator Responsibilities under NPDES and Stormwater Management BMPs under Owner/Airport's Operating Permits, 82 p. (2015)
26	05-01	Regulations Affecting the Exercise of First Amendment Activities at Airports, 82 p. (2015)
27	05-03	The Fourth Amendment and Airports, 48 p. (2016)
28	06-01	Operational and Legal Issues with Fuel Farms, 36 p. (2016)
29	07-01	Impact of Firearms Laws on Airports (& WOD 29), 66 p. (2016)
30	06-02	Contract Risk Management for Airport Agreements, 40 p. (2016)
31	07-02	Preemption of Worker-Retention and Labor-Peace Agreements at Airports, 40 p. (2017)
32	08-03	Evolving Law on Airport Implications by Unmanned Aerial Systems, 96 p. (2017)
33	08-02	Overview of Airport Duties and Standards of Care in Airfield Accident Cases, 48 p. (2017)
34	09-01	Airport Public Health Preparedness and Response: Legal Rights, Powers, and Duties, 60 p. (2018)
35	08-04	Legal Considerations in the Funding and Development of Intermodal Facilities at Airports, 36 p. (2018)
36	08-01	Legal Issues Related Implementation and Operation of SMS for Airports, 29 p. (2018)

Syntheses (Project 11-03)

No.	Topic No.	Title, Pages, Publication Year
1	S01-01	Innovative Finance and Alternative Sources of Revenue for Airports, 52 p. (2007)

Syntheses (Project 11-03)

No.	Topic No.	Title, Pages, Publication Year
2	S03-01	Airport Aviation Activity Forecasting, 32 p. (2007)
3	S04-01	General Aviation Safety and Security Practices, 44 p. (2007)
4	S10-01	Counting Aircraft Operations at Non-Towered Airports, 33 p. (2007)
5	S03-02	Airport Ground Access Mode Choice Models, 151 p. (2008)
6	S10-03	Impact of Airport Pavement Deicing Products on Aircraft and Airfield Infrastructure, 68 p. (2008)
7	S03-03	Airport Economic Impact Methods and Models, 76 p. (2008)
8	S10-02	Common Use Facilities and Equipment at Airports, 132 p. (2008)
9	S02-01	Effects of Aircraft Noise: Research Update on Selected Topics, 100 p. (2008)
10	S02-02	Airport Sustainability Practices, 120 p. (2008)
11	S09-01	Impact of Airport Rubber Removal Techniques on Runways, 116 p. (2008)
12	S04-02	Preventing Aircraft–Vehicle Incidents During Weather Operations and Periods of Low Visibility, 80 p. (2008)
13	S03-05	Effective Practices for Preparing Airport Improvement Program Benefit-Cost Analysis, 76 p. (2009)
14	S03-04	Airport System Planning Practices, 80 p. (2009)
15	S04-03	Identification of the Requirements and Training to Obtain Driving Privileges on Airfields, 52 p. (2009)
16	S02-03	Compilation of Noise Programs in Areas Outside DNL 65, 112 p. (2009)
17	S02-04	Approaches to Integrating Airport Development and Federal Environmental Review Process, 44 p. (2009)
18	S06-01	Aviation Workforce Development Practices, 44 p. (2010)
19	S01-02	Airport Revenue Diversification, 64 p. (2010)
20	S08-01	Airport Terminal Facility Activation Techniques, 136 p. (2010)
21	S10-04	Airport Energy Efficiency and Cost Reduction, 82 p. (2010)
22	S09-02	Common Airport Pavement Maintenance Practices, 112 p. (2011)
23	S04-05	Bird Harassment, Repellent, and Deterrent Techniques for Use on and Near Airports, 40 p. (2011)
24	S02-05	Strategies and Financing Opportunities for Airport Environmental Programs, 228 p. (2011)
25	S03-06	Strategies for Reuse of Underutilized or Vacant Airport Facilities, 72 p. (2011)
26	S04-06	Current Airport Inspection Practices Regarding FOD (Foreign Object Debris/Damage), 96 p. (2011)
27	S06-02	Airport Self-Inspection Practices, 122 p. (2011)
28	S10-06	Investigating Safety Impacts of Energy Technologies on Airports and Aviation, 48 p. (2011)
29	S10-05	Ramp Safety Practices, 68 p. (2011)
30	S01-03	Airport Insurance Coverage and Risk Management Practices, 60 p. (2011)
31	S01-04	Airline and Airline-Airport Consortium to Manage Terminals and Equipment, 102 p. (2011)
32	S04-08	Managing Aerial Firefighting Activities on Airports, 44 p. (2012)
33	S02-06	Airport Climate Adaptation and Resilience, 96 p. (2012)
34	S09-03	Subsurface Utility Engineering Information Management for Airports, 58 p. (2012)
35	S09-04	Issues with Use of Airfield LED Light Fixtures, 44 p. (2012)
36	S06-03	Exploring Airport Employee Commute and Parking Strategies, 70 p. (2012)
37	S04-07	Lessons Learned from Airport Safety Management Systems Pilot Studies, 72 p. (2012)
38	S10-07	Expediting Aircraft Recovery at Airports, 108 p. (2012)
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40	S01-05	Issues with Airport Organization and Reorganization, 40 p. (2013)
41	S10-08	Conducting Aeronautical Special Events at Airports, 130 p. (2013)
42	S02-07	Integrating Environmental Sustainability into Airport Contracts, 76 p. (2013)
43	S02-08	Environmental Assessment of Air and High-Speed Rail Corridors, 44 p. (2013)
44	S02-09	Environmental Management System Development Process, 58 p. (2013)
45	S04-09	Model Mutual Aid Agreements for Airports, 64 p. (2013)
46	S01-07	Conducting Airport Peer Reviews, 48 p. (2013)
47	S09-05	Repairing and Maintaining Airport Parking Structures While in Use, 54 p. (2013)
48	S01-06	How Airports Measure Customer Service Performance, 102 p. (2013)

Syntheses (Project 11-03)

No.	Topic No.	Title, Pages, Publication Year
49	S06-04	Helping New Maintenance Hires Adapt to the Airport Operating Environment, 60 p. (2013)
50	S04-11	Effective Cooperation Among Airports and Local and Regional Emergency Management Agencies for Disaster Preparedness and Response, 52 p. (2014)
51	S07-01	Impacts of Aging Travelers on Airports, 36 p. (2014)
52	S10-10	Habitat Management to Deter Wildlife at Airports, 84 p. (2014)
53	S02-10	Outcomes of Green Initiatives: Large Airport Experience, 72 p. (2014)
54	S10-11	Electric Vehicle Charging Stations at Airport Parking Facilities, 70 p. (2014)
55	S03-08	Backcountry Airstrip Preservation, 88 p. (2014)
56	S01-08	Understanding the Value of Social Media at Airports for Customer Engagement, 157 p. (2014)
57	S10-12	Airport Response to Special Events, 148 p. (2014)
58	S04-10	Safety Reporting Systems at Airports, 65 p. (2014)
59	S03-07	Integrating Airport Geographic Information System (GIS) Data with Public Agency GIS, 74 p. (2014)
60	S04-12	Airport Emergency Post-Event Recovery Practices, 86 p. (2015)
61	S03-10	Practices in Preserving and Developing Public-Use Seaplane Bases, 96 p. (2015)
62	S03-09	Cell Phone Lots at Airports, 72 p. (2015)
63	S10-13	Overview of Airport Fueling System Operations, 118 p. (2015)
64	S04-10	Issues Related to Accommodating Animals Traveling Through Airports, 86 p. (2015)
65	S10-14	Practices to Develop Effective Stakeholder Relationships at Smaller Airports, 70 p. (2015)
66	S02-11	Lessons Learned from Airport Sustainability Plans, 98 p. (2015)
67	S09-06	Airside Snow Removal Practices for Small Airports with Limited Budgets, 110 p. (2015)
68	S01-10	Strategies for Maintaining Air Service, 60 p. (2015)
69	S02-12	Airport Sustainability Practices—Drivers and Outcomes for Small Commercial and General Aviation Airports, 116 p. (2016)
70	S09-07	Building Information Modeling for Airports, 96 p. (2016)
71	S04-14	Airport Safety Risk Management Panel Activities and Outcomes, 128 p. (2016)
72	S04-17	Table Top and Full-Scale Emergency Exercises for General Aviation, Non-Hub, and Small Hub Airports, 164 p. (2016)
73	S04-16	Emergency Communications Planning for Airports, 100 p. (2016)
74	S04-13	Combining Mixed-Use Flight Operations Safely at Airports, 172 p. (2016)
75	S04-15	Airport Advisories at Non-Towered Airports, 68 p. (2016)
76	S02-13	Helicopter Noise Information for Airports and Communities, 144 p. (2016)
77	S02-14	Airport Sustainability Practices, 52 p. (2016)
78	S01-11	Continuity of Operations Planning for Small Airports, 236 p. (2016)
79	S01-14	Funding Industrial Aviation, 52 p. (2017)
80	S03-13	Estimating Truck Trip Generation for Airport Air Cargo Activity, 56 p. (2017)
81	S01-13	Food and Beverages and Retail Operators: The Costs of Doing Business at Airports, 152 p. (2017)
82	S04-18	Uses of Social Media to Inform Operational Response and Recovery During an Airport Emergency, 102 p. (2017)
83	S03-12	Preparing Airports for Communicable Diseases on Arriving Flights, 102 p. (2017)
84	S03-11	Transportation Network Companies: Challenges and Opportunities for Airport Operators, 70 p. (2017)
85	S02-15	Alternative Fuels in Airport Fleets, 52 p. (2017)
86	S01-15	Airport Operator Options for Delivery of FBO Services, 100 p. (2018)
87	S01-12	Airport Participation in Oil and Gas Development, 90 p. (2018)
88	S02-16	Airport Community, Water Quality Events, and the Aircraft Drinking Water Rule, 56 p. (2018)
89	S02-19	Clean Vehicles, Fuels, and Practices for Airport Private Ground Transportation Providers, 64 p. (2018)
90	S04-19	Incorporating ADA and Functional Needs in Emergency Exercises, 38 p. (2018)
91	S01-16	Microgrids and Their Application for Airports and Public Transit (Joint: TCRP Syn. 137), 68 p. (2018)
92	S02-18	Airport Waste Management and Recycling Practices, 52 p. (2018)
93	S02-17	Sustainability's Role in Enhancing Airport Capacity, 74 p. (2018)

Web-Only Documents

No.	Proj. No.	Title, Pages, Publication Year
1	01-03	Analysis and Recommendations for Developing Integrated Airport Information Systems, 80 p. (2009)
2	02-06	Appendices to ACRP Report 11: Guidebook on Preparing Airport GHG Emissions Inventories (& Rep. 11), 87 p. (2009)
3	02-01	Formulations for Aircraft and Airfield Deicing and Anti-Icing: Aquatic Toxicity and Biochemical Oxygen Demand, 121 p. (2009)
4	04-03	Guidance for Identifying and Mitigating Approach Lighting System Hazards, 88 p. (2009)
5	01-01	Development of a Guidebook for Managing Small Airports (& Rep. 16), 124 p. (2009)
6	01-05	Evaluation and Selection of Airport Capital Project Delivery Methods, 213 p. (2009)
7	11-02/Task	How Proposed ARFF Standards Would Impact Airports, 115 p. (2009)
8	02-01	Alternative Aircraft Anti-Icing Formulations with Reduced Aquatic Toxicity and Biological Oxygen Demand, 141 p. (2010)
9	11-02/Task	Enhanced Modeling of Aircraft Taxiway Noise, Vol. 1: Scoping, 153 p. (2009)
9	02-27	Enhanced Modeling of Aircraft Taxiway Noise, Vol. 2: Aircraft Taxi Noise Database and Development Process, 138 p. (2013)
10	10-07	Appendix A: Documentation for ACRP Report 41 (& CD 83; & Rep. 41), 85 p. (2011)
11	02-09	A Comprehensive Development Plan for a Multimodal Noise and Emissions Model, 296 p. (2010)
12	11-02/Task	Risk Assessment of Proposed ARFF Standards, 105 p. (2011)
13	02-23	Alternative Fuels as a Means to Reduce PM2.5 Emissions at Airports, 175 p. (2012)
14	03-12	Guidelines for Preparing Peak Period and Operational Profiles (& CD 126; & Rep. 82), 316 p. (2013)
15	03-25	Data Supporting the Impact of Regulatory Compliance on Small Airports, Vol. 1: Appendixes A, B, & C (& Rep. 90), 121 p. (2013)
15	03-25	Data Supporting the Impact of Regulatory Compliance on Small Airports, Vol. 2: Technical Appendixes (& Rep. 90), 151 p. (2013)
16	02-26	Assessing Aircraft Noise Conditions Affecting Student Learning, Vol. 1: Final Report, 71 p. (2014)
16	02-26	Assessing Aircraft Noise Conditions Affecting Student Learning, Vol. 2: Appendices, 143 p. (2014)
17	02-35	Research Methods for Understanding Aircraft Noise Annoyance and Sleep Distrubance, 174 p. (2014)
18	01-19	Airport Capital Improvements: Developing a Cost-Estimating Model and Database (& CD 158; & Rep. 120), 45 p. (2014)
19	02-37	Integrated Noise Model Accuracy for General Aviation Aircraft, 92 p. (2014)
20	03-16	Guidebook for Estimating the Economic Impact of Air Cargo Operations at Airports, 360 p. (2014)
21	02-34	Quantifying Aircraft Lead Emissions at Airports (& Rep. 133), 218 p. (2015)
22	03-19	Passenger Value of Time, Benefit-Cost Analysis, and Airport Capital Investment Decisions, Vol. 1: Guidebook for Valuing User Time Savings in Airport Capital Investment Decision Analysis, 50 p. (2015)
22	03-19	Passenger Value of Time, Benefit-Cost Analysis, and Airport Capital Investment Decisions, Vol. 2: Final Report, 113 p. (2015)
22	03-19	Passenger Value of Time, Benefit-Cost Analysis, and Airport Capital Investment Decisions, Vol. 3: Appendix A: Background Research and Appendix B: Stated Preference Survey, 345 p. (2015)
23	09-05	Guidance on Successful Computer Maintenance Management Systems (CMMS) Selection and Practices, 166 p. (2015)
24	03-24	Air Cargo Facility Planning and Development—Contractor's Final Report (& Rep. 143), 395 p. (2015)
25	10-16	Commercial Ground Transportation at Airports: Best Practices, Appendixes C through H (& Rep. 146), 822 p. (2015)
26	02-45	Methodology to Improve EDMS/AEDT Quantification of Aircraft Taxi/Idle Emissions, 97 p. (2016)
27	09-10	Methodology to Develop the Airport Terminal Building Energy Use Intensity (ATB-EUI) Benchmarking Tool (& CD 178), 34 p. (2016)
28	06-04	Identifying and Evaluating Airport Workforce Requirements—Phase 1 Report, 182 p. (2016)

Web-Only Documents

No.	Proj. No.	Title, Pages, Publication Year
29	11-01/Topic 07-01	Compendium of State and Federal Laws Affecting the Possession of Firearms at Airports (& LRD 29), 727 p. (2016)
30	02-43	Development of a NOx Chemistry Module for EDMS/AEDT to Predict NO2 Concentrations, 330 p. (2017)
31	10-22	Improving Stakeholder Engagement in Aircraft Accident Response Planning, 66 p. (2017)
32	02-52	Improving AEDT Noise Modeling of Mixed Ground Surfaces, 154 p. (2017)
33	02-66	Commercial Space Operations Noise and Sonic Boom Modeling and Analysis (& Rep. 183), 91 p. (2018)
34	02-47	Assessing Aircraft Noise Conditions Affecting Student Learning—Case Studies, 257 p. (2017)
35	02-80	State of the Industry Report on Air Quality Emissions from Sustainable Alternative Jet Fuels, 41 p. (2018)
36	02-55	Enhanced AEDT Modeling of Aircraft Arrival and Departure Profiles, Vol. 1: Guidance Document, 47 p. (2018)
36	02-55	Enhanced AEDT Modeling of Aircraft Arrival and Departure Profiles, Vol. 2: Research Report, 74 p. (2018)
44	03-38	Understanding FAA Grant Assurance Obligations, Vol. 1: Guidebook (& Rep. 184), 275 p. (2018)
44	03-38	Understanding FAA Grant Assurance Obligations, Vol. 2: Technical Appendices (& Rep. 184), 185 p. (2018)
44	03-38	Understanding FAA Grant Assurance Obligations, Vol. 3: Research Report (& Rep. 184), 43 p. (2018)
44	03-38	Understanding FAA Grant Assurance Obligations, Vol. 4: Summary of AIP Grant Assurance Requirements (& Rep. 184), 207 p. (2018)

CDs

No.	Proj. No.	Title, Publication Year
68	11-01/Topic 01-01	Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters Through December 31, 2007 (LRD 4) (2008)
70	02-05	ACRP Report 15 Toolkit (& Rep. 15) (2009)
73	03-09	Workbook for ACRP Report 20: Strategic Planning in the Airport Industry (& Rep. 20) (2009)
74	10-05	Supplemental Materials for ACRP Report 30 (& Rep. 30) (2010)
75	07-04	Airport Passenger Terminal Planning Spreadsheet Models for ACRP Report 25, Volume 2 (& Rep. 25 Vol. 2) (2010)
79	01-06	Workbook for ACRP Report 19: Developing an Airport Performance-Measurement System (& Rep. 19) (2010)
80	10-06	Parking Forecast Model and Instructions for Use: Supplemental Materials for ACRP Report 34 (& Rep. 34) (2010)
81	01-02	Appendixes to ACRP Report 33 (& Rep. 33) (2011)
82	03-06	Database of APM Systems for ACRP Report 37 (& Rep. 37) (2010)
83	10-07	Decision-Making Tool for Evaluating Passenger Self-Tagging (& Rep. 41; & WOD 10) (2011)
88	08-01	Collection of Practices for ACRP Report 42 (& Rep. 42) (2011)
89	02-13	Practices That Enhance Environmental Stewardship (& Rep. 43) (2011)
91	02-07	The Alternative Fuels Investigation Tool (AFIT) for ACRP Report 46 (& Rep. 46) (2011)
93	03-15	Airport Forecasting Risk Assessment Program for ACRP Report 48 (& Rep. 48) (2011)
94	01-09	Interactive Resource Guide for ACRP Report 19A (& Rep. 19A) (2011)
95	02-10	AirportGEAR and Supplemental Material (& Rep. 56) (2011)
98	04-08	Runway Safety Area Risk Analysis Tool for ACRP Report 50 (& Rep. 50) (2011)
102	03-11	Supplemental Materials for ACRP Report 44 (& Rep. 44) (2011)
108	11-01/Topic 03-06	An Index and Digest of Decisions: Compilation of Airport Law Resources (LRD 13) (2012)
109	01-14	Appendices for ACRP Report 66 (& Rep. 66) (2012)

CDs

No.	Proj. No.	Title, Publication Year
110	03-14	Resource CD for ACRP Report 67 (& Rep. 67) (2012)
112	07-07	Analysis Templates for ACRP Report 68 (& Rep. 68) (2012)
113	02-25	Tools for Evaluating Emissions and Costs of APUs and Alternative Systems (TEECAAS) for ACRP Report 64 (& Rep. 64) (2012)
114	10-08	Applying Intelligent Transportation Systems to Improve Airport Traveler Access Information (& Rep. 70) (2012)
115	02-08	Appendixes to ACRP Report 71 (& Rep. 71) (2012)
117	01-18	Airport ERM Tool for ACRP Report 74 (& Rep. 74) (2012)
119	01-17	Digital Files for ACRP Report 77: Guidebook for Developing General Aviation Airport Business Plans (& Rep. 77) (2012)
123	02-16	Airport Ground Support Equipment: Tutorial and Database (& Rep. 78) (2012)
124	03-17	Supplemental Material to ACRP Report 79: Prototype Airfield Capacity Spreadsheet Model (& Rep. 79) (2012)
125	02-22	Evaluation Tool to Supplement ACRP Report 80 (& Rep. 80) (2012)
126	03-12	Guidebook and Toolboxes for ACRP Report 82 (& Rep. 82; & WOD 14) (2013)
129	02-36	Toolkit for Evaluating Alternative Fuel Distribution Programs and Appendixes to ACRP Report 83 (& Rep. 83) (2013)
131	02-21	Airport Emissions Estimator Tool and Other Support Material for ACRP Report 84 (& Rep. 84) (2013)
133	06-02	Supplemental Materials for ACRP Report 75: Airport Leadership Development Program (& Rep. 75) (2013)
136	02-12	Departure Optimization Investigation Tool (DOIT) (& Rep. 86) (2013)
137	02-20	The Vector-Borne Disease Airport Importation Risk Tool (2013)
139	04-11	Tool Set for Integrating GIS in Emergency Management at Airports (& Rep. 88) (2013)
140	03-18	Airport Business Continuity Planning Software Tool (& Rep. 93) (2013)
141	11-01/Topic 04-05	Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters Through December 2012 (LRD 21) (2013)
142	02-33	Airport Construction Emissions Inventory Tool (ACEIT) (& Rep. 102) (2014)
144	10-14	IROPS Investment Support Tool (IRIS) (& Rep. 106) (2014)
145	04-14	Lateral Runway Safety Area Risk Analysis (LRSARA) Tool (& Rep. 107) (2014)
149	09-06	Evaluation Process and Cost-Benefit Tool (& Rep. 110) (2014)
150	09-02	Supplemental Materials for ACRP Report 101 (& Rep. 101) (2014)
151	04-15	Airport Terminal Incident Response Plan (TIRP) Tool (& Rep. 112) (2014)
156	07-11	Supplemental Material to ACRP Report 117 (& Rep. 117) (2014)
157	03-23	Air/Rail Diversion Model (& Rep. 118) (2015)
158	01-19	ACCE: Airport Capital Cost Estimation Tool (& Rep. 120; & WOD 18) (2014)
159	09-08	Bird Strike Risk Analysis and Stormwater Management Decision Tool (& Rep. 125) (2015)
160	11-02/Task	Airport Toolbox for ACRP Report 122 (& Rep. 122) (2014)
161	02-41	Estimating Takeoff Thrust Settings for Airport Emissions Inventories (2015)
164	07-12	Appendixes for the Guidebook for Airport Terminal Restroom Planning and Design (& Rep. 130) (2015)
167	02-34	Emissions Inventory Analysis Tool (& Rep. 133) (2015)
168	10-17	Integrated Self-Service Tools for ACRP Report 136 (& Rep. 136) (2015)
169	09-04	Spreadsheet Tool and Appendices to ACRP Report 139 (& Rep. 139) (2015)
170	10-18	Checklists and PowerPoint Template for ACRP Report 138 (& Rep. 138 Vol. 2) (2015)
171	05-02	Multimedia Materials Supporting the Guidebook on Best Practices for Airport Cybersecurity (& Rep. 140) (2015)
173	04-17	WHaMRAT Tool, User Guide, and Quick-Start Guides (& Rep. 145) (2015)
174	03-24	Air Cargo Facility Planning Model (& Rep. 143) (2015)
175	02-40	ACROS Tool and Other Resources to Accompany ACRP Report 147 (& Rep. 147) (2015)
177	02-56	Supplemental Information for ACRP Report 151 (& Rep. 151) (2016)
178	09-10	Airport Terminal Building Energy Use Intensity (ATB-EUI) Benchmarking Tool (& WOD 27) (2016)
180	10-23	IROPS Tools for Planning, Communication & Coordination (& Rep. 153) (2016)

CDs

No.	Proj. No.	Title, Publication Year
181	02-59	End Use Water Audit Tool (& Rep. 154) (2016)
182	10-21	Regulation Compliance Management Tool (& Rep. 156) (2016)

WebResources

No.	Proj. No.	Title, Pages, Publication Year
1	03-31	Aligning Community Expectations with Airport Roles (2017)
2	07-15	Airport Passenger Terminal Design Library (2017)
3	02-61	Airport Stormwater Electronic Resource Library and Training Materials (2017)
4	02-67	Airport Air Quality Resource Library (& Rep. 185) (2018)
5	01-27	Tools and Case Studies for NextGen for Airports (2018)
6	01-32	Resources for Managing Small Airports (& Rep. 16 Second Edition) (2018)

Conference Proceedings

No.	Proj. No.	Title, Pages, Publication Year
41	11-02	Interagency-Aviation Industry Collaboration on Planning for Pandemic Outbreaks, 52 p. (2008)
47	11-02/Task	Research on the Transmission of Disease in Airports and on Aircraft, 70 p. (2010)

Notes:

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

Publications in parentheses without an ampersand are reports or digests published as stand-alone CDs.

Appendix B: Summary of Project Status Through December 31, 2018

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
	01: Administration								
01-01	Guidebook for Managing Small Airports	$400,000(06)	$397,230	University of Minnesota	1/24/2007	3/31/2009	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	4/24/2007	2/28/2010	Completed - Published as Report 33		
01-03	Integrating Airport Information Systems	$300,000(07)	$300,000	Aero Tech Consulting	8/10/2007	11/22/2008	Completed - Published as Report 13 and Web-Only Document 1		
01-04	Marketing Guidebook for Small Airports	$200,000(07)	$200,000	Eclat Consulting	10/26/2007	9/30/2009	Completed - Published as Report 28		
01-05	Guidebook for Airport Capital Project Delivery Systems	$100,000(07) $25,000(08) $70,000(10)	$194,994	Northeastern University	4/4/2007	7/30/2009	Completed - Published as Report 21		
01-06	A Guidebook for Developing an Airport Performance Measurement System	$400,000(08)	$400,000	Infrastructure Management Group	5/6/2008	4/2/2010	Completed - Published as Report 19		
01-07	Airport/Airline Agreements - Practices and Characteristics	$400,000(08)	$393,005	Ricondo & Associates	5/30/2008	4/5/2010	Completed - Published as Report 36		
01-08	Guidebook for Developing and Leasing Airport Property	$400,000(08)	$350,000	R.W. Armstrong and Associates	6/24/2008	9/30/2010	Completed - Published as Report 47		
01-09	Resource Guide to Airport Performance Indicators	$400,000(09)	$400,000	Oliver Wyman, Inc.	5/8/2009	12/31/2010	Completed - Published as Report 19A		
01-10	A Handbook for Developing, Implementing, and Overseeing Airport Capital Plans	$400,000(09)	$399,955	HNTB	7/10/2009	12/31/2010	Completed - Published as Report 49		
01-11	Understanding Airport In-Terminal Concession Programs	$350,000(09)	$350,000	Leigh Fisher	6/17/2009	5/31/2011	Completed - Published as Report 54		

APPENDIX B (continued)

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
01-12	A Primer for Information Technology Systems at Airports	$350,000(09)	$348,843	Faith Group, LLC	7/7/2009	5/31/2011	Completed - Published as Report 59		
01-13	Developing a Database-Driven Web Application for Benchmarking Airport Performance	$500,000(09A) $100,000(10)	$549,727	Amadeus Consulting	9/30/2010	7/31/2016	Completed		
01-14	Considering and Evaluating Airport Privatization	$500,000(09A)	$500,000	Leigh Fisher	5/10/2010	12/31/2011	Completed - Published as Report 66		
01-15	Innovative Revenue Strategies - An Airport Guide	$400,000(10)	$400,000	KRAMER aerotek, Inc.	5/14/2010	12/31/2014	Completed - Published as Report 121		
01-16	Asset and Infrastructure Management for Airports	$400,000(10)	$400,000	GHD Consulting	6/16/2010	12/1/2011	Completed - Published as Report 69		
01-17	Guidebook for Developing General Aviation Airport Business Plans	$400,000(10)	$398,350	Aviation Management Consulting Group	6/28/2010	6/1/2012	Completed - Published as Report 77		
01-18	Application of Enterprise Risk Management at Airports	$350,000(10)	$350,000	Marsh, USA	6/30/2010	3/30/2012	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	7/13/2011	7/31/2014	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	6/15/2011	1/20/2013	Completed - Published as Report 87		
01-21	A Guidebook for Airport-Airline Consortiums	$400,000(12)	$387,642	AVAirPros	6/1/2012	4/1/2014	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.	8/14/2012	5/14/2014	Completed - Published as Report 116		

APPENDIX B (continued)

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
01-23	A Guidebook for Mitigating Disruptive WiFi Interference at Airports	$350,000(13)	$349,489	System Planning Corp.	5/2/2013	8/1/2014	Completed - Published as Report 127		
01-24	Renewable Energy as an Airport Revenue Source	$400,000(13)	$399,612	Harris Miller Miller & Hanson	8/13/2013	3/31/2015	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, LLC	8/13/2013	9/6/2014	Completed - Published as Report 126		
01-26	Improving the Airport Customer Experience	$400,000(14)	$400,000	Leigh Fisher	7/11/2014	2/15/2016	Completed - Published as Report 157		
01-27	NextGen - A Primer	$750,000(14)	$750,000	Logistics Management Institute	6/16/2014	1/31/2017	Completed - Published as WebResource 5		
01-28	NextGen - Guidance for Engaging Airport Stakeholders	$300,000(14)	$300,000	Grafton Technologies, Inc.	6/4/2014	5/6/2016	Completed - Published as Report 150, Volume 2		
01-29	Design and Development of a State Aviation Information Database	$150,000(16)	$149,975	iEngineering Corporation	8/31/2016	3/29/2019	Research in Progress	S. Glasgow C. Suomi	J. Navarrete
01-30	Airport Management Guide for Providing Aircraft Fuel Services	$350,000(16)	$350,000	KRAMER aerotek, Inc.	10/1/2016	6/30/2018	Completed - Publication Pending	K. Hehir	T. Schatz
01-31	Innovative Solutions to Facilitate Accessibility for Airport Travelers with Disabilities	$350,000(16)	$349,973	Open Doors Organization	6/16/2016	12/31/2018	Research in Progress	R. Bornhorst L. Miler	T. Schatz
01-32	Updating ACRP Report 16: Guidebook for Managing Small Airports	$350,000(16)	$349,948	Hanson Professional Services, Inc.	8/18/2016	4/30/2018	Completed - Publication Pending	G. Mahns A. Velayos	T. Schatz
01-33	Preparing for the Connected Airport and the Internet of Things	$400,000(16)	$400,000	Texas A&M Transportation Institute	6/22/2016	3/30/2018	Completed - Published as Research Report 191		
01-34	Developing Innovative Strategies for Aviation Education and Participation	$400,000(16)	$350,000	Mead & Hunt Inc.	9/21/2016	12/31/2018	Research in Progress	M. Hovan	J. Navarrete

APPENDIX B (continued)

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
01-35	Transportation Network Companies (TNC's): Impacts To Airport Revenues and Operations	$500,000(18)	$498,512	Ricondo & Associates	2/14/2017	8/13/2019	Research in Progress	K. Brockman R. Clark	T. Schatz
01-36	Guidebook for Developing State Aviation System Plans	$300,000(18)					Pending	C. Nutting J. Raymond A. Velayos	J. Navarrete
01-37	Performance Measures for State Aviation Agencies	$250,000(18)	$250,000	Mead & Hunt Inc.	6/18/2018	9/17/2019	Research in Progress	K. Erhard C. Fields B. Gearhart	M. Greenberger
01-38	Market Characteristics for Property at Small Airports	$200,000(18)	$200,000	Aviation Management Consulting Inc.	5/9/2018	6/8/2019	Research in Progress	R. Etter G. Loftus A. Walter	M. Greenberger
01-39	Creating Marketing Techniques to Improve Revenue Generation Partnerships	$300,000(19)	$0				In Development		J. Navarrete
01-40	Improving the Airport Customer Experience-Update to Research Report 157	$500,000	$0				In Development		T. Schatz
01-41	Blockchain Technology and Airports -A Primer	$330,000	$0				In Development		M. Salamone
01-42	Review of Airport Governance Structures	$300,000	$0				In Development		M. Greenberger
01-43	Conducting Consumer Research of Air Passengers	$450,000	$0				In Development		J. Navarrete

APPENDIX B (continued)

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
	02: Environment								
02-01	Alternative Aircraft and Pavement Deicers and Anti-Icing Formulations with Improved Environmental Characteristics	$600,000(06)	$600,000	University of South Carolina	11/1/2006	2/28/2010	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	10/9/2006	9/12/2008	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.	12/19/2006	12/18/2007	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.	1/12/2009	3/30/2012	Completed - Published as Report 63		
02-04	Research Needs Associated with Particulate Emissions at Airports	$100,000(06)	$99,897	Environmental Consulting Group, Inc.	1/2/2007	3/1/2008	Completed - Published as Report 6		
02-04A	Summarizing and Interpreting Aircraft Gaseous and Particulate Emissions Data	$350,000(07)	$349,470	University of Missouri-Rolla	4/12/2007	7/11/2008	Completed - Published as Report 9		
02-05	Aircraft Noise: A Toolkit for Managing Community Expectations	$500,000(07)	$399,982	Landrum & Brown	4/20/2007	3/31/2009	Completed - Published as Report 15		
02-06	Guidebook on Preparing Airport Greenhouse Gas (GHG) Emissions Inventories	$200,000(07)	$199,403	Wyle Laboratories, Inc.	10/9/2007	9/8/2008	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	CSSI, Inc.	10/22/2007	10/29/2010	Completed - Published as Report 46		

APPENDIX B (continued)

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
02-08	Quantifying Contributions to Local Air Quality Impacts from Airport-Related Emissions	$600,000(08)	$599,970	Wyle Laboratories, Inc.	6/4/2008	4/30/2012	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.	7/7/2008	10/29/2010	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	6/9/2009	6/9/2011	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	5/11/2009	5/31/2011	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.	4/20/2009	3/29/2013	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	6/16/2009	8/20/2010	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	6/3/2010	2/28/2012	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	9/22/2010	7/15/2013	Completed - Published as Report 100		
02-16	Airport Ground Support Equipment (GSE) Inventory and Emission Reduction Strategies	$600,000(09)	$599,717	CDM	6/18/2010	6/30/2012	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	9/3/2010	5/31/2013	Completed - Published as Report 97		

APPENDIX B (continued)

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
02-18	Guidelines for Integrating Alternative Jet Fuel into the Airport Setting	$250,000(09)	$249,982	Metron Aviation	6/17/2010	10/16/2011	Completed - Published as Report 60		
02-19	Winter Design Storm Factor Determination for Airports	$300,000(09)	$249,999	CH2M Hill	6/24/2010	12/1/2012	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	9/7/2010	9/30/2013	Completed - Published as CRP-CD-137		
02-20A	Infectious Disease Mitigation in Airports and on Aircraft	$200,000(11)	$200,000	Environmental Health & Engineering	7/6/2011	5/31/2013	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	8/31/2010	2/28/2013	Completed - Published as Report 84		
02-22	Incorporating Sustainability into Traditional Airport Projects	$300,000(09)	$300,000	Landrum & Brown	7/12/2010	5/31/2012	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 Corp.	7/6/2010	4/30/2012	Completed - Published as Web-Only Document 13		
02-24	Guidelines for Airport Sound Insulation Programs	$200,000(10)	$200,000	Jones Payne Group	8/27/2010	3/8/2013	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	7/7/2010	12/31/2011	Completed - Published as Report 64		
02-26	Assessing Aircraft Noise Conditions Affecting Student Learning	$450,000(10)	$449,672	Wyle Laboratories, Inc.	6/26/2010	11/30/2013	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.	6/11/2010	3/29/2013	Completed - Published as Web-Only Document 9, Volume 1		

APPENDIX B (continued)

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
02-27A	Developing a Generic Commercial Jet Taxi Noise Directivity Pattern for AEDT	$75,000(12)	$74,767	Wyle Laboratories, Inc.	2/22/2012	3/29/2013	Completed - Published as Web-Only Document 9, Volume 2		
02-28	Prototype Airport Sustainability Rating System - Characteristics, Viability, and Implementation Options	$800,000(11) $87,104(14)	$687,103	Vanasse Hangen Brustlin, Inc.	6/27/2011	12/31/2014	Completed - Published as Report 119		
02-29	Guidance for Treatment of Airport Stormwater Containing Deicers	$600,000(11)	$500,000	Gresham, Smith and Partners	5/31/2011	9/30/2013	Completed - Published as Report 99		
02-30	Enhancing the Airport-Industry Database of Sustainable Practices	$500,000(11) $196,320(14) $224,823(15)	$846,320	CDM	7/18/2011	9/29/2017	Completed- Transferred to DFW Airport		
02-31	Guidelines for Ensuring Longevity in Airport Sound Insulation Programs	$350,000(11)	$349,980	Wyle Laboratories, Inc.	7/8/2011	9/15/2013	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	7/20/2011	5/30/2014	Completed - Published as Report 115		
02-33	Guidance for Estimating Airport Construction Emissions	$350,000(11)	$349,980	Wyle Laboratories, Inc.	7/1/2011	9/30/2013	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.	6/3/2011	10/21/2014	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.	9/20/2011	6/30/2014	Completed - Published as Web-Only Document 17		
02-36	Assessing Opportunities for Alternative Fuel Distribution Programs	$500,000(11)	$400,000	Metron Aviation	5/26/2011	12/6/2012	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.	6/13/2011	9/30/2014	Completed - Published as Web-Only Document 19		

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No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
02-38	Guidebook for Energy Facilities Compatibility with Airports and Airspace	$450,000(12)	$449,850	Harris Miller Miller & Hanson Inc.	5/2/2012	11/2/2013	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	10/5/2012	1/30/2015	Completed - Published as Report 134		
02-40	Climate Change Adaptation Planning: Risk Assessment for Airports	$500,000(12)	$491,923	Dewberry & Davis, LLC	11/20/2012	3/20/2015	Completed - Published as Report 147		
02-41	Estimating Takeoff Thrust Settings for Airport Emissions Inventories	$450,000(12)	$449,998	The Cadmus Group, LLC	9/1/2012	10/31/2014	Completed - Published as CD-161		
02-42	Understanding Air Quality and Public Health Studies Related to Airports	$200,000(12)	$199,675	Wyle Laboratories, Inc.	9/25/2012	2/28/2015	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	7/10/2013	1/31/2017	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.	5/2/2013	9/30/2015	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	7/8/2013	1/29/2016	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	7/5/2013	12/15/2015	Completed - Published as Report 149		
02-47	Assessing Aircraft Noise Conditions Affecting Student Achievement--Case Studies	$600,000(14) $75,429(17)	$599,939	Harris Miller Miller & Hanson, Inc.	5/22/2014	8/31/2017	Completed - Published as Web-Only Document 34		
02-48	Assessing Community Annoyance of Helicopter Noise	$700,000(14)	$699,778	Landrum & Brown, Inc.	6/3/2014	6/30/2017	Completed - Published as Research Report 181		

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No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
02-49	Addressing Significant Weather Impacts on Airports	$550,000(14)	$550,000	ICF Incorporated, LLC	5/22/2014	2/29/2016	Completed - Published as Report 160		
02-50	Deriving Benefits from Alternative Aircraft-Taxi Systems	$300,000(14)	$300,000	The Cadmus Group, LLC	7/15/2014	4/30/2016	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	6/9/2014	10/30/2015	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.	6/11/2014	4/28/2017	Completed - Published as Web-Only Document 32		
02-53	Interpreting Airport Water Monitoring Results	$250,000(14)	$250,000	Gresham, Smith and Partners	8/8/2014	6/30/2016	Completed - Published as Reaearch Report 166		
02-54	Measuring and Understanding Emission Factors for General Aviation (GA) Aircraft	$500,000(14)	$499,971	Aerodyne Research, Inc.	5/20/2014	6/30/2016	Completed - Published as Reaearch Report 164		
02-55	Enhanced AEDT Modeling of Aircraft Arrival and Departure Profiles	$350,000(14)	$349,921	ATAC Corporation	6/9/2014	3/30/2018	Completed - Published as Web doc 36		
02-56	Developing a Business Case for Renewable Energy at Airports	$300,000(14)	$299,903	Harris Miller Miller & Hanson, Inc.	5/27/2014	10/26/2015	Completed - Published as Report 151		
02-57	Reducing the Impact of Lead Emissions at Airports	$200,000(14)	$199,971	Sierra Research, Inc.	7/28/2014	6/8/2016	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	6/10/2014	7/31/2017	Completed - Published as Research Report 179		
02-59	Water Efficiency Management Strategies at Airports	$450,000(14)	$449,999	The Cadmus Group, LLC	6/4/2014	2/5/2016	Completed - Published as Report 154		

APPENDIX B (continued)

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
02-60	Use and Potential Impacts of AFFF Containing Per and Polyfluoroalkly Substances (PFASs) at Airports	$480,000(15)	$299,995	Dillon Consulting Limited	7/29/2015	10/28/2016	Completed - Published as Research Report 173		
02-61	Airport Stormwater Management: Electronic Resource Library	$450,000(15) $39,056 (16)	$489,056	Mead & Hunt, Inc.	5/11/2015	7/31/2017	Completed - Published as WebResource 3		
02-62	Green Stormwater Infrastructure Strategies for Airports	$350,000(15)	$299,970	The Cadmus Group, LLC	4/30/2015	11/21/2016	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	5/11/2015	4/28/2017	Completed - Published as Research Report 180		
02-64	Guidance for Usage of Permeable Pavement at Airports	$200,000(15)	$199,906	Applied Pavement Technology, Inc.	6/19/2015	3/31/2017	Completed - Published as Research Report 178		
02-65	Tracking Alternative Jet Fuel	$250,000(15)	$249,961	Metron Aviation	6/19/2015	7/29/2016	Completed - Published as Research Report 165		
02-66	Commercial Spaceport Noise and Sonic Boom	$600,000(15)	$600,000	Wyle Laboratories, Inc.	7/29/2015	5/29/2017	Completed - Published as Research Report 183 and and WOD 33		
02-67	Airport Air Quality Management Guidebook and Resource Library	$400,000(15)	$399,944	Booz Allen Hamilton	8/7/2015	10/16/2017	Completed - Published as Report 185 and WebResource 4		
02-68	Strategies for Reducing Local Stromwater Utility Fees for Airports	$350,000(16)	$325,000	The Cadmus Group, LLC	9/21/2016	6/29/2018	Completed - Published as Research Report 193		
02-69	Integrating Airport Sustainability and the NEPA Process	$400,000(16)	$400,000	Vanasse Hangen Brustlin, Inc.	9/29/2016	1/31/2019	Research in Progress	J. Barrilleaux R. Solomon	J. Navarrete
02-70	Wetland Mitigation—A Guidebook for Airports	$400,000(16)	$399,996	The Smart Associates, Environmental Consultants, Inc.	9/29/2016	12/31/2018	Research in Progress	M. Lamprecht J. Weller	L. Goldstein

APPENDIX B (continued)

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
02-71	Guidebook and Decision Tool for Managing Airport Stormwater Containing Deicers	$500,000(16)	$400,000	Mead & Hunt, Inc.	8/19/2016	12/31/2018	Completed- pending publication	M. Lamprecht	J. Navarrete
02-72	Developing a Comprehensive Renewable Resources Strategy	$300,000(16)	$300,000	Cadmus Group, LLC	9/29/2016	8/31/2018	In publication	J. MacFarlane J. Weller	M. Greenberger
02-73	Interactive Tool for Understanding NEPA at General Aviation Airports	$250,000(16)	$249,864	RS&H, Inc.	8/5/2016	12/31/2018	Research in Progress	K.R. Bassarab F. Smigelski	M. Greenberger
02-74	Using Exisitng Airport Management Systems to Manage Climate Risk	$400,000(16)	$399,971	ICF Incorporated	9/23/2016	10/31/2018	Completed- Publication Pending	T. Cuddy A. Freeburg	T. Schatz
02-75	Benefit-Cost Analyses Guidebook for Airport Stormwater	$450,000(16)	$325,000	The Cadmus Group, LLC	9/21/2016	12/31/2018	Research in Progress	M. Lamprecht	J. Navarrete
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.	7/6/2017	1/5/2019	Research in Progress	M. Lamprecht J. Upadhyay	T. Schatz
02-77	Revolving Funds for Sustainability Projects at Airports	$350,000(17)	$350,000	Rocky Mountain Institute	6/6/2017	12/5/2018	Research in Progress	J. Barrilleaux K. Partowazam	T. Schatz
02-78	Climate Resilience and Benefit Cost Analysis--A Handbook for Airports	$450,000(17)	$450,000	GRA, Inc.	5/18/2017	12/14/2018	Research in Progress	T. Cuddy K. Partowazam	L. Goldstein
02-79	AEDT Noise Model Improvements to Account for Terrain and Man-made Structures	$500,000(17)	$399,995	Blue Ridge Research Consulting	8/1/2017	1/31/2019	Research in Progress	J. Byers B. He	J. Navarrete
02-80	Quantifying Emissions Reductions at Airports from the Use of Alternative Jet Fuel	$500,000(17)	$499,927	Booz Allen Hamilton	5/15/2017	11/14/2018	Research in Progress	T. Cuddy W. Gillette	J. Navarrete
02-81	Commercial Space Transportation Noise Measurements	$600,000(17)	$599,898	Blue Ridge Research and Consulting LLC	8/1/2017	7/31/2019	Research in Progress	J. Johnson N.Sizov S.Zee	J. Navarrete
02-82	Developing a Roadmap to to Achieve Zero-Emissions Status	$350,000(18)	$350,000	Cadmus Group, LLC	6/20/2018	10/19/2019	Research in Progress	T. Cuddy	M. Greenberger

APPENDIX B (continued)

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
02-83	Measuring Quality of Life in Communities Surrounding Airports	$400,000(18)	$399,840	Harris Miller Miller & Hanson Inc.	4/30/2018	10/30/2019	Research in Progress	K. Andrus J. Sweatt-Essick	J. Navarrete
02-84	Evaluating the Use of Spatially Precise Diurnal Population Data in Aviation Noise Studies	$300,000(18)	$299,993	Metron Aviation, Inc.	5/8/2018	1/7/2020	Research in Progress	B. He J. Byers	J. Navarrete
02-85	Commercial Space Vehicle Emissions Modeling	$450,000(18)	$449,973	Blue Ridge Research and Consulting, LLC	6/1/2018	5/31/2020	Research in Progress	R. Halthore J. Johnson	J. Navarrete
02-86	Measuring the Impact of Temporary Flight Restriction on Airports	$400,000(18)	$400,000	Metron Aviation, Inc.	5/25/2018	7/24/2019	Research in Progress	K. Andrus K. Bassarab R. Didio	M. Greenberger
02-87	Determining Airfield Pavement Deice and Anti-Icer Contributions to Airport Stormwater	$400,000(18)	$350,000	LimnoTech Inc.	6/1/2018	5/31/2020	Research in Progress	M. Lamprecht J. Barrilleaux	J. Navarrete
02-88	Techniques for Modifying NextGen Flight Track Design to Reduce Noise Exposure and Annoyance	$400,000	$0				In Development		J. Navarrete
	03: Policy and Planning								
03-01	Light Detection and Ranging (LIDAR) Deployment for Airport Obstructions Surveys	$350,000(06)	$350,000	University of Mississippi	1/30/2007	12/31/2009	Completed - Published as Research Results Digest 10		
03-02	Airport Passenger-Related Processing Rates Guidebook	$200,000(06)	$200,000	HNTB	1/16/2007	6/30/2009	Completed - Published as Report 23		
03-03	Enhancing Airport Land Use Compatibility	$500,000(06)	$500,000	Mead & Hunt	12/28/2006	9/15/2009	Completed - Published as Report 27, Volumes 1 and 2		
03-04	Guidebook for Airport-User Survey Methodology	$250,000(06)	$249,350	Jacobs Consultancy	1/16/2007	8/31/2009	Completed - Published as Report 26		

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
03-05	Passenger Space Allocation Guidelines for Planning and Design of Airport Terminals	$400,000(07)	$399,928	TransSolutions, LLC	6/28/2007	5/31/2011	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	6/12/2007	3/30/2010	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	6/13/2007	1/31/2012	Completed - Published as Report 37A		
03-08	Passenger Air-Service Development Techniques	$300,000(07)	$300,000	InterVISTAS Consulting Group	6/21/2007	5/15/2009	Completed - Published as Report 18		
03-09	Guidebook for Strategic Planning in the Airport Industry	$425,000(07)	$321,049	Ricondo & Associates	6/27/2007	6/15/2009	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	2/6/2008	9/30/2009	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	6/23/2008	1/15/2011	Completed - Published as Report 44		
03-12	Preparing Peak Period and Operational Profiles - Guidebook	$350,000(08)	$347,044	HNTB	8/13/2008	10/30/2012	Completed - Published as Report 82		
03-13	Understanding Airspace, Objects, and Their Effects on Airports	$200,000(08)	$199,938	Jacobs Consultancy	7/11/2008	4/30/2010	Completed - Published as Report 38		
03-14	Airport Passenger Conveyance System Planning Guidebook	$300,000(08)	$300,000	TransSolutions, LLC	8/26/2008	3/30/2012	Completed - Published as Report 67		
03-15	Impact of Jet Fuel Price Uncertainty on Airport Planning and Development	$400,000(09)	$399,970	GRA, Inc.	3/4/2009	2/28/2011	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	6/5/2009	7/15/2014	Completed - Published as Web-Only Document 20		

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
03-17	Evaluating Airfield Capacity	$525,000(09)	$525,000	Leigh Fisher	6/29/2009	6/30/2012	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	6/3/2010	6/28/2013	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	7/26/2010	3/15/2015	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	8/30/2010	12/31/2013	Completed - Published as Report 104		
03-21	Developing and Maintaining Support for Your Airport Capacity Project	$300,000(10)	$299,980	Mead & Hunt	6/3/2010	3/29/2013	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 Group	7/15/2010	7/31/2012	Completed - Published as Report 76		
03-23	Integrating Aviation and Passenger Rail Planning	$400,000(10)	$399,452	Resource Systems Group	7/29/2010	6/30/2014	Completed - Published as Report 118		
03-24	Guidebook for Air Cargo Facility Planning and Development	$400,000(11)	$400,000	CDM/Wilbur Smith	7/17/2011	5/31/2015	Completed - Published as Report 143		
03-25	Impact of Regulatory Compliance Costs on Small Airports	$300,000(11)	$299,987	Unison Consulting, Inc.	6/3/2011	1/31/2013	Completed - Published as Report 90 and Web-Only Document 15		
03-26	Understanding Airline and Passenger Choice in Regions with Multiple Airports	$250,000(11)	$250,000	InterVISTAS Consulting Group	8/4/2011	9/30/2013	Completed - Published as Report 98		
03-27	Evaluating Methods for Counting Aircraft Operations at Non-Towered Airports	$400,000(11)	$400,000	Woolpert	11/21/2011	11/28/2014	Completed - Published as Report 129		

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
03-28	The Role of U.S Airports in the National Economy	$400,000(12)	$399,984	Economic Development Research Group	7/17/2012	1/30/2015	Completed - Published as Report 132		
03-29	Effects of Airline Industry Changes on Small- and Non-Hub Airports	$300,000(13)	$299,972	GRA, Inc.	7/22/2013	4/30/2015	Completed - Published as Report 142		
03-30	Unmanned Aircraft Systems (UAS) at Airports: A Primer	$150,000(13) $50,000(14)	$199,000	Futron Corporation	8/7/2013	6/19/2015	Completed - Published as Report 144		
03-31	Aligning Community Expectations with Airport Roles	$500,000(14)	$500,000	Mead & Hunt	6/16/2014	10/31/2016	Completed - Published as WebResource 1		
03-32	Guidance for Preparing and Using Airport Design Day Flight Schedules	$400,000(14)	$349,966	HNTB Corporation	7/17/2014	6/17/2016	Completed - Published as Research Report 163		
03-33	NextGen - Airport Planning and Development	$500,000(14)	$500,000	Leigh Fisher	7/11/2014	9/30/2016	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	Saab Sensis Corporation	6/9/2014	2/8/2016	Completed - Published as Report 150, Volume 1		
03-35	Improving Airport Services for International Customers	$600,000(14)	$600,000	Landrum & Brown, Inc.	6/6/2014	6/10/2016	Completed - Published as Research Report 161		
03-36	Using Disaggregated Socioeconomic Data in Air Passenger Demand Studies	$500,000(15)	$499,747	GRA Incorporated	6/19/2015	6/28/2018	Completed - Publication Pending	P. Devoti	J. Navarrete
03-37	Using GIS for Collaborative Land Use Compatability Near Airports	$350,000(15)	$350,000	Grafton Technologies	8/26/2015	8/31/2018	Completed- Publication Pending	M. Lawrance	J. Navarrete
03-38	Understanding FAA Grant Assurance Obligations	$150,000(15)	$150,000	Unison Consulting, Inc.	7/28/2015	5/2/2017	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.	5/11/2015	1/31/2017	Completed- Published as Research Report 176		

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
03-40	Air Demand in a Dynamic Competitive Context with the Automobile	$500,000(16)	$499,816	Resource Systems Group, Inc.	7/14/2016	12/15/2018	Research in Progress	D. Anderson K. Warden	L. Goldstein
03-41	Common Performance Metrics for Airport Infrastructure and Operational Planning	$400,000(16)	$399,981	Booz Allen Hamilton	9/23/2016	3/22/2018	Completed - Publication Pending	K. Duffy	T. Schatz
03-42	Airports and UAS	$1,000,000(17)	$999,957	Booz Allen Hamlton	2/3/2017	12/2/2018	Research in Progress	M. Dipilato J. Raymond	T. Schatz
03-43	Integrating Airport Ground Access and Metropolitan Surface Transportation Planning Efforts	$500,000(17)	$326,173	WSP	4/27/2017	12/31/2018	Research in Progress	M. Lawrance D. Rinsler	J. Navarrete
03-44	Best Practices in Building Air Service Through Incentive Programs	$400,000(17)	$324,863	GRA, Inc.	4/11/2017	12/31/2018	Research in Progress	G. Mahns	J. Navarrete
03-45	Collecting and Sharing of Operational and Safety Data	$400,000(17)	$400,000	Booz Allen Hamilton	5/17/2017	12/31/2018	Research in Progress	P. Davenport S. Gardner	M. Greenberger
03-46	Implementing Privatization: Guidance for Airport Decision-Makers	$350,000(18)	$349,985	WSP	4/24/2018	4/23/2019	Research in Progress	R.Fiertz	T. Schatz
03-47	Rethinking Airport Parking Facilities to Protect and Enhance Non-Aeronautical Revenue	$450,000(18)	$450,000	Intervistas	4/18/2018	10/17/2019	Research in Progress	L. McDonald	T. Schatz
03-48	Advanced Ground Vehicle Technologies (AGVT) for Airside Operations	$250,000(18)		Purdue University			Research in Progress	M.Woods	M. Greenberger
03-49	Effective Collaboration to Plan and Respond to Communicable Disease Threats	$600,000	$0				In Development		M. Greenberger
03-50	An Airport-Centric Study of the Urban Air Mobility Market	$350,000	$0				In Development		J. Navarrete

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
03-51	Electric Aircraft on the Horizon-an Airport Planning Perspective	$450,000	$0				Pending		J. Navarrete
	04: Safety								
04-01	Analysis of Aircraft Overruns and Undershoots for Runway Safety Areas	$250,000(06)	$249,986	Applied Research Associates	9/19/2006	1/31/2008	Completed - Published as Report 3		
04-02	Lightning-Warning Systems for Use by Airports	$200,000(06)	$199,937	MDA Federal, Inc.	11/7/2006	11/7/2008	Completed - Published as Report 8		
04-03	Guidebook for Approach Light System Hazard Assessment and Mitigation	$300,000(07)	$300,000	Virginia Polytechnic Institute and State University	10/3/2007	2/2/2009	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	9/12/2007	12/31/2011	Completed - Results to 04-04A		
04-04A	Evaluating the Airport Emergency Response Operations Simulation (AEROS) Tool	$300,000(12)	$290,000	Futron Corporation	6/18/2013	9/17/2014	Terminated		
04-04B1	Emergency Management Training for Airport Critical Incidents	$125,000(15)	$25,000	Engineering and Computer Simulatons, Inc.	3/30/2015	8/31/2015	Completed		
04-04B2	Emergency Management Training for Airport Critical Incidents	$125,000(15)	$219,000	Emergency Preparedness Solutions, LLC	6/8/2016	3/30/2018	Completed - Publication Pending	M. Tonnacliff	M. Greenberger
04-05	A Guidebook for Airport Safety Management Systems	$300,000(07)	$300,000	Applied Research Associates	5/24/2007	5/15/2009	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	6/2/2008	1/15/2010	Completed - Published as Report 32		

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
04-07	Airport Apron Management and Control Programs	$300,000(08)	$300,000	Ricondo & Associates	5/8/2009	8/30/2011	Completed - Published as Report 62		
04-07A	Use of Towbarless Tractors at Airports - Best Practices	$300,000(08)	$38,795	Ricondo & Associates	4/20/2009	8/30/2011	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	6/8/2009	3/31/2011	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	6/10/2009	2/16/2011	Completed - Published as Report 51		
04-10	Airport-to-Airport Mutual Aid Programs	$300,000(09A)	$300,000	Innovative Emergency Management, Inc.	7/6/2010	3/1/2012	Completed - Published as Report 73		
04-11	Guidebook on Integrating GIS in Emergency Management at Airports	$350,000(11)	$274,949	Barich, Inc.	7/12/2011	2/28/2013	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	7/15/2011	7/31/2013	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.	7/26/2011	7/26/2013	Completed - Published as Report 95		
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	6/6/2012	12/5/2013	Completed - Published as Report 107		
04-15	Airport Terminal Incident Response Planning	$325,000(12)	$325,000	Innovative Emergency Management, Inc	7/10/2012	4/2/2014	Completed - Published as Report 112		
04-16	Safety Risk Management for Airports	$300,000(13)	$299,992	Futron Corporation	6/18/2013	11/14/2014	Completed - Published as Report 131		

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
04-17	Applying an SMS Approach to Wildlife Hazard Management	$250,000(13)	$250,000	BASH Incorporated	1/17/2014	6/15/2015	Completed - Published as Report 145		
04-18	Runway Protection Zone (RPZ) Risk Assessment Tool	$400,000(14)	$400,000	Applied Research Associates	6/4/2014	7/11/2016	Completed - Published as Reaearch Report 168		
04-19	Airport Emergency Planning Template: NIMS - Incident Command System Compliance	$300,000(15)	$300,000	FTI Consulting, Inc.	12/3/2015	8/31/2018	Complete- Publication Pending	M. Tonnacliff	J. Navarrete
04-20	Design Considerations for Airport EOCs	$400,000(16)	$249,900	Faith Group, LLC	8/23/2016	3/30/2018	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	5/18/2017	11/18/2018	Research in Progress	L. Miller	T. Schatz
04-22	Evaluating Compatability Zoning at General Aviation Airports	$350,000(17)	$350,000	Mead & Hunt	5/23/2017	12/31/2018	Research in Progress	H. Cyrus M. Hovan	M. Greenberger
04-23	Guidebook for Creating and Maintaining Social Media for Emergency Management at Airports	$350,000(18)	$350,000	Barich Inc	3/12/2018	3/11/2019	Research in Progress	J. Showalter M.Tonnacliff	M. Greenberger
	05: Security								
05-01	An Airport Guide for Regional Emergency Planning for CBRNE Events	$250,000(06)	$248,464	System Planning Corp.	11/15/2006	10/31/2008	Completed - Published as Report 12		
05-02	Guidebook on Best Practices for Airport Cybersecurity	$350,000(13)	$350,000	Grafton Technologies, Inc.	8/21/2013	3/31/2015	Completed - Published as Report 140		
	06: Human Resources								
06-01	Airport and Air Carrier Resource Manual: Employees Coping with Traumatic Events	$300,000(07)	$299,416	University of North Dakota	12/5/2007	5/31/2009	Completed - Published as Report 22		

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
06-02	Airport Leadership Development Program	$100,000(10)	$100,000	Ohio State University	9/29/2010	10/30/2012	Completed - Published as Report 75		
06-03	Establishing a Coordinated Local Family Assistance Program for Airports	$300,000(15)	$300,000	Tetra Tech, Inc.	5/8/2015	10/14/2016	Completed - Published as Report 171		
06-04	Identifying and Evaluating Airport Workforce Requirements	$250,000(15) $330,000(17)	$580,760	ICF Incorporated	6/4/2015	4/15/2018	Completed - Published as Report 186		
06-05	Guidance for Diversity in Airport Businesses Contracting and Workforce Programs	$500,000(18)	$500,000	The Cadmus Group	5/25/2018	9/24/2019	Research in Progress	N. Kumar	T. Schatz
06-06	Cultivating Talent in the Airport Environment	$250,000	$0				In Development		T. Schatz
06-07	Building Academic Programs to Cultivate Future Airport Industry Professionals	$300,000	$0				In Development		T. Schatz
06-08	Human Factors in Airport Operations	$400,000	$0				In Development		M. Greenberger
	07: Design								
07-01	Innovations for Airport Terminal Facilities	$400,000(06)	$400,000	Corgan Associates, Inc.	12/8/2006	7/8/2008	Completed - Published as Report 10		
07-02	Airport Curbside and Terminal Area Roadway Operations	$400,000(06) $150,000(09)	$528,000	Jacobs Consultancy	11/15/2006	5/19/2010	Completed - Published as Report 40		
07-03	Developing Improved Civil Aircraft Arresting Systems	$500,000(07)	$499,455	Protection Engineering Consultants	5/23/2007	10/31/2009	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	6/6/2007	10/31/2009	Completed - Published as Report 25, Volume 2		

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
07-05	Airport Passenger Terminal Planning and Design: Guidebook	$400,000(07)	$400,000	Landrum & Brown	6/28/2007	10/31/2009	Completed - Published as Report 25, Volume 1		
07-06	Airport Signage and Wayfinding Information Guidelines	$250,000(08)	$250,000	Gresham, Smith and Partners	8/21/2008	3/1/2011	Completed - Published as Report 52		
07-07	Evaluating Terminal Renewal Versus Replacement Options	$400,000(10)	$400,000	Ricondo & Associates	8/16/2010	3/15/2012	Completed - Published as Report 68		
07-08	Improving Terminal Design to Increase Revenue Generation and Customer Satisfaction	$500,000(11)	$496,888	Landrum & Brown	6/3/2011	11/30/2013	Completed - Published as Report 109		
07-09	Apron Planning and Design Guidebook	$250,000(12)	$250,000	Ricondo & Associates	6/15/2012	7/31/2013	Completed - Published as Report 96		
07-10	General Aviation Facility Planning	$300,000(12)	$300,000	Delta Airport Consultants	5/17/2012	2/28/2014	Completed - Published as Report 113		
07-11	Airport Escalators and Moving Walkways - Cost-Savings and Energy Reduction Technologies	$250,000(12)	$249,947	Project Performance Corp.	9/18/2012	7/31/2014	Completed - Published as Report 117		
07-12	Guidebook for Airport Terminal Restroom Planning and Design	$250,000(12)	$249,986	Architectural Alliance	3/25/2013	9/30/2014	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 & Partners	6/9/2014	2/17/2017	Completed - Published as Research Report 177		
07-14	Improving Intelligibility of Airport Terminal Public-Address Systems	$350,000(15)	$350,000	Wilson Ihrig & Associates	7/7/2015	1/7/2017	Completed - Published as Research Report 175		
07-15	Airport Passenger Terminal Design: Electronic Resources Library	$300,000(15)	$300,000	Intermodal Logistics Consulting, Inc.	7/7/2015	5/15/2017	Completed - Published as WebResource 2		T. Schatz
07-15A	Airport Passenger Terminal Design Library - Updates to ACRP WebResource 2	$250,000	$0				In Development		

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
07-16	Airport Terminal Ancillary Service Spaces and Restroom Planning and Design	$350,000(18)	$349,837	Alliiance	2/28/2018	8/27/2019	Research in Progress	W. Reinhardt M. Sedarous	J. Navarrete
	08: Construction								
08-01	Sustainable Airport Construction Practices	$150,000(09)	$150,000	Ricondo & Associates	6/1/2009	6/22/2010	Completed - Published as Report 42		
08-02	Integrating Collaborative Partnering for Airport Projects	$350,000(17)	$350,000	Michigan State University	5/11/2017	12/31/2018	Research in Progress	H. Cyrus M. Hovan	M. Greenberger
08-03	Construction Safety and Phasing Plans	$250,000	$0				In Development		M. Greenberger
	09: Maintenance								
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	11/6/2006	4/30/2010	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	8/31/2011	11/30/2013	Completed - Published as Report 101		
09-03	Airport Parking Garage Lighting Solutions	$300,000(12)	$300,000	Virginia Polytechnic Institute and State University	6/4/2012	10/31/2014	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	12/14/2012	12/31/2014	Completed - Published as Report 139		
09-05	Guidance on Successful Computer Maintenance Management Systems (CMMS) Selection and Practices	$300,000(12)	$300,000	Ross & Barrunzini	7/12/2012	10/17/2014	Completed - Published as Web-Only Document 23		

APPENDIX B (continued)

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
09-06	Evaluating Impacts of Sustainability Practices on Airport Operations and Maintenance	$300,000(12)	$312,000	Booz Allen Hamilton	9/27/2012	4/25/2014	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	11/13/2012	10/31/2014	Completed		
09-08	Balancing Airport Stormwater and Bird Hazard Management	$250,000(12)	$249,209	Environmental Resource Solutions	10/1/2012	8/29/2014	Completed - Published as Report 125		
09-09	LED Airfield Lighting System Operation and Maintenance	$340,000(13)	$340,000	Burns Engineering	8/9/2013	9/30/2015	Completed - Published as Report 148		
09-10	Benchmarking and Profiling Airport Terminal End Uses	$400,000(13)	$399,331	Texas A&M University	9/16/2013	9/30/2015	Completed - Published as CRP CD 178		
09-11	Pavement Maintenance Guidelines for General Aviation Airport Management	$350,000(14)	$350,000	Texas A&M University Transportation Insititute	6/16/2014	5/13/2016	Completed - Published as Report 159		
09-12	NextGen - Leveraging NextGen Spatial Data to Benefit Airports	$200,000(14)	$200,000	Woolpert, Inc.	6/13/2014	6/3/2016	Completed - Published as Report 150, Volume 4		
09-13	Considering Life Cycle Costs in Airport Asset Procurement	$350,000(15)	$349,897	CH2M Hill	5/19/2015	11/18/2016	Completed - Published as Research Report 172		
09-14	Advanced Computer Maintenance Management System (CMMS) Integration for Airports	$375,000(16)	$374,950	CH2M Hill	6/9/2016	9/8/2017	Completed - Published as Web-Only Document 23		
09-15	Building Information Modeling (BIM) Beyond Design	$750,000(17)	$400,000	CAD Concepts	5/12/2017	2/1/2019	Research in Progress	D. Rinsler	M. Greenberger
09-16	Best Practices for Airport Obstruction Management	$300,000(17)	$299,981	Hanson Professional Services	2/15/2017	12/31/2018	Research in Progress	G. Boles J. Carlini	M. Greenberger
09-17	Collecting, Applying, and Maintaining Pavement Condition Data at Airports	$250,000(17)	$250,000	Applied Pavement Technology, Inc.	4/17/2017	12/31/2018	Research in Progress	G. Cline A. Larkin	T. Schatz

APPENDIX B (continued)

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
09-18	Rapid Airfield Concrete Pavement Slab Replacement and Patching	$400,000	$0				In Development		M. Greenberger
09-19	Airfield Pavement Markings Effective Removal and Temporary Application Techniques	$450,000	$0				In Development		T. Schatz
	10: Operations								
10-01	Optimizing the Use of Aircraft Deicing and Anti-Icing Fluids	$300,000(06) $50,000(08) $100,000(08)	$349,030	APS Aviation, Inc.	3/20/2007	7/31/2010	Completed - Published as Report 45		
10-02	Planning for Offsite Airport Terminals	$350,000(06)	$350,000	MarketSense	12/18/2006	9/1/2009	Completed - Published as Report 35		
10-03	Guidebook for Evaluating Airport Parking Strategies and Supporting Technologies	$300,000(07)	$300,000	Jacobs Consultancy	9/14/2007	9/1/2009	Completed - Published as Report 24		
10-04	Airports and the Newest Generation of General Aviation Aircraft	$500,000(07)	$496,390	GRA, Inc.	6/27/2007	5/31/2009	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.	5/30/2008	9/29/2009	Completed - Published as Report 30		
10-06	Handbook to Assess the Impacts of Constrained Parking at Airports	$400,000(08)	$398,563	Ricondo & Associates	6/16/2008	3/8/2010	Completed - Published as Report 34		
10-07	Current Status and Future Implications of Passenger Self-Tagging	$350,000(09)	$350,000	Barich, Inc.	6/16/2009	7/30/2010	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	4/13/2009	4/30/2012	Completed - Published as Report 70		

APPENDIX B (continued)

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
10-09	Elimination or Reduction of Baggage Recheck for Arriving International Passengers	$400,000(09)	$400,000	InterVISTAS Consulting Group	7/22/2009	10/31/2011	Completed - Published as Report 61		
10-10	Guidebook for Airport Irregular Operations (IROPS) Contingency Planning	$600,000(10)	$599,976	Mead & Hunt	8/26/2010	2/24/2012	Completed - Published as Report 65		
10-10A	Guidebook for Airport Irregular Operations (IROPS) Contingency Planning -Training Sessions	$300,000(12)	$151,053	Mead & Hunt	2/24/2012	1/31/2013	Completed - Training Sessions Held		
10-11	Guidebook to Creating a Collaborative Environment Between Airport Operations and Maintenance	$500,000(11)	$399,840	Amadeus Consulting	7/27/2011	4/30/2013	Completed - Published as Report 92		
10-12	Guidebook for Through-the-Fence (TTF) Operations	$350,000(12)	$350,000	Mead & Hunt	7/30/2012	2/28/2014	Completed - Published as Report 114		
10-13	A Guidebook for Integrating NIMS for Personnel and Resources at Airports	$200,000(12)	$200,000	System Planning Corp.	5/23/2012	8/24/2013	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	8/2/2012	11/4/2013	Completed - Published as Report 106		
10-15	Guidebook for Airport Winter Operations	$400,000(12)	$400,000	Gresham, Smith and Partners	6/25/2012	8/29/2014	Completed - Published as Report 123		
10-16	Commercial Ground Transportation at Airports: Best Practices	$300,000(13)	$300,000	Leigh Fisher	7/10/2013	5/8/2015	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.	8/5/2013	2/4/2015	Completed - Published as Report 136		
10-18	Preventative Maintenance at General Aviation Airports: Primer and Guidebook	$400,000(13)	$299,496	Delta Airport Consultants	9/18/2013	2/18/2015	Completed - Published as Report 138		

APPENDIX B (continued)

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
10-19	Guidebook for Advancing Collaborative Decision Making (CDM) at Airports	$300,000(13)	$299,783	Mosaic ATM, Inc.	9/3/2013	12/3/2014	Completed - Published as Report 137		
10-20	Guidance for Planning, Design, and Operations of Airport Communications	$300,000(13)	$251,700	TranSecure, Inc.	8/9/2013	1/15/2015	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.	3/9/2016	4/1/2017	Completed - Published as Research Report 182		
10-21	Complying with Federal Regulations: An Integrated Approach	$350,000(14)	$350,000	Aviation Management Consulting	6/27/2014	12/31/2015	Completed - Published as Report 156		
10-22	Improving Stakeholder Engagement in Aircraft Accident Planning	$500,000(14)	$499,988	Futron Corporation	4/18/2014	1/15/2017	Completed - Published as Web-Only Document 31		
10-23	IROPS Stakeholder Communication and Coordination	$400,000(14)	$399,930	Metron Aviation, Inc.	6/9/2014	12/8/2015	Completed - Published as Report 153		
10-24	Guidance for Developing Ramp Control Facilities	$400,000(15)	$399,997	Metron Aviation, Inc.	4/24/2015	7/23/2016	Completed - Published as Research Report 167		
10-25	Public-Notification Programs at Airports	$200,000(15)	$194,600	SSI, Inc.	7/1/2015	8/31/2016	Completed - Published as Research Report 170		
10-26	Airport Microgrid Implementation Toolkit	$450,000(18)	$450,000	Rocky Mountain Institute	6/22/2018	8/21/2019	Research in Progress	J. Wolfers-Lawrence	T. Schatz
10-27	Using Collaborative Decision Making to Enhance the Management of Adverse Conditions, IROPS, and Crises	$300,000	$0				In Development		T. Schatz

APPENDIX B (continued)

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
	11: Special Projects								
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)		Transportation Research Board	2/1/2006		Continuing Project: See 11-01 Table	D. Fuller F. SanMartin	M. Greenberger
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)		Various	2/1/2006		Continuing Project: See 11-02 Table	L. Miller	M. Salamone
11-02/ Task 35	Research Roadmap on Administration and Human Resources Issues	$100,000	$0				In Development		J. Navarrete
11-02/ Task 36	A Research Roadmap on Safety Issues	$100,000	$0				In Development		T. Schatz
11-02/ Task 37	Periodic Report on Transformative Technology for Airports	$100,000	$0				In Development		M. Salamone

APPENDIX B (continued)

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
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)		Transportation Research Board	2/1/2006		Continuing Project: See 11-03 Table 3, 4, 8, 12,13,17,18, 22, and 23	P. Magnotta	T. Schatz
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) $568,779(15) $907,580(16) $507,409(17) $632,627(18) $595,000(19)		Transportation Research Board (08-13) Old Dominion University Research Foundation (14)			Continuing Project: Papers Published as TRB TRR 2184, 2206, 2266, 2325, 2400, and 2471; Status Reports Published as Research Results Digests 14, 19, and 25.	R. Samis	L. Goldstein
11-04A	Airport Research Competition for Universities	Included in 11-04 (15) (16) (17) (18) (19)		Old Dominion University Research Foundation	5/9/2014	12/31/2018	Research in Progress	R. Samis	L. Goldstein
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)		Various			Continuing Project	J. Showalter	M. Salamone
11-06	Evaluating ACRP Processes	$250,000(10)		Transportation Research Board			Completed - Results to AOC		

APPENDIX B (continued)

No.	Title	Allocation	Contract Amount	Contractor	Start Date	End Date	Status	FAA Liaison(s)	Staff Officer
11-07	ACRP Problem Statement Development	$500,000(13) $300,000(14)		Transportation Research Board			Completed - Published as Research Results Digest 20		
11-08	ACRP Insight Events Discussions on Critical Issues in the Airport Industry	$600,000(16)		Transportation Research Board			Continuing Project		M. Salamone
11-08(16-01)	Forum on Challenges to Implementing Successful Land Use Strategies at Airports	$100,000(16)	$100,000	The Cadmus Group, LLC	11/9/2016	9/30/2018	Completed		T. Schatz
11-08(16-02)	Forum on Economic and Social Sustainability at Airports	$100,000(16)	$100,000	The Cadmus Group, LLC	11/9/2016	9/30/2018	Completed - Publication Pending		J. Navarrete
11-08(16-03)	Forum on Airport Roles in Reducing Communicable Diseases Transmission	$100,000(16)	$100,000	Eastern Research Group, Inc.	12/13/2016	12/11/2019	Completed - Publication Pending		M. Greenberger
11-08(16-04)	Public Private Partnerships - What Are the Lessons Learned?	$100,000(16)	$100,000	Eastern Research Group	10/13/2017	12/11/2019	Research in Progress		T. Schatz
11-08(19-01)	Blockchain Technology and Airports	$120,000	$0				In Development		M. Salamone

APPENDIX B (continued)

ACRP PROJECT 11-01
Legal Aspects of Airport Programs

No.	Title	Consultant	Start Date	Estimated Completion Date	Staff Officer
01-01	Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters through December 31, 2007	Spiegel & McDiarmid LLP	December 2006	Completed - Published as Legal Research Digest 4 (CRP-CD-68)	
01-02	Theory and Law of Airport Revenue Diversion	Paul Dempsey	January 2007	Completed - Published as Legal Research Digest 2	
01-03	Compilation/List of Airport Law Resources	McGill University	January 2007	Completed - Published as Legal Research Digest 1	
01-04	Survey of Airport Laws and Regulation of Commercial Ground Transportation	Smith Armundsen	April 2007	Completed - Published as Legal Research Digest 3	
01-05	Responsibility for Implementation and Enforcement of Airport Land-Use Zoning Restrictions	William V. Cheek & Associates	April 2007	Completed - Published as Legal Research Digest 5	
01-06	The Right to Self-Fuel	C. Daniel Prather, Ph.D.	January 2008	Completed - Published as Legal Research Digest 8	
01-07	The Impact of Airline Bankruptcies on Airports	Jocelyn Waite	October 2007	Completed - Published as Legal Research Digest 6	
01-08	Airport Governance and Ownership	Daniel S. Reimer	February 2008	Completed - Published as Legal Research Digest 7	
01-09	Survey of Elements of Disparity Studies for Airport Disadvantaged Business Enterprise Programs			Canceled	
02-01	Obstructions Affecting Navigable Airspace	Cheek & Associates	July 2008	Incorporated into 02-05	
02-02	Use and Success of Avigation Easements and Other Tools for Airport-Compatible Land Use and Development of Model Language	Lemongrass Consulting	June 2008	Incorporated into 02-05	
02-03	Case Studies on Community Challenges to Airport Development	Jaye Pershing Johnson	October 2008	Completed - Published as Legal Research Digest 9	
02-04	Analysis of Federal Laws, Regulations, and Case Law Regarding Airport Proprietary Rights	Jodi Howick, Esq.	October 2008	Completed - Published as Legal Research Digest 10	

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No.	Title	Consultant	Start Date	Estimated Completion Date	Staff Officer
02-05	Practices to Achieve Airport-Compatible Land Uses and Minimize Obstructions in Navigable Airspace	Jocelyn Waite	August 2010	Completed - Published as Legal Research Digest 14	
03-01	Fair Disclosure and Airport Impact Statements in Real Estate Transfers	Larry Thomas, Esq.	July 2009	Completed - Published as Legal Research Digest 12	
03-02	Compilation of State Aviation Authorizing Legislation	Jodi Howick, Esq.	August 2009	Completed - Published as Legal Research Digest 15	
03-03	Survey of Minimum Standards: Commercial Aeronautical Activities at Airports	Kaplan Kirsch Rockwell, LLP	July 2009	Completed - Published as Legal Research Digest 11	
03-04	Airport Rates and Charges: Law and Policy	Spiegel & McDiarmid LLP	November 2009	Completed - Incorporated into 04-05	
03-05	State and Federal Regulations That May Affect Initiatives to Reduce Airports' GHG Emissions	Kaplan Kirsch Rockwell, LLP	November 2009	Completed - Published as Legal Research Digest 17	
03-06	An Index and Digest of Decisions: Compilation of Airport Law Resources	Kaplan Kirsch Rockwell, LLP	December 2009	Completed - Published as Legal Research Digest 13 (CRP-CD-108)	
04-01	Airport Responsibility for Wildlife Management	Broad and Cassell	April 2011	Completed - Published as Legal Research Digest 20	
04-02	Legal Issues Related to Developing Safety Management Systems and Safety Risk Management at U.S. Airports	Foley & Lardner	December 2011	Completed - Published as Legal Research Digest 19	
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	September 2012	Completed - Published as Legal Research Digest 25	
04-04	Buy America Requirements for Federally Funded Airports	Conner Gwyn Schenk	March 2011	Completed - Published as Legal Research Digest 18	
04-05	Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters Through December 2012	Spiegel & McDiarmid LLP	February 2012	Completed - Published as Legal Research Digest 21 (CRP-CD-141)	

APPENDIX B (continued)

No.	Title	Consultant	Start Date	Estimated Completion Date	Staff Officer
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 Schenk	March 2012	Completed - Published as Legal Research Digest 22	
04-07	Procurement of Airport Development and Planning Contracts	Broad and Cassell	April 2011	Completed - Published as Legal Research Digest 16	
05-01	Regulations Affecting the Exercise of First Amendment Activities at Airports	Jodi Howick, Esq.	August 2013	Completed - Published as Legal Research Digest 26	
05-02	Sovereign Immunity for Public Airport Operators	Seay Law International, PA	November 2013	Completed - Published as Legal Research Digest 24	
05-03	The Fourth Amendment and Airports	Jodi Howick, Esq.	August 2014	Completed - Published as Legal Research Digest 27	
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	July 2013	Completed - Published as Legal Research Digest 23	
06-01	Operational and Legal Issues with Fuel Farms	Kaplan Kirsch Rockwell, LLP	September 2014	Completed - Published as Legal Research Digest 28	
06-02	Contract Risk Management for Airport Agreements	Broad & Cassell	May 2015	Completed - Published as Legal Research Digest 30	
07-01	Impact of Firearms Laws on Airports	The Thomas Law Firm	March 2015	Completed - Published as Legal Research Digest 29	
07-02	Preemption of Worker Retention and Labor Peace Agreements at Airports	Kaplan Kirsch Rockwell, LLP	October 2015	Completed - Published as Legal Research Digest 31	
08-01	Legal Issues Related to the Implementation and Operation of Safety Management Systems for Airports	Kaplan Kirsch Rockwell, LLP	June 2018	Research in Progress	M. Greenberger
08-02	Legal Risks of Operating a Public Airport	Jodi Howick, Esq.	May 2016	Completed - Published as Legal Research Digest 33	
08-03	Evolving Law on Airport Implications by Unmanned Aerial Systems Operations	Ravich Law Firm, PA	May 2016	Completed - Published as Legal Research Digest 32	

APPENDIX B (continued)

No.	Title	Consultant	Start Date	Estimated Completion Date	Staff Officer
08-04	Legal Consideration in the Funding and Development of Multi-Modal Facilities	Timothy Karaskiewicz	May 2016	Completed - Published as Legal Research Digest 35	
09-01	Airport Public Health Preparedness & Response: Legal Rights, Powers & Duties	University of Arizona	February 2017	Completed - Published as Legal Research Digest 34	
09-02	Legal Issues Relating to Airports Promoting Competition	Kaplan Kirsch Rockwell, LLP	February 2017	Research in Progress	M. Greenberger
09-03	Permitted Airport Involvement in Economic Development Efforts	William J. Estes	April 2017	Research in Progress	M. Greenberger
10-01	Update of Compilation of FAA/DOT Airport Legal Determinations	Ravich Law Firm, PA	April 2018	Research in Progress	M. Greenberger
10-02	Legal Issues Relating to Large Scale Airport Construction Projects	University of Nevada, Las Vegas	October 2017	Research in Progress	M. Greenberger
10-03	Legal Issues Relating to Airport Commercial Contracts			In Development	M. Greenberger
10-04	Updated Survey of Laws and Regulations Applicable to Airport Commercial Ground Transportation			In Development	M. Greenberger
11-01	Permissible Uses of Airport Revenue and Property			In Development	M. Greenberger
11-02	Accommodation of Federal Agencies Rights and Obligations of Host Airports			In Development	M. Greenberger
11-03	Analysis of Laws, Regulations, and Case Laws Regarding Airport Customer Facility Charges			In Development	M. Greenberger

APPENDIX B (continued)

ACRP PROJECT 11-02
Quick Response for Special Needs

No.	Title	Contractor	Start Date	End Date	Status	Staff Officer
Task 01	Model for Improving Energy Use in U.S. Airport Facilities	Texas A&M University Energy Systems Laboratory	10/13/2006	7/31/2007	Completed - Published as Research Results Digest 2	
Task 02	Ground Access to Major Airports by Public Transportation	Matthew Coogan	8/16/2006	9/30/2007	Completed - Published as Report 4	
Task 03	Evaluation and Mitigation of Aircraft Slide Evacuation Injuries	George Washington University	10/9/2006	12/15/2007	Completed - Published as Report 2	
Task 04	Airport Safety Management Systems for Airports: Overview	MITRE Corporation	1/2/2007	11/2/2007	Completed - Published as Report 1, Volume 1	
Task 05	Quarantine Facilities for Arriving Air Travelers: Identification of Planning Needs and Costs	System Planning Corp.	3/28/2007	11/3/2007	Completed - Published as Report 5	
Task 06	Interagency-Industry Collaboration on Pandemic Planning for Aviation: A Workshop	Transportation Research Board	2/15/2007	9/15/2007	Completed - Workshop Held - Published as TRB Conference Proceedings 41	
Task 07	Current and Emerging Issues Facing the Airport Industry	Transportation Research Board	8/1/2007	1/31/2009	Completed - Published as Research Results Digest 5	
Task 08	Enhanced Modeling of Aircraft Taxiway Noise - Scoping	Wyle Laboratories, Inc.	2/14/2008	8/31/2009	Completed - Published as Web-Only Document 9, Volume 1	
Task 09	Visibility of Airfield Signs and Markings from Aircraft and Ground Vehicles				Canceled	
Task 10	Estimate of National Use of Aircraft and Airfield Deicing Materials	CH2M Hill	10/16/2007	6/15/2008	Completed - Results to ACI-NA, AAAE, A4A	
Task 11	A Summary of How Proposed Firefighting Standards Would Impact Airports	GRA, Inc.	12/23/2008	6/15/2009	Completed - Published as Web-Only Document 7 and Research Results Digest 7	

APPENDIX B (continued)

No.	Title	Contractor	Start Date	End Date	Status	Staff Officer
Task 12	Ramp Incident Data from Selected Large and Medium Hub Airports	Ricondo & Associates	4/17/2009	8/30/2011	Completed - Results to FAA	
Task 13	Research Symposium on the Transmission of Disease in Airports and on Aircraft	Transportation Research Board			Completed - Symposium Held - Published as TRB Conference Proceedings 47	
Task 14	Helping Airports Understand the Payment Card Industry Data Protection Standard (PCI DSS)	Barich, Inc.	10/15/2009	5/15/2010	Completed - Published as Research Results Digest 11	
Task 15	Aviation Industry Familiarization and Training for Part-Time Airport Policymakers	Delta Airport Consultants	1/19/2010	11/18/2010	Completed - Published as Report 58	
Task 16	Analysis, Scoping, and Prioritizing ACRP Deicing Problem Statements				Canceled	
Task 17	Risk Assessment of Proposed ARFF Standards	Robert David & Assoc.	2/19/2010	1/4/2011	Completed - Published as Web-Only Document 12	
Task 18	The Carbon Market: A Primer for Airports	Pace Global Energy Services	11/2/2010	8/30/2011	Completed - Published as Report 57	
Task 19	Symposium on Air Travel and the Spread of Disease				Canceled	
Task 20	Developing Problem Statements on Information Technology Issues at Airports	Transportation Research Board	12/1/2011	12/1/2011	Completed - Workshop Held - Results to AOC	
Task 21	Innovative Airport Response to Threatened and Endangered Species	Environmental Science Associates	4/22/2013	8/29/2014	Completed - Published as Report 122	
Task 22	Best Practices for General Aviation Aircraft Fuel-Tank Sampling	Hagerty Environmental LLC	8/14/2013	4/13/2014	Completed - Published as Research Results Digest 21	
Task 23	Alternative IT Delivery Methods and Best Practices for Small Airports	Barich, Inc.	8/5/2013	7/31/2014	Completed - Published as Report 128	
Task 24	ACRP Electronic Product Options	Grafton Technologies, Inc.	7/27/2015	1/26/2016	Completed - Final deliverables available for download	

APPENDIX B (continued)

No.	Title	Contractor	Start Date	End Date	Status	Staff Officer
Task 25	Developing Environmental Problem Statements	Harris Miller Miller & Hanson Inc.	9/12/2014	4/23/2015	Completed	
Task 26	AOC Strategic Planning	Ricondo & Associates	9/12/2014	8/24/2015	Completed	
Task 27	Update to Models for Risk Assessment of Runway Safety Areas	Airport Safety Management Consultants, LLC	11/1/2016	3/15/2017	Completed - Published on website	
Task 28	Recovering International Recyclables from In-flight Service	GeneraCycle, Inc.	6/16/2017	10/31/2018	Research in Progress	J. Navarrete
Task 29	ACRP Research Roadmap on Airport Operations and Maintenance	Harris Miller Miller & Hanson Inc.	7/17/2017	7/16/2018	Research in Progress	M. Greenberger
Task 30	ACRP Research Roadmap on Airport Design & Construction	Harris Miller Miller & Hanson Inc.	7/6/2017	7/5/2018	Research in Progress	M. Salamone
Task 31	ACRP Oversight Committee Workshop on Emerging Issues				In Development	M. Salamone
Task 32	ACRP Research Roadmap on Environmental Issues	Harris Miller Miller & Hanson Inc.	5/9/2018	5/8/2019	Research in Progress	J. Navarrete
Task 33	ACRP Research Roadmap on Policy and Planning Issues	Steer Davies & Gueve	2/12/2017	2/11/2019	Research in Progress	T. Schatz
Task 34	Business Process Review for TRB's Cooperative Research Program				In Development	M. Salamone
Task 35	Research Roadmap on Administration and Huamn Resources Issues				In Development	J. Navarrete
Task 36	A Research Roadmap on Safety Issues				In Development	T. Schatz
Task 37	Periodic Report on Transformative Technology for Airports				In Development	M. Salamone

APPENDIX B (continued)

ACRP PROJECT 11-03
Synthesis of Information Related to Airport Practices

No.	Title	Topic Consultant	Start Date	Status	FAA Liaisons	Staff Officer
	01: Administration					
S01-01	Innovative Finance and Alternative Sources of Revenue for Airports	Jacobs Consultancy	July 2006	Completed - Published as Synthesis 1		
S01-02	Airport Revenue Diversification	KRAMER aerotek, Inc.	March 2009	Completed - Published as Synthesis 19		
S01-03	Airport Insurance Coverage and Risk Management Practices	Ron Rakich & Assoc.	April 2010	Completed - Published as Synthesis 30		
S01-04	Airline and Airline-Airport Consortiums to Manage Terminals and Equipment	AvAirPros	April 2010	Completed - Published as Synthesis 31		
S01-05	Issues with Airport Organization and Reorganization	Kim Kenville Consulting	February 2012	Completed - Published as Synthesis 40		
S01-06	How Airports Measure Customer Service Performance	KRAMER aerotek, Inc.	February 2012	Completed - Published as Synthesis 48		
S01-07	Conducting Airport Peer Reviews	CTC & Associates	February 2012	Completed - Published as Synthesis 46		
S01-08	Understanding the Value of Social Media at Airports for Customer Engagement	Leigh Fisher	March 2013	Completed - Published as Synthesis 56		
S01-09	Practices to Develop Effective Stakeholder Relationships at Smaller Airports	Delta Airport Consutants, Inc.	May 2014	Completed - Published as Synthesis 65		
S01-10	Strategies for Maintaining Air Service	Sixel Consulting Group, Inc.	May 2014	Completed - Published as Synthesis 68		
S01-11	Planning for Operational Recovery at Small Airports	North Dakota State University	April 2015	Completed - Published as Synthesis 78		
S01-12	Airport Participation in Oil & Gas Development	KRAMER aerotek, Inc.	May 2016	Completed - Published as Synthesis 87		
S01-13	Food and Beverage and Retail Operators: The Costs of Doing Business at Airports	Unison Consulting, Inc.	June 2016	Completed - Published as Synthesis 81		

APPENDIX B (continued)

No.	Title	Topic Consultant	Start Date	Status	FAA Liaisons	Staff Officer
S01-14	Funding Industrial Aviation Development	Smith-Woolwine Associates, Inc.	May 2016	Completed - Published as Synthesis 79		
S01-15	Airport Operator Options for Delivery of FBO Services	KRAMER aerotek, Inc.	June 2016	Completed - Published as Synthesis 86		
S01-16	Microgrids and Their Application at Airports	Arup North America	June 2017	Completed - Published as Synthesis 91		
S01-17	Attracting Investment at General Aviation Airports Through Public-Private Partnerships and Leasing	Texas A&M University Transportation Institute	May 2017	Research in Progress	K. Brockman	T. Helms
S01-18	Evaluating the Value, Benefits, and Limitations of Qualifications Based Selection (QBS)			Completed - Published as Synthesis 92		
S01-19	Data Acquisiton and Protocols for Risk Management			Research in Progress	S.Gardner	T. Helms
S01-20	Compilation of Data on the State of FBOs			Research in Progress	C.Carson L. Luarte	G. Staba
	02: Environment					
S02-01	Effects of Airport Noise: Research Update on Selected Topics	Mestre Greve Associates	March 2007	Completed - Published as Synthesis 9		
S02-02	Airport Sustainability Practices	Arup North America	March 2007	Completed - Published as Synthesis 10		
S02-03	Compilation of Noise Programs in Areas Outside DNL 65	Harris Miller Miller,& Hanson, Inc.	April 2008	Completed - Published as Synthesis 16		
S02-04	Approaches to Integrating Airport Development and Federal Environmental Review Processes	RS & H / Synergy	April 2008	Completed - Published as Synthesis 17		
S02-05	Funding Opportunities for Airport Environmental Projects	Unison Consulting, Inc.	April 2010	Completed - Published as Synthesis 24		
S02-06	Airport Climate Adaptation and Resilience	AEA Group	April 2011	Completed - Published as Synthesis 33		

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No.	Title	Topic Consultant	Start Date	Status	FAA Liaisons	Staff Officer
S02-07	Integrating Environmental Sustainability into Airport Contracts	Leigh Fisher	March 2012	Completed - Published as Synthesis 42		
S02-08	Environmental Assessment of Air and High-Speed Rail Corridors	Arizona State University	March 2012	Completed - Published as Synthesis 43		
S02-09	Environmental Management System Development Process	First Environment, Inc.	March 2012	Completed - Published as Synthesis 44		
S02-10	Outcomes of Green Initiatives: Large Airport Experience	First Environment, Inc.	March 2013	Completed - Published as Synthesis 53		
S02-11	Lessons Learned from Airport Sustainabilty Plans	A Ripple Effect, PLC	May 2014	Completed - Published as Synthesis 66		
S02-12	Airport Sustainability Practices - Drivers and Outcomes of Green Intiatives for Small and General Aviation Airports	DPrather Aviation Solutions, LLC	May 2015	Completed - Published as Synthesis 69		
S02-13	Helicopter Noise Information for Airport Noise Managers	Landrum & Brown	May 2015	Completed - Published as Synthesis 76		
S02-14	Airport Sustainability Practices	Haley & Aldrich, Inc.	March 2015	Completed - Published as Synthesis 77		
S02-15	Airport Experience with Alternative Fuels for Ground Transport	The Cadmus Group, LLC	June 2016	Completed - Published as Synthesis 85		
S02-16	Airport Experience with Implementing Notifications Required by the Aircraft Drinking Water Rule	The Cadmus Group, LLC	April 2016	Completed - Published as Synthesis 88		
S02-17	Sustainability's Role in Airport Growth	The Cadmus Group, LLC	June 2017	Completed - Published as Synthesis 93		
S02-18	Airport Waste Management and Recycling Practices	Mead & Hunt	June 2017	Completed - Published as Synthesis 92		
S02-19	Clean Vehicles, Fuels, and Practices for Airport Private Ground Transportation Providers	University of South Florida	June 2017	Completed - Published as Synthesis 89		

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No.	Title	Topic Consultant	Start Date	Status	FAA Liaisons	Staff Officer
S02-20	Lessons Learned from Airport Greenhouse Gas Reduction Efforts			Research in Progress	P. Magnotta	G. Staba
	03: Policy and Planning					
S03-01	Aviation Forecasting Methodologies	GRA, Inc.	August 2006	Completed - Published as Synthesis 2		
S03-02	Airport Ground Access Mode Choice Models	Aviation Systems Consulting	October 2006	Completed - Published as Synthesis 5		
S03-03	Airport Economic Impact Methods and Models	Hoyle Tanner & Associates	March 2007	Completed - Published as Synthesis 7		
S03-04	Airport System Planning Practices	Wilbur Smith Associates	April 2008	Completed - Published as Synthesis 14		
S03-05	Effective Practices for Preparing Airport Improvement Program Benefit Cost Analysis	Economic Development Research Group	April 2008	Completed - Published as Synthesis 13		
S03-06	Strategies for Reuse of Underutilized or Vacant Airport Facilities	KRAMER aerotek, Inc.	April 2010	Completed - Published as Synthesis 25		
S03-07	Integrating Airport GIS Data with Public Agency	Grafton Technologies	March 2013	Completed - Published as Synthesis 59		
S03-08	Backcountry Airstrip Preservation	T-O Engineering, Inc.	March 2013	Completed - Published as Synthesis 55		
S03-09	Cell Phone Lots at Airports	KRAMER aerotek, Inc.	May 2014	Completed - Published as Synthesis 62		
S03-10	Practices in Preserving and Developing Public-Use Seaplane Bases	Stephen Quilty	May 2014	Completed - Published as Synthesis 61		
S03-11	Transportation Network Companies: Challenges and Opportunities for Airport Operators	InterVISTAS, Inc.	June 2016	Completed - Published as Synthesis 84		
S03-12	Response Considerations for Communicable Diseases on Arriving Flights	Smith-Woolwine Associates, Inc.	June 2016	Completed - Published as Synthesis 83		

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No.	Title	Topic Consultant	Start Date	Status	FAA Liaisons	Staff Officer
S03-13	Estimating Truck Trip Generation for Airport Air Cargo Activity	Resource Systems Group, Inc.	May 2016	Completed - Published as Synthesis 80		
S03-14	Simulation of Airside and Landside Operations in Airport Planning	Resource Systems Group, Inc.	May 2017	Research in Progress	W. Reinhardt	T. Helms
S03-15	How Airports Plan for Changing Aircraft Capacity-The Effects of Upgauging	DY Consultants	June 2017	Research in Progress	K. Duffy	T. Helms
	04: Safety					
S04-01	General Aviation Safety and Security Practices	Reynolds, Smith and Hills, Inc.	October 2006	Completed - Published as Synthesis 3		
S04-02	Preventing Aircraft-Vehicle Incidents During Winter Operations and Periods of Low Visibility	Bowling Green State University	June 2007	Completed - Published as Synthesis 12		
S04-03	Identification of the Requirements and Training to Obtain Driving Privileges on Airfields	Airport Safety Consultants	May 2008	Completed - Published as Synthesis 15		
S04-05	Bird Repellant Techniques on Airports	Mississippi State University	April 2010	Completed - Published as Synthesis 23		
S04-06	Current Airport Inspection Practices Regarding FOD	Prather Airport Solutions, Inc.	April 2010	Completed - Published as Synthesis 26		
S04-07	Lessons Learned from Airport Safety Management Systems Pilot Study	Landry Consultants, LLC	April 2011	Completed - Published as Synthesis 37		
S04-08	Managing Aerial Firefighting Activities on Airports	Critical Path International	May 2011	Completed - Published as Synthesis 32		
S04-09	Model Mutual Aid Agreements for Airports	Smith-Woolwine Associates, Inc.	March 2012	Completed - Published as Synthesis 45		
S04-10	Safety Reporting Systems at Airports	Landry Consultants, LLC	February 2013	Completed - Published as Synthesis 58		
S04-11	Effective Cooperation Among Airports and Local and Regional Emergency Management Agencies for Disaster Preparedness and Response	Smith-Woolwine Associates, Inc.	February 2013	Completed - Published as Synthesis 50		

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No.	Title	Topic Consultant	Start Date	Status	FAA Liaisons	Staff Officer
S04-12	Airport Emergency Post-Event Recovery Practices	Smith-Woolwine Associates, Inc.	June 2014	Completed - Published as Synthesis 60		
S04-13	Combining Mixed Use Flight Operations Safely at Airports	SMQ Airport Services	May 2015	Completed - Published as Synthesis 74		
S04-14	Airport Safety Risk Management Panel Activities and Outcomes	Airport Safety Management Consultants, LLC	April 2015	Completed - Published as Synthesis 71		
S04-15	Flight Operations Advisories at Non-Towered Airports	DPrather Aviaton Solutions, LLC	May 2015	Completed - Published as Synthesis 75		
S04-16	Emergency Communications Planning for Airports	Smith-Woolwine Associates, Inc.	May 2015	Completed - Published as Synthesis 73		
S04-17	Tabletop and Full-Scale Emergency Exercises for General Aviation, Non-Hub, and Small Airports	Smith-Woolwine Associates, Inc.	May 2015	Completed - Published as Synthesis 72		
S04-18	Uses of Social Media to Inform Operational Response and Recovery During an Airport Emergency	Smith-Woolwine Associates, Inc.	June 2016	Completed - Published as Synthesis 82		
S04-19	Incorporating ADA and Functional Needs in Emergency Exercises	Smith-Woolwine Associates, Inc.	May 2017	Completed - Published as Synthesis 90		
S04-20	Airport Incident Reporting Practices	AMQ Airport Services		Research in Progress	D. Williams	T. Helms
S04-21	Models for Law Enforcement at Airports			In Development		T. Helms
S04-22	Airport Surface Weather Observation Options for General Aviation Airports			Research in Progress	M.Hovan	T. Helms
S04-23	Airport Emergency Working Groups			Research in Progress	M.Tonnacliff K. Bagot	G. Staba
	05: Security					
S05-01	Intelligent Transportation System (ITS) Sensor Technology for General Aviation			Canceled		

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No.	Title	Topic Consultant	Start Date	Status	FAA Liaisons	Staff Officer
	06: Human Resources					
S06-01	Aviation Workforce Development Practices	International Aviation Management Group	March 2009	Completed - Published as Synthesis 18		
S06-02	Airport Self-Inspection Practices and Training Procedures	Prather Airport Solutions, Inc.	May 2010	Completed - Published as Synthesis 27		
S06-03	Exploring Airport Employee Commuting and Parking Strategies	DMR Consulting	May 2011	Completed - Published as Synthesis 36		
S06-04	Adapting New Maintenance Hires to the Airport Environment	SMQ Airport Services	March 2012	Completed - Published as Synthesis 49		
S06-05	Promoting Aviation Career Education in High Schools and Community Colleges			Research in Progress	W.Reinhardt	T. Helms
	07: Design					
S07-01	Impacts of Aging Travelers on Airports	Corgan Associates, Inc.	February 2013	Completed - Published as Synthesis 51		
S07-02	Strategies for Airport Passenger Access and Mobility	Indiana University	June 2018	Research in Progress	V.Balgobin M. DiPilato	G. Staba
	08: Construction					
S08-01	Airport Terminal Facility Activation Techniques	Arup	March 2009	Completed - Published as Synthesis 20		
	09: Maintenance					
S09-01	Impact of Rubber Removal Techniques on Runways	University of Oklahoma	June 2007	Completed - Published as Synthesis 11		
S09-02	Common Airport Pavement Maintenance Practices	Applied Research Associates	March 2009	Completed - Published as Synthesis 22		
S09-03	Subsurface Utility Engineering Information Management for Airports	J. H. Anspach Consulting	May 2011	Completed - Published as Synthesis 34		

APPENDIX B (continued)

No.	Title	Topic Consultant	Start Date	Status	FAA Liaisons	Staff Officer
S09-04	Issues with Use of Airfield LED Light Fixtures	Rensselaer Polytechnic Institute	May 2011	Completed - Published as Synthesis 35		
S09-05	Repairing and Maintaining Airport Parking Structures While in Use	Walker Parking Consultants	February 2012	Completed - Published as Synthesis 47		
S09-06	Airside Snow Removal Practices for Small Airports with Limited Budgets	Stephan Quilty	June 2014	Completed - Published as Synthesis 67		
S09-07	Building Information Modeling for Airports	Arbor Services	May 2015	Completed - Published as Synthesis 70		
S09-08	Approaches to Mitigate Alkali Silica Reaction (ASR) Effects at Airports	Applied Pavement Technologies		Research in Progress		T. Helms
	10: Operations					
S10-01	Counting Aircraft Operations at Non-Towered Airports	Aerofinity	October 2006	Completed - Published as Synthesis 4		
S10-02	Common-Use Facilities and Equipment at Airports	Barich, Inc.	March 2007	Completed - Published as Synthesis 8		
S10-03	Impact of Airport Deicing Products on Aircraft and Airfield Infrastructure	Montana State University, Western Transportation Institute	March 2007	Completed - Published as Synthesis 6		
S10-04	Airport Energy Efficiency and Cost Reduction	Miller Dunwiddie Architecture, Inc.	March 2009	Completed - Published as Synthesis 21		
S10-05	Ramp Safety Practices	Landry Consultants, LLC	May 2010	Completed - Published as Synthesis 29		
S10-06	Investigating Safety Impacts of Energy Technologies on Airports and Aviation	Harris Miller Miller & Hanson, Inc.	May 2010	Completed - Published as Synthesis 28		
S10-07	Expediting Aircraft Recovery at Airports	Prather Airport Solutions	May 2011	Completed - Published as Synthesis 38		
S10-08	Conducting Aeronautical Special Events at Airports	Prather Airport Solutions	February 2012	Completed - Published as Synthesis 41		

APPENDIX B (continued)

No.	Title	Topic Consultant	Start Date	Status	FAA Liaisons	Staff Officer
S10-09	Airport Wildlife Population Management	Savannah River Ecological Laboratory	February 2012	Completed - Published as Synthesis 39		
S10-10	Habitat Management to Deter Wildlife at Airports	Mississippi State University	March 2013	Completed - Published as Synthesis 52		
S10-11	Electric Vehicle Charging Stations at Airport Parking Facilities	Leigh Fisher	March 2013	Completed - Published as Synthesis 54		
S10-12	Airport Response to Special Events	KRAMER aerotek, Inc.	February 2013	Completed - Published as Synthesis 57		
S10-13	Overview of Airport Fueling System Operations	Stephan Quilty	May 2014	Completed - Published as Synthesis 63		
S10-14	Issues Related to Accommodating Animals Traveling through Airports	Smith-Woolwine Associates, Inc.	May 2014	Completed - Published as Synthesis 64		
S10-15	Evaluating Airport Performance with the Integration of UAS			Research in Progress	J.Patterson	T. Helms

NOTICE TO READERS

Information about project status is available on the ACRP website at www.TRB.org/ACRP. Detailed project write-ups will be available only on the ACRP website.

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