

# Compilation of Published Reports **ACRP**

(Updated September 15, 2016)

AIRPORT  
COOPERATIVE  
RESEARCH  
PROGRAM

This *Compilation of Published Reports* document was created by ACRP. It contains a list of reports by year with hyperlinks to navigate to individual report pages on the ACRP website. It is current as of September 15, 2016.

This is a static report that will not reflect reports published after September 15, 2016. A complete listing of all projects can always be found on the "[All Projects](#)" page of the ACRP website.

Transportation Research Board



Compilation of Published Reports

*(Updated September 15, 2016)*



## *Table of Contents (Publications in Chronological Order)*

<b>2007</b> .....	<b>1</b>
ACRP Research Results Digest 1 – Synthesis of Information Related to Airport Practices .....	1
ACRP Synthesis Report 1 – Innovative Finance and Alternative Sources of Revenue for Airports .....	1
ACRP Synthesis Report 2 – Airport Aviation Activity Forecasting .....	1
ACRP Synthesis Report 3 – General Aviation Safety and Security Practices .....	1
ACRP Synthesis Report 4 – Counting Aircraft Operations at Non-Towered Airports .....	2
ACRP Report 1 – Safety Management Systems for Airports, Volume 1: Overview .....	2
<b>2008</b> .....	<b>2</b>
ACRP Research Results Digest 2 – Model for Improving Energy Use in U.S. Airport Facilities .....	2
ACRP Research Results Digest 3 – Synthesis of Information Related to Airport Practices .....	3
ACRP Legal Research Digest 1 – Compilation of Airport Law Resources .....	3
ACRP Synthesis Report 5 – Airport Ground Access Mode Choice Models .....	3
ACRP Synthesis Report 6 – Impact of Airport Pavement Deicing Products on Aircraft and Airfield Infrastructure .....	3
ACRP Synthesis Report 7 – Airport Economic Impact Methods and Models .....	3
ACRP Report 2 – Evaluation and Mitigation of Aircraft Slide Evacuation Injuries .....	4
ACRP Report 3 – Analysis of Aircraft Overruns and Undershoots for Runway Safety Areas .....	4
ACRP Legal Research Digest 2 – Theory and Law of Airport Revenue Diversion .....	4
ACRP Report 4 – Ground Access to Major Airports by Public Transportation .....	4
ACRP Report 5 – Quarantine Facilities for Arriving Air Travelers: Identification of Planning Needs and Costs .....	5
ACRP Synthesis Report 8 – Common Use Facilities and Equipment at Airports .....	5
ACRP Legal Research Digest 3 – Survey of Laws and Regulations of Airport Commercial Ground Transportation .....	5
ACRP Report 6 – Research Needs Associated with Particulate Emissions at Airports .....	5
ACRP Report 7 – Aircraft and Airport-Related Hazardous Air Pollutants: Research Needs and Analysis .....	6
ACRP Synthesis Report 9 – Effects of Aircraft Noise: Research Update on Select Topics .....	6
ACRP Synthesis Report 10 – Airport Sustainability Practices .....	6
ACRP Report 8 – Lightning-Warning Systems for Use by Airports .....	6
ACRP Legal Research Digest 4 – Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters Through December 31, 2007 .....	6
ACRP Report 9 – Summarizing and Interpreting Aircraft Gaseous and Particulate Emissions Data .....	7
ACRP Synthesis Report 12 – Preventing Vehicle-Aircraft Incidents During Winter Operations and Periods of Low Visibility .....	7

## *Table of Contents (Publications in Chronological Order)*

<b>2009</b> .....	<b>7</b>
ACRP Synthesis Report 11 – Impact of Airport Rubber Removal Techniques on Runways .....	7
ACRP Research Results Digest 5 – Current and Emerging Issues Facing the Airport Industry .....	8
ACRP Research Results Digest 4 – Synthesis of Information Related to Airport Practices: 2009 .....	8
ACRP Report 10 – Innovations for Airport Terminal Facilities .....	8
ACRP Report 12 – An Airport Guide for Regional Emergency Planning for CBRNE Events .....	8
ACRP Web-Only Document 3 – Formulations for Aircraft and Airfield Deicing and Anti-Icing: Aquatic Toxicity and Biochemical Oxygen Demand .....	9
ACRP Legal Research Digest 5 – Responsibility for Implementation and Enforcement of Airport Land-Use Zoning Restrictions .....	9
ACRP Report 11 – Guidebook on Preparing Airport Greenhouse Gas Emissions Inventories .....	9
ACRP Web-Only Document 1 – Analysis and Recommendations for Developing Integrated Airport Information Systems.....	10
ACRP Web-Only Document 2 – Appendices to ACRP Report 11: Guidebook on Preparing Airport GHG Emissions Inventories.....	10
ACRP Research Results Digest 6 – Guidance for Identifying and Mitigating Approach Lighting System Hazards.....	10
ACRP Web-Only Document 4 – Contractor’s Final Report for ACRP RRD 6: Guidance for Identifying and Mitigating Approach Lighting System Hazards.....	11
ACRP Report 14 – Deicing Planning Guidelines and Practices for Stormwater Management Systems .....	11
ACRP Web-Only Document 7 – How Proposed ARFF Standards Would Impact Airports.....	11
ACRP Legal Research Digest 6 – The Impact of Airline Bankruptcies on Airports .....	12
ACRP Synthesis Report 14 – Airport System Planning Practices.....	12
ACRP Synthesis Report 13 – Effective Practices for Preparing Airport Improvement Program Benefit-Cost Analysis.....	12
ACRP Synthesis Report 15 – Identification of the Requirements and Training to Obtain Driving Privileges on Airfields.....	12
ACRP Report 13 – Integrating Airport Information Systems .....	12
ACRP Synthesis Report 16 – Compilation of Noise Programs in Areas Outside DNL 65 .....	13
ACRP Report 16 – Guidebook for Managing Small Airports.....	13
ACRP Web-Only Document 5 – Development of a Guidebook for Managing Small Airports.....	13
ACRP Legal Research Digest 7 – Airport Governance and Ownership .....	13
ACRP Report 18 – Passenger Air Service Development Techniques.....	14
ACRP Research Results Digest 7 – A Summary of How Proposed Firefighting Standards Would Impact Airports.....	14
ACRP Report 21 – A Guidebook for Selecting Airport Capital Project Delivery Methods .....	14

## *Table of Contents (Publications in Chronological Order)*

ACRP Web-Only Document 6 – Evaluation and Selection of Airport Capital Project Delivery Methods.....	15
ACRP Report 17 – Airports and the Newest Generation of General Aviation Aircraft, Volume 1: Forecast .....	15
ACRP Report 17 – Airports and the Newest Generation of General Aviation Aircraft, Volume 2: Guidebook ...	15
ACRP Report 22 – Helping Airport and Air Carrier Employees Cope with Traumatic Events .....	15
ACRP Web-Only Document 9 – Enhanced Modeling of Aircraft Taxiway Noise, Volume 1—Scoping.....	16
ACRP Report 1 – Safety Management Systems for Airports, Volume 2: Guidebook.....	16
ACRP Synthesis Report 17 – Approaches to Integrating Airport Development and Federal Environmental Review Processes .....	16
ACRP Report 23 – Airport Passenger-Related Processing Rates Guidebook.....	17
ACRP Legal Research Digest 8 – The Right to Self-Fuel.....	17
<b>2010.....</b>	<b>17</b>
ACRP Research Results Digest 8 – Synthesis of Information Related to Airport Practices: 2010.....	17
ACRP Report 29 – Developing Improved Civil Aircraft Arresting Systems.....	17
ACRP Report 24 – Guidebook for Evaluating Airport Parking Strategies and Supporting Technologies .....	17
ACRP Report 26 – Guidebook for Conducting Airport User Surveys.....	18
ACRP Report 20 – Strategic Planning in the Airport Industry.....	18
ACRP Report 15 – Aircraft Noise: A Toolkit for Managing Community Expectations.....	18
ACRP Report 28 – Marketing Guidebook for Small Airports .....	19
Airport Cooperative Research Program Brochure.....	19
ACRP Report 25 – Airport Passenger Terminal Planning and Design, Volume 2: Spreadsheet Models and User’s Guide.....	19
ACRP Report 25 – Airport Passenger Terminal Planning and Design, Volume 1: Guidebook.....	20
ACRP Report 31 – Innovative Approaches to Addressing Aviation Capacity Issues in Coastal Mega-regions ...	20
ACRP Synthesis Report 18 – Aviation Workforce Development Practices .....	20
ACRP Report 27 – Enhancing Airport Land Use Compatibility, Volume 1: Land Use Fundamentals and Implementation Resources .....	21
ACRP Report 27 – Enhancing Airport Land Use Compatibility, Volume 2: Land Use Survey and Case Study Summaries.....	21
ACRP Research Results Digest 9 – Alternative Aircraft and Pavement Deicers and Anti-Icing Formulations with Improved Environmental Characteristics .....	22
ACRP Report 30 – Reference Guide on Understanding Common Use at Airports .....	22
ACRP Legal Research Digest 9 – Case Studies on Community Challenges to Airport Development .....	22
ACRP Synthesis Report 19 – Airport Revenue Diversification .....	23
ACRP Synthesis Report 20 – Airport Terminal Facility Activation Techniques.....	23

## *Table of Contents (Publications in Chronological Order)*

ACRP Research Results Digest 10 – Light Detection and Ranging (LIDAR) Deployment for Airport Obstruction Surveys .....	23
ACRP Report 32 – Guidebook for Addressing Aircraft/Wildlife Hazards at General Aviation Airports.....	23
ACRP Web-Only Document 8 – Alternative Aircraft Anti-Icing Formulations with Reduced Aquatic Toxicity and Biochemical Oxygen Demand .....	24
ACRP Synthesis Report 21 – Airport Energy Efficiency and Cost Reduction .....	24
ACRP Report 35 – Planning for Offsite Airport Terminals .....	24
ACRP Report 37 – Guidebook for Planning and Implementing Automated People Mover Systems at Airports..	24
ACRP Report 34 – Handbook to Assess the Impacts of Constrained Parking at Airports.....	25
ACRP Report 19 – Developing an Airport Performance-Measurement System.....	25
ACRP Legal Research Digest 10 – Analysis of Federal Laws, Regulations, and Case Law Regarding Airport Proprietary Rights .....	25
ACRP Impacts on Practice – Guidebook Informs Nation’s Smaller Airports .....	25
ACRP Research Results Digest 11 – Helping Airports Understand the Payment Card Industry Data Security Standard (PCI DSS) .....	26
ACRP Impacts on Practice – November 2010: San Diego’s Efforts to Mitigate Noise Impacts for Community Stakeholders .....	26
ACRP Report 36 – Airport/Airline Agreements—Practices and Characteristics.....	26
ACRP Report 38 – Understanding Airspace, Objects, and Their Effects on Airports .....	27
ACRP Report 39 – Recommended Guidelines for the Collection and Use of Geospatially Referenced Data for Airfield Pavement Management.....	27
ACRP Report 40 – Airport Curbside and Terminal Area Roadway Operations.....	27
ACRP Web-Only Document 11 – A Comprehensive Development Plan for a Multimodal Noise and Emissions Model .....	27
ACRP Impacts on Practice – December 2010: Strategic Planning at Toronto Pearson International Airport .....	28
<b>2011 .....</b>	<b>28</b>
ACRP Report 41 – Guide to the Decision-Making Tool for Evaluating Passenger Self-Tagging.....	28
ACRP Web-Only Document 10 – Appendix A: Research Documentation for ACRP Report 41.....	28
ACRP Report 42 – Sustainable Airport Construction Practices.....	29
ACRP Annual Report of Progress 2010 .....	29
ACRP Report 33 – Guidebook for Developing and Managing Airport Contracts .....	29
ACRP Report 43 – Guidebook of Practices for Improving Environmental Performance at Small Airports .....	29
ACRP Research Results Digest 12 – Synthesis of Information Related to Airport Practices: 2011 .....	30
ACRP Legal Research Digest 11 – Survey of Minimum Standards: Commercial Aeronautical Activities at Airports.....	30
ACRP Report 19A – Resource Guide to Airport Performance Indicators .....	30

## *Table of Contents (Publications in Chronological Order)*

ACRP Report 48 – Impact of Jet Fuel Price Uncertainty on Airport Planning and Development.....	31
ACRP Web-Only Document 12 – Risk Assessment of Proposed ARFF Standards .....	31
ACRP Synthesis Report 22 – Common Airport Pavement Maintenance Practices .....	31
ACRP Report 47 – Guidebook for Developing and Leasing Airport Property .....	32
ACRP Report 45 – Optimizing the Use of Aircraft Deicing and Anti-Icing Fluids.....	32
ACRP Report 46 – Handbook for Analyzing the Costs and Benefits of Alternative Aviation Turbine Engine Fuels at Airports.....	32
ACRP Report 49 – Collaborative Airport Capital Planning Handbook.....	33
ACRP Report 44 – A Guidebook for the Preservation of Public-Use Airports.....	33
ACRP Report 50 – Improved Models for Risk Assessment of Runway Safety Areas.....	33
ACRP Report 51 – Risk Assessment Method to Support Modification of Airfield Separation Standards .....	34
ACRP Synthesis Report 24 – Strategies and Financing Opportunities for Airport Environmental Programs.....	34
ACRP Synthesis Report 23 – Bird Harassment, Repellent, and Deterrent Techniques for Use on and Near Airports.....	34
ACRP Synthesis Report 27 – Airport Self-Inspection Practices .....	34
ACRP Synthesis Report 26 – Current Airport Inspection Practices Regarding FOD (Foreign Object Debris/Damage) .....	34
ACRP Report 52 – Wayfinding and Signing Guidelines for Airport Terminals and Landside.....	35
ACRP Impacts on Practice – September 2011: Protecting Airport Personnel from Lightning Strikes.....	35
ACRP Report 53 – A Handbook for Addressing Water Resource Issues Affecting Airport Development Planning.....	35
ACRP Synthesis Report 25 – Strategies for Reuse of Underutilized or Vacant Airport Facilities .....	36
ACRP Report 55 – Passenger Level of Service and Spatial Planning for Airport Terminals .....	36
ACRP Impacts on Practice – Estimating Airport Greenhouse Gas (GHG) Emissions .....	36
ACRP Synthesis Report 28 – Investigating Safety Impacts of Energy Technologies on Airports and Aviation...	36
ACRP Synthesis Report 29 – Ramp Safety Practices .....	37
ACRP Report 54 – Resource Manual for Airport In-Terminal Concessions .....	37
ACRP Legal Research Digest 12 – Fair Disclosure and Airport Impact Statements in Real Estate Transfers.....	37
ACRP Impacts on Practice – Traumatic Event Assistance for Aviation Employees .....	37
ACRP Synthesis Report 30 – Airport Insurance Coverage and Risk Management Practices.....	38
ACRP Synthesis Report 31 – Airline and Airline–Airport Consortiums to Manage Terminals and Equipment...	38
ACRP Report 58 – Airport Industry Familiarization and Training for Part-Time Airport Policy Makers .....	38
ACRP Report 57 – The Carbon Market: A Primer for Airports.....	39

**2012..... 39**



## *Table of Contents (Publications in Chronological Order)*

ACRP Research Results Digest 13 – Synthesis of Information Related to Airport Practices: 2012 .....	39
ACRP Annual Report of Progress 2011 .....	39
ACRP Report 56 – Handbook for Considering Practical Greenhouse Gas Emission Reduction Strategies for Airports.....	39
ACRP Report 59 – Information Technology Systems at Airports--A Primer .....	40
ACRP Research Results Digest 14 – Graduate Research Award Program on Public-Sector Aviation Issues: 2012.....	40
ACRP Report 60 – Guidelines for Integrating Alternative Jet Fuel into the Airport Setting .....	40
ACRP Report 65 – Guidebook for Airport Irregular Operations (IROPS) Contingency Planning .....	41
ACRP Legal Research Digest 13 – An Index and Digest of Decisions: Compilation of Airport Law Resources .	41
ACRP Report 61 – Elimination or Reduction of Baggage Recheck for Arriving International Passengers .....	41
ACRP Report 37A – Guidebook for Measuring Performance of Automated People Mover Systems at Airports.....	42
ACRP Research Results Digest 15 – Use of Towbarless Tractors at Airports—Best Practices .....	42
ACRP Report 66 – Considering and Evaluating Airport Privatization .....	43
ACRP Report 63 – Measurement of Gaseous HAP Emissions from Idling Aircraft as a Function of Engine and Ambient Conditions.....	43
ACRP Report 64 – Handbook for Evaluating Emissions and Costs of APUs and Alternative Systems.....	43
ACRP Report 62 – Airport Apron Management and Control Programs .....	43
ACRP Legal Research Digest 14 – Achieving Airport-Compatible Land Uses and Minimizing Hazardous Obstructions in Navigable Airspace.....	44
ACRP Report 69 – Asset and Infrastructure Management for Airports—Primer and Guidebook.....	44
ACRP Report 68 – Guidebook for Evaluating Terminal Renewal Versus Replacement Options .....	44
ACRP Synthesis Report 32 – Managing Aerial Firefighting Activities on Airports.....	45
ACRP Report 67 – Airport Passenger Conveyance Systems Planning Guidebook .....	45
ACRP Synthesis Report 33 – Airport Climate Adaptation and Resilience .....	45
ACRP Web-Only Document 13 – Alternative Fuels as a Means to Reduce PM2.5 Emissions at Airports.....	46
Transportation Research Record—Public-Sector Aviation: Graduate Research Award Papers, 2010-2011 .....	46
ACRP Report 71 – Guidance for Quantifying the Contribution of Airport Emissions to Local Air Quality.....	46
ACRP Report 73 – Airport-to-Airport Mutual Aid Programs .....	47
ACRP Synthesis Report 34 – Subsurface Utility Engineering Information for Airports.....	47
ACRP Synthesis Report 35 – Issues With Use of Airfield LED Light Fixtures .....	47
ACRP Report 70 – Guidebook for Implementing Intelligent Transportation Systems Elements to Improve Airport Traveler Access Information .....	48
ACRP Report 72 – Guidebook for Selecting Methods to Monitor Airport and Aircraft Deicing Materials.....	48

## *Table of Contents (Publications in Chronological Order)*

ACRP Legal Research Digest 15 – Compilation of State Airport Authorizing Legislation .....	48
ACRP Synthesis Report 37 – Lessons Learned from Airport Safety Management Systems Pilot Studies.....	49
ACRP Report 74 – Application of Enterprise Risk Management at Airports .....	49
ACRP Legal Research Digest 16 – Procurement of Airport Development and Planning Contracts.....	49
ACRP Synthesis Report 36 -Exploring Airport Employee Commute and Parking Strategies.....	50
ACRP Report 76 – Addressing Uncertainty about Future Airport Activity Levels in Airport Decision Making..	50
ACRP Report 77 – Guidebook for Developing General Aviation Airport Business Plans.....	50
ACRP Synthesis Report 38 – Expediting Aircraft Recovery at Airports .....	50
ACRP Report 80 – Guidebook for Incorporating Sustainability into Traditional Airport Projects .....	51
ACRP Report 81 – Winter Design Storm Factor Determination for Airports.....	51
ACRP Report 78 – Airport Ground Support Equipment (GSE): Emission Reduction Strategies, Inventory, and Tutorial. ....	51
ACRP Impacts on Practice – Development of Airport Property: Policy Guidance and Workforce Training.....	52
ACRP Report 79 – Evaluating Airfield Capacity.....	52
ACRP Legal Research Digest 17 – State and Federal Regulations That May Affect Initiatives to Reduce Airports’ GHG Emissions .....	53
<b>2013 .....</b>	<b>53</b>
ACRP Legal Research Digest 19 – Legal Issues Related to Developing Safety Management Systems and Safety Risk Management at U.S. Airports .....	53
ACRP Research Results Digest 16 – Legal Aspects of Airport Programs: 2012.....	53
ACRP Annual Report of Progress 2012.....	54
54	
ACRP Impacts on Practice – ACRP Disseminates Solutions-Based Research Projects Through Ambassadors...	54
ACRP Research Results Digest 17 – Synthesis of Information Related to Airport Practices: 2013 .....	54
ACRP Report 82 – Preparing Peak Period and Operational Profiles—Guidebook.....	54
ACRP Web-Only Document 14 – Guidelines for Preparing Peak Period and Operational Profiles.....	55
ACRP Legal Research Digest 18 – Buy America Requirements for Federally Funded Airports .....	55
TRB Aviation Group Brochure .....	55
ACRP Impacts on Practice – Contingency Planning for Unexpected Passenger Delays.....	55
ACRP Synthesis Report 39 – Airport Wildlife Population Management .....	56
ACRP Report 83 – Assessing Opportunities for Alternative Fuel Distribution Programs.....	56
ACRP Web-Only Document 9 – Enhanced Modeling of Aircraft Taxiway Noise, Volume 2—Aircraft Taxi Noise Database and Development Process.....	57
ACRP Synthesis Report 41 – Conducting Aeronautical Special Events at Airports.....	57

## *Table of Contents (Publications in Chronological Order)*

ACRP Synthesis Report 44 – Environmental Management System Development Process.....	57
ACRP Report 84 – Guidebook for Preparing Airport Emissions Inventories for State Implementation Plans .....	57
ACRP Report 75 – Airport Leadership Development Program .....	58
ACRP Synthesis Report 40 – Issues with Airport Organization and Reorganization .....	58
ACRP Synthesis Report 47 – Repairing and Maintaining Airport Parking Structures While in Use .....	58
ACRP Synthesis Report 42 – Integrating Environmental Sustainability into Airport Contracts .....	59
ACRP Report 87 – Procuring and Managing Professional Services for Airports .....	59
ACRP Synthesis Report 46 – Conducting Airport Peer Reviews .....	59
ACRP Report 86 – Environmental Optimization of Aircraft Departures: Fuel Burn, Emissions, and Noise .....	59
ACRP Synthesis Report 45 – Model Mutual Aid Agreements for Airports .....	60
ACRP Report 85 – Developing and Maintaining Support for Your Airport Capacity Project .....	60
ACRP Report 90 – Impact of Regulatory Compliance Costs on Small Airports .....	61
ACRP Web-Only Document 15 – Data Supporting the Impact of Regulatory Compliance Costs on Small Airports, Volume 2: Technical Appendixes to ACRP Report 90.....	61
ACRP Legal Research Digest 20 – Airport Responsibility for Wildlife Management .....	61
The Vector – Borne Disease Airport Importation Risk Tool.....	62
ACRP Report 89 – Guidelines for Airport Sound Insulation Programs.....	62
ACRP Synthesis Report 43 – Environmental Assessment of Air and High-Speed Rail Corridors.....	62
ACRP Report 88 – Guidebook on Integrating GIS in Emergency Management at Airports .....	62
ACRP Legal Research Digest 21 – Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters Through December 2012.....	63
ACRP Report 91 – Infectious Disease Mitigation in Airports and on Aircraft.....	63
ACRP Synthesis Report 49 – Helping New Maintenance Hires Adapt to the Airport Operating Environment....	63
ACRP Synthesis Report 48 – How Airports Measure Customer Service Performance .....	63
ACRP Impacts on Practice – Maximizing Airport Facility Utilization and Efficiency with Common-Use Resources .....	64
ACRP Report 92 – Guidebook to Creating a Collaborative Environment Between Airport Operations and Maintenance .....	64
ACRP Report 93 – Operational and Business Continuity Planning for Prolonged Airport Disruptions.....	64
ACRP Impacts on Practice – Implementing Effective Airport Marketing Approaches to Tenants and the Community.....	65
ACRP Report 97 – Measuring PM Emissions from Aircraft Auxiliary Power Units, Tires, and Brakes .....	65
ACRP Report 96 – Apron Planning and Design Guidebook.....	65
ACRP Impacts on Practice – Evaluating Terminal Renewal and Replacement Options .....	65

## *Table of Contents (Publications in Chronological Order)*

ACRP Report 100 – A Guidebook for Advancing Recycling from Aircraft Cabins.....	66
ACRP Report 94 – Integrating Web-Based Emergency Management Collaboration Software into Airport Operations--A Primer .....	66
<b>2014.....</b>	<b>66</b>
ACRP Report 99 – Guidance for Treatment of Airport Stormwater Containing Deicers.....	66
ACRP Report 98 – Understanding Airline and Passenger Choice in Multi-Airport Regions .....	67
ACRP 2013 Annual Report of Progress .....	67
ACRP Research Results Digest 20 – Taking Inventory of ACRP Research and the Next Challenges Facing the Airport Industry .....	67
ACRP Research Results Digest 19 – Graduate Research Award Program on Public-Sector Aviation Issues Update: 2008–2013 .....	67
ACRP Report 95 – Integrating Community Emergency Response Teams (A-CERTs) at Airports.....	68
ACRP Report 105 – Guidelines for Ensuring Longevity in Airport Sound Insulation Programs.....	68
ACRP Report 102 – Guidance for Estimating Airport Construction Emissions.....	68
ACRP Research Results Digest 18 – Synthesis of Information Related to Airport Practices: 2014.....	69
ACRP Web-Only Document 16 – Assessing Aircraft Noise Conditions Affecting Student Learning, Volume 1: Final Report.....	69
ACRP Web-Only Document 16 – Assessing Aircraft Noise Conditions Affecting Student Learning, Volume 2: Appendices.....	69
ACRP Report 103 – A Guidebook for Integrating NIMS for Personnel and Resources at Airports .....	69
ACRP Report 104 – Defining and Measuring Aircraft Delay and Airport Capacity Thresholds .....	70
ACRP Report 106 – Being Prepared for IROPS: A Business-Planning and Decision-Making Approach .....	70
ACRP Synthesis Report 50 – Effective Cooperation Among Airports and Local and Regional Emergency Management Agencies for Disaster Preparedness and Response .....	70
ACRP Synthesis Report 51 – Impacts of Aging Travelers on Airports .....	71
ACRP Report 107 – Development of a Runway Veer-Off Location Distribution Risk Assessment and Reporting Template.....	71
ACRP Report 108 –Guidebook for Energy Facilities Compatibility with Airports and Airspace.....	71
ACRP Synthesis Report 53 – Outcomes of Green Initiatives: Large Airport Experience .....	71
ACRP Synthesis Report 54 – Outcomes of Green Initiatives: Large Airport Experience .....	72
ACRP Legal Research Digest 22 – 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.....	72
ACRP Report 101 – Best Practices Manual for Working In or Near Airport Movement Areas.....	72
ACRP Synthesis Report 52 – Habitat Management to Deter Wildlife at Airports.....	73

## *Table of Contents (Publications in Chronological Order)*

ACRP Report 109 – Improving Terminal Design to Increase Revenue Generation Related to Customer Satisfaction .....	73
ACRP Synthesis Report 55 – Backcountry Airstrip Preservation .....	73
Transportation Research Record – Public-Sector Aviation: Graduate Research Award Papers, 2012-2013 .....	73
ACRP Impacts on Practice – Identifying Practices for Controlling Aircraft and Airfield Deicing Runoff .....	74
ACRP Report 110– Evaluating Impacts of Sustainability Practices on Airport Operations and Maintenance .....	74
ACRP Synthesis Report 56 – Understanding the Value of Social Media at Airports for Customer Engagement .	74
ACRP Synthesis Report 58 – Safety Reporting Systems at Airports .....	75
ACRP Research Results Digest 21 – Best Practices for General Aviation Aircraft Fuel-Tank Sampling .....	75
ACRP Synthesis Report 57 – Airport Response to Special Events .....	75
ACRP Report 111– A Guidebook for Airport-Airline Consortiums .....	75
ACRP Report 112– Airport Terminal Incident Response Planning .....	76
ACRP Impacts on Practice – Improving Airport Curbside and Roadway Operations .....	76
ACRP Report 113– Guidebook on General Aviation Facility Planning .....	76
ACRP Report 114– Guidebook for Through-the-Fence Operations .....	76
ACRP Synthesis Report 59 – Integrating Airport Geographic Information System (GIS) Data with Public Agency GIS .....	77
ACRP Report 116– Guidebook for Successfully Assessing and Managing Risks for Airport Capital and Maintenance Projects .....	77
ACRP Impacts on Practice – Planning for Recovery of Disabled Aircraft .....	77
ACRP Web-Only Document 19 – Integrated Noise Model Accuracy for General Aviation Aircraft .....	77
ACRP Report 115– Understanding Microbial Biofilms in Receiving Waters Impacted by Airport Deicing Activities .....	78
ACRP Report 120– Airport Capital Improvements: A Business Planning and Decision-Making Approach .....	78
ACRP Web-Only Document 18 – Airport Capital Improvements: Developing a Cost-Estimating Model and Database .....	78
ACRP Report 117– Airport Escalators and Moving Walkways—Cost-Savings and Energy Reduction Technologies .....	78
ACRP Web-Only Document 20 – Estimating the Economic Impact of Air Cargo Operations at Airports, Part 1: User’s Guidebook and Part 2: Research Report .....	79
ACRP Report 119– Prototype Airport Sustainability Rating System—Characteristics, Viability, and Implementation Options .....	79
<b>2015 .....</b>	<b>79</b>
ACRP Research Results Digest 22 – Synthesis of Information Related to Airport Practices: 2015 .....	79
ACRP 2014 Annual Report of Progress .....	79
ACRP Report 122– Innovative Airport Responses to Threatened and Endangered Species .....	80

## *Table of Contents (Publications in Chronological Order)*

ACRP Report 123– A Guidebook for Airport Winter Operations .....	80
ACRP Report 125– Balancing Airport Stormwater and Bird Hazard Management .....	80
ACRP Report 126– A Guidebook for Increasing Diverse and Small Business Participation in Airport Business Opportunities.....	80
ACRP Legal Research Digest 23 – A Guide for Compliance with Grant Agreement Obligations to Provide Reasonable Access to an AIP-Funded Public Use General Aviation Airport.....	81
ACRP Report 128– Alternative IT Delivery Methods and Best Practices for Small Airports.....	81
ACRP Report 124– Airport Parking Garage Lighting Solutions .....	81
ACRP CD-161: Estimating Takeoff Thrust Settings for Airport Emissions Inventories.....	81
ACRP Report 127– A Guidebook for Mitigating Disruptive WiFi Interference at Airports .....	82
ACRP Report 129– Evaluating Methods for Counting Aircraft Operations at Non-Towered Airports.....	82
ACRP Report 118– Integrating Aviation and Passenger Rail Planning.....	83
ACRP Legal Research Digest 24 – Sovereign Immunity for Public Airport Operations.....	83
ACRP Report 130– Guidebook for Airport Terminal Restroom Planning and Design .....	83
ACRP Report 131– A Guidebook for Safety Risk Management for Airports .....	83
ACRP Web-Only Document 21 – Quantifying Aircraft Lead Emissions at Airports.....	84
ACRP Web-Only Document 22 – Passenger Value of Time, Benefit-Cost Analysis and Airport Capital Investment Decisions, Volume 1: Guidebook for Valuing User Time Savings in Airport Capital Investment Decision Analysis.....	84
ACRP Web-Only Document 22 – Passenger Value of Time, Benefit-Cost Analysis and Airport Capital Investment Decisions, Volume 2: Final Report .....	85
ACRP Web-Only Document 22 – Passenger Value of Time, Benefit-Cost Analysis and Airport Capital Investment Decisions, Volume 3: Appendix A Background Research and Appendix B Stated Preference Survey.....	85
ACRP Synthesis Report 60 – Airport Emergency Post-Event Recovery Practices.....	85
ACRP Synthesis Report 61 – Practices in Preserving and Developing Public-Use Seaplane Bases .....	86
ACRP Synthesis Report 63 – Overview of Airport Fueling Operations .....	86
ACRP Report 132– The Role of U.S. Airports in the National Economy .....	86
ACRP Report 133– Best Practices Guidebook for Preparing Lead Emission Inventories from Piston-Powered Aircraft with the Emission Inventory Analysis Tool .....	86
ACRP Report 121– Innovative Revenue Strategies – An Airport Guide.....	87
ACRP Report 139– Optimizing Airport Building Operations and Maintenance Through Retrocommissioning: A Whole-Systems Approach.....	87
ACRP Impacts on Practice – Airports and Aging Travelers .....	87
ACRP Report 134– Applying Whole Effluent Toxicity Testing to Aircraft Deicing Runoff.....	88
ACRP Impacts on Practice – Improving Emergency Response at Airports.....	88

## *Table of Contents (Publications in Chronological Order)*

ACRP Synthesis Report 62 – Cell Phone Lots at Airports.....	88
ACRP Report 137– Guidebook for Advancing Collaborative Decision Making (CDM) at Airports.....	88
Airport Cooperative Research Program Brochure.....	89
ACRP Synthesis Report 64 – Issues Related to Accommodating Animals Traveling Through Airports.....	89
ACRP Report 135– Understanding Airport Air Quality and Public Health Studies Related to Airports.....	89
ACRP Report 138– Preventive Maintenance at General Aviation Airports Volume 1: Primer.....	89
ACRP Report 138– Preventive Maintenance at General Aviation Airports Volume 2: Guidebook.....	90
ACRP Report 140– Guidebook on Best Practices for Airport Cybersecurity.....	90
ACRP Synthesis Report 67 – Airside Snow Removal Practices for Small Airports with Limited Budgets.....	90
ACRP Synthesis Report 66 – Lessons Learned from Airport Sustainability Plans.....	91
ACRP Synthesis Report 65 – Practices to Develop Effective Stakeholder Relationships at Smaller Airports.....	91
ACRP Web-Only Document 23 – Guidance on Successful Computer Maintenance Management System (CMMS) Selection and Practices.....	91
ACRP Report 141– Renewable Energy as an Airport Revenue Source.....	91
ACRP Legal Research Digest 25 – 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.....	92
ACRP Legal Research Digest 26 – Regulations Affecting the Exercise of First Amendment Activities at Airports.....	92
ACRP Report 142– Effects of Airline Industry Changes on Small- and Non-Hub Airports.....	92
ACRP Synthesis Report 68 – Strategies for Maintaining Air Service.....	93
ACRP Report 144– Unmanned Aircraft Systems (UAS) at Airports: A Primer.....	93
ACRP Web-Only Document 24 – Air Cargo Facility Planning and Development—Final Report.....	93
ACRP Report 143– Guidebook for Air Cargo Facility Planning and Development.....	93
ACRP Report 145– Applying an SMS Approach to Wildlife Hazard Management.....	94
ACRP Report 146– Commercial Ground Transportation at Airports: Best Practices.....	94
ACRP Web-Only Document 25 – Commercial Ground Transportation at Airports: Best Practices-Appendices C to H.....	94
ACRP Report 147– Climate Change Adaptation Planning: Risk Assessment for Airports.....	95
ACRP Report 149– Improving Ground Support Equipment Operational Data for Airport Emissions Modeling.....	95
ACRP Report 148– LED Airfield Lighting System Operation and Maintenance.....	95
<b>2016.....</b>	<b>96</b>
ACRP Impacts on Practice – Improving the Safety of Runway Safety Areas.....	96
ACRP Impacts on Practice – Wayfinding and Signing Guidelines for Airports.....	96

## *Table of Contents (Publications in Chronological Order)*

ACRP Research Results Digest 24 – Recommended Community Noise Model Enhancements to Improve Prediction of Helicopter Activity Impacts.....	96
ACRP 2015 Annual Report of Progress.....	97
Airport Terminal Building Energy Use Intensity (ATB-EUI) Benchmarking Tool.....	97
ACRP Research Results Digest 23 – Synthesis of Information Related to Airport Practices: 2016.....	97
ACRP Web-Only Document 26 – Methodology to Improve AEDT Quantification of Aircraft Taxi/Idle Emissions.....	97
ACRP Report 152 – Evaluating Methods for Determining Interior Noise Levels Used in Airport Sound Insulation Programs.....	98
ACRP Report 151 – Developing a Business Case for Renewable Energy at Airports.....	98
ACRP Synthesis Report 69 – Airport Sustainability Practices—Drivers and Outcomes for Small Commercial and General Aviation Airports.....	98
ACRP Legal Research Digest 27 – The Fourth Amendment and Airports.....	98
ACRP Report 153 – Guidebook for IROPS Stakeholder Communication & Coordination.....	99
ACRP Web-Only Document 27 – Methodology to Develop the Airport Terminal Building Energy Use Intensity (ATB-EUI) Benchmarking Tool.....	99
ACRP Synthesis Report 70– Building Information Modeling for Airports.....	99
ACRP Synthesis Report 71– Airport Safety Risk Management Panel Activities and Outcomes.....	100
ACRP Report 156 – Guidebook for Managing Compliance with Federal Regulations: An Integrated Approach.....	100
ACRP Synthesis Report 74– Combining Mixed-Use Flight Operations Safely at Airports.....	100
ACRP Report 154 – Water Efficiency Management Strategies for Airports.....	101
ACRP Legal Research Digest 28 – Operational and Legal Issues with Fuel Farms.....	101
ACRP Report 150 – NextGen for Airports, Volume I: Understanding the Airport’s Role in Performance-Based Navigation: Resource Guide.....	101
ACRP Synthesis Report 72– Tabletop and Full-Scale Emergency Exercises for General Aviation, Non-Hub, and Small Hub Airports.....	102
ACRP Report 157 – Improving the Airport Customer Experience.....	102
ACRP Synthesis Report 73– Emergency Communications Planning for Airports.....	102
ACRP Legal Research Digest 29 – Impact of Firearms Laws on Airports.....	102
ACRP Web-Only Document 29 – Compendium of State and Federal Laws Affecting the Possession of Firearms at Airports.....	103
ACRP Impacts on Practice – Preparing the Next Generation of Airport Leaders.....	103
ACRP Synthesis Report 75– Airport Advisories at Non-Towered Airports.....	103
ACRP Synthesis Report 76– Helicopter Noise Information for Airports and Communities.....	104
ACRP Report 158– Deriving Benefits from Alternative Aircraft-Taxi Systems.....	104



# *Table of Contents by Publication Type (in Chronological Order)*

## *ACRP Reports*

<b>2007</b> .....	<b>1</b>
ACRP Report 1 – Safety Management Systems for Airports, Volume 1: Overview .....	2
<b>2008</b> .....	<b>2</b>
ACRP Report 2 – Evaluation and Mitigation of Aircraft Slide Evacuation Injuries.....	4
ACRP Report 3 – Analysis of Aircraft Overruns and Undershoots for Runway Safety Areas.....	4
ACRP Report 4 – Ground Access to Major Airports by Public Transportation.....	4
ACRP Report 5 – Quarantine Facilities for Arriving Air Travelers: Identification of Planning Needs and Costs.....	5
ACRP Report 6 – Research Needs Associated with Particulate Emissions at Airports.....	5
ACRP Report 7 – Aircraft and Airport-Related Hazardous Air Pollutants: Research Needs and Analysis.....	6
ACRP Report 8 – Lightning-Warning Systems for Use by Airports .....	6
ACRP Report 9 – Summarizing and Interpreting Aircraft Gaseous and Particulate Emissions Data .....	7
<b>2009</b> .....	<b>7</b>
ACRP Report 10 – Innovations for Airport Terminal Facilities .....	8
ACRP Report 12 – An Airport Guide for Regional Emergency Planning for CBRNE Events .....	8
ACRP Report 11 – Guidebook on Preparing Airport Greenhouse Gas Emissions Inventories .....	9
ACRP Report 14 – Deicing Planning Guidelines and Practices for Stormwater Management Systems .....	11
ACRP Report 13 – Integrating Airport Information Systems .....	12
ACRP Report 16 – Guidebook for Managing Small Airports.....	13
ACRP Report 18 – Passenger Air Service Development Techniques.....	14
ACRP Report 21 – A Guidebook for Selecting Airport Capital Project Delivery Methods .....	14
ACRP Report 17 – Airports and the Newest Generation of General Aviation Aircraft, Volume 1: Forecast .....	15
ACRP Report 17 – Airports and the Newest Generation of General Aviation Aircraft, Volume 2: Guidebook ...	15
ACRP Report 22 – Helping Airport and Air Carrier Employees Cope with Traumatic Events .....	15
ACRP Report 1 – Safety Management Systems for Airports, Volume 2: Guidebook.....	16
ACRP Report 23 – Airport Passenger-Related Processing Rates Guidebook.....	17
<b>2010</b> .....	<b>17</b>
ACRP Report 29 – Developing Improved Civil Aircraft Arresting Systems.....	17
ACRP Report 24 – Guidebook for Evaluating Airport Parking Strategies and Supporting Technologies .....	17
ACRP Report 26 – Guidebook for Conducting Airport User Surveys.....	18
ACRP Report 20 – Strategic Planning in the Airport Industry.....	18
ACRP Report 15 – Aircraft Noise: A Toolkit for Managing Community Expectations.....	18

# *Table of Contents by Publication Type (in Chronological Order)*

## *ACRP Reports*

ACRP Report 28 – Marketing Guidebook for Small Airports .....	19
ACRP Report 25 – Airport Passenger Terminal Planning and Design, Volume 2: Spreadsheet Models and User’s Guide.....	19
ACRP Report 25 – Airport Passenger Terminal Planning and Design, Volume 1: Guidebook.....	20
ACRP Report 31 – Innovative Approaches to Addressing Aviation Capacity Issues in Coastal Mega-regions ...	20
ACRP Report 27 – Enhancing Airport Land Use Compatibility, Volume 1: Land Use Fundamentals and Implementation Resources .....	21
ACRP Report 27 – Enhancing Airport Land Use Compatibility, Volume 2: Land Use Survey and Case Study Summaries.....	21
ACRP Report 30 – Reference Guide on Understanding Common Use at Airports .....	22
ACRP Report 32 – Guidebook for Addressing Aircraft/Wildlife Hazards at General Aviation Airports.....	23
ACRP Report 35 – Planning for Offsite Airport Terminals .....	24
ACRP Report 37 – Guidebook for Planning and Implementing Automated People Mover Systems at Airports..	24
ACRP Report 34 – Handbook to Assess the Impacts of Constrained Parking at Airports.....	25
ACRP Report 19 – Developing an Airport Performance-Measurement System.....	25
ACRP Report 36 – Airport/Airline Agreements—Practices and Characteristics.....	26
ACRP Report 38 – Understanding Airspace, Objects, and Their Effects on Airports .....	27
ACRP Report 39 – Recommended Guidelines for the Collection and Use of Geospatially Referenced Data for Airfield Pavement Management.....	27
ACRP Report 40 – Airport Curbside and Terminal Area Roadway Operations .....	27
<b>2011 .....</b>	<b>28</b>
ACRP Report 41 – Guide to the Decision-Making Tool for Evaluating Passenger Self-Tagging.....	28
ACRP Report 42 – Sustainable Airport Construction Practices.....	29
ACRP Report 33 – Guidebook for Developing and Managing Airport Contracts .....	29
ACRP Report 43 – Guidebook of Practices for Improving Environmental Performance at Small Airports .....	29
ACRP Report 19A – Resource Guide to Airport Performance Indicators .....	30
ACRP Report 48 – Impact of Jet Fuel Price Uncertainty on Airport Planning and Development.....	31
ACRP Report 47 – Guidebook for Developing and Leasing Airport Property .....	32
ACRP Report 45 – Optimizing the Use of Aircraft Deicing and Anti-Icing Fluids.....	32
ACRP Report 46 – Handbook for Analyzing the Costs and Benefits of Alternative Aviation Turbine Engine Fuels at Airports.....	32
ACRP Report 49 – Collaborative Airport Capital Planning Handbook.....	33
ACRP Report 44 – A Guidebook for the Preservation of Public-Use Airports.....	33

## *Table of Contents by Publication Type (in Chronological Order)*

### *ACRP Reports*

ACRP Report 50 – Improved Models for Risk Assessment of Runway Safety Areas.....	33
ACRP Report 51 – Risk Assessment Method to Support Modification of Airfield Separation Standards .....	34
ACRP Report 52 – Wayfinding and Signing Guidelines for Airport Terminals and Landside.....	35
ACRP Report 53 – A Handbook for Addressing Water Resource Issues Affecting Airport Development Planning.....	35
ACRP Report 55 – Passenger Level of Service and Spatial Planning for Airport Terminals .....	36
ACRP Report 54 – Resource Manual for Airport In-Terminal Concessions .....	37
ACRP Report 58 – Airport Industry Familiarization and Training for Part-Time Airport Policy Makers .....	38
ACRP Report 57 – The Carbon Market: A Primer for Airports.....	39
<b>2012 .....</b>	<b>39</b>
ACRP Report 56 – Handbook for Considering Practical Greenhouse Gas Emission Reduction Strategies for Airports.....	39
ACRP Report 59 – Information Technology Systems at Airports--A Primer .....	40
ACRP Report 60 – Guidelines for Integrating Alternative Jet Fuel into the Airport Setting .....	40
ACRP Report 65 – Guidebook for Airport Irregular Operations (IROPS) Contingency Planning .....	41
ACRP Report 61 – Elimination or Reduction of Baggage Recheck for Arriving International Passengers .....	41
ACRP Report 66 – Considering and Evaluating Airport Privatization .....	43
ACRP Report 63 – Measurement of Gaseous HAP Emissions from Idling Aircraft as a Function of Engine and Ambient Conditions.....	43
ACRP Report 64 – Handbook for Evaluating Emissions and Costs of APUs and Alternative Systems.....	43
ACRP Report 62 – Airport Apron Management and Control Programs.....	43
ACRP Report 69 – Asset and Infrastructure Management for Airports—Primer and Guidebook.....	44
ACRP Report 68 – Guidebook for Evaluating Terminal Renewal Versus Replacement Options .....	44
ACRP Report 67 – Airport Passenger Conveyance Systems Planning Guidebook .....	45
ACRP Report 71 – Guidance for Quantifying the Contribution of Airport Emissions to Local Air Quality.....	46
ACRP Report 73 – Airport-to-Airport Mutual Aid Programs.....	47
ACRP Report 70 – Guidebook for Implementing Intelligent Transportation Systems Elements to Improve Airport Traveler Access Information .....	48
ACRP Report 72 – Guidebook for Selecting Methods to Monitor Airport and Aircraft Deicing Materials.....	48
ACRP Report 74 – Application of Enterprise Risk Management at Airports .....	49
ACRP Report 76 – Addressing Uncertainty about Future Airport Activity Levels in Airport Decision Making..	50
ACRP Report 77 – Guidebook for Developing General Aviation Airport Business Plans.....	50
ACRP Report 80 – Guidebook for Incorporating Sustainability into Traditional Airport Projects .....	51

## *Table of Contents by Publication Type (in Chronological Order)*

### *ACRP Reports*

ACRP Report 81 – Winter Design Storm Factor Determination for Airports.....	51
ACRP Report 78 – Airport Ground Support Equipment (GSE): Emission Reduction Strategies, Inventory, and Tutorial.....	51
ACRP Report 79 – Evaluating Airfield Capacity.....	52
<b>2013.....</b>	<b>53</b>
ACRP Report 82 – Preparing Peak Period and Operational Profiles—Guidebook.....	54
ACRP Report 83 – Assessing Opportunities for Alternative Fuel Distribution Programs.....	56
ACRP Report 84 – Guidebook for Preparing Airport Emissions Inventories for State Implementation Plans .....	57
ACRP Report 75 – Airport Leadership Development Program .....	58
ACRP Report 87 – Procuring and Managing Professional Services for Airports .....	59
ACRP Report 86 – Environmental Optimization of Aircraft Departures: Fuel Burn, Emissions, and Noise .....	59
ACRP Report 85 – Developing and Maintaining Support for Your Airport Capacity Project .....	60
ACRP Report 90 – Impact of Regulatory Compliance Costs on Small Airports .....	61
ACRP Report 89 – Guidelines for Airport Sound Insulation Programs.....	62
ACRP Report 88 – Guidebook on Integrating GIS in Emergency Management at Airports .....	62
ACRP Report 91 – Infectious Disease Mitigation in Airports and on Aircraft.....	63
ACRP Report 92 – Guidebook to Creating a Collaborative Environment Between Airport Operations and Maintenance .....	64
ACRP Report 93 – Operational and Business Continuity Planning for Prolonged Airport Disruptions.....	64
ACRP Report 97 – Measuring PM Emissions from Aircraft Auxiliary Power Units, Tires, and Brakes .....	65
ACRP Report 96 – Apron Planning and Design Guidebook.....	65
ACRP Report 100 – A Guidebook for Advancing Recycling from Aircraft Cabins.....	66
ACRP Report 94 – Integrating Web-Based Emergency Management Collaboration Software into Airport Operations--A Primer .....	66
<b>2014.....</b>	<b>66</b>
ACRP Report 99 – Guidance for Treatment of Airport Stormwater Containing Deicers .....	66
ACRP Report 98 – Understanding Airline and Passenger Choice in Multi-Airport Regions .....	67
ACRP Report 95 – Integrating Community Emergency Response Teams (A-CERTs) at Airports.....	68
ACRP Report 105 – Guidelines for Ensuring Longevity in Airport Sound Insulation Programs.....	68
ACRP Report 102 – Guidance for Estimating Airport Construction Emissions.....	68
ACRP Report 103 – A Guidebook for Integrating NIMS for Personnel and Resources at Airports .....	69
ACRP Report 104 – Defining and Measuring Aircraft Delay and Airport Capacity Thresholds .....	70
ACRP Report 106 – Being Prepared for IROPS: A Business-Planning and Decision-Making Approach .....	70

# *Table of Contents by Publication Type (in Chronological Order)*

## *ACRP Reports*

ACRP Report 107 – Development of a Runway Veer-Off Location Distribution Risk Assessment and Reporting Template.....	71
ACRP Report 108 –Guidebook for Energy Facilities Compatibility with Airports and Airspace.....	71
ACRP Report 101 – Best Practices Manual for Working In or Near Airport Movement Areas.....	72
ACRP Report 109 – Improving Terminal Design to Increase Revenue Generation Related to Customer Satisfaction.....	73
ACRP Report 110– Evaluating Impacts of Sustainability Practices on Airport Operations and Maintenance.....	74
ACRP Report 111– A Guidebook for Airport-Airline Consortiums.....	75
ACRP Report 112– Airport Terminal Incident Response Planning.....	76
ACRP Report 113– Guidebook on General Aviation Facility Planning.....	76
ACRP Report 114– Guidebook for Through-the-Fence Operations.....	76
ACRP Report 116– Guidebook for Successfully Assessing and Managing Risks for Airport Capital and Maintenance Projects.....	77
ACRP Report 115– Understanding Microbial Biofilms in Receiving Waters Impacted by Airport Deicing Activities.....	78
ACRP Report 120– Airport Capital Improvements: A Business Planning and Decision-Making Approach.....	78
ACRP Report 117– Airport Escalators and Moving Walkways—Cost-Savings and Energy Reduction Technologies.....	78
ACRP Report 119– Prototype Airport Sustainability Rating System—Characteristics, Viability, and Implementation Options.....	79
<b>2015.....</b>	<b>79</b>
ACRP Report 122– Innovative Airport Responses to Threatened and Endangered Species.....	80
ACRP Report 123– A Guidebook for Airport Winter Operations.....	80
ACRP Report 125– Balancing Airport Stormwater and Bird Hazard Management.....	80
ACRP Report 126– A Guidebook for Increasing Diverse and Small Business Participation in Airport Business Opportunities.....	80
ACRP Report 128– Alternative IT Delivery Methods and Best Practices for Small Airports.....	81
ACRP Report 124– Airport Parking Garage Lighting Solutions.....	81
ACRP Report 127– A Guidebook for Mitigating Disruptive WiFi Interference at Airports.....	82
ACRP Report 129– Evaluating Methods for Counting Aircraft Operations at Non-Towered Airports.....	82
ACRP Report 118– Integrating Aviation and Passenger Rail Planning.....	83
ACRP Report 130– Guidebook for Airport Terminal Restroom Planning and Design.....	83
ACRP Report 131– A Guidebook for Safety Risk Management for Airports.....	83
ACRP Report 132– The Role of U.S. Airports in the National Economy.....	86

# *Table of Contents by Publication Type (in Chronological Order)*

## *ACRP Reports*

ACRP Report 133– Best Practices Guidebook for Preparing Lead Emission Inventories from Piston-Powered Aircraft with the Emission Inventory Analysis Tool .....	86
ACRP Report 121– Innovative Revenue Strategies – An Airport Guide.....	87
ACRP Report 139– Optimizing Airport Building Operations and Maintenance Through Retrocommissioning: A Whole-Systems Approach .....	87
ACRP Report 134– Applying Whole Effluent Toxicity Testing to Aircraft Deicing Runoff.....	88
ACRP Report 137– Guidebook for Advancing Collaborative Decision Making (CDM) at Airports.....	88
ACRP Report 135– Understanding Airport Air Quality and Public Health Studies Related to Airports.....	89
ACRP Report 138– Preventive Maintenance at General Aviation Airports Volume 1: Primer.....	89
ACRP Report 138– Preventive Maintenance at General Aviation Airports Volume 2: Guidebook.....	90
ACRP Report 140– Guidebook on Best Practices for Airport Cybersecurity .....	90
ACRP Report 141– Renewable Energy as an Airport Revenue Source.....	91
ACRP Report 142– Effects of Airline Industry Changes on Small- and Non-Hub Airports .....	92
ACRP Report 144– Unmanned Aircraft Systems (UAS) at Airports: A Primer .....	93
ACRP Report 143– Guidebook for Air Cargo Facility Planning and Development.....	93
ACRP Report 145– Applying an SMS Approach to Wildlife Hazard Management.....	94
ACRP Report 146– Commercial Ground Transportation at Airports: Best Practices.....	94
ACRP Report 147– Climate Change Adaptation Planning: Risk Assessment for Airports .....	95
ACRP Report 149– Improving Ground Support Equipment Operational Data for Airport Emissions Modeling .....	95
ACRP Report 148– LED Airfield Lighting System Operation and Maintenance.....	95
<b>2016.....</b>	<b>96</b>
ACRP Report 152 – Evaluating Methods for Determining Interior Noise Levels Used in Airport Sound Insulation Programs.....	98
ACRP Report 151 – Developing a Business Case for Renewable Energy at Airports.....	98
ACRP Report 153 – Guidebook for IROPS Stakeholder Communication & Coordination .....	99
ACRP Report 156 – Guidebook for Managing Compliance with Federal Regulations: An Integrated Approach .....	100
ACRP Report 154 – Water Efficiency Management Strategies for Airports.....	101
ACRP Report 150 – NextGen for Airports, Volume I: Understanding the Airport’s Role in Performance-Based Navigation: Resource Guide.....	101
ACRP Report 157 – Improving the Airport Customer Experience .....	102
ACRP Report 158– Deriving Benefits from Alternative Aircraft-Taxi Systems .....	104

# *Table of Contents by Publication Type (in Chronological Order)*

## *ACRP Research Results Digests*

<b>2007</b> .....	<b>1</b>
ACRP Research Results Digest 1 – Synthesis of Information Related to Airport Practices .....	1
<b>2008</b> .....	<b>2</b>
ACRP Research Results Digest 2 – Model for Improving Energy Use in U.S. Airport Facilities .....	2
ACRP Research Results Digest 3 – Synthesis of Information Related to Airport Practices .....	3
<b>2009</b> .....	<b>7</b>
ACRP Research Results Digest 5 – Current and Emerging Issues Facing the Airport Industry .....	8
ACRP Research Results Digest 4 – Synthesis of Information Related to Airport Practices: 2009 .....	8
ACRP Research Results Digest 6 – Guidance for Identifying and Mitigating Approach Lighting System Hazards .....	10
ACRP Research Results Digest 7 – A Summary of How Proposed Firefighting Standards Would Impact Airports .....	14
<b>2010</b> .....	<b>17</b>
ACRP Research Results Digest 8 – Synthesis of Information Related to Airport Practices: 2010 .....	17
ACRP Research Results Digest 9 – Alternative Aircraft and Pavement Deicers and Anti-Icing Formulations with Improved Environmental Characteristics .....	22
ACRP Research Results Digest 10 – Light Detection and Ranging (LIDAR) Deployment for Airport Obstruction Surveys .....	23
ACRP Research Results Digest 11 – Helping Airports Understand the Payment Card Industry Data Security Standard (PCI DSS) .....	26
<b>2011</b> .....	<b>28</b>
ACRP Research Results Digest 12 – Synthesis of Information Related to Airport Practices: 2011 .....	30
<b>2012</b> .....	<b>39</b>
ACRP Research Results Digest 13 – Synthesis of Information Related to Airport Practices: 2012 .....	39
ACRP Research Results Digest 14 – Graduate Research Award Program on Public-Sector Aviation Issues: 2012 .....	40
ACRP Research Results Digest 15 – Use of Towbarless Tractors at Airports—Best Practices .....	42
<b>2013</b> .....	<b>53</b>
ACRP Research Results Digest 16 – Legal Aspects of Airport Programs: 2012 .....	53
ACRP Research Results Digest 17 – Synthesis of Information Related to Airport Practices: 2013 .....	54
<b>2014</b> .....	<b>66</b>
ACRP Research Results Digest 20 – Taking Inventory of ACRP Research and the Next Challenges Facing the Airport Industry .....	67
ACRP Research Results Digest 19 – Graduate Research Award Program on Public-Sector Aviation Issues Update: 2008–2013 .....	67

*Table of Contents by Publication Type (in Chronological Order)*  
*ACRP Research Results Digests*

ACRP Research Results Digest 18 – Synthesis of Information Related to Airport Practices: 2014..... 69

ACRP Research Results Digest 21 – Best Practices for General Aviation Aircraft Fuel-Tank Sampling..... 75

**2015..... 79**

ACRP Research Results Digest 22 – Synthesis of Information Related to Airport Practices: 2015..... 79

**2016..... 96**

ACRP Research Results Digest 24 – Recommended Community Noise Model Enhancements to Improve  
Prediction of Helicopter Activity Impacts..... 96

ACRP Research Results Digest 23 – Synthesis of Information Related to Airport Practices: 2016..... 97



# *Table of Contents by Publication Type (in Chronological Order)*

## *ACRP Legal Research Digests*

<b>2007</b> .....	<b>1</b>
<b>2008</b> .....	<b>2</b>
ACRP Legal Research Digest 1 – Compilation of Airport Law Resources .....	3
ACRP Legal Research Digest 2 – Theory and Law of Airport Revenue Diversion.....	4
ACRP Legal Research Digest 3 – Survey of Laws and Regulations of Airport Commercial Ground Transportation .....	5
ACRP Legal Research Digest 4 – Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters Through December 31, 2007.....	6
<b>2009</b> .....	<b>7</b>
ACRP Legal Research Digest 5 – Responsibility for Implementation and Enforcement of Airport Land-Use Zoning Restrictions .....	9
ACRP Legal Research Digest 6 – The Impact of Airline Bankruptcies on Airports .....	12
ACRP Legal Research Digest 7 – Airport Governance and Ownership .....	13
ACRP Legal Research Digest 8 – The Right to Self-Fuel.....	17
<b>2010</b> .....	<b>17</b>
ACRP Legal Research Digest 9 – Case Studies on Community Challenges to Airport Development .....	22
ACRP Legal Research Digest 10 – Analysis of Federal Laws, Regulations, and Case Law Regarding Airport Proprietary Rights .....	25
<b>2011</b> .....	<b>28</b>
ACRP Legal Research Digest 11 – Survey of Minimum Standards: Commercial Aeronautical Activities at Airports.....	30
ACRP Legal Research Digest 12 – Fair Disclosure and Airport Impact Statements in Real Estate Transfers.....	37
<b>2012</b> .....	<b>39</b>
ACRP Legal Research Digest 13 – An Index and Digest of Decisions: Compilation of Airport Law Resources .	41
ACRP Legal Research Digest 14 – Achieving Airport-Compatible Land Uses and Minimizing Hazardous Obstructions in Navigable Airspace.....	44
ACRP Legal Research Digest 15 – Compilation of State Airport Authorizing Legislation .....	48
ACRP Legal Research Digest 16 – Procurement of Airport Development and Planning Contracts.....	49
ACRP Legal Research Digest 17 – State and Federal Regulations That May Affect Initiatives to Reduce Airports’ GHG Emissions .....	53
<b>2013</b> .....	<b>53</b>
ACRP Legal Research Digest 19 – Legal Issues Related to Developing Safety Management Systems and Safety Risk Management at U.S. Airports .....	53
ACRP Legal Research Digest 18 – Buy America Requirements for Federally Funded Airports .....	55
ACRP Legal Research Digest 20 – Airport Responsibility for Wildlife Management.....	61

# *Table of Contents by Publication Type (in Chronological Order)*

## *ACRP Legal Research Digests*

ACRP Legal Research Digest 21 – Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters Through December 2012.....	63
<b>2014</b> .....	<b>66</b>
ACRP Legal Research Digest 22 – 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.....	72
<b>2015</b> .....	<b>79</b>
ACRP Legal Research Digest 23 – A Guide for Compliance with Grant Agreement Obligations to Provide Reasonable Access to an AIP-Funded Public Use General Aviation Airport.....	81
ACRP Legal Research Digest 24 – Sovereign Immunity for Public Airport Operations.....	83
ACRP Legal Research Digest 25 – 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 .....	92
ACRP Legal Research Digest 26 – Regulations Affecting the Exercise of First Amendment Activities at Airports.....	92
<b>2016</b> .....	<b>96</b>
ACRP Legal Research Digest 27 – The Fourth Amendment and Airports.....	98
ACRP Legal Research Digest 28 – Operational and Legal Issues with Fuel Farms .....	101
ACRP Legal Research Digest 29 – Impact of Firearms Laws on Airports .....	102

# *Table of Contents by Publication Type (in Chronological Order)*

## *ACRP Synthesis Reports*

<b>2007</b> .....	<b>1</b>
ACRP Synthesis Report 1 – Innovative Finance and Alternative Sources of Revenue for Airports .....	1
ACRP Synthesis Report 2 – Airport Aviation Activity Forecasting .....	1
ACRP Synthesis Report 3 – General Aviation Safety and Security Practices .....	1
ACRP Synthesis Report 4 – Counting Aircraft Operations at Non-Towered Airports .....	2
<b>2008</b> .....	<b>2</b>
ACRP Synthesis Report 5 – Airport Ground Access Mode Choice Models .....	3
ACRP Synthesis Report 6 – Impact of Airport Pavement Deicing Products on Aircraft and Airfield Infrastructure .....	3
ACRP Synthesis Report 7 – Airport Economic Impact Methods and Models .....	3
ACRP Synthesis Report 8 – Common Use Facilities and Equipment at Airports .....	5
ACRP Synthesis Report 9 – Effects of Aircraft Noise: Research Update on Select Topics .....	6
ACRP Synthesis Report 10 – Airport Sustainability Practices .....	6
ACRP Synthesis Report 12 – Preventing Vehicle-Aircraft Incidents During Winter Operations and Periods of Low Visibility .....	7
<b>2009</b> .....	<b>7</b>
ACRP Synthesis Report 11 – Impact of Airport Rubber Removal Techniques on Runways .....	7
ACRP Synthesis Report 14 – Airport System Planning Practices .....	12
ACRP Synthesis Report 13 – Effective Practices for Preparing Airport Improvement Program Benefit-Cost Analysis .....	12
ACRP Synthesis Report 15 – Identification of the Requirements and Training to Obtain Driving Privileges on Airfields .....	12
ACRP Synthesis Report 16 – Compilation of Noise Programs in Areas Outside DNL 65 .....	13
ACRP Synthesis Report 17 – Approaches to Integrating Airport Development and Federal Environmental Review Processes .....	16
<b>2010</b> .....	<b>17</b>
ACRP Synthesis Report 18 – Aviation Workforce Development Practices .....	20
ACRP Synthesis Report 19 – Airport Revenue Diversification .....	23
ACRP Synthesis Report 20 – Airport Terminal Facility Activation Techniques .....	23
ACRP Synthesis Report 21 – Airport Energy Efficiency and Cost Reduction .....	24
<b>2011</b> .....	<b>28</b>
ACRP Synthesis Report 22 – Common Airport Pavement Maintenance Practices .....	31
ACRP Synthesis Report 24 – Strategies and Financing Opportunities for Airport Environmental Programs .....	34

## *Table of Contents by Publication Type (in Chronological Order)*

### *ACRP Synthesis Reports*

ACRP Synthesis Report 23 – Bird Harassment, Repellent, and Deterrent Techniques for Use on and Near Airports.....	34
ACRP Synthesis Report 27 – Airport Self-Inspection Practices .....	34
ACRP Synthesis Report 26 – Current Airport Inspection Practices Regarding FOD (Foreign Object Debris/Damage) .....	34
ACRP Synthesis Report 25 – Strategies for Reuse of Underutilized or Vacant Airport Facilities .....	36
ACRP Synthesis Report 28 – Investigating Safety Impacts of Energy Technologies on Airports and Aviation...	36
ACRP Synthesis Report 29 – Ramp Safety Practices .....	37
ACRP Synthesis Report 30 – Airport Insurance Coverage and Risk Management Practices .....	38
ACRP Synthesis Report 31 – Airline and Airline–Airport Consortiums to Manage Terminals and Equipment...	38
<b>2012 .....</b>	<b>39</b>
ACRP Synthesis Report 32 – Managing Aerial Firefighting Activities on Airports.....	45
ACRP Synthesis Report 33 – Airport Climate Adaptation and Resilience .....	45
ACRP Synthesis Report 34 – Subsurface Utility Engineering Information for Airports.....	47
ACRP Synthesis Report 35 – Issues With Use of Airfield LED Light Fixtures .....	47
ACRP Synthesis Report 37 – Lessons Learned from Airport Safety Management Systems Pilot Studies.....	49
ACRP Synthesis Report 36 -Exploring Airport Employee Commute and Parking Strategies.....	50
ACRP Synthesis Report 38 – Expediting Aircraft Recovery at Airports .....	50
<b>2013 .....</b>	<b>53</b>
ACRP Synthesis Report 39 – Airport Wildlife Population Management .....	56
ACRP Synthesis Report 41 – Conducting Aeronautical Special Events at Airports.....	57
ACRP Synthesis Report 44 – Environmental Management System Development Process.....	57
ACRP Synthesis Report 40 – Issues with Airport Organization and Reorganization .....	58
ACRP Synthesis Report 47 – Repairing and Maintaining Airport Parking Structures While in Use .....	58
ACRP Synthesis Report 42 – Integrating Environmental Sustainability into Airport Contracts .....	59
ACRP Synthesis Report 46 – Conducting Airport Peer Reviews .....	59
ACRP Synthesis Report 45 – Model Mutual Aid Agreements for Airports .....	60
ACRP Synthesis Report 43 – Environmental Assessment of Air and High-Speed Rail Corridors.....	62
ACRP Synthesis Report 49 – Helping New Maintenance Hires Adapt to the Airport Operating Environment....	63
ACRP Synthesis Report 48 – How Airports Measure Customer Service Performance .....	63
<b>2014 .....</b>	<b>66</b>
ACRP Synthesis Report 50 – Effective Cooperation Among Airports and Local and Regional Emergency Management Agencies for Disaster Preparedness and Response .....	70

## *Table of Contents by Publication Type (in Chronological Order)*

### *ACRP Synthesis Reports*

ACRP Synthesis Report 51 – Impacts of Aging Travelers on Airports .....	71
ACRP Synthesis Report 53 – Outcomes of Green Initiatives: Large Airport Experience .....	71
ACRP Synthesis Report 54 – Outcomes of Green Initiatives: Large Airport Experience .....	72
ACRP Synthesis Report 52 – Habitat Management to Deter Wildlife at Airports.....	73
ACRP Synthesis Report 55 – Backcountry Airstrip Preservation.....	73
ACRP Synthesis Report 56 – Understanding the Value of Social Media at Airports for Customer Engagement .	74
ACRP Synthesis Report 58 – Safety Reporting Systems at Airports.....	75
ACRP Synthesis Report 57 – Airport Response to Special Events.....	75
ACRP Synthesis Report 59 – Integrating Airport Geographic Information System (GIS) Data with Public Agency GIS.....	77
<b>2015 .....</b>	<b>79</b>
ACRP Synthesis Report 60 – Airport Emergency Post-Event Recovery Practices.....	85
ACRP Synthesis Report 61 – Practices in Preserving and Developing Public-Use Seaplane Bases .....	86
ACRP Synthesis Report 63 – Overview of Airport Fueling Operations .....	86
ACRP Synthesis Report 62 – Cell Phone Lots at Airports.....	88
ACRP Synthesis Report 64 – Issues Related to Accommodating Animals Traveling Through Airports.....	89
ACRP Synthesis Report 67 – Airside Snow Removal Practices for Small Airports with Limited Budgets .....	90
ACRP Synthesis Report 66 – Lessons Learned from Airport Sustainability Plans.....	91
ACRP Synthesis Report 65 – Practices to Develop Effective Stakeholder Relationships at Smaller Airports.....	91
ACRP Synthesis Report 68 – Strategies for Maintaining Air Service .....	93
<b>2016 .....</b>	<b>96</b>
ACRP Synthesis Report 69 – Airport Sustainability Practices—Drivers and Outcomes for Small Commercial and General Aviation Airports .....	98
ACRP Synthesis Report 70– Building Information Modeling for Airports .....	99
ACRP Synthesis Report 71– Airport Safety Risk Management Panel Activities and Outcomes .....	100
ACRP Synthesis Report 74– Combining Mixed-Use Flight Operations Safely at Airports .....	100
ACRP Synthesis Report 72– Tabletop and Full-Scale Emergency Exercises for General Aviation, Non-Hub, and Small Hub Airports.....	102
ACRP Synthesis Report 73– Emergency Communications Planning for Airports .....	102
ACRP Synthesis Report 75– Airport Advisories at Non-Towered Airports .....	103
ACRP Synthesis Report 76– Helicopter Noise Information for Airports and Communities .....	104

## *Table of Contents by Publication Type (in Chronological Order)*

### *ACRP Web-Only Documents*

<b>2007</b> .....	<b>1</b>
<b>2008</b> .....	<b>2</b>
<b>2009</b> .....	<b>7</b>
ACRP Web-Only Document 3 – Formulations for Aircraft and Airfield Deicing and Anti-Icing: Aquatic Toxicity and Biochemical Oxygen Demand .....	9
ACRP Web-Only Document 1 – Analysis and Recommendations for Developing Integrated Airport Information Systems.....	10
ACRP Web-Only Document 2 – Appendices to ACRP Report 11: Guidebook on Preparing Airport GHG Emissions Inventories.....	10
ACRP Web-Only Document 4 – Contractor’s Final Report for ACRP RRD 6: Guidance for Identifying and Mitigating Approach Lighting System Hazards.....	11
ACRP Web-Only Document 7 – How Proposed ARFF Standards Would Impact Airports.....	11
ACRP Web-Only Document 5 – Development of a Guidebook for Managing Small Airports.....	13
ACRP Web-Only Document 6 – Evaluation and Selection of Airport Capital Project Delivery Methods.....	15
ACRP Web-Only Document 9 – Enhanced Modeling of Aircraft Taxiway Noise, Volume 1—Scoping.....	16
<b>2010</b> .....	<b>17</b>
ACRP Web-Only Document 8 – Alternative Aircraft Anti-Icing Formulations with Reduced Aquatic Toxicity and Biochemical Oxygen Demand .....	24
ACRP Web-Only Document 11 – A Comprehensive Development Plan for a Multimodal Noise and Emissions Model.....	27
<b>2011</b> .....	<b>28</b>
ACRP Web-Only Document 10 – Appendix A: Research Documentation for ACRP Report 41.....	28
ACRP Web-Only Document 12 – Risk Assessment of Proposed ARFF Standards .....	31
<b>2012</b> .....	<b>39</b>
ACRP Web-Only Document 13 – Alternative Fuels as a Means to Reduce PM2.5 Emissions at Airports.....	46
<b>2013</b> .....	<b>53</b>
ACRP Web-Only Document 14 – Guidelines for Preparing Peak Period and Operational Profiles.....	55
ACRP Web-Only Document 9 – Enhanced Modeling of Aircraft Taxiway Noise, Volume 2—Aircraft Taxi Noise Database and Development Process.....	57
ACRP Web-Only Document 15 – Data Supporting the Impact of Regulatory Compliance Costs on Small Airports, Volume 2: Technical Appendixes to ACRP Report 90.....	61
<b>2014</b> .....	<b>66</b>
ACRP Web-Only Document 16 – Assessing Aircraft Noise Conditions Affecting Student Learning, Volume 1: Final Report.....	69
ACRP Web-Only Document 16 – Assessing Aircraft Noise Conditions Affecting Student Learning, Volume 2: Appendices.....	69

## *Table of Contents by Publication Type (in Chronological Order)*

### *ACRP Web-Only Documents*

ACRP Web-Only Document 19 – Integrated Noise Model Accuracy for General Aviation Aircraft .....	77
ACRP Web-Only Document 18 – Airport Capital Improvements: Developing a Cost-Estimating Model and Database .....	78
ACRP Web-Only Document 20 – Estimating the Economic Impact of Air Cargo Operations at Airports, Part 1: User’s Guidebook and Part 2: Research Report.....	79
<b>2015.....</b>	<b>79</b>
ACRP Web-Only Document 21 – Quantifying Aircraft Lead Emissions at Airports.....	84
ACRP Web-Only Document 22 – Passenger Value of Time, Benefit-Cost Analysis and Airport Capital Investment Decisions, Volume 1: Guidebook for Valuing User Time Savings in Airport Capital Investment Decision Analysis.....	84
ACRP Web-Only Document 22 – Passenger Value of Time, Benefit-Cost Analysis and Airport Capital Investment Decisions, Volume 2: Final Report .....	85
ACRP Web-Only Document 22 – Passenger Value of Time, Benefit-Cost Analysis and Airport Capital Investment Decisions, Volume 3: Appendix A Background Research and Appendix B Stated Preference Survey.....	85
ACRP Web-Only Document 23 – Guidance on Successful Computer Maintenance Management System (CMMS) Selection and Practices .....	91
ACRP Web-Only Document 24 – Air Cargo Facility Planning and Development—Final Report.....	93
ACRP Web-Only Document 25 – Commercial Ground Transportation at Airports: Best Practices-Appendices C to H .....	94
<b>2016.....</b>	<b>96</b>
ACRP Web-Only Document 26 – Methodology to Improve AEDT Quantification of Aircraft Taxi/Idle Emissions .....	97
ACRP Web-Only Document 27 – Methodology to Develop the Airport Terminal Building Energy Use Intensity (ATB-EUI) Benchmarking Tool .....	99
ACRP Web-Only Document 29 – Compendium of State and Federal Laws Affecting the Possession of Firearms at Airports .....	103

# *Table of Contents by Publication Type (in Chronological Order)*

## *ACRP Impacts on Practice*

<b>2007</b> .....	<b>1</b>
<b>2008</b> .....	<b>2</b>
<b>2009</b> .....	<b>7</b>
<b>2010</b> .....	<b>17</b>
ACRP Impacts on Practice – Guidebook Informs Nation’s Smaller Airports .....	25
ACRP Impacts on Practice – November 2010: San Diego’s Efforts to Mitigate Noise Impacts for Community Stakeholders .....	26
ACRP Impacts on Practice – December 2010: Strategic Planning at Toronto Pearson International Airport .....	28
<b>2011</b> .....	<b>28</b>
ACRP Impacts on Practice – September 2011: Protecting Airport Personnel from Lightning Strikes .....	35
ACRP Impacts on Practice – Estimating Airport Greenhouse Gas (GHG) Emissions .....	36
ACRP Impacts on Practice – Traumatic Event Assistance for Aviation Employees .....	37
<b>2012</b> .....	<b>39</b>
ACRP Impacts on Practice – Development of Airport Property: Policy Guidance and Workforce Training .....	52
<b>2013</b> .....	<b>53</b>
54	
ACRP Impacts on Practice – ACRP Disseminates Solutions-Based Research Projects Through Ambassadors .....	54
ACRP Impacts on Practice – Contingency Planning for Unexpected Passenger Delays .....	55
ACRP Impacts on Practice – Maximizing Airport Facility Utilization and Efficiency with Common-Use Resources .....	64
ACRP Impacts on Practice – Implementing Effective Airport Marketing Approaches to Tenants and the Community .....	65
ACRP Impacts on Practice – Evaluating Terminal Renewal and Replacement Options .....	65
<b>2014</b> .....	<b>66</b>
ACRP Impacts on Practice – Identifying Practices for Controlling Aircraft and Airfield Deicing Runoff .....	74
ACRP Impacts on Practice – Improving Airport Curbside and Roadway Operations .....	76
ACRP Impacts on Practice – Planning for Recovery of Disabled Aircraft .....	77
<b>2015</b> .....	<b>79</b>
ACRP Impacts on Practice – Airports and Aging Travelers .....	87
ACRP Impacts on Practice – Improving Emergency Response at Airports .....	88
<b>2016</b> .....	<b>96</b>
ACRP Impacts on Practice – Improving the Safety of Runway Safety Areas .....	96
ACRP Impacts on Practice – Wayfinding and Signing Guidelines for Airports .....	96
ACRP Impacts on Practice – Preparing the Next Generation of Airport Leaders .....	103



## *Table of Contents by Publication Type (in Chronological Order)*

### *ACRP Miscellaneous Reports*

<b>2007</b> .....	<b>1</b>
<b>2008</b> .....	<b>2</b>
<b>2009</b> .....	<b>7</b>
<b>2010</b> .....	<b>17</b>
Airport Cooperative Research Program Brochure .....	19
<b>2011</b> .....	<b>28</b>
ACRP Annual Report of Progress 2010 .....	29
<b>2012</b> .....	<b>39</b>
ACRP Annual Report of Progress 2011 .....	39
Transportation Research Record–Public-Sector Aviation: Graduate Research Award Papers, 2010-2011 .....	46
<b>2013</b> .....	<b>53</b>
ACRP Annual Report of Progress 2012 .....	54
TRB Aviation Group Brochure .....	55
Public-Sector Aviation: Graduate Research Award Papers, 2011-2012 .....	60
The Vector – Borne Disease Airport Importation Risk Tool.....	62
<b>2014</b> .....	<b>66</b>
ACRP 2013 Annual Report of Progress .....	67
Transportation Research Record – Public-Sector Aviation: Graduate Research Award Papers, 2012-2013 .....	73
<b>2015</b> .....	<b>79</b>
ACRP 2014 Annual Report of Progress .....	79
ACRP CD-161: Estimating Takeoff Thrust Settings for Airport Emissions Inventories.....	81
Airport Cooperative Research Program Brochure.....	89
<b>2016</b> .....	<b>96</b>
ACRP 2015 Annual Report of Progress .....	97
Airport Terminal Building Energy Use Intensity (ATB-EUI) Benchmarking Tool.....	97

# 2007



## ***ACRP Research Results Digest 1 – Synthesis of Information Related to Airport Practices***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Research Results Digest 1: Synthesis of Information Related to Airport Practices is a digest of the progress and status of ACRP Project 11-03, Synthesis of Information Related to Airport Practices.

**Published:** February 2007

**Link:** <http://www.trb.org/ACRP/Blurbs/158471.aspx>



## ***ACRP Synthesis Report 1 – Innovative Finance and Alternative Sources of Revenue for Airports***

**Report Blurb:** Innovative Finance and Alternative Sources of Revenue for Airports explores alternative financing options and revenue sources currently available or that could be available in the future to airport operators, stakeholders, and policymakers in the United States. The report examines common capital funding sources used by airport operators, a reviews capital financing mechanisms used by airports, describes various revenue sources developed by airport operators, and a reviews privatization options available to U.S. airport operators.

**Published:** March 2007

**Link:** <http://www.trb.org/ACRP/Blurbs/158669.aspx>



## ***ACRP Synthesis Report 2 – Airport Aviation Activity Forecasting***

**Report Blurb:** Airport Aviation Activity Forecasting examines how airport forecasts are used and identifies common aviation metrics, aviation data sources, issues in data collection and preparation, and special data issues at nontowered airports. The report also explores available forecasting methods, including the primary statistical methods; market share analysis; econometric modeling; and time series modeling. In addition the report reviews forecast uncertainty, accuracy, issues of optimism bias, and options for resolving differences when multiple forecast are available.

**Published:** March 2007

**Link:** <http://www.trb.org/ACRP/Blurbs/158684.aspx>



## ***ACRP Synthesis Report 3 – General Aviation Safety and Security Practices***

**Report Blurb:** General Aviation Safety and Security Practices examines resources used by the general aviation community in the development of safety and security programs, explores funding sources and issues that determine the amount of money spent on such programs, and describes current practices that general aviation airports use to keep their facilities safe and secure.

**Published:** August 2007

**Link:** <http://www.trb.org/ACRP/Blurbs/157793.aspx>



### ***ACRP Synthesis Report 4 – Counting Aircraft Operations at Non-Towered Airports***

**Report Blurb:** Counting Aircraft Operations at Non-Towered Airports explores the different methods used by states, airports, and metropolitan planning organizations (MPOs) of counting and estimating aircraft operations at non-towered airports. The report also examines new technologies that can be used for these counts and estimates.

**Published:** August 2007

**Link:** <http://www.trb.org/ACRP/Blurbs/157794.aspx>



### ***ACRP Report 1 – Safety Management Systems for Airports, Volume 1: Overview***

**Report Blurb:** Safety Management Systems for Airports, Volume 1: Overview provides a brief description of safety management systems (SMS) and is intended to be an easy-to-read, quick introduction to SMS for airport directors and their governing boards. The report explores the advantages associated with instituting such a system and examines the four components or pillars that are part of an SMS--safety policy, safety risk management, safety assurance, and safety promotion.

The report also includes background information on the International Civil Aviation Organization’s requirements for SMS at airports and relates the experiences of airports located outside the United States in implementing SMS. [Summaries of interviews on SMS implementation at airports outside the United States](#) developed out of research conducted during in the development of ACRP Report 1 are available online.

**Published:** September 2007

**Link:** <http://www.trb.org/ACRP/Blurbs/159030.aspx>

# 2008



### ***ACRP Research Results Digest 2 – Model for Improving Energy Use in U.S. Airport Facilities***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Research Results Digest 2: Model for Improving Energy Use in U.S. Airport Facilities provides data on U.S. airports’ utilization of 11 major energy management practices, offers a set of best practices for reducing energy use, and summarizes three case studies of recent recommissioning projects that resulted in significant reductions in energy use. Appendixes A through D of the report—respectively, [“Study of Terminals B and D at Dallas/Fort Worth International Airport”](#); [“Airport Rental Car Facility Case Study”](#); [“Continuous Commissioning of the Matheson Courthouse in Salt Lake City, Utah”](#); and [“Airport Survey Questionnaire”](#)—are available online. [A brochure on ACRP RRD 2](#) is also available online.

**Published:** January 2008

**Link:** <http://www.trb.org/ACRP/Blurbs/159312.aspx>



### ***ACRP Research Results Digest 3 – Synthesis of Information Related to Airport Practices***

**Report Blurb:** Synthesis of Information Related to Airport Practices is a digest of the progress and status of ACRP Project 11-03, Synthesis of Information Related to Airport Practices.

**Published:** February 2008

**Link:** <http://www.trb.org/ACRP/Blurbs/159637.aspx>



### ***ACRP Legal Research Digest 1 – Compilation of Airport Law Resources***

**Report Blurb:** Compilation of Airport Law Resources identifies federal resources for conducting research on airport law topics and monitoring development within the area of airport law. The report also includes an index of airport law topics and federal sources of airport law information.

**Published:** February 2008

**Link:** <http://www.trb.org/ACRP/Blurbs/156797.aspx>



### ***ACRP Synthesis Report 5 – Airport Ground Access Mode Choice Models***

**Report Blurb:** Airport ground Access Mode Choice Models examines the characteristics of existing ground access mode choice models and explores the issues involved in the development and use of such models to improve the understanding and acceptance of their role in airport planning and management.

**Published:** April 2008

**Link:** <http://www.trb.org/ACRP/Blurbs/159853.aspx>



### ***ACRP Synthesis Report 6 – Impact of Airport Pavement Deicing Products on Aircraft and Airfield Infrastructure***

**Report Blurb:** Impact of Airport Pavement Deicing Products on Aircraft and Airfield Infrastructure explores how airports chemically treat their airport pavements to mitigate snow and ice, and the chemicals used. The report also examines the effects of pavement deicing products on aircraft and airfield infrastructure, and highlights knowledge gaps.

**Published:** April 2008

**Link:** <http://www.trb.org/ACRP/Blurbs/157067.aspx>



### ***ACRP Synthesis Report 7 – Airport Economic Impact Methods and Models***

**Report Blurb:** Airport Economic Impact Methods and Models explores how airport economic impact studies are currently conducted. The report examines the methods and models used to define and identify, evaluate and measure, and communicate the different facets of the economic impact of airports. The report also highlights the various analysis methods, models, and tools that are available for local airport economic studies, as well as their applicability and tradeoffs, including limitations, trends, and recent developments.

**Published:** May 2008

**Link:** <http://www.trb.org/ACRP/Blurbs/157070.aspx>



### ***ACRP Report 2 – Evaluation and Mitigation of Aircraft Slide Evacuation Injuries***

**Report Blurb:** Evaluation and Mitigation of Aircraft Slide Evacuation Injuries explores guidance on reducing injuries and improving safety and coordination during aircraft slide evacuation events. The report also examines injuries to aircraft crew and passengers incurred during aircraft slide evacuations.

**Published:** May 2008

**Link:** <http://www.trb.org/ACRP/Blurbs/159901.aspx>



### ***ACRP Report 3 – Analysis of Aircraft Overruns and Undershoots for Runway Safety Areas***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 3: Analysis of Aircraft Overruns and Undershoots for Runway Safety Areas explores overrun and undershoot accident and incident data conditions relating to these occurrences. The report also includes an assessment of risk in relation to the runway safety area and highlights a set of alternatives to the traditional runway safety area. The [appendices to ACRP Report 3](#) are available online.

[ACRP Report 50: Improved Models for Risk Assessment of Runway Safety Areas](#), which was released in July 2011, expands on the research presented in ACRP Report 3. ACRP Report 50 analyses aircraft veer-offs, the use of declared distances, the implementation of the Engineered Material Arresting System, and the incorporation of a risk approach for consideration of obstacles in or in the vicinity of the runway safety area.

**Published:** June 2008

**Link:** <http://www.trb.org/ACRP/Blurbs/159849.aspx>



### ***ACRP Legal Research Digest 2 – Theory and Law of Airport Revenue Diversion***

**Report Blurb:** Theory and Law of Airport Revenue Diversion explores the issue of airport revenue diversion, what prompted Congress to address it, how it has manifested itself, and how the prohibition against revenue diversion has been enforced.

**Published:** June 2008

**Link:** <http://www.trb.org/Main/Blurbs/159962.aspx>



### ***ACRP Report 4 – Ground Access to Major Airports by Public Transportation***

**Report Blurb:** Ground Access to Major Airports by Public Transportation examines key elements associated with the creation of a six-step market-based strategy for improving the quality of public mode services at U.S. airports. The report also addresses the context for public transportation to major airports, explores the attributes of successful airport ground access systems, presents an airport by airport summary of air traveler ground access mode-share by public transportation services, and more.

**Published:** July 2008

**Link:** <http://www.trb.org/ACRP/Blurbs/157099.aspx>



### ***ACRP Report 5 – Quarantine Facilities for Arriving Air Travelers: Identification of Planning Needs and Costs***

**Report Blurb:** Quarantine Facilities for Arriving Air Travelers: Identification of Planning Needs and Costs explores facility issues, security considerations, and estimated costs (including operating costs) that airport operators and policymakers may want to consider when planning for the potential quarantine of arriving air travelers.

**Published:** July 2008

**Link:** <http://www.trb.org/ACRP/Blurbs/158136.aspx>



### ***ACRP Synthesis Report 8 – Common Use Facilities and Equipment at Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 8: Common Use Facilities and Equipment at Airports explores common use technology that enables an airport operator to take space that has previously been exclusive to a single airline and make it available for use by multiple airlines and their passengers.

View information about the [February 9, 2010 TRB Webinar](#), which featured this report.

**Published:** July 2008

**Link:** <http://www.trb.org/ACRP/Blurbs/160094.aspx>



### ***ACRP Legal Research Digest 3 – Survey of Laws and Regulations of Airport Commercial Ground Transportation***

**Report Blurb:** Survey of Laws and Regulations of Airport Commercial Ground Transportation explores guidance, including regulations, statutes, policies, and decisions pertaining to commercial ground transportation at U.S. airports. The report defines ground transportation as including public transit, door-to-door shuttle van service, charter buses, limousines, rental cars, taxicabs, hotel courtesy shuttles, wheel chair services, and courier operators.

**Published:** July 2008

**Link:** <http://www.trb.org/ACRP/Blurbs/160035.aspx>



### ***ACRP Report 6 – Research Needs Associated with Particulate Emissions at Airports***

**Report Blurb:** Research Needs Associated with Particulate Emissions at Airports examines the state of industry research on aviation-related particulate matter emissions and explores knowledge gaps that existing research has not yet bridged.

**Published:** July 2008

**Link:** <http://www.trb.org/Main/Blurbs/160036.aspx>



### ***ACRP Report 7 – Aircraft and Airport-Related Hazardous Air Pollutants: Research Needs and Analysis***

**Report Blurb:** Aircraft and Airport-Related Hazardous Air Pollutants: Research Needs and Analysis examines the state of the latest research on aviation-related hazardous air pollutants emissions and explores knowledge gaps that existing research has not yet bridged.

**Published:** August 2008

**Link:** <http://www.trb.org/Main/Blurbs/160113.aspx>



### ***ACRP Synthesis Report 9 – Effects of Aircraft Noise: Research Update on Select Topics***

**Report Blurb:** Effects of Aircraft Noise: Research Update on Select Topics includes an annotated bibliography and summary of new research on the effects of aircraft noise. The report is designed to update and complement the U.S. Federal Highway Administration's 1985

Aviation Noise Effects report.

**Published:** September 2008

**Link:** <http://www.trb.org/ACRP/Blurbs/160286.aspx>



### ***ACRP Synthesis Report 10 – Airport Sustainability Practices***

**Report Blurb:** Airport Sustainability Practices explores airport sustainability practices across environmental, economic, and social issues.

**Published:** October 2008

**Link:** <http://www.trb.org/ACRP/Blurbs/160369.aspx>



### ***ACRP Report 8 – Lightning-Warning Systems for Use by Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 8: Lightning-Warning Systems for Use by Airports explores the operational benefits associated with delay reductions that lightning detection and warning systems may be able to generate. The report is designed to help in the assessment of whether such systems are cost-beneficial on an individual airport or airline basis.

An [ACRP Impacts on Practice](#) related to ACRP Report 8 was produced in 2011.

**Published:** November 2008

**Link:** <http://www.trb.org/Main/Blurbs/160409.aspx>



### ***ACRP Legal Research Digest 4 – Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters Through December 31, 2007***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Legal Research Digest 4 was a compilation of U.S. Department of Transportation (DOT) and U.S. Federal Aviation Administration (FAA) airport legal determinations and opinion letters through December 31,

2007.

In September 2013, TRB released and [ACRP Legal Research Digest 21](#): Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters Through December 2012, which updated and superseded ACRP Legal Research Digest 4.

In March 2012, TRB released [ACRP Legal Research Digest 13](#): An Index and Digest of Decisions: Compilation of Airport Law Resources, which complements ACRP LRD 12.

**Published:** November 2008

**Link:** <http://www.trb.org/ACRP/Blurbs/160431.aspx>



### ***ACRP Report 9 – Summarizing and Interpreting Aircraft Gaseous and Particulate Emissions Data***

**Report Blurb:** Summarizing and Interpreting Aircraft Gaseous and Particulate Emissions Data explores a series of government-sponsored aircraft emissions tests that were undertaken to gain a better understanding of gaseous and particulate emissions from aircraft engines.

**Published:** December 2008

**Link:** <http://www.trb.org/Main/Blurbs/160507.aspx>



### ***ACRP Synthesis Report 12 – Preventing Vehicle-Aircraft Incidents During Winter Operations and Periods of Low Visibility***

**Report Blurb:** Preventing Vehicle–Aircraft Incidents During Winter Operations and Periods of Low Visibility examines factors affecting safe winter operations and the prevention of runway incursions by airport snow removal equipment operators.

**Published:** December 2008

**Link:** <http://www.trb.org/ACRP/Blurbs/160511.aspx>

## 2009



### ***ACRP Synthesis Report 11 – Impact of Airport Rubber Removal Techniques on Runways***

**Report Blurb:** Impact of Airport Rubber Removal Techniques on Runways explores the impacts of four common rubber removal methods on runways--waterblasting, chemical removal, shotblasting, and mechanical means (including sand blasting, scraping, brooming, milling, and grinding).

**Published:** January 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/160656.aspx>





### ***ACRP Research Results Digest 5 – Current and Emerging Issues Facing the Airport Industry***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Research Results Digest 5: Current and Emerging Issues Facing the Airport Industry summarizes the program and the process for identifying strategic research areas for use with the FY 2010 ACRP

problem statement solicitation process and beyond.

In January 2014 RRD 5 was updated with the release of [ACRP RRD 20: Taking Inventory of ACRP Research and the Net Challenges Facing the Airport Industry](#).

**Published:** January 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/160631.aspx>



### ***ACRP Research Results Digest 4 – Synthesis of Information Related to Airport Practices: 2009***

**Report Blurb:** Synthesis of Information Related to Airport Practices is a digest of the progress and status of ACRP Project 11-03, Synthesis of Information Related to Airport Practices.

**Published:** February 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/160661.aspx>



### ***ACRP Report 10 – Innovations for Airport Terminal Facilities***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 10: Innovations for Airport Terminal Facilities explores worldwide developments in airport landside facilities design, and examines future trends and innovative passenger service/processing concepts.

[View information about the TRB webinar](#) on ACRP Report 10: Innovations for Airport Terminal Facilities, which was held on Monday, April 26, 2010.

**Published:** February 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/160766.aspx>



### ***ACRP Report 12 – An Airport Guide for Regional Emergency Planning for CBRNE Events***

**Report Blurb:** An Airport Guide for Regional Emergency Planning for CBRNE Events explores details airports should cover in their hazard and threat assessments and in their Airport Emergency Plans (AEPs) and Annexes. The report also examines issues involving terrorist use of chemical, biological, radiological, nuclear, or explosive (CBRNE) materials targeted to airports.

**Published:** March 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/160783.aspx>



### ***ACRP Web-Only Document 3 – Formulations for Aircraft and Airfield Deicing and Anti-Icing: Aquatic Toxicity and Biochemical Oxygen Demand***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 3: Formulations for Aircraft and Airfield Deicing and Anti-Icing: Aquatic Toxicity and Biochemical Oxygen Demand is an interim report on a project that is exploring the environmental characteristics of aircraft and pavement deicers and anti-icers.

**Published:** March 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/155765.aspx>



### ***ACRP Legal Research Digest 5 – Responsibility for Implementation and Enforcement of Airport Land-Use Zoning Restrictions***

**Report Blurb:** Responsibility for Implementation and Enforcement of Airport Land-Use Zoning Restrictions explores federal, state, regional, and local laws and regulations pertaining to aviation land use and zoning, and identifies the primary responsibilities of each relevant legal body and how this responsibility is communicated and enforced.

**Published:** April 2009

**Link:** <http://www.trb.org/Main/Blurbs/160863.aspx>



### ***ACRP Report 11 – Guidebook on Preparing Airport Greenhouse Gas Emissions Inventories***

**Report Blurb:** Guidebook on Preparing Airport Greenhouse Gas Emissions Inventories explores a framework for identifying and quantifying specific components of airport contributions to greenhouse gas emissions (GHG). The report is designed to help airport operators and others to prepare an airport-specific inventory of greenhouse gas emissions.

Appendices A through F to ACRP Report 11 were published online as [ACRP Web-Only Document 2](#). The appendices titles are as follows:

- Appendix A-Reasons for Developing GHG Inventories
- Appendix B-Emissions and Sources
- Appendix C-Methods for Calculating GHG Emissions
- Appendix D-Methods for Calculating CO2 Equivalencies
- Appendix E-Inventory Development Protocols
- Appendix F-Approaches Used in Airport Inventories Prepared to Date

An [ACRP Impacts on Practice](#) related to ACRP Report 11 is available.

**Published:** April 2009

**Link:** <http://www.trb.org/Main/Blurbs/160829.aspx>



### ***ACRP Web-Only Document 1 – Analysis and Recommendations for Developing Integrated Airport Information Systems***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 1: Analysis and Recommendations for Developing Integrated Airport Information Systems is a summary of the efforts associated with the development of [ACRP Report 13: Integrating Airport Information Systems](#). ACRP Report 13 is designed to help airport managers and information technology professionals address issues associated with integrating airport information systems.

**Published:** April 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/161614.aspx>



### ***ACRP Web-Only Document 2 – Appendices to ACRP Report 11: Guidebook on Preparing Airport GHG Emissions Inventories***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 2 contains appendices A through F to [ACRP Report 11: Guidebook on Preparing Airport GHG Emissions Inventories](#).

The appendices titles are as follows:

- Appendix A-Reasons for Developing GHG Inventories
- Appendix B-Emissions and Sources
- Appendix C-Methods for Calculating GHG Emissions
- Appendix D-Methods for Calculating CO2 Equivalencies
- Appendix E-Inventory Development Protocols
- Appendix F-Approaches Used in Airport Inventories Prepared to Date

**Published:** April 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/160740.aspx>



### ***ACRP Research Results Digest 6 – Guidance for Identifying and Mitigating Approach Lighting System Hazards***

**Report Blurb:** Guidance for Identifying and Mitigating Approach Lighting System Hazards is designed to assist with defining response procedures to mitigate or reduce the hazards associated with aircraft and approach lighting system incidents.

Additional information on the project that developed ACRP RRD 6 was published as [ACRP Web-Only Document 4: Contractor’s Final Report for ACRP RRD 6: Guidance for Identifying and Mitigating Approach Lighting System Hazards](#), which explores the results of the research on approach lighting system (ALS) hazard identification and mitigation techniques.

**Published:** May 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/161718.aspx>



### ***ACRP Web-Only Document 4 – Contractor’s Final Report for ACRP RRD 6: Guidance for Identifying and Mitigating Approach Lighting System Hazards***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Web-Only Document 4: Contractor’s Final Report for ACRP RRD 6: Guidance for Identifying and Mitigating Approach Lighting System Hazards provides additional information on the project that developed [ACRP Research Results Digest 6](#), which explores the results of the research on approach lighting system (ALS) hazard identification and mitigation techniques.

**Published:** May 2009

**Link:** <http://www.trb.org/Publications/Blurbs/162283.aspx>



### ***ACRP Report 14 – Deicing Planning Guidelines and Practices for Stormwater Management Systems***

**Report Blurb:** Deicing Planning Guidelines and Practices for Stormwater Management Systems explores a wide array of practices designed to provide for the practical, cost-effective control of runoff from aircraft and airfield deicing and anti-icing operations. Detailed operational practices were published by TRB as a collection of [fact sheets](#).

The [May 2014 Impacts on Practice](#) examines how the Gerald R. Ford International Airport (GRR) in Grand Rapids, Michigan utilized ACRP Report 14: Deicing Planning Guidelines and Practices for Stormwater Management Systems to develop a long-term stormwater and deicing program that would maintain airport safety and comply with environmental regulations.

**Published:** June 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/161758.aspx>



### ***ACRP Web-Only Document 7 – How Proposed ARFF Standards Would Impact Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 7: How Proposed ARFF Standards Would Impact Airports explores the potential cost implications for airports of implementing proposed airport rescue and firefighting (ARFF) regulations that would be more closely aligned with voluntary consensus standards promulgated by the International Civil Aviation Organization and the National Fire Protection Association. Section 311 of H.R. 915 EH, the FAA Reauthorization Act of 2009, calls for more closely aligning ARFF regulations under part 139 of title 14, Code of Federal Regulations, Certification of Airports, with voluntary consensus standards.

A summary of this report was published online as [ACRP Research Results Digest 7: A Summary of How Proposed Firefighting Standards Would Impact Airports](#).

**Published:** June 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/161853.aspx>



### ***ACRP Legal Research Digest 6 – The Impact of Airline Bankruptcies on Airports***

**Report Blurb:** The Impact of Airline Bankruptcies on Airports examines legal issues presented by the filing of airline bankruptcies that are relevant to airports, and explores how airport lawyers and courts have responded to those issues. The report highlights the basics of bankruptcy theory and law relevant to airport operating agreements with airlines, and identifies issues such as lease recharacterization and payment of stub period rent that particularly affect airports dealing with airlines in bankruptcy.

**Published:** June 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/161948.aspx>



### ***ACRP Synthesis Report 14 – Airport System Planning Practices***

**Report Blurb:** Airport System Planning Practices explores the extent to which state aviation agencies and regional planning organizations are involved in airport system planning. The report also examines the type of studies these organizations perform and how successful their efforts have been in meeting the planning process objectives.

**Published:** June 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/161727.aspx>



### ***ACRP Synthesis Report 13 – Effective Practices for Preparing Airport Improvement Program Benefit-Cost Analysis***

**Report Blurb:** Effective Practices for Preparing Airport Improvement Program Benefit-Cost Analysis explores assessment techniques that can be used by airports in performing benefit-cost analysis for hard-to-quantify benefits from projects needing more than \$5 million in Airport Improvement Program discretionary funding.

**Published:** June 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/161751.aspx>



### ***ACRP Synthesis Report 15 – Identification of the Requirements and Training to Obtain Driving Privileges on Airfields***

**Report Blurb:** Identification of the Requirements and Training to Obtain Driving Privileges on Airfields explores information on the requirements and training required to obtain driving privileges on airport airfields, and the differences and similarities among the various airports throughout the country. The report also examines information on the types of training programs available to airport employees based on where the employees were authorized to drive.

**Published:** June 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/161890.aspx>



### ***ACRP Report 13 – Integrating Airport Information Systems***

**Report Blurb:** Integrating Airport Information Systems is designed to help airport managers and information technology professionals address issues associated with integrating airport information systems. A summary of the efforts associated with the development of ACRP

Report 13 was published online as [ACRP Web-Only Document 1: Analysis and Recommendations for Developing Integrated Airport Information Systems](#).

**Published:** June 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/161613.aspx>



### ***ACRP Synthesis Report 16 – Compilation of Noise Programs in Areas Outside DNL 65***

**Report Blurb:** Compilation of Noise Programs in Areas Outside DNL 65 explores alternative actions currently used by airports to address noise outside the DNL (Day–Night Average Noise Level) 65 contour.

An [ACRP Impacts on Practice](#) related to ACRP Synthesis 16 is available online.

**Published:** August 2009

**Link:** <http://www.trb.org/Main/Blurbs/162086.aspx>



### ***ACRP Report 16 – Guidebook for Managing Small Airports***

**Report Blurb:** Guidebook for Managing Small Airports is designed to help operators and managers of small airports find resources and identify techniques that they may apply to meet their responsibilities.

[ACRP Web-Only Document 5: Development of a Guidebook for Managing Small Airports](#) documents the research process and is available online.

[Information on buying](#) a recorded version of a 2010 webinar on ACRP Report 16 is available online.

An [ACRP Impacts on Practice](#) related to ACRP Report 16 is available online.

**Published:** August 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/162145.aspx>



### ***ACRP Web-Only Document 5 – Development of a Guidebook for Managing Small Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 5: Development of a Guidebook for Managing Small Airports describes the research process related to the development of [ACRP Report 16: Guidebook for Managing Small Airports](#).

**Published:** August 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/162146.aspx>



### ***ACRP Legal Research Digest 7 – Airport Governance and Ownership***

**Report Blurb:** Airport Governance and Ownership addresses the issue of essential powers to operate an airport; defines what airport governance includes; describes the advantages and disadvantages of the various governance structures; identifies and analyzes a number of projects where airports were transferred from one form of governance to another; and examines legal problems encountered during these transfers.

**Published:** September 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/162331.aspx>



### ***ACRP Report 18 – Passenger Air Service Development Techniques***

**Report Blurb:** Passenger Air Service Development Techniques explores the underlying competitive challenges that small communities face in retaining or enhancing their commercial air service, examines how communities can address those challenges, and describes the basic components and tools of an air service development program.

**Published:** October 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/162396.aspx>



### ***ACRP Research Results Digest 7 – A Summary of How Proposed Firefighting Standards Would Impact Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Research Results Digest 7: A Summary of How Proposed Firefighting Standards Would Impact Airports explores the potential cost implications for airports of implementing proposed airport rescue and fire fighting (ARFF) regulations that would be more closely aligned with voluntary consensus standards promulgated by the International Civil Aviation Organization and the National Fire Protection Association. Section 311 of H.R. 915 EH, the FAA Reauthorization Act of 2009, calls for more closely aligning ARFF regulations under part 139 of title 14, Code of Federal Regulations, Certification of Airports, with voluntary consensus standards.

The full report was published online as [ACRP Web-Only Document 7](#): How Proposed ARFF Standards Would Impact Airports.

**Published:** October 2009

**Link:** <http://www.trb.org/Main/Blurbs/162490.aspx>



### ***ACRP Report 21 – A Guidebook for Selecting Airport Capital Project Delivery Methods***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 21: A Guidebook for Selecting Airport Capital Project Delivery Methods explores various project delivery methods for major airport capital projects. The guidebook also examines the impacts, advantages, and disadvantages of various project delivery methods including design-bid-build, construction manager at risk, and design-build.

A companion publication to this report, [ACRP Web-Only Document 6](#): Evaluation and Selection of Airport Capital Project Delivery Methods, reviews pertinent literature and research findings related to various project delivery methods for airport projects. It contains definitions of project delivery methods and discusses the existing selection approaches commonly used by airports.

Appendixes C to F for ACRP Report 21 are available online. Electronic versions of the forms contained in Appendixes C–E are also available.

- [Appendix C](#): Forms for Project Description and Goals
- [Appendix D](#): Forms for Analytical Delivery Decision Approach (Tier 1)
- [Appendix E](#): Forms for Weighted-Matrix Delivery Decision Approach (Tier 2)
- [Appendix F](#): Case Study Example: Logan International Airport Central Parking Garage

**Published:** October 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/162449.aspx>



### ***ACRP Web-Only Document 6 – Evaluation and Selection of Airport Capital Project Delivery Methods***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 6: Evaluation and Selection of Airport Capital Project Delivery Methods reviews pertinent literature and research findings related to various project delivery methods for airport projects. It contains definitions of project delivery methods and discusses the existing selection approaches commonly used by airports. ACRP Web-Only Document 6 is a companion document to [ACRP Report 21](#): Guidebook for Selecting Airport Capital Project Delivery Methods.

**Published:** October 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/162450.aspx>



### ***ACRP Report 17 – Airports and the Newest Generation of General Aviation Aircraft, Volume 1: Forecast***

**Report Blurb:** Airports and the Newest Generation of General Aviation Aircraft, Volume 1: Forecast explores a forecast of anticipated fleet activity associated with the newest generation of general aviation aircraft for 5- and 10-year outlooks. [ACRP Report 17, Volume 2](#) is a guidebook designed to help airport operators assess the practical requirements and innovative approaches that may be needed to accommodate these new aircraft.

**Published:** October 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/162360.aspx>



### ***ACRP Report 17 – Airports and the Newest Generation of General Aviation Aircraft, Volume 2: Guidebook***

**Report Blurb:** Airports and the Newest Generation of General Aviation Aircraft, Volume 2: Guidebook is designed to help airport operators assess the practical requirements and innovative approaches that may be needed to accommodate these new aircraft. [ACRP Report 17, Volume 1](#) explores a forecast of anticipated fleet activity associated with the newest generation of general aviation aircraft for 5- and 10-year outlooks.

**Published:** October 2009

**Link:** <http://www.trb.org/Main/Blurbs/162359.aspx>



### ***ACRP Report 22 – Helping Airport and Air Carrier Employees Cope with Traumatic Events***

**Report Blurb:** Helping Airport and Air Carrier Employees Cope with Traumatic Events provides insight and practical guidance to address the difficult emotional and psychological implications in response and exposure to traumatic events. These traumatic events can be the result of human-made accidents, acts of terrorism, or natural disasters that have occurred at, in the vicinity of, or resulting from the operation of an air carrier at an airport.



An [ACRP Impacts on Practice](#) related to ACRP Report 22 was produced in 2011.

**Published:** October 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/162365.aspx>



### ***ACRP Web-Only Document 9 – Enhanced Modeling of Aircraft Taxiway Noise, Volume 1—Scoping***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 9: Enhanced Modeling of Aircraft Taxiway Noise, Volume 1: Scoping explores ways to model airport noise from aircraft taxi operations and examines a plan for implementation of a taxi noise prediction capability into the Federal Aviation Administration’s integrated noise model in the short term and into its aviation environmental design tool in the longer term.

[ACRP Web-Only Document 9: Enhanced Modeling of Aircraft Taxiway Noise, Volume 2: Aircraft Taxi Noise Database and Development Process](#) documents the procedures developed and employed in the creation of a taxi noise database for the U.S. Federal Aviation Administration’s Integrated Noise Model and Aviation Environmental Design Tool (AEDT). The AEDT is currently under development.

**Published:** November 2009

**Link:** <http://www.trb.org/Publications/Blurbs/162509.aspx>



### ***ACRP Report 1 – Safety Management Systems for Airports, Volume 2: Guidebook***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 1: Safety Management Systems for Airports, Volume 2: Guidebook explores what constitutes an airport safety management system (SMS). The report examines SMS components and their interactions, and offers guidance in the planning, implementation, and operation of an airport SMS. It also provides detailed information on how to carry out each of the necessary SMS processes.

This guidebook supplements [ACRP Report 1: Volume 1](#), which provides an overview of SMS and explains how a systems approach to safety management can benefit both the safety and business aspects of airports.

[http://onlinepubs.trb.org/onlinepubs/acrp/acrp\\_rpt\\_001a.pdf](http://onlinepubs.trb.org/onlinepubs/acrp/acrp_rpt_001a.pdf)

**Published:** November 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/162491.aspx>



### ***ACRP Synthesis Report 17 – Approaches to Integrating Airport Development and Federal Environmental Review Processes***

**Report Blurb:** Approaches to Integrating Airport Development and Federal Environmental Review Processes explores practices that airport sponsors and U.S. Federal Aviation Administration (FAA) planners and environmental specialists have used to integrate airport planning efforts and the FAA’s environmental review processes.

**Published:** November 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/162542.aspx>



### ***ACRP Report 23 – Airport Passenger-Related Processing Rates Guidebook***

**Report Blurb:** Airport Passenger-Related Processing Rates Guidebook provides guidance on how to collect accurate passenger-related processing data for evaluating facility requirements to promote efficient and cost-effective airport terminal design.

**Published:** November 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/162539.aspx>



### ***ACRP Legal Research Digest 8 – The Right to Self-Fuel***

**Report Blurb:** The Right to Self-Fuel explores the meaning of and constraints involved with self-fueling at airports.

**Published:** December 2009

**Link:** <http://www.trb.org/ACRP/Blurbs/162665.aspx>

## 2010



### ***ACRP Research Results Digest 8 – Synthesis of Information Related to Airport Practices: 2010***

**Report Blurb:** Synthesis of Information Related to Airport Practices is a digest of the progress and status of ACRP Project 11-03, Synthesis of Information Related to Airport Practices.

**Published:** January 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/162859.aspx>



### ***ACRP Report 29 – Developing Improved Civil Aircraft Arresting Systems***

**Report Blurb:** Developing Improved Civil Aircraft Arresting Systems explores alternative materials that could be used for an engineered material arresting system (EMAS), as well as potential active arrestor designs for civil aircraft applications. The report examines cellular glass foam, aggregate foam, engineered aggregate, and a main-gear engagement active arrestor

system.

**Published:** January 2010

**Link:** <http://www.trb.org/Main/Blurbs/162818.aspx>



### ***ACRP Report 24 – Guidebook for Evaluating Airport Parking Strategies and Supporting Technologies***

**Report Blurb:** Guidebook for Evaluating Airport Parking Strategies and Supporting Technologies explores various parking strategies and technologies that are employed, or have

potential applications, at airports in the United States.

View information about the October 26, 2010 [TRB Webinar: Evaluating Airport Parking Strategies and Managing Parking Constraints](#), which addresses ACRP Report 24 and ACRP Report 34: A Handbook to Assess Impacts of Constrained Parking.

**Published:** January 2010

**Link:** <http://www.trb.org/Publications/Blurbs/162823.aspx>



### ***ACRP Report 26 – Guidebook for Conducting Airport User Surveys***

**Report Blurb:** Guidebook for Conducting Airport User Surveys explores the basic concepts of survey sampling and the steps involved in planning and implementing a survey. The guidebook also examines the different types of airport user surveys, and includes guidance on how to design a survey and analyze its results.

**Published:** January 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/162765.aspx>



### ***ACRP Report 20 – Strategic Planning in the Airport Industry***

**Report Blurb:** Strategic Planning in the Airport Industry explores practical guidance on the strategic planning process for airport board members, directors, department leaders, and other employees; aviation industry associations; a variety of airport stakeholders, consultants, and other airport planning professionals; and aviation regulatory agencies. A workbook of tools and sequential steps of the strategic planning process is provided with the report as on a CD. The CD is also available online for download as an ISO image or the [workbook can be downloaded in pdf format](#).

An [ACRP Impacts on Practice](#) released to ACRP Report 20 is available online.

**Published:** January 2010

**Link:** <http://www.trb.org/Main/Blurbs/162801.aspx>



### ***ACRP Report 15 – Aircraft Noise: A Toolkit for Managing Community Expectations***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 15: Aircraft Noise: A Toolkit for Managing Community Expectations explores ways to improve communications with the public about issues related to aircraft noise exposure. The report examines practices that characterize an effective communications program and provides basic information about noise and its abatement to assist in responding to public inquiries.

ACRP Report 15 also identifies tools designed to help initiate a new or upgrade an existing program of communication with public and private stakeholders about noise issues. An accompanying CD-ROM with the printed version of the report contains a toolkit with examples of material that has been successfully used to communicate information about noise, as well as numerous guidance documents about noise and communications. The CD-ROM is also available for download as an ISO image online.

An [ACRP Impacts on Practice](#) related to ACRP Report 15 is available online.

**Published:** January 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/162800.aspx>



## ***ACRP Report 28 – Marketing Guidebook for Small Airports***

**Report Blurb:** Marketing Guidebook for Small Airports explores development of a marketing program for general aviation or commercial service airports on a small or minimal budget.

View information about the [TRB webinar](#) on ACRP Report 28: Marketing Guidebook for Small Airports Tuesday, April 6, 2010 at 2 PM EDT.

The November 2013 [ACRP Impacts on Practice](#) highlights how the Fort Wayne International Airport in Indiana used ACRP Report 28 to create a marketing plan.

**Published:** March 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/163059.aspx>



## ***Airport Cooperative Research Program Brochure***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) has produced an updated brochure that explores various aspects of the program and provides information on the different ways individuals can become involved in ACRP. [ACRP](#) is an industry-driven, applied research program that develops near-term, practical solutions to problems faced by airport operators.

**Published:** March 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/163450.aspx>



## ***ACRP Report 25 – Airport Passenger Terminal Planning and Design, Volume 2: Spreadsheet Models and User's Guide***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 25, Airport Passenger Terminal Planning and Design comprises a guidebook, spreadsheet models, and a user's guide in two volumes and a CD-ROM intended to provide guidance in planning and developing airport passenger terminals and to assist users in analyzing common issues related to airport terminal planning and design.

Volume 2 of ACRP 25 consists of a CD-ROM containing 11 spreadsheet models, which include practical learning exercises and several airport-specific sample data sets to assist users in determining appropriate model inputs for their situations, and a user's guide to assist the user in the correct use of each model. The models on the CD-ROM include such aspects of terminal planning as design hour determination, gate demand, check-in and passenger and baggage screening, which require complex analyses to support planning decisions. The CD-ROM is also available for download from TRB's website as an ISO image.

[Volume 1 of ACRP Report 25](#) describes the passenger terminal planning process and provides, in a single reference document, the important criteria and requirements needed to help address emerging trends and develop potential solutions for airport passenger terminals. Volume 1 addresses the airside, terminal building, and landside components of the terminal complex.

**Published:** March 2010

**Link:** <http://www.trb.org/Main/Blurbs/163171.aspx>



### ***ACRP Report 25 – Airport Passenger Terminal Planning and Design, Volume 1: Guidebook***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 25, Airport Passenger Terminal Planning and Design comprises a guidebook, spreadsheet models, and a user’s guide in two volumes and a CD-ROM intended to provide guidance in planning and developing airport passenger terminals and to assist users in analyzing common issues related to airport terminal planning and design.

Volume 1 of ACRP Report 25 explores the passenger terminal planning process and provides, in a single reference document, the important criteria and requirements needed to help address emerging trends and develop potential solutions for airport passenger terminals. Volume 1 addresses the airside, terminal building, and landside components of the terminal complex.

**Published:** April 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/163252.aspx>



### ***ACRP Report 31 – Innovative Approaches to Addressing Aviation Capacity Issues in Coastal Mega-regions***

**Report Blurb:** Innovative Approaches to Addressing Aviation Capacity Issues in Coastal Mega-regions examines the aviation capacity issues in the two coastal mega-regions located along the East and West coasts of the United States. The report explores integrated strategic actions to that could potentially address the constrained aviation system capacity and growing travel demand in the high-density, multijurisdictional, multimodal, coastal mega-regions.

**Published:** April 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/163311.aspx>



### ***ACRP Synthesis Report 18 – Aviation Workforce Development Practices***

**Report Blurb:** Aviation Workforce Development Practices explores airport operating entity jobs and related skill sets needed to perform those jobs. The report also identifies potential ways to gain training on the skill sets needed to fulfill airport-related jobs and notes gaps where skill sets, and educational and advancement opportunities, may exist.

#### **Errata**

On page 13 of ACRP Synthesis 18, the first paragraph under the heading Accredited Airport Executive (AAE) and Certified Member (CM) Programs was incomplete. The paragraph should read:

"The AAAE’s accredited airport executive program is widely accepted in the industry as one of the standard programs for developing executive-level airport professionals. To satisfy the written requirement, a candidate may choose to write a research paper on an approved topic, take and pass a proctored essay examination, write a case study on an approved topic, or submit documentation of a completed master’s degree. Candidates do have access to an AAAE staff member for support while completing the written requirement; however, staff does not help candidates develop research for their written report. The Academic Relations Committee sponsors a mentor program pairing already accredited professionals with student members of the association. The South Central Chapter sponsors a week-long Academy to help prepare candidates for the multiple choice exam. There are three academies each year. Members of the AAAE Academic Relations Committee include AAAE members."

**Published:** April 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/163380.aspx>



***ACRP Report 27 – Enhancing Airport Land Use Compatibility, Volume 1: Land Use Fundamentals and Implementation Resources***

**Report Blurb:** Enhancing Airport Land Use Compatibility, Volume 1: Land Use Fundamentals and Implementation Resources is part of a three-volume report that explores issues related to land use around airports. Volume 1 provides guidance designed to help protect airports from incompatible land uses that impair current and future airport and aircraft operations and safety.

[Volume 2: Land Use Survey and Case Study Summaries](#) includes 15 case studies that targeted a wide range of airports and land use issues. The case study sites include large commercial service, military, and general aviation airports and are geographically diverse. Volume 2 also provides states and local governments with examples and a common basis for establishing zoning that protects the public interest and investment in airports. Volume 3 includes aircraft accident data, a framework for an economic assessment of airport costs, and an annotated bibliography. Volumes 1 and 2 are available in print and online. Volume 3 is only available in electronic format.

Volume 3: Additional Resources is made up of three individual components that collectively contain some of the resource documents developed to support the information explored in Volume 1. Volume 3 includes additional detail on specific topics of [aircraft accident data and third party risk](#), and on the [economic methodology for assessing the costs associated with incompatible land uses](#). Volume 3 also includes an [annotated bibliography](#) that contains approximately 300 entries related to airport land use compatibility.

View more information about the September 2, 2010 [TRB Webinar: Enhancing Airport Land Use Compatibility](#), which focuses on Volume 1: Land Use Fundamentals and Implementation Resources.

**Published:** April 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/163344.aspx>



***ACRP Report 27 – Enhancing Airport Land Use Compatibility, Volume 2: Land Use Survey and Case Study Summaries***

**Report Blurb:** Enhancing Airport Land Use Compatibility, Volume 2: Land Use Survey and Case Study Summaries is part of a three-volume report that explores issues related to land use around airports. Volume 2 includes 15 case studies that targeted a wide range of airports and land use issues.

The case study sites include large commercial service, military, and general aviation airports and are geographically diverse. Volume 2 also provides states and local governments with examples and a common basis for establishing zoning that protects the public interest and investment in airports.

TRB’s Airport Cooperative Research Program (ACRP) Report 27: Enhancing Airport Land Use Compatibility, Volume 2: Land Use Survey and Case Study Summaries is part of a three-volume report that explores issues related to land use around airports. Volume 2 includes 15 case studies that targeted a wide range of airports and land use issues. The case study sites include large commercial service, military, and general aviation airports and are geographically diverse. Volume 2 also provides states and local governments with examples and a common basis for establishing zoning that protects the public interest and investment in airports.

[Volume 1: Land Use Fundamentals and Implementation Resources](#) provides guidance designed to help protect airports from incompatible land uses that impair current and future airport and aircraft operations and safety. Volume 3 includes aircraft accident data, a framework for an economic assessment of airport costs, and an annotated bibliography.

Volume 3: Additional Resources is made up of three individual components that collectively contain some of the resource documents developed to support the information explored in Volume 1. Volume 3 includes additional detail on specific topics of [aircraft accident data and third party risk](#), and on the [economic methodology for assessing the costs associated with incompatible land uses](#). Volume 3 also includes an [annotated bibliography](#) that contains approximately 300 entries related to airport land use compatibility.

**Published:** April 2010

**Link:** <http://www.trb.org/Main/Blurbs/163345.aspx>



***ACRP Research Results Digest 9 – Alternative Aircraft and Pavement Deicers and Anti-Icing Formulations with Improved Environmental Characteristics***

**Report Blurb:** Alternative Aircraft and Pavement Deicers and Anti-Icing Formulations with Improved Environmental Characteristics explores the aquatic toxicity and biological oxygen demand state of the art, components, and promising alternative formulations of deicing and anti-icing products. The report also examines the performance; efficiency; material compatibility; and environmental, operational, and safety impacts of alternative formulations and components as well as the fate and transport of deicing and anti-icing formulation components and their degradation products.

A full report on this issue was published by TRB as [ACRP Web-Only Document 8](#). Volume I of the project final report is available as [ACRP Web-Only Document 3](#).

**Published:** May 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/163408.aspx>



***ACRP Report 30 – Reference Guide on Understanding Common Use at Airports***

**Report Blurb:** Reference Guide on Understanding Common Use at Airports is designed to assist airports and airlines exploring the possibility of and evaluating the appropriateness of integrating “common use” in their operations. The report’s accompanying CD-ROM provides an alternative source of and approach to the information found in the reference guide and includes spreadsheet models that can be used in analyzing and evaluating how to integrate common use.

“Common use” most generally refers to a technological method that airlines use to process passengers: at the ticket counter, at self-service kiosks, or at the gates. In this report, however, “common use” is also discussed as an operating philosophy that an airport can use in managing and administering the airport--representing a paradigm shift in the traditional tenant-landlord relationship.

**Published:** May 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/163513.aspx>



***ACRP Legal Research Digest 9 – Case Studies on Community Challenges to Airport Development***

**Report Blurb:** Case Studies on Community Challenges to Airport Development explores judicial decisions related to challenges to airport expansion and development. The report examines the basis, defense strategies, and outcomes of cases, as well as the results of a survey of airports regarding litigation strategies.

Published: June 2010

Link: <http://www.trb.org/ACRP/Blurbs/163599.aspx>



### ***ACRP Synthesis Report 19 – Airport Revenue Diversification***

**Report Blurb:** Airport Revenue Diversification explores the different sources of revenue for airports, separating core aeronautical revenue from ancillary revenues. The report also examines ways that airports have diversified activities and highlights the challenges that arise when non-aeronautical activity is proposed on land that is subject to Federal Aviation Administration grants obligations and assurances.

Published: June 2010

Link: <http://www.trb.org/ACRP/Blurbs/163650.aspx>



### ***ACRP Synthesis Report 20 – Airport Terminal Facility Activation Techniques***

**Report Blurb:** Airport Terminal Facility Activation Techniques explores lessons learned during terminal activations at 13 domestic and international airport facilities. The report is designed to help identify effective airport terminal facility activation practices.

Published: July 2010

Link: <http://www.trb.org/ACRP/Blurbs/163782.aspx>



### ***ACRP Research Results Digest 10 – Light Detection and Ranging (LIDAR) Deployment for Airport Obstruction Surveys***

**Report Blurb:** Light Detection and Ranging (LIDAR) Deployment for Airport Obstruction Surveys explores the readiness of LIDAR technology as a cost-effective alternative to the traditional methods for collecting the data required to prepare airport obstruction surveys that meet government requirements. The report also examines a sample specification that responsible agencies might use to procure LIDAR-based aerial survey services to produce an airport obstruction survey.

Published: July 2010

Link: <http://www.trb.org/ACRP/Blurbs/163789.aspx>



### ***ACRP Report 32 – Guidebook for Addressing Aircraft/Wildlife Hazards at General Aviation Airports***

**Report Blurb:** Guidebook for Addressing Aircraft/Wildlife Hazards at General Aviation Airports explores wildlife challenges that airports may face and potential techniques and strategies for addressing them.

The guidebook examines the different species that can be found at airports and specific information that may be helpful in identifying and controlling them, and the various wildlife attractants and best management practices that can be employed by airport operators to minimize wildlife activity at and around airports. The report also highlights wildlife control strategies and techniques that may be appropriate at general aviation airports, and reviews how to develop a wildlife control program.

[Learn more about the webinar related to this product](#), scheduled for October 24, 2011.



**Published:** July 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/163690.aspx>



### ***ACRP Web-Only Document 8 – Alternative Aircraft Anti-Icing Formulations with Reduced Aquatic Toxicity and Biochemical Oxygen Demand***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Web-Only Document 8: Alternative Aircraft Anti-Icing Formulations with Reduced Aquatic Toxicity and Biochemical Oxygen Demand explores the aquatic toxicity and biological oxygen demand state of the art, components, and promising alternative formulations of deicing and anti-icing products. The report also examines the performance; efficiency; material compatibility; and environmental, operational, and safety impacts of alternative formulations and components as well as the fate and transport of deicing and anti-icing formulation components and their degradation products.

A summary of this report was produced as [ACRP Research Results Digest 9](#).

**Published:** July 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/163310.aspx>



### ***ACRP Synthesis Report 21 – Airport Energy Efficiency and Cost Reduction***

**Report Blurb:** Airport Energy Efficiency and Cost Reduction explores energy efficiency improvements being implemented at airports across the country that are low cost and short payback.

**Published:** September 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/164002.aspx>



### ***ACRP Report 35 – Planning for Offsite Airport Terminals***

**Report Blurb:** Planning for Offsite Airport Terminals explores issues related to providing originating passengers with remote terminal facilities. The report examines how to identify potential customers for an offsite terminal and how the concept fits into airport planning.

**Published:** September 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/164094.aspx>



### ***ACRP Report 37 – Guidebook for Planning and Implementing Automated People Mover Systems at Airports***

**Report Blurb:** Guidebook for Planning and Implementing Automated People Mover Systems at Airports includes guidance for planning and developing automated people mover (APM) systems at airports. The guidance in the report encompasses the planning and decision-making process, alternative system infrastructure and technologies, evaluation techniques and strategies, operation and maintenance requirements, coordination and procurement requirements, and other planning and development issues.

The guidebook includes an interactive CD that contains a database of detailed characteristics of the 44 existing APM systems. The CD is also available for download from TRB's website as an ISO image.

**Published:** October 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/164211.aspx>



### ***ACRP Report 34 – Handbook to Assess the Impacts of Constrained Parking at Airports***

**Report Blurb:** Handbook to Assess the Impacts of Constrained Parking at Airports explores different types of parking constraints that airports experience and highlights tools to assess the impacts of the constraints and strategies to deal with them.

The handbook includes a predictive modeling tool in a CD-ROM format designed to help determine the effects of implementing various parking strategies. The CD is also available for download from TRB's website as an ISO image. Links to the ISO image and instructions for burning a CD-ROM from an ISO image are provided below.

**Published:** October 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/164238.aspx>



### ***ACRP Report 19 – Developing an Airport Performance-Measurement System***

**Report Blurb:** Developing an Airport Performance-Measurement System provides guidance on developing and implementing an effective performance-measurement system for airports. The report's accompanying CD-ROM provides tools designed to help users complete the step-by-step process for developing an airport performance-measurement system as presented in ACRP Report 19.

**Published:** October 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/164175.aspx>



### ***ACRP Legal Research Digest 10 – Analysis of Federal Laws, Regulations, and Case Law Regarding Airport Proprietary Rights***

**Report Blurb:** Analysis of Federal Laws, Regulations, and Case Law Regarding Airport Proprietary Rights explores airport proprietary rights, including regulation of noise, other environmental matters, safety restrictions, leasing practices, congestion management, and other airport access limitations. The report examines relevant statutes, regulations, and case decisions determining the scope of airport proprietary rights—the rights within the owner's purview and those which have been determined to exceed the owner's authority.

**Published:** October 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/164180.aspx>



### ***ACRP Impacts on Practice – Guidebook Informs Nation's Smaller Airports***

**Report Blurb:** In February 2010, TRB's Airport Cooperative Research Program (ACRP) released [ACRP Report 16: Guidebook for Managing Small Airports](#), which is designed to help operators and managers of small airports find resources and identify techniques that they may

apply to meet their responsibilities. Since its release, the report has quickly become a valuable reference on the myriad of responsibilities and challenges that the nation's small airport operators and managers face every day. ACRP's first issue of its new Impacts on Practice series highlights the value of ACRP Report 16 to airports, their communities, and the traveling public.

ACRP's Impacts on Practice series is designed to provide examples of how airport industry practitioners are using ACRP research results to assist them in their work. The goal of the Airport Cooperative Research Program is to provide well-researched, useful publications that can contribute to the growth and development of the nation's airport industry. ACRP publications can help improve airport administrative practices, develop safer and more effective operational techniques, and increase performance efficiency.

**Published:** October 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/164327.aspx>



***ACRP Research Results Digest 11 – Helping Airports Understand the Payment Card Industry Data Security Standard (PCI DSS)***

**Report Blurb:** Helping Airports Understand the Payment Card Industry Data Security Standard (PCI DSS) explores PCI DSS and the impacts that an airport needs to consider when reviewing its credit data retention policies and systems that process credit card payment

transactions.

**Published:** October 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/164245.aspx>



***ACRP Impacts on Practice – November 2010: San Diego's Efforts to Mitigate Noise Impacts for Community Stakeholders***

**Report Blurb:** The latest issue of TRB's Airport Cooperative Research Program (ACRP) Impacts on Practice explores how officials at San Diego International Airport (SAN) have used two ACRP publications ([ACRP Report 15](#): Aircraft Noise: A Toolkit for Managing Community Expectations and [ACRP Synthesis 16](#): Compilation of Noise Programs in Areas Outside DNL 65) to gain insights, ideas, perspectives, and tools that have contributed to the effectiveness of SAN's efforts to mitigate the impacts of noise.

**Published:** November 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/164371.aspx>



***ACRP Report 36 – Airport/Airline Agreements—Practices and Characteristics***

**Report Blurb:** Airport/Airline Agreements—Practices and Characteristics is designed to assist both airport operators and airlines with negotiating and understanding various aspects of airline/airport operator business relationships—including those in use and lease agreements—by enhancing mutual understanding of each other's decision-making process during negotiations.

**Published:** December 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/164482.aspx>



### ***ACRP Report 38 – Understanding Airspace, Objects, and Their Effects on Airports***

**Report Blurb:** Understanding Airspace, Objects, and Their Effects on Airports provides a comprehensive description of the regulations, standards, evaluation criteria, and processes designed to protect the airspace surrounding airports.

The report is designed to help understand and apply the appropriate airspace design and evaluation criteria to ensure a safe operating environment for aircraft and to maintain airport operational flexibility and reliability, without unduly restricting desirable building development and attendant economic growth in the surrounding community.

**Published:** December 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/164477.aspx>



### ***ACRP Report 39 – Recommended Guidelines for the Collection and Use of Geospatially Referenced Data for Airfield Pavement Management***

**Report Blurb:** Recommended Guidelines for the Collection and Use of Geospatially Referenced Data for Airfield Pavement Management offers recommended guidelines for the collection and use of geospatially referenced data for airfield pavement management.

The guidelines provide a data schema, data collection methods, data quality requirements, and other relevant information required for developing specifications and standards for integrating geospatial data into pavement management systems.

**Published:** December 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/164479.aspx>



### ***ACRP Report 40 – Airport Curbside and Terminal Area Roadway Operations***

**Report Blurb:** Airport Curbside and Terminal Area Roadway Operations includes guidance on a cohesive approach to analyzing traffic operations on airport curbside and terminal area roadways.

The report examines operational performance measures for airport curbside and terminal area roadway operations and reviews methods of estimating those performance measures. The report includes a quick analysis tool for curbside operations and low-speed roadway weaving area, highlights techniques for estimating traffic volumes, and presents common ways of addressing operational problems.

**Published:** December 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/164469.aspx>



### ***ACRP Web-Only Document 11 – A Comprehensive Development Plan for a Multimodal Noise and Emissions Model***

**Report Blurb:** A Comprehensive Development Plan for a Multimodal Noise and Emissions Model explores development of a tool that would allow for the assessment of the noise and air quality impacts on the population from multiple transportation sources, assess the total costs and impacts, and assist in the design and implementation of mitigation strategies. The availability of a multimodal noise and emissions

model could help inform airport and policymakers charged with evaluating and making decisions on expanding transportation facilities.

**Published:** December 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/164543.aspx>



### ***ACRP Impacts on Practice – December 2010: Strategic Planning at Toronto Pearson International Airport***

**Report Blurb:** The latest issue of TRB’s Airport Cooperative Research Program (ACRP) Impacts on Practice explores the use of ACRP Report 20: Strategic Planning in the Airport Industry by board members of the Greater Toronto Airports Authority (GTAA) in posing the appropriate strategic questions to help move GTAA and the Lester B. Pearson International Airport forward to a desired future.

**Published:** December 2010

**Link:** <http://www.trb.org/ACRP/Blurbs/164385.aspx>

## 2011



### ***ACRP Report 41 – Guide to the Decision-Making Tool for Evaluating Passenger Self-Tagging***

**Report Blurb:** Guide to the Decision-Making Tool for Evaluating Passenger Self-Tagging provides the information and tools, included on and accompanying CD-ROM, necessary for an airport or airline to determine the appropriateness of pursuing passenger self-tagging should it be allowed in the United States in the future.

The tools, in an Excel Spreadsheet format, allow for the input of airport-specific information, such as facility size and passenger flows, while also providing industry averages to assist those airports and airlines that haven’t yet collected their individual information. The decision-making tools provide both qualitative and quantitative information that can then be used to assess if passenger self-tagging meets organizational needs or fits into their strategic plan.

Appendix A to ACRP 41 was published online as [ACRP Web-Only Document 10](#): Appendix A: Research Documentation for ACRP Report 41.

**Published:** January 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/164693.aspx>



### ***ACRP Web-Only Document 10 – Appendix A: Research Documentation for ACRP Report 41***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 10 is Appendix A: Research Documentation to [ACRP Report 41](#): Guide to the Decision-Making Tool for Evaluating Passenger Self-Tagging, which provides the information and tools, included on an accompanying CD-ROM, necessary for an airport or airline to determine the appropriateness of pursuing passenger self-tagging should it be allowed in the United States in the future.

**Published:** January 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/164162.aspx>



### ***ACRP Report 42 – Sustainable Airport Construction Practices***

**Report Blurb:** Sustainable Airport Construction Practices explores a set of best practices, methods, procedures, and materials that if implemented during construction may have a sustainable, positive economic, operational, environmental, or social effect.

The report includes the collection of sustainable airport construction practices in a searchable, filterable spreadsheet format on a CD-ROM, which is packaged with the report.

**Published:** January 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/164240.aspx>



### ***ACRP Annual Report of Progress 2010***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) has released its annual report that highlights progress the program has made over the last year, as well as accomplishments since the program began in 2005. In addition, the report provides general background on the program and information on program participants, the research selection process, program management, project panels, contractor selection, funding, recently completed products, and the status of research activities.

**Published:** January 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/164686.aspx>



### ***ACRP Report 33 – Guidebook for Developing and Managing Airport Contracts***

**Report Blurb:** Guidebook for Developing and Managing Airport Contracts is a guidebook of best practices for developing, soliciting, and managing airport agreements and contracts for use by a variety of airports.

The agreements referenced in this guidebook range from airline-related agreements to communication and utility service as well as common-use, ground transportation, and concessions agreements for a variety of passenger services. An accompanying CD-ROM provides sample agreements in each of these areas.

**Published:** February 2011

**Link:** <http://www.trb.org/Main/Blurbs/164803.aspx>



### ***ACRP Report 43 – Guidebook of Practices for Improving Environmental Performance at Small Airports***

**Report Blurb:** Guidebook of Practices for Improving Environmental Performance at Small Airports outlines federal environmental regulations and requirements, and identifies activities in which airport operators can be proactive in promoting environmental stewardship.

As a quick reference, summary graphics provide information pertaining to the cost and savings as well as the necessary knowledge and amount of time to implement a particular activity. In addition, there are five case studies that discuss environmental initiatives already undertaken at airports that can serve as a guide for other airports.

The report includes the collection of environmental stewardship practices in a searchable, filterable spreadsheet format on a CD-ROM, which is packaged with the report.

**Published:** February 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/164885.aspx>



***ACRP Research Results Digest 12 – Synthesis of Information Related to Airport Practices: 2011***

**Report Blurb:** Synthesis of Information Related to Airport Practices is a digest of the progress and status of ACRP Project 11-03, Synthesis of Information Related to Airport Practices.

**Published:** February 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/164765.aspx>



***ACRP Legal Research Digest 11 – Survey of Minimum Standards: Commercial Aeronautical Activities at Airports***

**Report Blurb:** Commercial Aeronautical Activities at Airports explores source material for adopting and enforcing minimum standards that airport owners and operators commonly impose on businesses that perform commercial aeronautical activities that occur at airports.

Examples of aeronautical activities include aircraft fueling, line (ground handling) services, maintenance and repair, storage, rental and flight training/instruction, sales, and charter and management. The report also explores current practices in the area of minimum standards and includes a compendium of comparative minimum standards.

**Published:** March 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/165017.aspx>



***ACRP Report 19A – Resource Guide to Airport Performance Indicators***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 19A: Resource Guide to Airport Performance Indicators explores airport performance indicators (APIs) for use in benchmarking and performance measurement. These APIs are sorted by functional type and their criticality to the airport strategic plan.

More than 800 performance indicators are presented in three main categories: Core, Key, and Other APIs. “Core” or fundamental indicators are important for overall operation of the airport and of interest to the Chief Executive Officer or governing board. “Key” or departmental indicators are important for the operations of key airport functions and departments. The remaining “Other” indicators are considered useful as secondary departmental unit performance indicators but not critical to the airport’s overall function.

**Published:** April 2011

**Link:** <http://www.trb.org/Main/Blurbs/165238.aspx>



### ***ACRP Report 48 – Impact of Jet Fuel Price Uncertainty on Airport Planning and Development***

**Report Blurb:** Impact of Jet Fuel Price Uncertainty on Airport Planning and Development is designed to help airport operators and planners measure the impact of changes in jet fuel price on supply and demand for air service at commercial service airports.

The report includes background research; a computer model, available online and in CD ROM format attached to the printed version of the report; and a user manual. Please note that macros must be enabled in the Microsoft Excel file for the program to run.

The output of the model can ultimately be used to help evaluate the impact of uncertainty on airport development and finance. Applying specific input parameters, the model, embedded in a user-friendly program, allows airport planners and managers to assess how fuel, economic, and other uncertainties may affect their particular airport and to test the sensitivity of varying assumptions about key drivers of airport activity.

The supporting research examines historical changes in fuel prices in the context of changing economic conditions and uses this experience to assess risk in adhering to existing air traffic forecasts when planning future airport improvements or expansion. The model illustrates risk using confidence bands that indicate a range of forecasts as a function of changing jet fuel prices and other factors. The research also examines the historic link between changes in jet fuel prices in relation to periodic occurrence of recessions and how changing demand may, in turn, result in changes in fleet composition and size.

**Published:** April 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/165241.aspx>



### ***ACRP Web-Only Document 12 – Risk Assessment of Proposed ARFF Standards***

**Report Blurb:** Risk Assessment of Proposed ARFF Standards explores air carrier passenger aircraft accidents to help determine if changes to Aircraft Rescue and Fire Fighting (ARFF) standards would have reduced the number of fatalities or serious injuries that resulted from past

accidents.

The report compares standards set forth by the Federal Aviation Administration in 14 Code of Federal Regulations (CFR), Part 139, Certification of Airports with the standards of the International Civil Aviation Organization in Annex 14 and standards set forth by the National Fire Protection Association in making determinations of reducing the number of fatalities and serious injuries associated with each accident.

In the United States ARFF is only required at airports subject to 14 CFR Part 139 and may not exist at non-Part 139 airports including general aviation airports. Generally, airports serving scheduled air carrier passenger operations with more than nine passenger seats and unscheduled air carrier passenger service with more than 30 seats are required to have a Part 139 certificate.

**Published:** April 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/165120.aspx>



### ***ACRP Synthesis Report 22 – Common Airport Pavement Maintenance Practices***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 22: Common Airport Pavement Maintenance Practices explores how airports implement a pavement



maintenance management program, including inspecting and tracking pavement condition, scheduling maintenance, identifying necessary funds, and treating distresses in asphalt and concrete pavements.

**Published:** April 2011

**Link:** <http://www.trb.org/Publications/Blurbs/165167.aspx>



### ***ACRP Report 47 – Guidebook for Developing and Leasing Airport Property***

**Report Blurb:** Guidebook for Developing and Leasing Airport Property explores issues associated with developing and leasing available airport land and summarizes best practices from the perspective of the airport sponsor.

The guidebook includes a diverse set of case studies that show several approaches airports have taken to develop and lease property for both aeronautical uses and non-aeronautical uses.

The project that developed the guidebook also produced two presentation templates designed to help airports in effective stakeholder communication regarding developing and leasing airport property. The templates, designed for a non-technical audience, provide content, examples, and definitions for a presentation to community stakeholders. The templates, one for aeronautical use development presentations, and the second for non-aeronautical use development presentations are available only online.

**Published:** May 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/164688.aspx>



### ***ACRP Report 45 – Optimizing the Use of Aircraft Deicing and Anti-Icing Fluids***

**Report Blurb:** Optimizing the Use of Aircraft Deicing and Anti-Icing Fluids provides guidance on procedures and technologies designed to help reduce the use of aircraft deicing and anti-icing fluids (ADAF) while maintaining safe aircraft operations across the wide range of winter weather conditions found in the United States and Canada.

The report includes a series of best management practices that have the potential to be immediately implemented, and highlights the detailed findings and recommendations of experiments to evaluate holdover time determination systems, spot deicing for aircraft frost removal, and ADAF dilutions.

**Published:** May 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/165328.aspx>



### ***ACRP Report 46 – Handbook for Analyzing the Costs and Benefits of Alternative Aviation Turbine Engine Fuels at Airports***

**Report Blurb:** Handbook for Analyzing the Costs and Benefits of Alternative Aviation Turbine Engine Fuels at Airports consists of the Alternative Fuel Investigation Tool (AFIT), a handbook on the use of AFIT, and a report on its development. AFIT is an analytical model designed to help airport operators and fuel suppliers evaluate the costs associated with introducing “drop-in” alternative turbine engine fuel at airports and the benefits as measured by reduced emissions. AFIT, which is included in CD-ROM format with the print version of the report, takes into account options for using alternative fuel for other airside equipment, including diesel-powered ground support equipment. The report also addresses characteristics of current fuel usage and distribution, and describes what is required to switch to alternatives.

**Published:** June 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/165496.aspx>



### ***ACRP Report 49 – Collaborative Airport Capital Planning Handbook***

**Report Blurb:** Collaborative Airport Capital Planning Handbook provides guidance to those in the airport community who have responsibility for, and a stake in, developing, financing, managing, and overseeing an airport capital plan and the individual projects included in it.

The handbook provides guidance on appropriate performers for each task in the collaborative planning process, and defines and describes the different ways to communicate to help ensure effective exchanges between internal and external stakeholders.

**Published:** July 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/165584.aspx>



### ***ACRP Report 44 – A Guidebook for the Preservation of Public-Use Airports***

**Report Blurb:** A Guidebook for the Preservation of Public-Use Airports describes why public-use airports close and identifies measures and strategies that can be undertaken to potentially help preserve and prevent an airport closure.

The guidebook presents step-by-step procedures on how to identify risk factors that can increase the potential of a future airport closure and how to formulate an effective airport preservation program.

The guidebook also identifies potential groups interested in preserving public-use airports and offers practical checklists for identifying and addressing issues as part of a comprehensive strategic airport planning program in support of preservation efforts.

**Published:** July 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/165624.aspx>



### ***ACRP Report 50 – Improved Models for Risk Assessment of Runway Safety Areas***

**Report Blurb:** Models for Risk Assessment of Runway Safety Areas analyzes aircraft veer-offs, the use of declared distances, the implementation of the Engineered Material Arresting System (EMAS), and the incorporation of a risk approach for consideration of obstacles in or in the vicinity of the runway safety area (RSA).

An interactive risk analysis tool, included in CD-ROM format with the printed version of the report, is designed to be used by airport and industry stakeholders to quantify risk and support planning and engineering decisions when determining RSA requirements to meet an acceptable level of safety for various types and sizes of airports.

**Published:** July 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/165581.aspx>



### ***ACRP Report 51 – Risk Assessment Method to Support Modification of Airfield Separation Standards***

**Report Blurb:** Risk Assessment Method to Support Modification of Airfield Separation Standards is intended to be used to support requests for modification of standards in those circumstances where the design criteria for separations between taxiways/taxilanes and other taxiways/taxilanes and fixed or movable objects as well as separations between taxiways and runways cannot be met.

**Published:** August 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/165180.aspx>



### ***ACRP Synthesis Report 24 – Strategies and Financing Opportunities for Airport Environmental Programs***

**Report Blurb:** Strategies and Financing Opportunities for Airport Environmental Programs summarizes public and private funding opportunities and strategies available to airports to help accomplish their environmental programs and objectives.

**Published:** August 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/165852.aspx>



### ***ACRP Synthesis Report 23 – Bird Harassment, Repellent, and Deterrent Techniques for Use on and Near Airports***

**Report Blurb:** Bird Harassment, Repellent, and Deterrent Techniques for Use on and Near Airports reviews techniques for reducing bird collisions with aircraft and the relative effectiveness of the various techniques.

**Published:** August 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/165829.aspx>



### ***ACRP Synthesis Report 27 – Airport Self-Inspection Practices***

**Report Blurb:** For the purposes of ACRP Synthesis 27, a comprehensive self-inspection program includes the components of training; inspecting; reporting discrepancies and findings; follow-up, resolution, and close-out; and quality control.

The report may be useful to airports in benchmarking their self-inspection programs to peer airports and practices considered successful by regional U.S. Federal Aviation Administration personnel.

**Published:** September 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/166012.aspx>



### ***ACRP Synthesis Report 26 – Current Airport Inspection Practices Regarding FOD (Foreign Object Debris/Damage)***

**Report Blurb:** Current Airport Inspection Practices Regarding FOD (Foreign Object Debris/Damage) details the components of a comprehensive FOD management program, and compiles current practices, techniques, and lists of tools available for use or those currently being

used by airports for FOD inspections.

**Published:** September 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/165911.aspx>



### ***ACRP Report 52 – Wayfinding and Signing Guidelines for Airport Terminals and Landside***

**Report Blurb:** Wayfinding and Signing Guidelines for Airport Terminals and Landside is designed to provide airports with the tools necessary to help passengers find their way in and around the airport.

The guidelines focus on four areas of the airport: (1) roadways—both on-airport and off-airport access roads; (2) parking; (3) curbside and ground transportation; and (4) terminal. In addition, the guidelines discuss developing a wayfinding strategy; the use of technology and visual displays; and color, fonts, and sizes.

**Published:** September 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/165910.aspx>



### ***ACRP Impacts on Practice – September 2011: Protecting Airport Personnel from Lightning Strikes***

**Report Blurb:** The latest issue of TRB’s Airport Cooperative Research Program (ACRP) Impacts on Practice describes how *ACRP Report 8: Lightning-Warning Systems for Use by Airports* was instrumental in helping Austin-Bergstrom International Airport identify and select a visual system to alert ramp workers when lightning is in the vicinity.

**Published:** September 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/166246.aspx>



### ***ACRP Report 53 – A Handbook for Addressing Water Resource Issues Affecting Airport Development Planning***

**Report Blurb:** A Handbook for Addressing Water Resource Issues Affecting Airport Development Planning identifies appropriate responses to a variety of water resource issues affecting airport planning and development. The handbook includes options for setting up a water resource management program and outlines the steps necessary to implement that program in response to local conditions.

The handbook also presents strategies for including water resource planning and management as part of a broader life-cycle planning and development process. In addition, the handbook provides an overview of National Environmental Policy Act (NEPA) procedures that control environmental reviews affecting airport development.

**Published:** September 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/165998.aspx>



### ***ACRP Synthesis Report 25 – Strategies for Reuse of Underutilized or Vacant Airport Facilities***

**Report Blurb:** Strategies for Reuse of Underutilized or Vacant Airport Facilities presents an overview of the issues surrounding the reuse of aeronautical facilities and terminals.

**Published:** October 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/166101.aspx>



### ***ACRP Report 55 – Passenger Level of Service and Spatial Planning for Airport Terminals***

**Report Blurb:** Passenger Level of Service and Spatial Planning for Airport Terminals examines passenger perception of level of service related to space allocation in specific areas within airport terminals.

The report evaluates level-of-service standards applied in the terminal planning and design process while testing the continued validity of historic space allocation parameters that have been in use for more than 30 years.

**Published:** October 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/166098.aspx>



### ***ACRP Impacts on Practice – Estimating Airport Greenhouse Gas (GHG) Emissions***

**Report Blurb:** The latest issue of TRB’s Airport Cooperative Research Program (ACRP) Impacts on Practice describes how officials at the Dallas/Fort Worth International Airport (DFW) used *ACRP Report 11: Guidebook on Preparing Airport Greenhouse Gas Emissions*

*Inventories* to develop a GHG emissions inventory for DFW.

**Published:** October 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/166247.aspx>



### ***ACRP Synthesis Report 28 – Investigating Safety Impacts of Energy Technologies on Airports and Aviation***

**Report Blurb:** Investigating Safety Impacts of Energy Technologies on Airports and Aviation explores physical, visual, and communications systems interference impacts from energy technologies on airports and aviation safety.

The energy technologies that are the focus of this report include the following:

- solar photovoltaic panels and farms,
- concentrating solar power plants,
- wind turbine generators and farms, and
- traditional power plants.

**Published:** October 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/166099.aspx>



### ***ACRP Synthesis Report 29 – Ramp Safety Practices***

**Report Blurb:** Ramp Safety Practices addresses the current state of ground handling practices, focusing on safety measures and training.

Issues addressed in the report include ramp safety operations, staff roles and responsibilities, safety training, audit and inspection programs, safety violation programs, and collaborative safety initiatives, such as foreign object debris programs.

**Published:** November 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/166314.aspx>



### ***ACRP Report 54 – Resource Manual for Airport In-Terminal Concessions***

**Report Blurb:** Resource Manual for Airport In-Terminal Concessions provides guidance on the development and implementation of airport concession programs.

The report includes information on the airport concession process; concession goals; potential customers; developing a concession space plan and concession mix; the Airport Concessions Disadvantaged Business Enterprise (ACDBE) program; and concession procurement, contracting, and management practices.

**Published:** November 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/166191.aspx>



### ***ACRP Legal Research Digest 12 – Fair Disclosure and Airport Impact Statements in Real Estate Transfers***

**Report Blurb:** Fair Disclosure and Airport Impact Statements in Real Estate Transfers examines the effect of a state or locality having no real property disclosure laws, explores existing general state real property disclosure laws, and discusses existing state real property disclosure laws specifically requiring the disclosure of airports in close proximity to the property being offered for sale.

The report also highlights annotated typical fair real property disclosure law provisions including provisions considered important for effective fair disclosure of airport-related impacts.

**Published:** November 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/166355.aspx>



### ***CRP Impacts on Practice – Traumatic Event Assistance for Aviation Employees***

**Report Blurb:** The latest issue of TRB’s Airport Cooperative Research Program (ACRP) Impacts on Practice highlights information included in *ACRP Report 22: Helping Airport and Air Carrier Employees Cope with Traumatic Events* that is described as “critical” by Hilary Fletcher, former County Manager for Pitkin County, Colorado.

Ms. Fletcher is founder of the Colorado Aviation Recovery Support Team that helps communities in Colorado recover from aviation incidents and was instrumental in the effort responding to a 2001 crash of a chartered flight on final approach at Aspen-Pitkin County Airport.

**Published:** November 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/166248.aspx>



### ***ACRP Synthesis Report 30 – Airport Insurance Coverage and Risk Management Practices***

**Report Blurb:** Airport Insurance Coverage and Risk Management Practices identifies both the variables that affect insurance purchasing for airport operators and the range of risk management practices that exist among U.S. airports. The report is designed to help airport officials confronted with risk-financing and insurance-purchasing decisions.

**Published:** December 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/166472.aspx>



### ***ACRP Synthesis Report 31 – Airline and Airline–Airport Consortiums to Manage Terminals and Equipment***

**Report Blurb:** Airline and Airline–Airport Consortiums to Manage Terminals and Equipment discusses the current state of Airline-Airport consortiums in the United States.

Issues addressed in the report include scope of responsibilities, consortium formation, membership, contractual agreements and insurance, organizational structures, performance standards, financial models, and organizing tips and lessons learned from existing consortiums.

**Published:** December 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/166364.aspx>



### ***ACRP Report 58 – Airport Industry Familiarization and Training for Part-Time Airport Policy Makers***

**Report Blurb:** Airport Industry Familiarization and Training for Part-Time Airport Policy Makers highlights policy issues affecting airport administrative and operational decisions. The report is designed to provide airport policy leaders, stakeholders, and policy-related decision makers with a common framework to understand airport administrative and operational requirements in order to assist them in making more informed policy decisions.

ACRP has also produced a primer report of issues affecting the airport industry as well as a customizable orientation program in the form of a [Microsoft PowerPoint presentation](#). The primer and presentation are designed to assist airports during a typical familiarization and training program for a new policy maker that generally include an orientation briefing about the airport organization, a report of airport issues, and a tour of airport facilities and activities.

**Published:** December 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/166244.aspx>



### ***ACRP Report 57 – The Carbon Market: A Primer for Airports***

**Report Blurb:** The Carbon Market: A Primer for Airports provides information on carbon and other environmental credit trading markets, and highlights the potential opportunities and challenges to an airport's participation in these markets.

The primer also addresses the new terms and concepts related to the carbon and other environmental markets.

**Published:** December 2011

**Link:** <http://www.trb.org/ACRP/Blurbs/166411.aspx>

## 2012



### ***ACRP Research Results Digest 13 – Synthesis of Information Related to Airport Practices: 2012***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Research Results Digest 13: Synthesis of Information Related to Airport Practices is a digest of the progress and status of ACRP Project 11-03, Synthesis of Information Related to Airport Practices.

**Published:** January 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/166610.aspx>



### ***ACRP Annual Report of Progress 2011***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) has released its annual report that provides background on the program, a listing of products developed under the program over the last 6 years, a summary of the status of projects in progress or completed, and more.

**Published:** January 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/166614.aspx>



### ***ACRP Report 56 – Handbook for Considering Practical Greenhouse Gas Emission Reduction Strategies for Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 56: Handbook for Considering Practical Greenhouse Gas Emission Reduction Strategies for Airports is designed to assist airport operators in identifying, evaluating, prioritizing, and implementing practical, low-cost strategies to reduce and manage greenhouse gas emissions.

AirportGEAR, an interactive decision support tool developed as a companion to the handbook, considers a range of strategies that can be implemented by all types of airports—regardless of size, geography, or resources—either directly or in partnership with airport stakeholders, including airlines, airport tenants, and host communities. AirportGEAR is on a CD-ROM that is included with the print version of ACRP Report 56.

**Published:** January 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/166519.aspx>





### ***ACRP Report 59 – Information Technology Systems at Airports--A Primer***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 59: Information Technology Systems at Airports--A Primer is designed to help facilitate mutual understanding between airport executives and information technology (IT) professionals to enable them to work together effectively on IT projects. One of the goals of the report is to help airports achieve better performance and reliability of IT systems and fewer cost overruns and delays during system implementation.

ACRP Report 59 offers techniques to identify critical IT issues and communicate effectively on those issues. The report also addresses sound IT principles for implementing new IT systems, describes the benefits and value of various IT systems, and highlights the fundamental architecture concepts of IT systems as they relate to airports.

**Published:** January 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/166592.aspx>



### ***ACRP Research Results Digest 14 – Graduate Research Award Program on Public-Sector Aviation Issues: 2012***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Research Results Digest 14: Graduate Research Award Program on Public-Sector Aviation Issues summarizes the results of the initial four years of the Graduate Research Award Program on Public-Sector Aviation Issues (ACRP Project 11-04).

The program is designed to encourage applied research on airport-related aviation system issues and to foster the next generation of aviation community leaders.

Under the program, up to ten awards of \$10,000 each are made to full-time graduate students for successful completion of a research paper on public-sector airport-related aviation issues during the academic year. Candidates must be full-time students enrolled in a graduate degree program at an accredited institution of higher learning during the academic year.

Successful papers are presented at the TRB Annual Meeting following completion of the program; exceptional papers have been published in subsequent volumes of the Transportation Research Record: Journal of the Transportation Research Board.

**Published:** February 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/166611.aspx>



### ***ACRP Report 60 – Guidelines for Integrating Alternative Jet Fuel into the Airport Setting***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 60: Guidelines for Integrating Alternative Jet Fuel into the Airport Setting identifies the types and characteristics of alternative jet fuels; summarizes potential benefits; addresses legal, financial, environmental, and logistical considerations and opportunities; and aids in evaluating the feasibility of alternative jet fuel production facilities.

The report also summarizes issues and opportunities associated with locating on- or off-airport alternative jet fuel production facilities and their fuel storage and distribution requirements.

**Published:** February 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/166622.aspx>



## ***ACRP Report 65 – Guidebook for Airport Irregular Operations (IROPS) Contingency Planning***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 65: Guidebook for Airport Irregular Operations (IROPS) Contingency Planning is designed to help guide commercial passenger service airports of all sizes to develop, continually evaluate, and update their contingency plans for procedures pertaining to irregular operations (IROPS) that may cause significant disruptions to customers.

This guidebook is designed to assist aviation system partners in enhancing their response to customer care during a broad array of IROPS conditions and includes step-by-step templates for the preparation of contingency plans that include necessary communications, collaboration, and coordination to address customer needs.

Interactive Microsoft Word versions of Resources A, B, and C from the report are also available online.

- [Resource A – Topics for IROPS Plan Development](#)
- [Resource B – Model IROPS Contingency Plan](#)
- [Resource C – Tools](#)

**Published:** February 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/166569.aspx>



## ***ACRP Legal Research Digest 13 – An Index and Digest of Decisions: Compilation of Airport Law Resources***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Legal Research Results Digest 13: An Index and Digest of Decisions: Compilation of Airport Law Resources is a list of judicial decisions with summaries of relevant holdings and links to source documents.

- ACRP LRD Digest 13 complements the information contained in [ACRP Legal Research Digest 4: Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters Through December 31, 2007](#).
- ACRP LRD Digest 13 provides comparable information to Digest 4 about adjudications that did not involve federal administrative determinations and about subsequent judicial determinations on administrative decisions that were challenged in court.
- ACRP LRD Digest 13 is available for purchase in a CD-ROM format. The CD-ROM is also available for download as an ISO image.

**Published:** March 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/166869.aspx>



## ***ACRP Report 61 – Elimination or Reduction of Baggage Recheck for Arriving International Passengers***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 61: Elimination or Reduction of Baggage Recheck for Arriving International Passengers identifies potential alternative procedures that might be implemented to help reduce or eliminate the need for the recheck of baggage for arriving international passengers at U.S. airports.

The report describes the potential benefits and costs to airports, airlines, and federal agencies related to adopting the procedures and also compares the alternative procedures with current practices.

**Published:** March 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/166874.aspx>



### ***ACRP Report 37A – Guidebook for Measuring Performance of Automated People Mover Systems at Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 37A: Guidebook for Measuring Performance of Automated People Mover Systems at Airports is designed to help measure the performance of automated people mover (APM) systems at airports.

The guidebook identifies, defines, and demonstrates application of a broad range of performance measures encompassing service availability, safety, operations and maintenance expense, capacity utilization, user satisfaction, and reliability.

The project that developed ACRP Report 37A developed the set of forms below that are designed to help periodically compile the necessary data for input into the overall performance measurement process.

- [Form A: System and Service Descriptive Characteristics](#)
- [Form B: Airport APM Performance Measures Page 1 of 2](#)
- [Form B: Airport APM Performance Measures Page 2 of 2](#)
- [Passenger Satisfaction Survey](#)

The project also developed an [interactive Excel model](#) containing spreadsheets that can be used to help track and calculate system-wide performance and service characteristics.

The set of forms and Excel model are only available electronically.

ACRP Report 37A is a companion to [ACRP Report 37](#): Guidebook for Planning and Implementing Automated People Mover Systems at Airports, which includes guidance for planning and developing APM systems at airports.

In June 2012, TRB released [ACRP Report 67](#): Airport Passenger Conveyance Systems Planning Guidebook that offers guidance on the planning and implementation of passenger conveyance systems at airports.

**Published:** March 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/166387.aspx>



### ***ACRP Research Results Digest 15 – Use of Towbarless Tractors at Airports—Best Practices***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Research Results Digest 15: Use of Towbarless Tractors at Airports—Best Practices includes broad guidance designed to help enhance the safe operation of towbarless tractors (TBLTs) at airports.

The report is designed to assist airports and aircraft operators in gaining a basic understanding of the training and operational issues associated with TBLT operations.

TBLTs, also known as towbarless tow vehicles (TLTVs), are used to tow aircraft on the airport. TBLTs, as the name implies, do not use a towbar but instead use a pick-up device located in the center of the vehicle to cradle the nose gear tires in order to provide direct maneuvering of the aircraft.

**Published:** March 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/166829.aspx>



### ***ACRP Report 66 – Considering and Evaluating Airport Privatization***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 66: Considering and Evaluating Airport Privatization addresses the potential advantages and disadvantages of implementing various approaches to airport privatization.

The report covers a range of potential privatization options and highlights case studies conducted at a variety of airports both within the United States and internationally.

Appendices C through H, to ACRP Report 66 are available on a CD-ROM that is included with the print version of the publications.

**Published:** May 2012

**Link:** <http://www.trb.org/Publications/Blurbs/167156.aspx>



### ***ACRP Report 63 – Measurement of Gaseous HAP Emissions from Idling Aircraft as a Function of Engine and Ambient Conditions***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 63: Measurement of Gaseous HAP Emissions from Idling Aircraft as a Function of Engine and Ambient Conditions is designed to help improve the assessment of hazardous air pollutants (HAP) emissions at airports based on specific aircraft operating parameters and changes in ambient conditions.

**Published:** May 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167069.aspx>



### ***ACRP Report 64 – Handbook for Evaluating Emissions and Costs of APUs and Alternative Systems***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 64: Handbook for Evaluating Emissions and Costs of APUs and Alternative Systems is designed to help airports evaluate alternatives to aircraft auxiliary power units (APUs).

The handbook addresses environmental impacts, costs, infrastructure and maintenance requirements, and funding options. The printed version of the handbook includes a CD-ROM that contains software that can be used to help quantify emissions from APUs and alternative systems, while also providing quantitative analysis of the financial implications of implementing and operating the systems. The CD-ROM is also available for download from TRB’s website as an ISO image.

**Published:** May 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167070.aspx>



### ***ACRP Report 62 – Airport Apron Management and Control Programs***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 62: Airport Apron Management and Control Programs explores the effectiveness of apron management programs around the world.

The report compares and contrasts apron management programs around the world to U.S. airports, while considering the common operational and ownership differences between U.S. and non-U.S. airports.

**Published:** May 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167097.aspx>



## ***ACRP Legal Research Digest 14 – Achieving Airport-Compatible Land Uses and Minimizing Hazardous Obstructions in Navigable Airspace***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Legal Research Digest 14: Achieving Airport-Compatible Land Uses and Minimizing Hazardous Obstructions in Navigable Airspace discusses airport-compatible land-use requirements, the legal issues related to achieving airport compatible land use, and legal issues particular to eliminating hazardous obstructions to airspace.

The report also includes a review of some of the major legal issues of concern in achieving airport-compatible land use.

**Published:** May 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167127.aspx>



## ***ACRP Report 69 – Asset and Infrastructure Management for Airports—Primer and Guidebook***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 69: Asset and Infrastructure Management for Airports—Primer and Guidebook addresses asset and infrastructure management applicable to all areas of the operation of an airport.

The primer portion of the report includes an overview of an asset and infrastructure management program and explores the benefits and costs of implementation.

The guidebook portion of the report provides examples from various airports and is designed to be a reference for integrating proven asset and infrastructure management practices and techniques at airports of all sizes. The report defines an asset and infrastructure management program and its components and how a program relates to daily operations and longer-term planning.

In addition, the project that developed ACRP Report 69 also produced a PowerPoint presentation, which can be used to present the benefits of a program to stakeholders. The PowerPoint presentation is available for download from TRB’s website.

**Published:** June 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167332.aspx>



## ***ACRP Report 68 – Guidebook for Evaluating Terminal Renewal Versus Replacement Options***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 68: Guidebook for Evaluating Terminal Renewal Versus Replacement Options details a step-by-step process for conducting a business-driven evaluation of competing options to renew or replace airport terminal facilities.

Factors considered during the evaluation include life-cycle cost, airside/landside or terminal capacity in relation to passenger demand, facilities obsolescence and condition, development risk, development schedule, changes in regulatory requirements, airline needs, operational constraints, tenant make-up, and airport business model.

Excel-based analysis templates that reflect the unique operating and business environment of a particular airport are included on CD-ROM that is included with the printed version of the report.

The CD-ROM is also available for download from TRB’s website as an ISO image.

**Published:** June 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167299.aspx>



### ***ACRP Synthesis Report 32 – Managing Aerial Firefighting Activities on Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 32: Managing Aerial Firefighting Activities on Airports highlights current airport and agency--primarily the U.S. Forest Service--practices, policies, and procedures at airports called upon to support aerial wildland firefighting suppression efforts.

**Published:** June 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167310.aspx>



### ***ACRP Report 67 – Airport Passenger Conveyance Systems Planning Guidebook***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 67: Airport Passenger Conveyance Systems Planning Guidebook offers guidance on the planning and implementation of passenger conveyance systems at airports.

The guidebook describes best practices and specific design considerations and presents decision-making frameworks for implementing passenger conveyance systems.

For the purposes of ACRP Report 67, passenger conveyance components include escalators, elevators, moving walkways, and passenger assist vehicles/carts.

To provide a comprehensive guide for evaluating passenger conveyance systems at airports, a database was designed and developed with information collected from the five airports. The database is included with the print version of the report as a CD-ROM.

The CD-ROM is also available for download from TRB’s website as an ISO image.

Automated people mover systems, personal rapid transit systems, and shuttle bus systems are not covered by ACRP Report 67.

The subject of automated people movers was covered in the following two previous ACRP reports:

- **ACRP Report 37:** Guidebook for Planning and Implementing Automated People Mover Systems at Airports
- **ACRP Report 37A:** Guidebook for Measuring Performance of Automated People Mover Systems at Airports

**Published:** June 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167229.aspx>



### ***ACRP Synthesis Report 33 – Airport Climate Adaptation and Resilience***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 33: Airport Climate Adaptation and Resilience reviews the range of risks to airports from projected climate change and the emerging approaches for handling them.

**Published:** June 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167238.aspx>



### ***ACRP Web-Only Document 13 – Alternative Fuels as a Means to Reduce PM2.5 Emissions at Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 13: Alternative Fuels as a Means to Reduce PM2.5 Emissions at Airports explores the potential impact that alternative fuel use could have on emissions and ambient air pollution concentrations of fine particulate matter (PM2.5) at airports.

The project that developed ACRP Web-Only Document 13 also created a spreadsheet-based tool that combines the results from the five case study airports analyzed during the project in a format that allows the user to combine the emission impacts of different alternative fuel scenarios at those airports.

**Published:** June 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167308.aspx>



### ***Transportation Research Record–Public-Sector Aviation: Graduate Research Award Papers, 2010-2011***

**Report Blurb:** TRB’s Transportation Research Record: Journal of the Transportation Research Board, No. 2266 consists of 10 graduate research award papers that examine the interaction of high-speed rail and aviation; prediction of potential cracking of airfield rigid pavements; predictors of home-based trips for the Atlanta, Georgia airport; and dynamic airspace configuration.

This issue of the TRR also explores transitioning the U.S. air transportation system to higher fuel costs; transportation systems planning for high-speed rail; sustainable paving material for airfields; airline frequency competition in airport congestion pricing; risk assessment of bird–aircraft strikes at commercial airport; and analysis of taxiway aircraft traffic.

The Graduate Research Award Program on Public-Sector Aviation Issues is managed by TRB’s Airport Cooperative Research Program and sponsored by the Federal Aviation Administration. The program is designed to encourage applied research on airport and related aviation system issues and to foster the next generation of aviation community leaders.

**Published:** July 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167513.aspx>



### ***ACRP Report 71 – Guidance for Quantifying the Contribution of Airport Emissions to Local Air Quality***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 71: Guidance for Quantifying the Contribution of Airport Emissions to Local Air Quality addresses procedures for using air quality models in combination with on-site measurement equipment to prepare a comprehensive assessment of air pollution concentrations in the vicinity of airports.

The report is designed to help airports respond to regulatory needs, including those of the National Environmental Policy Act, and generate information desired by local communities as they seek to develop more detailed local air quality assessments.

ACRP Report 71 also provides information on the capabilities and limitations of modeling and measurement tools and describes how to use available models, in combination with potential on-site monitoring programs, to conduct air quality assessments.

Information on monitoring campaigns and modeling assessments is included in a set of appendices that are integrated with the printed version of the report in CD-ROM format.

The CD-ROM is also available for download from TRB's website as an ISO image.

**Published:** July 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167479.aspx>



### ***ACRP Report 73 – Airport-to-Airport Mutual Aid Programs***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 73: Airport-to-Airport Mutual Aid Programs is designed to help guide airports that would like to enter into formal or informal mutual aid agreements with other airports in the event of a community-wide disaster that requires support and assistance beyond its own capabilities.

The report describes the potential benefits that an airport-to-airport mutual aid program (MAP) can provide and outlines the different issues that should be considered when setting up an airport-to-airport MAP.

**Published:** July 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167497.aspx>



### ***ACRP Synthesis Report 34 – Subsurface Utility Engineering Information for Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 34: Subsurface Utility Engineering Information for Airports examines ways in which information on subsurface utilities is collected, maintained, and used by airports, their consultants, and the U.S.

Federal Aviation Administration to help increase the effectiveness of, and enhance safety during, infrastructure development programs at airports.

The report also compares the current state of technology and effective processes from other industry sectors with what airports do today.

**Published:** July 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167502.aspx>



### ***ACRP Synthesis Report 35 – Issues With Use of Airfield LED Light Fixtures***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 35: Issues With Use of Airfield LED Light Fixtures documents the performance of light-emitting diode

(LED) airfield lighting systems.

**Published:** July 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167509.aspx>





### ***ACRP Report 70 – Guidebook for Implementing Intelligent Transportation Systems Elements to Improve Airport Traveler Access Information***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 70: Guidebook for Implementing Intelligent Transportation Systems Elements to Improve Airport Traveler Access Information provides descriptions, component details, and examples of how airport ground access information can be disseminated using various intelligent transportation systems (ITS) technologies.

The guidebook contains tables to help airport operators determine the applicability of certain ITS strategies based on airport operational needs and airport size.

The printed version of the report includes an interactive CD-ROM designed to help explore and evaluate the information needs of various airport traveler market segments and to identify ITS technologies that best meet the needs of the airport user.

The CD-ROM also contains a decision support tool that allows users to identify appropriate methods of delivering airport traveler information based on the airport traveler market segment.

The CD-ROM is also available for download from TRB’s website as an ISO image.

**Published:** August 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167644.aspx>



### ***ACRP Report 72 – Guidebook for Selecting Methods to Monitor Airport and Aircraft Deicing Materials***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 72: Guidebook for Selecting Methods to Monitor Airport and Aircraft Deicing Materials provides a step-by-step process for identifying, evaluating, and selecting methods to monitor storm water that is subject to runoff containing deicing materials.

The report addresses identifying the parameters to be monitored and discusses the appropriateness of various monitoring methods and instrument types to meet an airport’s specific needs. The report also provides guidance for setup, operation, and maintenance of each monitoring method.

**Published:** August 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167504.aspx>



### ***ACRP Legal Research Digest 15 – Compilation of State Airport Authorizing Legislation***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Legal Research Digest 15: Compilation of State Airport Authorizing Legislation presents information pertaining to each state’s airport-specific legislation, including laws establishing, developing, operating, expanding, and funding airports.

The compilation focuses on legislation expressly applicable to public airports rather than legislation applicable to local governments generally. It compares and contrasts zoning and land use; purchasing authority; commercial operations; ground transportation, funding, and taxing authority; law enforcement; and sovereign immunity.

**Published:** August 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167625.aspx>



### ***ACRP Synthesis Report 37 – Lessons Learned from Airport Safety Management Systems Pilot Studies***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 37: Lessons Learned from Airport Safety Management Systems Pilot Studies provides airport operators with data and experience from safety management system (SMS) pilot study airports. The report addresses SMS pilot study program management; SMS components design, development, and deployment; and SMS challenges and benefits.

In simple terms, SMS is a proactive business approach to managing and mitigating potential hazards within the organization to improve safety performance. SMS is comprised of four components (or pillars), including safety policy, safety risk management, safety assurance, and safety promotion.

**Published:** August 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167600.aspx>



### ***ACRP Report 74 – Application of Enterprise Risk Management at Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 74: Application of Enterprise Risk Management at Airports summarizes the principles and benefits of enterprise risk management (ERM) and its application to airports.

The report discusses implementation of the iterative ERM process, including roles and responsibilities from airport governing boards to all staff members.

The project that developed ACRP Report 74 also developed an electronic tool that can be used to support the ERM process by creating a risk score and a risk map that can be used to identify mitigation strategies. The tool is included in CD-ROM format with the print version of the report.

The CD-ROM is also available for download from TRB’s website as an ISO image.

**Published:** September 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167515.aspx>



### ***ACRP Legal Research Digest 16 – Procurement of Airport Development and Planning Contracts***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Legal Research Digest 16: Procurement of Airport Development and Planning Contracts provides guidance on how to determine which requirements apply to any given procurement process.

The report also includes an overview of the consequences for noncompliance with procurement laws or regulations in order to help airports better understand the inherent risks associated with various funding sources.

**Published:** September 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167768.aspx>



### ***ACRP Synthesis Report 36 -Exploring Airport Employee Commute and Parking Strategies***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 36: Exploring Airport Employee Commute and Parking Strategies analyzes what is known about airport employee commute patterns and commute modes.

The report addresses alternatives to the drive alone commute for airport employees, the effectiveness and challenges of airport employee commute options programs, and commute options programs offered by non-airport employers that might be applicable to the airport environment.

**Published:** September 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167704.aspx>



### ***ACRP Report 76 – Addressing Uncertainty about Future Airport Activity Levels in Airport Decision Making***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 76: Addressing Uncertainty about Future Airport Activity Levels in Airport Decision Making provides a systems analysis methodology that augments standard airport master planning and strategic planning approaches.

The methodology includes a set of tools for improving the understanding and application of risk and uncertainty in air traffic forecasts as well as for increasing the overall effectiveness of airport planning and decision making.

**Published:** October 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/167934.aspx>



### ***ACRP Report 77 – Guidebook for Developing General Aviation Airport Business Plans***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 77: Guidebook for Developing General Aviation Airport Business Plans is designed to help airports develop and implement an airport business plan and maximize financial self-sufficiency.

The guidebook identifies the role, value, and the compelling reasons for having an airport business plan as it applies to all sizes of airports; highlights the elements of an airport business plan; and addresses each step of the development and implementation process.

The print version of the report includes a CD-ROM, which provides the option of learning the material by watching a series of presentations. The CD-ROM also provides worksheets that may be helpful in gathering the information necessary for developing and implementing an airport business plan. The CD-ROM is also available for download from TRB's website as an ISO image.

**Published:** November 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/168114.aspx>



### ***ACRP Synthesis Report 38 – Expediting Aircraft Recovery at Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 38: Expediting Aircraft Recovery at Airports includes suggested procedures to help airports expedite the recovery of disabled aircraft that are designed to avoid injury to personnel, damage to airport

equipment, and secondary damage to the aircraft.

For the purposes of the report, a disable aircraft is defined as one that is unable to move using its power after an excursion from a runway or taxiway.

**Published:** November 2012

**Link:** <http://www.trb.org/Publications/Blurbs/168131.aspx>



### ***ACRP Report 80 – Guidebook for Incorporating Sustainability into Traditional Airport Projects***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 80: Guidebook for Incorporating Sustainability into Traditional Airport Projects describes sustainability and its potential benefits, and identifies different applications of sustainable initiatives in traditional airport construction and everyday maintenance projects.

The printed version of the report includes a CD-ROM that includes an airport sustainability assessment tool that complements the guidebook and may be used to assist in identifying sustainability initiatives that might be most applicable to an airport project. Through case studies, the tool also allows users to obtain more information about specific strategies and learn about sustainability initiatives that have been implemented in other airports. The case studies are also available for download in PDF format.

The CD-ROM is also available for download from TRB’s website as an ISO image.

**Published:** November 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/168044.aspx>



### ***ACRP Report 81 – Winter Design Storm Factor Determination for Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 81: Winter Design Storm Factor Determination for Airports identifies the relevant factors in defining a winter design storm for use in sizing airport deicing runoff management systems and components.

The guidebook also provides a decision support tool for identifying an appropriate winter design storm for an airport-specific project; a review of regulations as they pertain to deicing runoff; and suggestions for target levels of service, including the acceptable level of risk of the designed system not meeting performance standards.

**Published:** November 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/168117.aspx>



### ***ACRP Report 78 – Airport Ground Support Equipment (GSE): Emission Reduction Strategies, Inventory, and Tutorial.***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 78: Airport Ground Support Equipment (GSE): Emission Reduction Strategies, Inventory, and Tutorial is designed to help assess and mitigate the contribution of ground support equipment (GSE) to air quality impacts at airports.

The report presents an inventory of GSE at airports, identifies potential strategies to reduce emissions from powered GSE, and provides a tutorial that describes GSE operations and emission reduction technologies for use by GSE owners and operators.

The tutorial is a user-friendly, interactive, self-paced, stand-alone tool that is designed to provide a better understanding of GSE, its operations, applicable federal environmental regulations, and potential approaches to reduce GSE emissions. The tutorial is structured in three modules: GSE Basics, Emissions Reduction Approaches and Case Studies, and Converting to Cleaner GSE. The tutorial is on a CD-ROM that is included with the print version the report.

The CD-ROM is also available for download from TRB's website as an ISO image.

**Published:** November 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/168172.aspx>



### ***ACRP Impacts on Practice – Development of Airport Property: Policy Guidance and Workforce Training***

**Report Blurb:** The latest issue of TRB's Airport Cooperative Research Program (ACRP) Impact on Practice describes how information included in *ACRP Report 47: Guidebook for Developing and Leasing Airport Property* was used by the Houston Airport System to complete its due diligence of identifying stakeholders and impacts in allowing Hobby Airport to offer international flights.

The Impacts on Practice also highlights how Texas Southern University students in the Aviation Property and Leasing Management course working towards a degree in Aviation Science and Technology used ACRP Report 47 as the primary reference for the course.

ACRP Report 47, Guidebook for Developing and Leasing Airport Property was released in March 2011 and explores issues associated with developing and leasing available airport land and summarizes best practices from the perspective of the airport sponsor.

**Published:** November 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/168059.aspx>



### ***ACRP Report 79 – Evaluating Airfield Capacity***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 79: Evaluating Airfield Capacity is designed to assist airport planners with airfield and airspace capacity evaluations at a wide range of airports.

The report describes available methods to evaluate existing and future airfield capacity; provides guidance on selecting an appropriate capacity analysis method; offers best practices in assessing airfield capacity and applying modeling techniques; and outlines specifications for new models, tools, and enhancements.

The print version of the report includes a CD-ROM with prototype capacity spreadsheet models designed as a preliminary planning tool (similar to the airfield capacity model but with more flexibility), that allows for changing input assumptions to represent site-specific conditions from the most simple to moderate airfield configurations.

The CD-ROM is also available for download from TRB's website as an ISO image.

**Published:** December 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/168260.aspx>



### ***ACRP Legal Research Digest 17 – State and Federal Regulations That May Affect Initiatives to Reduce Airports’ GHG Emissions***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Legal Research Digest 17: State and Federal Regulations that May Affect Initiatives to Reduce Airports’ GHG Emissions addresses issues that are relevant to implementing greenhouse gas (GHG) mitigation

measures at airports.

The report also provides a compilation of carbon reduction initiatives at airports that categorizes the efforts in terms of distinguishing between green building requirements and other building code directives, and efforts directed at reducing aircraft GHG emissions. The report also identifies and discusses the range of federal, state, and local legal issues that may be associated with the implementation of these types of measures.

**Published:** December 2012

**Link:** <http://www.trb.org/ACRP/Blurbs/168308.aspx>

## 2013



### ***ACRP Legal Research Digest 19 – Legal Issues Related to Developing Safety Management Systems and Safety Risk Management at U.S. Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Legal Research Digest 19: Legal Issues Related to Developing Safety Management Systems and Safety Risk

Management at U.S. Airports explores the basics of a safety management systems (SMS); discusses the concept of a “just culture;” highlights efforts to implement SMS at airports and in other industries such as maritime, patient safety, and oil and gas; examines theories under which SMS could lead to increased liability for airports; and provides a review of select state sunshine laws and the federal Freedom of Information Act.

The digest also discusses certain available means of protecting SMS data from disclosure or discovery, and suggests potential strategies for managing legal issues that may arise due to implementation of SMS.

According to the report, Safety Management System (SMS) has been defined as a systematic approach to managing safety not only by proactively conducting safety assessments before there is an incident or accident, but also by having the necessary policies, procedures, organization structure, and accountabilities in place. The four key elements of an SMS are safety policy, risk management, assurance, and promotion.

**Published:** January 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/168405.aspx>



### ***ACRP Research Results Digest 16 – Legal Aspects of Airport Programs: 2012***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Research Results Digest 16: Legal Aspects of Airport Programs is a digest of the background and status of ACRP Project 11-01, Legal Aspects of Airport Programs.

**Published:** January 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/168371.aspx>



### ***ACRP Annual Report of Progress 2012***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) has released its annual report that provides background on the program, a listing of products developed under the program over the last 7 years, a summary of the status of projects in progress or completed, and more.

**Published:** January 2013

**Link:** <http://www.trb.org/ACRP/blurbs/168343.aspx>



### ***ACRP Impacts on Practice – ACRP Disseminates Solutions-Based Research Projects Through Ambassadors***

**Report Blurb:** The latest issue of TRB's Airport Cooperative Research Program (ACRP) Impact on Practice describes the Ambassador program, one of several dissemination initiatives that are strengthening ACRP's connection to the airport industry.

In their first year, ACRP Ambassadors engaged the aviation community through 11 presentations; 13 exhibitions; and the distribution of more than 600 ACRP reports, 500 ACRP brochures, 160 ACRP synthesis reports, and 130 Impacts on Practice.

**Published:** January 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/168398.aspx>



### ***ACRP Research Results Digest 17 – Synthesis of Information Related to Airport Practices: 2013***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Research Results Digest 17: Synthesis of Information Related to Airport Practices is a digest of the progress and status of ACRP Project 11-03, Synthesis of Information Related to Airport Practices.

**Published:** February 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/168448.aspx>



### ***ACRP Report 82 – Preparing Peak Period and Operational Profiles—Guidebook***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 82: Preparing Peak Period and Operational Profiles—Guidebook describes a process and includes software for converting annual airport activity forecasts into forecasts of daily or hourly peak period activity.

The two Excel-based software modules are designed to help estimate current and future design day aircraft and passenger operation levels based on user-defined design day parameters.

The two modules are included with the print version of the guidebook in CD-ROM format. The CD-ROM is also available for download as an ISO image. Links to the ISO image and instructions for burning a CD-ROM from an ISO image are provided below.

A final report documenting the entire research effort that produced ACRP Report 82 was published under a separate cover as [ACRP Web-Only Document 14](#).

**Published:** February 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/168509.aspx>



### ***ACRP Web-Only Document 14 – Guidelines for Preparing Peak Period and Operational Profiles***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 14: Guidelines for Preparing Peak Period and Operational Profiles documents the research effort that produced ACRP Report 82: Preparing Peak Period and Operational Profiles—Guidebook, which describes a process and includes software for converting annual airport activity forecasts into forecasts of daily or hourly peak-period activity.

**Published:** February 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/168510.aspx>



### ***ACRP Legal Research Digest 18 – Buy America Requirements for Federally Funded Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Legal Research Digest 18: Buy America Requirements for Federally Funded Airports discusses the legislative history pertaining to Buy America, the applicable federal regulations, and how it has been applied at airports. The report includes suggested guidance that airport counsel may find useful as it pertains to airport construction and equipment purchases to help ensure compliance with U.S. Federal Aviation Administration regulations.

**Published:** March 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/168630.aspx>



### ***TRB Aviation Group Brochure***

**Report Blurb:** TRB’s Aviation Group has released a brochure that highlights why and how to get involved in TRB aviation-related technical committee activities. The technical committees are communities of individuals who share a common interest and expertise. Each committee proposes research, shares research findings, sponsors a broad range of activities, and provides a forum for professionals to discuss today’s and tomorrow’s aviation and airport issues.

TRB’s Aviation Group consists of nine technical committees that address intergovernmental relations in aviation; aviation system planning; environmental impacts of aviation; aviation economics and forecasting; airport terminals and ground access; airfield and airspace capacity and delay; aircraft and airfield compatibility; light commercial and general aviation; and aviation security and emergency management.

Together, the nine committees and the group’s executive board foster and support aviation and airport research designed to help inform and benefit both users and the profession, and provide an open and unparalleled forum to disseminate and examine the results of this research.

**Published:** April 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/168807.aspx>



### ***ACRP Impacts on Practice – Contingency Planning for Unexpected Passenger Delays***

**Report Blurb:** The latest issue of TRB’s Airport Cooperative Research Program (ACRP) Impact on Practice describes how Fort Wayne International Airport (FWA) and Buffalo Niagara International Airport (BNIA) have developed and implemented IROPS plans based on ACRP Report 65: Guidebook for Airport Irregular Operations (IROPS) Contingency Planning (2012).



Daniel Rak, terminal services supervisor for FWA, noted that the value of ACRP Report 65 is that it enables diverse airport stakeholders to document their individual plans and develop a cohesive, comprehensive plan for the airport that would allow for a quick response when an event occurs. According to Tom Dames, airfield superintendent at BNIA, "before the plan, many of our associates were not well prepared for irregular operations. The contingency plan has eliminated the fear of having to support an IROP activity alone and with little experience."

ACRP Report 65: Guidebook for Airport Irregular Operations (IROPS) Contingency Planning is a resource to assist airports in the development of irregular operations contingency plans in close collaboration with all service providers. ACRP Report 65 features numerous resources that can be customized to the user's specific airport.

**Published:** April 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/168756.aspx>



### ***ACRP Synthesis Report 39 – Airport Wildlife Population Management***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 39: Airport Wildlife Population Management provides direct wildlife population control techniques for reducing wildlife collisions with aircraft. In addition, the report summarizes the ecological foundation of wildlife population control and management.

ACRP Synthesis 39 is designed to supplement [ACRP Synthesis 23: Bird Harassment, Repellent, and Deterrent Techniques for Use on and Near Airports](#). ACRP Synthesis 23 provides a synthesis of nonlethal wildlife control measures focusing on birds. The combined information from the two syntheses is designed to help airports develop an effective, integrated wildlife population control strategy and program.

**Published:** April 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/168836.aspx>



### ***ACRP Report 83 – Assessing Opportunities for Alternative Fuel Distribution Programs***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 83: Assessing Opportunities for Alternative Fuel Distribution Programs consists of a guidebook and toolkit designed to help airports introduce and market alternative fuels to their airport community that

includes tenants and consumers off airport.

Alternative fuels considered include alternative jet fuel, green diesel, biodiesel, ethanol, compressed natural gas (CNG), liquefied petroleum gas (LPG), and electricity. The guidebook includes a step-by-step process to evaluate opportunities and constraints for alternative fuel distribution programs.

The toolkit consists of two spreadsheets that help airport decision makers evaluate alternative fuels marketing and distribution programs. The toolkit is provided in CD-ROM format with the print version of the report. The CD-ROM is also available for download from TRB's website as an ISO image.

**Published:** April 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/168378.aspx>



### ***ACRP Web-Only Document 9 – Enhanced Modeling of Aircraft Taxiway Noise, Volume 2—Aircraft Taxi Noise Database and Development Process***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 9: Enhanced Modeling of Aircraft Taxiway Noise, Volume 2: Aircraft Taxi Noise Database and Development Process documents the procedures developed and employed in the creation of a taxi noise database for the U.S. Federal Aviation Administration’s Integrated Noise Model and Aviation Environmental Design Tool (AEDT). The AEDT is currently under development.

**Published:** April 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/168805.aspx>



### ***ACRP Synthesis Report 41 – Conducting Aeronautical Special Events at Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 41: Conducting Aeronautical Special Events at Airports consolidates available information and lessons learned on how to successfully plan, organize, and conduct an aeronautical special event and restore normal operations after the event.

For the purposes of this report, aeronautical special events are defined as those events that involve aviation activities or aircraft.

Synthesis 41 can serve as a companion document to [ACRP Synthesis 57: Airport Response to Special Events](#) that explores issues related to planning, organizing, and applying lessons learned, as well as addressing potential surprises and impacts on operations and customer services related to a variety of non-aeronautical events that occur both on and off an airport.

**Published:** May 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/168988.aspx>



### ***ACRP Synthesis Report 44 – Environmental Management System Development Process***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 44: Environmental Management System Development Process provides background on the framework of an environmental management system (EMS), explores similarities and differences of the various approaches to an EMS, explains the EMS development process, and highlights lessons learned by airports that have developed an EMS.

**Published:** May 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/168917.aspx>



### ***ACRP Report 84 – Guidebook for Preparing Airport Emissions Inventories for State Implementation Plans***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 84: Guidebook for Preparing Airport Emissions Inventories for State Implementation Plans is designed to assist in the preparation of airport emissions inventory component of a State Implementation Plan.

The Guidebook offers a basic, intermediate, and advanced approach for preparation of an airport emissions inventory. Each approach is progressively more complex, requiring increasingly detailed input data that generates greater airport specificity and accuracy. The choice of a particular approach is up to the user as a function of the level of response appropriate to a specific airport, the demands of the facility and the surrounding community, and data availability.

A CD-ROM, which is included with the print version of the report, contains an Airport Emissions Estimator Tool that applies to the basic approach. In addition, the CD-ROM includes the appendixes that accompany ACRP Report 84 as well as other project-specific material. The CD-ROM is also available for download from TRB's website as an ISO image.

**Published:** May 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/168865.aspx>



### ***ACRP Report 75 – Airport Leadership Development Program***

**Report Blurb:** Airport Leadership Development Program is designed to assist existing and future airport leaders to assess, obtain, and refine airport-industry leadership skills.

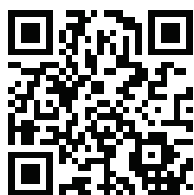
The program includes forms for a full 360-degree individual assessment of core leadership traits.

A complete facilitator guide with Microsoft PowerPoint presentations and participant workbooks and materials are also included on the CD-ROM that accompanies the print version of the report.

The CD-ROM is also available for download from TRB's website as an ISO image.

**Published:** May 2013

**Link:** <http://www.trb.org/Publications/Blurbs/168958.aspx>

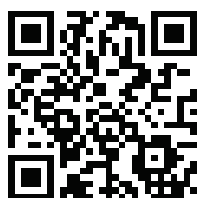


### ***ACRP Synthesis Report 40 – Issues with Airport Organization and Reorganization***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 40: Issues with Airport Organization and Reorganization examines organizational design and current trends and practices in airport management.

**Published:** May 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169008.aspx>



### ***ACRP Synthesis Report 47 – Repairing and Maintaining Airport Parking Structures While in Use***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 47: Repairing and Maintaining Airport Parking Structures While in Use provides information on developing and implementing successful maintenance and repair strategies for in-use airport parking structures that involve the least impact on the airport patrons, revenue stream, and facility operations.

**Published:** June 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169084.aspx>



### ***ACRP Synthesis Report 42 – Integrating Environmental Sustainability into Airport Contracts***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 42: Integrating Environmental Sustainability into Airport Contracts provides examples of how airports might help drive environmental sustainability performance improvements at their facilities by integrating environmental sustainability concepts into contracts with contractors, suppliers, and vendors.

**Published:** June 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169023.aspx>



### ***ACRP Report 87 – Procuring and Managing Professional Services for Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 87: Procuring and Managing Professional Services for Airports provides guidance for procuring and managing professional services at airports for use by airport owners and operators.

For the purposes of this report, professional services include planning, environmental, architectural and engineering, information technology, financial, and legal.

The report covers the procurement process, including scoping, pre-selection process, selection criteria, evaluation, and contract negotiations. In addition, it covers processes for managing professional services contracts.

**Published:** June 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169112.aspx>

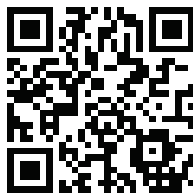


### ***ACRP Synthesis Report 46 – Conducting Airport Peer Reviews***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 46: Conducting Airport Peer Reviews explores the range of peer review approaches being used by airport sponsors, identifies similar efforts outside the airport industry, and documents both effective practices and challenges in conducting peer review activities.

**Published:** June 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169124.aspx>



### ***ACRP Report 86 – Environmental Optimization of Aircraft Departures: Fuel Burn, Emissions, and Noise***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 86: Environmental Optimization of Aircraft Departures: Fuel Burn, Emissions, and Noise explores a protocol for evaluating and optimizing aircraft departure procedures in terms of noise exposure, emissions, and fuel burn.

Included with the print version of the report is a CD-ROM that contains a spreadsheet-based Departure Optimization Investigation Tool (DOIT) that allows users to understand and test tradeoffs among various impact measures, including noise levels, rate of fuel consumption, and emissions.

**Published:** June 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169059.aspx>



### ***Public-Sector Aviation: Graduate Research Award Papers, 2011-2012***

**Report Blurb:** TRB's Transportation Research Record: Journal of the Transportation Research Board, No. 2325 consists of 10 papers selected for awards in a nationwide competition under the 2011 to 2012 Graduate Research Award Program on Public-Sector Aviation Issues.

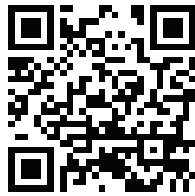
Topics explored by the papers include the effect of market entry by Southwest Airlines on market fares; mammal incidents with civil aircraft; the potential benefits of and alternatives to the continuous descent approach in normal conditions; dispersion modeling of lead emissions from piston engine aircraft; and depeaking schedules.

This issue of the TRR also examines conflict alerts on airport surfaces enabled by automatic dependent surveillance-broadcast; security checkpoint wait times; social media and airports; setting service expectations in air traffic flow management; and resource allocation when airspace capacity is reduced.

The Graduate Research Award Program on Public-Sector Aviation Issues is managed by TRB's Airport Cooperative Research Program and sponsored by the Federal Aviation Administration. The program is designed to encourage applied research on airport and related aviation system issues and to foster the next generation of aviation community leaders.

**Published:** June 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169160.aspx>



### ***ACRP Synthesis Report 45 – Model Mutual Aid Agreements for Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 45: Model Mutual Aid Agreements for Airports presents information on mutual aid agreements, addressing nearly every type of emergency that could affect airports and require outside resources. The report is designed to assist airport operators in creating and sustaining effective emergency management mutual aid partnerships by documenting the specifics of existing agreements.

**Published:** July 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169180.aspx>



### ***ACRP Report 85 – Developing and Maintaining Support for Your Airport Capacity Project***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 85: Developing and Maintaining Support for Your Airport Capacity Project is designed to help airport sponsors respond to the many challenges they face when undertaking a significant capacity improvement

project.

The report outlines a typical project life cycle and describes project process activities and organizational activities that support and complement the technical process. The report also offers guidance for identifying, understanding, and working with various stakeholders.

**Published:** July 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169213.aspx>



### ***ACRP Report 90 – Impact of Regulatory Compliance Costs on Small Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 88: Guidebook on Integrating GIS in Emergency Management at Airports is designed to help airports identify needs and assess current capabilities with respect to using geographical information systems

(GIS) in emergency management (EM).

The report discusses GIS and emergency management and provides a roadmap for airports to move from their current state of GIS implementation (even if they do not yet have any form of GIS) to the point of integrating into emergency management and coordinating with mutual aid partners.

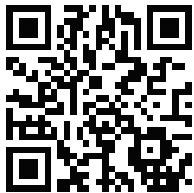
The guidebook contains a CD-ROM with case studies and key lessons learned from airports that have integrated GIS into EM. The guidance concludes with a checklist of how to maintain and keep EM plans relevant and current.

The project that developed ACRP Report 88 also produced a PowerPoint presentation that outlines the benefits of integrating GIS into EM, which is also available on the CD-ROM.

The CD-ROM is also available for download from TRB’s website as an ISO image.

**Published:** July 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/168945.aspx>



### ***ACRP Web-Only Document 15 – Data Supporting the Impact of Regulatory Compliance Costs on Small Airports, Volume 2: Technical Appendixes to ACRP Report 90***

**Report Blurb:** Data Supporting the Impact of Regulatory Compliance Costs on Small Airports, Volume 2: Technical Appendixes to ACRP Report 90 includes 6 technical appendixes that provide the research methodology; analysis of aviation transportation, environmental, security, and occupational safety and health requirements; and an estimate of industry costs.

ACRP Report 90: Impact of Regulatory Compliance Costs on Small Airports explores the cumulative costs of complying with regulatory and other federal requirements at small hub and non-hub airports.

ACRP Web-Only Document 15: Data Supporting the Impact of Regulatory Compliance Costs on Small Airports, Volume 1: Appendixes to ACRP Report 90 includes summaries of federal actions and published cost data, survey results, and case studies

**Published:** July 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/168947.aspx>



### ***ACRP Legal Research Digest 20 – Airport Responsibility for Wildlife Management***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Legal Research Digest 20: Airport Responsibility for Wildlife Management compiles the laws and regulations pertaining to wildlife hazard management and discusses mitigation techniques applicable to

airport operators.

**Published:** August 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169414.aspx>



### ***The Vector – Borne Disease Airport Importation Risk Tool***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) CRP-CD-137: The Vector-Borne Disease Airport Importation Risk Tool is a CD-ROM-based interactive tool designed to help define the roles of airports and airlines in the transmission and spread of insect-borne human diseases.

The tool relies on the assumptions that the levels of imported vector and vector-borne disease risk via air travel are related to the presence of flight routes connected to endemic regions, the level of traffic between the origin and destination cities, and the monthly climatic similarity between origin and destination.

The tool focuses on four vector-borne diseases—malaria, dengue, yellow fever, and chikungunya; describes the relative importation risk for the selected airport; and provides suggestions for mitigation.

**Published:** August 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169301.aspx>



### ***ACRP Report 89 – Guidelines for Airport Sound Insulation Programs***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 89: Guidelines for Airport Sound Insulation Programs provides updated guidelines for sound insulation of residential and other noise-sensitive buildings. The report is designed to help airports and others develop and effectively manage aircraft noise insulation projects.

**Published:** August 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169358.aspx>



### ***ACRP Synthesis Report 43 – Environmental Assessment of Air and High-Speed Rail Corridors***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 43: Environmental Assessment of Air and High-Speed Rail Corridors explores where additional research can improve the ability to assess the environmental outcomes of these two systems.

**Published:** August 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169411.aspx>



### ***ACRP Report 88 – Guidebook on Integrating GIS in Emergency Management at Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 88: Guidebook on Integrating GIS in Emergency Management at Airports is designed to help airports identify needs and assess current capabilities with respect to using geographical information systems

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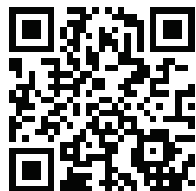
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The guidebook contains a CD-ROM with case studies and key lessons learned from airports that have integrated GIS into EM. The guidance concludes with a checklist of how to maintain and keep EM plans relevant and current.

The project that developed ACRP Report 88 also produced a PowerPoint presentation that outlines the benefits of integrating GIS into EM, which is also available on the CD-ROM.

**Published:** August 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169302.aspx>



### ***ACRP Legal Research Digest 21 – Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters Through December 2012***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Legal Research Digest 21 is a compilation of U.S. Department of Transportation (DOT) and U.S. Federal Aviation Administration (FAA) airport legal determinations and opinion letters through December 31, 2012. The compilation, available in a CD format, includes indexes designed to facilitate the search for specific questions and issues.

ACRP LRD 21 updates and supersedes [ACRP Legal Research Digest 4](#), Compilation of DOT and FAA Airport Legal Determinations and Opinion Letters Through December 31, 2007.

[ACRP Legal Research Digest 13](#): An Index and Digest of Decisions: Compilation of Airport Law Resources complements ACRP LRD 21 and 4.

ACRP LRD Digest 21 is available for purchase in a CD-ROM format. The CD-ROM is also available for download as an ISO image.

**Published:** September 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169525.aspx>

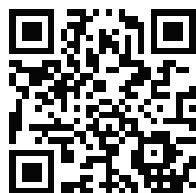


### ***ACRP Report 91 – Infectious Disease Mitigation in Airports and on Aircraft***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 91: Infectious Disease Mitigation in Airports and on Aircraft offers guidance for mitigating the risk of disease spread via droplet, airborne, and contact at airports and aboard aircraft.

**Published:** September 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169466.aspx>

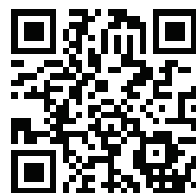


### ***ACRP Synthesis Report 49 – Helping New Maintenance Hires Adapt to the Airport Operating Environment***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 49: Helping New Maintenance Hires Adapt to the Airport Operating Environment highlights comprehensive safety and security training resources as well as successful practices for new maintenance hires at general aviation airports.

**Published:** September 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169521.aspx>



### ***ACRP Synthesis Report 48 – How Airports Measure Customer Service Performance***



**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 48: How Airports Measure Customer Service Performance examines the strategic importance of customer service and how airports are measuring the quality of customer service.

**Published:** September 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169468.aspx>

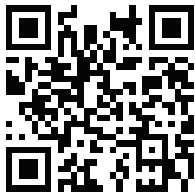


***ACRP Impacts on Practice – Maximizing Airport Facility Utilization and Efficiency with Common-Use Resources***

**Report Blurb:** The latest issue of TRB's Airport Cooperative Research Program (ACRP) Impacts on Practice explores how the San Diego County Regional Airport Authority applied ACRP Report 30: Reference Guide on Understanding Common Use at Airports to develop new business models for common use systems at its airport.

**Published:** October 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169730.aspx>



***ACRP Report 92 – Guidebook to Creating a Collaborative Environment Between Airport Operations and Maintenance***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 92: Guidebook to Creating a Collaborative Environment Between Airport Operations and Maintenance provides tools and strategies that are designed to help potentially increase and improve collaboration between operations and maintenance staffs at airports.

The contractor's executive summary and final report, which documents the research related to the development of ACRP Report 92, are also available online.

**Published:** October 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169739.aspx>



***ACRP Report 93 – Operational and Business Continuity Planning for Prolonged Airport Disruptions***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 93: Operational and Business Continuity Planning for Prolonged Airport Disruptions provides a guidebook and software tool for airport operators to assist, plan, and prepare for disruptive and catastrophic events that have the potential for causing prolonged airport closure resulting in adverse impacts to the airport and to the local, regional, and national economy.

The software tool is available in a CD-ROM format and is intended to help develop and document airport business continuity plans or revise current plans in light of this guidance. The CD is also available for download from TRB's website as an ISO image.

**Published:** November 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169246.aspx>



### ***ACRP Impacts on Practice – Implementing Effective Airport Marketing Approaches to Tenants and the Community***

**Report Blurb:** The latest issue of TRB’s Airport Cooperative Research Program (ACRP) Impacts on Practice highlights how the Fort Wayne International Airport in Indiana used ACRP Report 28: Marketing Guidebook for Small Airports to create a marketing plan.

**Published:** November 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169732.aspx>



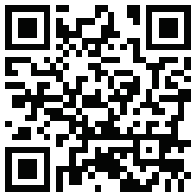
### ***ACRP Report 97 – Measuring PM Emissions from Aircraft Auxiliary Power Units, Tires, and Brakes***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 97: Measuring PM Emissions from Aircraft Auxiliary Power Units, Tires, and Brakes presents the results of a comprehensive test program designed to measure particulate matter (PM) emissions from auxiliary power units and from tires and brakes during the landing phase of operations of in-service commercial aircraft.

The research results are designed to provide a significant contribution to the characterization of emissions from these sources with the goal of helping airports improve the accuracy of their PM emissions inventories.

**Published:** December 2013

**Link:** <http://www.trb.org/Publications/Blurbs/170030.aspx>



### ***ACRP Report 96 – Apron Planning and Design Guidebook***

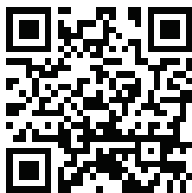
**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 96: Apron Planning and Design Guidebook addresses best practices for planning, designing, and marking apron areas for all sizes and types of airports in the United States.

The apron planning and design considerations include facility geometrics, aircraft maneuvering, apron/airfield access points, operational characteristics, markings, lighting, and aircraft fleets. In addition, the types of aprons include terminal area, deicing, general aviation, cargo, maintenance, and remote aprons and helipads.

A PowerPoint presentation, which summarized the research and best practices described in the guidebook, is available online.

**Published:** December 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169964.aspx>



### ***ACRP Impacts on Practice – Evaluating Terminal Renewal and Replacement Options***

**Report Blurb:** The latest issue of TRB’s Airport Cooperative Research Program (ACRP) Impacts on Practice explores how airport personnel from the Port Authority of New York and New Jersey utilized ACRP Report 68: Guidebook for Evaluating Terminal Renewal Versus Replacement Options for the redevelopment planning of Terminal A at Newark Liberty International Airport.

**Published:** December 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169733.aspx>



### ***ACRP Report 100 – A Guidebook for Advancing Recycling from Aircraft Cabins***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 100: Recycling Best Practices—A Guidebook for Advancing Recycling from Aircraft Cabins describes procedures for recycling airport, airline, and flight kitchen waste and includes action plans designed to improve recycling and reduce waste disposal costs for airports of varying sizes and characteristics.

The best practices summary sheets for airlines, large and medium airport hubs, small-hub and non-hub airports, and flight kitchens included in Appendix B of ACRP Report 100 are also available for download.

**Published:** December 2013

**Link:** <http://www.trb.org/ACRP/Blurbs/169528.aspx>



### ***ACRP Report 94 – Integrating Web-Based Emergency Management Collaboration Software into Airport Operations--A Primer***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 94: Integrating Web-Based Emergency Management Collaboration Software into Airport Operations--A Primer provides information on how to evaluate and implement web-based collaboration tools that are designed to provide a common operating picture for both day-to-day operations and full emergency response management.

The primer explores the functions of web-based emergency management systems and is designed to aid airports in establishing requirements, procuring and installing systems, and implementing training.

**Published:** December 2013

**Link:** <http://www.trb.org/Publications/Blurbs/170032.aspx>

## 2014



### ***ACRP Report 99 – Guidance for Treatment of Airport Stormwater Containing Deicers***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 99: Guidance for Treatment of Airport Stormwater Containing Deicers offers a process to help airports identify, select, and implement technologies to treat stormwater that has been affected by deicing materials. The guidance also includes suggestions for the design, operation, and maintenance of different treatment technologies.

Eleven fact sheets that address the treatment technologies referenced in ACRP Report 99 are available for download. The fact sheets cover activated sludge; aerated gravel beds; aerated lagoons; anaerobic fluidized bed reactors; distillation; mechanical vapor recompression; moving bed biofilm reactors; passive facultative treatment systems; public wastewater treatment systems; private recycling systems; and reverse osmosis.

**Published:** January 2014

**Link:** <http://www.trb.org/Publications/Blurbs/170197.aspx>



### ***ACRP Report 98 – Understanding Airline and Passenger Choice in Multi-Airport Regions***

**Report Blurb:** Understanding Airline and Passenger Choice in Multi-Airport Regions examines the business models airlines use to establish service in regions with multiple airports and explores how passengers select an airport within a multi-airport region.

**Published:** January 2014

**Link:** <http://www.trb.org/Publications/Blurbs/170194.aspx>



### ***ACRP 2013 Annual Report of Progress***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) has released its annual report that provides background on the program, a listing of products developed under the program over the last 8 years, a summary of the status of projects in progress or completed, and more.

**Published:** January 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170108.aspx>



### ***ACRP Research Results Digest 20 – Taking Inventory of ACRP Research and the Next Challenges Facing the Airport Industry***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Research Results Digest 20: Taking Inventory of ACRP Research and the Next Challenges Facing the Airport Industry explores the ACRP’s processes, guidance, and research results. The report also examines ACRP’s outreach to the airport industry.

ACRP RRD 20 updates ACRP RRD 5: Current and Emerging Issues Facing the Airport Industry and is designed to represent the program’s strategy of matching research initiatives to current and emerging airport challenges.

**Published:** January 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170068.aspx>



### ***ACRP Research Results Digest 19 – Graduate Research Award Program on Public-Sector Aviation Issues Update: 2008–2013***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Research Results Digest 19: Graduate Research Award Program on Public-Sector Aviation Issues Update: 2008–2013 provides initial information for the 2013–2014 academic year of the Graduate Research Award Program on Public-Sector Aviation Issues (ACRP Project 11-04).

The report also includes abstracts for student papers from the 2012–2013 and 2011–2012 academic years, and lists papers from prior academic years beginning in 2008–2009. Abstracts for the earlier papers are available in [ACRP RRD 14](#)

The program, sponsored by the U.S. Federal Aviation Administration and administered by the ACRP, is designed to encourage applied research on airport-related aviation system issues and to foster the next generation of aviation community leaders. Under the program, up to ten awards of \$10,000 each are made to full-time graduate students for successful completion of a research paper on public-sector airport-related aviation issues during the academic year.

Candidates must be full-time students enrolled in a graduate degree program at a North American accredited institution of higher learning during the academic year. Successful papers are presented at the TRB Annual Meeting following completion of the program, and exceptional papers have been published in subsequent volumes of the Transportation Research Record: Journal of the Transportation Research Board.

**Published:** January 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170152.aspx>



### ***ACRP Report 95 – Integrating Community Emergency Response Teams (A-CERTs) at Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 95: Integrating Community Emergency Response Teams at Airports (A-CERTs) provides guidance and tools designed to help organize and operate a citizen volunteer program to assist airport staff in emergency events or disasters.

The report, produced as a three part set, consists of the following:

- Part 1, What is a CERT and How Do I Use It?, explains what a community emergency response team (CERT) program is and how it can be used in the airport environment.
- Part 2, Basic Training Instructor Guide, includes a detailed curriculum designed to train volunteers to potentially assist at an airport during emergency events or disasters.
- Part 3, Basic Training Student Guide, is based on the instructors guide and is a resource for students as well as a takeaway from the training.

Also produced as part of ACRP Report 95 are customizable PowerPoint slides—for use by the instructor during training—and a video that can be used to educate the community and solicit volunteers.

**Published:** January 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/169905.aspx>



### ***ACRP Report 105 – Guidelines for Ensuring Longevity in Airport Sound Insulation Programs***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 105: Guidelines for Ensuring Longevity in Airport Sound Insulation Programs provides best practices in all phases of a sound insulation program to reduce or eliminate future deterioration issues.

ACRP Report 105 complements ACRP Report 89: Guidelines for Airport Sound Insulation Programs.

The contractor’s final report, which assesses sound insulation treatments as part of the first phase of the project that developed ACRP Report 105, is available for download.

**Published:** February 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170231.aspx>



### ***ACRP Report 102 – Guidance for Estimating Airport Construction Emissions***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 102: Guidance for Estimating Airport Construction Emissions provides guidance and an interactive electronic

tool—the Airport Construction Emissions Inventory Tool—to assist airports and other stakeholders in developing airport construction emissions inventories.

The Airport Construction Emissions Inventory Tool (ACEIT) is included in CD-ROM format with the printed version of the report.

The CD-ROM is also available for download from TRB’s website as an ISO image.

**Published:** February 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170234.aspx>



***ACRP Research Results Digest 18 – Synthesis of Information Related to Airport Practices: 2014***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Research Results Digest 18: Synthesis of Information Related to Airport Practices is a digest of the progress and status of ACRP Project 11-03, Synthesis of Information Related to Airport Practices.

**Published:** February 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170232.aspx>



***ACRP Web-Only Document 16 – Assessing Aircraft Noise Conditions Affecting Student Learning, Volume 1: Final Report***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 16: Assessing Aircraft Noise Conditions Affecting Student Learning, Volume 1: Final Report explores conditions under which aircraft noise affects student learning and evaluates alternative noise metrics that best define those conditions.

Appendices A through G for ACRP Web-Only Document 16, Vol. 1 was published separately as [ACRP Web-Only Document 16, Vol. 2](#).

**Published:** February 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170328.aspx>



***ACRP Web-Only Document 16 – Assessing Aircraft Noise Conditions Affecting Student Learning, Volume 2: Appendices***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 16: Assessing Aircraft Noise Conditions Affecting Student Learning, Volume 2: Appendices includes appendices A through G for ACRP Web-Only Document 16, Vol. 1, which explores conditions under which aircraft noise affects student learning and evaluates alternative noise metrics that best define those conditions.

**Published:** February 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170329.aspx>



***ACRP Report 103 – A Guidebook for Integrating NIMS for Personnel and Resources at Airports***

**Report Blurb:** TRB Airport Cooperative Research Program (ACRP) Report 103: A Guidebook for Integrating NIMS for Personnel and Resources at Airports provides guidance for the integration of the National Incident Management System (NIMS) into airport response plans for incidents, accidents, and events.

The guidebook address common NIMS and incident command terminology; outlines incident command structures for various situations relative to their complexity; and includes sample plans from airports and training outlines.

In addition, a matrix of suggested training for airport staff was developed as part of the project that developed the guidebook. The Excel-based matrix is available for download from this site.

**Published:** February 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/169840.aspx>



### ***ACRP Report 104 – Defining and Measuring Aircraft Delay and Airport Capacity Thresholds***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 104: Defining and Measuring Aircraft Delay and Airport Capacity Thresholds offers guidance to help airports understand, select, calculate, and report measures of delay and capacity. The report describes common metrics, identifies data sources, recommends metrics based on an airport’s needs, and suggests ways to potentially improve metrics.

**Published:** March 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170348.aspx>



### ***ACRP Report 106 – Being Prepared for IROPS: A Business-Planning and Decision-Making Approach***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 106: Being Prepared for IROPS: A Business-Planning and Decision-Making Approach describes a process to help justify airport planning, and funding decisions (capital, and operations and maintenance) related to supporting irregular operations (IROPS) contingency planning.

The report presents a structured approach to quantifying the lifecycle economic value of proposed IROPS mitigation alternatives through a spreadsheet-based business-planning and decision support tool. The IROPS Investment Support Tool (IRIS) is included with the print version of the report in CD-ROM format. The CD-ROM is also available for download from TRB’s website as an ISO image.

**Published:** March 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170432.aspx>



### ***ACRP Synthesis Report 50 – Effective Cooperation Among Airports and Local and Regional Emergency Management Agencies for Disaster Preparedness and Response***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 50: Effective Cooperation Among Airports and Local and Regional Emergency Management Agencies for Disaster Preparedness and Response focuses on how airports and their emergency management partners establish and sustain effective working relationships, and methods of identifying problems and rebuilding damaged relationships.

The report is designed to provide airports and their emergency response allies’ access to a full range of policies, programs, practices, and relationships for establishing and sustaining good working relationships.

Published: March 2014

Link: <http://www.trb.org/ACRP/Blurbs/170368.aspx>



### ***ACRP Synthesis Report 51 – Impacts of Aging Travelers on Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 51: Impacts of Aging Travelers on Airports describes the challenges of wayfinding, fatigue, technology and equipment, and needed amenities, as well as the practices that airports are enacting to accommodate and improve the airport experience of aging travelers. The report is designed to help users better understand the aging demographic, and define issues and implement effective practices to accommodate aging travelers at airports.

Published: March 2014

Link: <http://www.trb.org/ACRP/Blurbs/170493.aspx>



### ***ACRP Report 107 – Development of a Runway Veer-Off Location Distribution Risk Assessment and Reporting Template***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 107: Development of a Runway Veer-Off Location Distribution Risk Assessment and Reporting Template explores a method to assess the risk of lateral runway excursions, also known as veer-offs, and suggests ways to improve veer-off incident/accident reporting.

In addition to the report, this project also developed the Lateral Runway Safety Area Risk Analysis (LRSARA) tool that can be used to help determine the probability of runway veer-offs in specific areas at particular airports. The LRSARA tool is available in CD-ROM format that is included with the print version of the report.

The CD-ROM is also available for download from TRB’s website as an ISO image.

Published: April 2014

Link: <http://www.trb.org/ACRP/Blurbs/170535.aspx>



### ***ACRP Report 108 – Guidebook for Energy Facilities Compatibility with Airports and Airspace***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 108: Guidebook for Energy Facilities Compatibility with Airports and Airspace describes processes to plan, develop, and construct energy production and transmission technologies at and around airports. The guidebook emphasizes aviation safety practices in order to help ensure a safe and efficient national air system while still helping to meet U.S. domestic energy production needs.

Published: April 2014

Link: <http://www.trb.org/ACRP/Blurbs/170609.aspx>



### ***ACRP Synthesis Report 53 – Outcomes of Green Initiatives: Large Airport Experience***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 53: Outcomes of Green Initiatives: Large Airport Experience explores the drivers and outcomes of green initiatives at airports and identifies data that can be used to evaluate the effectiveness of various initiatives.



Airports are embracing green initiatives to address compliance issues, reduce their environmental footprint, and help achieve the airports' long-term prosperity and success.

**Published:** May 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170655.aspx>



### ***ACRP Synthesis Report 54 – Outcomes of Green Initiatives: Large Airport Experience***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 54: Electric Vehicle Charging Stations at Airport Parking Facilities is designed as a primer on electric vehicle (EV) charging and includes information on policy approaches, infrastructure needs, and funding mechanisms that airports have used in EV hosting.

The report summarizes the state of the EV industry; highlights the motivations for airport sponsors to provide EV charging stations; identifies current EV charging technologies; and describes practices for installing EV charging stations at airports in terms of finances, planning, implementation, and operation of the charging stations.

**Published:** May 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170689.aspx>



### ***ACRP Legal Research Digest 22 – 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***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Legal Research Digest 22: 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 provides a summary of relevant federal and state environmental review statutes and regulations, the different stages of the NEPA environmental review and actions, "special-purpose" environmental laws, and the roles and responsibilities of the various stakeholders.

Interspersed throughout the digest are specific project survey results relating to the specific topic being addressed.

**Published:** May 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170718.aspx>



### ***ACRP Report 101 – Best Practices Manual for Working In or Near Airport Movement Areas***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 101: Best Practices Manual for Working In or Near Airport Movement Areas consists of a best practices database; training tools, aids, and checklists; and a 45-minute video that provide guidance on best practices for a myriad of airport activities.

The guidance is designed to help introduce new employees, tenants, or contractors to the airport environment.

The video, Staying Safe on the Airfield, follows an airport operations supervisor training a new employee by discussing hazards and the appropriate best practices for eliminating or mitigating risks while working in or near the airport movement area. The database, video, and training tools, and aids and checklists are provided on a CD-ROM that is included with the print version of the report.

The CD-ROM is also available for download from TRB's website as an ISO image.

**Published:** May 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170760.aspx>



### ***ACRP Synthesis Report 52 – Habitat Management to Deter Wildlife at Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 52: Habitat Management to Deter Wildlife at Airports presents information on habitat management to deter wildlife at airports and manage risk to aviation. It is the third of three related syntheses of airport practice reports and completes the series wildlife risk management at airports.

ACRP Synthesis builds on previous ACRP documents, including ACRP Synthesis 23, ACRP Report 32, and ACRP Synthesis 39, which address bird deterrence and harassment techniques, various wildlife hazards and control techniques, and population management methods, respectively.

**Published:** May 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170766.aspx>



### ***ACRP Report 109 – Improving Terminal Design to Increase Revenue Generation Related to Customer Satisfaction***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 109: Improving Terminal Design to Increase Revenue Generation Related to Customer Satisfaction explores innovative airport planning and terminal design that promotes profitable revenue generation and customer satisfaction at a variety of airport sizes and types. The handbook includes consideration of how to potentially improve the airport customer experience through the use of technology and other resources.

**Published:** June 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170867.aspx>



### ***ACRP Synthesis Report 55 – Backcountry Airstrip Preservation***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 55: Backcountry Airstrip Preservation catalogues the uses, benefits, and threats to backcountry airstrips and identifies practices and strategies to manage these threats.

**Published:** June 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170879.aspx>



### ***Transportation Research Record – Public-Sector Aviation: Graduate Research Award Papers, 2012-2013***

**Report Blurb:** TRB's Transportation Research Record: Journal of the Transportation Research Board, No. 2400 consists of 10 papers selected for awards in a nationwide competition under the 2012 to 2013 Graduate Research Award Program on Public-Sector Aviation Issues.

Topics explored by the papers include screening times at airport security checkpoints; runway incursion risks; the role of competitor pricing in multi-airport choice; congestion mitigation at John F. Kennedy International Airport; and ground delay programs.

This issue of the TRR also examines terminal-area weather penetration; fuel burn and emission reduction from taxiing aircraft; characterization of individual air travel behavior using social network data; and airport capacity enhancement and flight predictability.

The Graduate Research Award Program on Public-Sector Aviation Issues is managed by TRB's Airport Cooperative Research Program and sponsored by the Federal Aviation Administration. The program is designed to encourage applied research on airport and related aviation system issues and to foster the next generation of aviation community leaders.

**Published:** June 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170937.aspx>



### ***ACRP Impacts on Practice – Identifying Practices for Controlling Aircraft and Airfield Deicing Runoff***

**Report Blurb:** The latest issue of TRB's Airport Cooperative Research Program (ACRP) Impacts on Practice examines how the Gerald R. Ford International Airport (GRR) in Grand Rapids, Michigan utilized ACRP Report 14: Deicing Planning Guidelines and Practices for Stormwater Management Systems to develop a long-term stormwater and deicing program that would maintain airport safety and comply with environmental regulations.

The report's guidelines eliminated the need for identifying best management practices and helped the airport clearly define and engineer a stormwater management system that fit GRR's specific needs. As a result, the airport was able to produce a plan that met timely approval by the Michigan Department of Environmental Quality.

**Published:** June 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170964.aspx>



### ***ACRP Report 110– Evaluating Impacts of Sustainability Practices on Airport Operations and Maintenance***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 110: Evaluating Impacts of Sustainability Practices on Airport Operations and Maintenance provides guidance on using an evaluation process and cost-benefit tool to evaluate lifecycle costs of sustainability practices being considered by airport operators.

Accompanying the report, CD-149: Evaluation Process and Cost-Benefit Tool contains spreadsheet tools and an instructional video that demonstrates how to use data from an example project. CD-149 is available for download from TRB's website as an ISO image.

**Published:** July 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170580.aspx>



### ***ACRP Synthesis Report 56 – Understanding the Value of Social Media at Airports for Customer Engagement***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 56: Understanding the Value of Social Media at Airports for Customer Engagement compiles current literature and practice on how airport operators utilize social media to enhance customer engagement.

**Published:** July 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170977.aspx>

## *ACRP Synthesis Report 58 – Safety Reporting Systems at Airports*



**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 58: Safety Reporting Systems at Airports describes safety reporting methods and systems for airports certificated under Title 14 Code of Federal Regulations Part 139 by assessing current practices, processes, and systems used to collect and analyze safety data and information.

**Published:** July 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170978.aspx>



## *ACRP Research Results Digest 21 – Best Practices for General Aviation Aircraft Fuel-Tank Sampling*

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Research Results Digest 21: Best Practices for General Aviation Aircraft Fuel-Tank Sampling estimates the discard amounts from fuel testing samples that are entering the stormwater run-off system, and develops

best practices for proper disposal of the fuel-tank samples.

**Published:** July 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/171076.aspx>



## *ACRP Synthesis Report 57 – Airport Response to Special Events*

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 57: Airport Response to Special Events explores how airports plan, manage, and recover from special events in order to help minimize the event's effects on an airport's regular operations.

The synthesis explores issues related to planning, organizing, and applying lessons learned, as well as addressing potential surprises and impacts on operations and customer services related to a variety of non-aeronautical events that occur both on and off an airport. ACRP Synthesis 57 offers six case examples designed to help demonstrate how airports of all sizes plan, manage, and recover from special events.

ACRP Synthesis 57 can serve as a companion document to [ACRP Synthesis 41: Conducting Aeronautical Special Events at Airports](#). ACRP Synthesis 41 focuses on aeronautical events such as air shows, airport open houses, aircraft static displays, and fly-ins.

**Published:** July 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170872.aspx>



## *ACRP Report 111– A Guidebook for Airport-Airline Consortia*

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 111: A Guidebook for Airport-Airline Consortia provides decision-making guidance for airport operators and airline representatives who are responsible for agreements related to facilities,

equipment, systems, and services and who may be interested in evaluating, advocating, or forming consortia to provide needed services.

**Published:** August 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/171247.aspx>

## ***ACRP Report 112– Airport Terminal Incident Response Planning***



**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 112: Airport Terminal Incident Response Planning summarizes the development and use of a tool that creates and maintains integrated incident response plans that address hazards in and around airport terminals.

The Airport Terminal Incident Response Plan (TIRP) tool, available on the CD-ROM that accompanies the report, assists in the development of a response plan to help mitigate the impact of events on terminal users. In addition to the TIRP tool, the report contains a user’s guide that provides a step-by-step process of generating incident response plans.

The report also contains an output example that demonstrates completed terminal incident response plans using the TIRP tool. The CD-ROM is also available for download from TRB’s website as an ISO image.

**Published:** August 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/171121.aspx>



## ***ACRP Impacts on Practice – Improving Airport Curbside and Roadway Operations***

**Report Blurb:** The latest issue of TRB’s Airport Cooperative Research Program (ACRP) Impacts on Practice explores how the planning staff at Ottawa Macdonald-Cartier International Airport (YOW) applied analytical tools presented in ACRP Report 40: Airport Curbside and Terminal Area Roadway Operations to help improve airport operations and travelers’ experiences.

Using the tools presented in this report, planning staff at YOW identified the optimal combination of improvements to increase the airport’s ability to process the vehicular traffic demand. The airport has implemented one of the improvements and is planning to deploy other recommendations in coordination with additional terminal area improvement strategies.

**Published:** September 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/171272.aspx>



## ***ACRP Report 113– Guidebook on General Aviation Facility Planning***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 113: Guidebook on General Aviation Facility Planning provides guidance for planning airport facilities that accommodate general aviation aircraft. The guidance is designed to help airport practitioners plan flexible and cost-effective facilities that are responsive to industry needs.

**Published:** September 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/171315.aspx>



## ***ACRP Report 114– Guidebook for Through-the-Fence Operations***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 114: Guidebook for Through-the-Fence Operations examines the financial, operational, regulatory, legal, and other issues associated with through-the-fence (TTF) operations. The report includes supplemental worksheets for assessing TTF operations, discussed in Chapter 5, and a PowerPoint template for TTF operations.

**Published:** September 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/170955.aspx>



### ***ACRP Synthesis Report 59 – Integrating Airport Geographic Information System (GIS) Data with Public Agency GIS***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 59: Integrating Airport Geographic Information System (GIS) Data with Public Agency GIS identifies effective and emerging data exchange practices that airports and public agencies can use to increase the data they have access to, while reducing the cost of identifying, collecting, and maintaining these data. It synthesizes the need expressed by airports and public agencies to exchange geographic information and related resources, highlighting effective practices and industry trends.

**Published:** September 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/171387.aspx>



### ***ACRP Report 116– Guidebook for Successfully Assessing and Managing Risks for Airport Capital and Maintenance Projects***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 116: Guidebook for Successfully Assessing and Managing Risks for Airport Capital and Maintenance Projects establishes a step-by-step process for evaluating and managing risk for capital and maintenance projects that can be scaled depending on the complexity of the project. Chapter 8 is structured to be a quick user’s guide.

**Published:** October 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/171447.aspx>



### ***ACRP Impacts on Practice – Planning for Recovery of Disabled Aircraft***

**Report Blurb:** The latest issue of TRB’s Airport Cooperative Research Program (ACRP) Impacts on Practice highlights the value of ACRP Synthesis 38: Expediting Aircraft Recovery at Airports, a report that details guidance for expediting the recovery of disabled aircraft. Specifically, officials at John Wayne Airport (SNA) in Orange County, California applied ACRP Synthesis 38 to help plan for aircraft recovery operations.

**Published:** October 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/171513.aspx>



### ***ACRP Web-Only Document 19 – Integrated Noise Model Accuracy for General Aviation Aircraft***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 19: Integrated Noise Model Accuracy for General Aviation Aircraft assesses the predictive accuracy of the Integrated Noise Model, identifies causes for deviations between actual and predicted values, identifies potential solutions to improve the model’s accuracy, and describes the steps needed for implementation

**Published:** October 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/171516.aspx>



### ***ACRP Report 115– Understanding Microbial Biofilms in Receiving Waters Impacted by Airport Deicing Activities***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 115: Understanding Microbial Biofilms in Receiving Waters Impacted by Airport Deicing Activities provides an introduction to the factors than can affect biofilm growth sometimes observed in streams that receive airport runoff containing deicers.

**Published:** November 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/171576.aspx>



### ***ACRP Report 120– Airport Capital Improvements: A Business Planning and Decision-Making Approach***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 120: Airport Capital Improvements: A Business Planning and Decision-Making Approach consist of a guidebook and a spreadsheet-based cost-estimating model to assist practitioners with estimating the cost of construction projects regularly proposed in an airport’s capital improvement plan. The spreadsheet model requires 32-bit Microsoft Excel 2007 or later. ACRP Web Only Document 18: Airport Capital Improvements: Developing a Cost-Estimating Model and Database describes the research process to develop and test the model.

**Published:** November 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/171584.aspx>



### ***ACRP Web-Only Document 18 – Airport Capital Improvements: Developing a Cost-Estimating Model and Database***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web Only Document 18: Airport Capital Improvements: Developing a Cost-Estimating Model and Database describes the research process to develop and test a cost estimating model and database intended for use during airport capital planning. The guidebook and spreadsheet tool are available online.

**Published:** November 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/171329.aspx>



### ***ACRP Report 117– Airport Escalators and Moving Walkways—Cost-Savings and Energy Reduction Technologies***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 117: Airport Escalators and Moving Walkways—Cost-Savings and Energy Reduction Technologies provides a systematic approach to identifying, evaluating, and selecting cost-saving and energy reduction technologies for airport escalators and moving walkways. A spreadsheet tool that supplements the report is bound in the hardcopy of the report as CRP-CD-156.

The CD-ROM is also available for download from TRB’s website as an ISO image.

**Published:** November 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/171719.aspx>



***ACRP Web-Only Document 20 – Estimating the Economic Impact of Air Cargo Operations at Airports, Part 1: User’s Guidebook and Part 2: Research Report***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 20: Estimating the Economic Impact of Air Cargo Operations at Airports, Part 1: User’s Guidebook and Part 2: Research Report provides guidance and tools to practitioners who estimate the economic value of air cargo facilities and operations to their communities and regions.

**Published:** December 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/171800.aspx>



***ACRP Report 119– Prototype Airport Sustainability Rating System— Characteristics, Viability, and Implementation Options***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 119: Prototype Airport Sustainability Rating System—Characteristics, Viability, and Implementation Options identifies the features of an airport sustainability rating system, identifies options for implementing the rating system and a certification program, and evaluates the viability of their implementation and adoption.

**Published:** December 2014

**Link:** <http://www.trb.org/ACRP/Blurbs/171840.aspx>

# 2015



***ACRP Research Results Digest 22 – Synthesis of Information Related to Airport Practices: 2015***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Research Results Digest 22: Synthesis of Information Related to Airport Practices is a digest of the progress and status of ACRP Project 11-03, Synthesis of Information Related to Airport Practices.

**Published:** January 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/171931.aspx>



***ACRP 2014 Annual Report of Progress***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) has released its annual report that provides background on the program, a listing of products developed under the program over the last 9 years, a summary of the status of projects in progress or completed, and more.

**Published:** January 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/171966.aspx>





### ***ACRP Report 122– Innovative Airport Responses to Threatened and Endangered Species***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 122: Innovative Airport Responses to Threatened and Endangered Species provides solutions to help airport industry practitioners address the presence of federally listed species at or near airports.

Accompanying the primer is Airport Toolbox for ACRP Report 122, which is designed to help facilitate understanding among airports and agencies. The toolbox is available online as a PDF document and available as CRP-CD-ROM 160 in the hard copy of the report.

The CD is also available for download from TRB’s website as an ISO image.

**Published:** January 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/171975.aspx>



### ***ACRP Report 123– A Guidebook for Airport Winter Operations***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 123: A Guidebook for Airport Winter Operations provides direction to airport facilities as they prepare for, operate during, and recover from disruptive winter events. The report also provides tips for managing the overall passenger experience and provides guidance on the levels of investment

needed to implement an effective winter operations program.

**Published:** January 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/171976.aspx>



### ***ACRP Report 125– Balancing Airport Stormwater and Bird Hazard Management***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 125: Balancing Airport Stormwater and Bird Hazard Management help airports identify and evaluate stormwater management and bird mitigation practices. An accompanying CD-ROM tool is aimed to assist airports with evaluating bird strike risks and stormwater management decisions.

The CD is also available for download from TRB’s website as an ISO image.

**Published:** January 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172035.aspx>



### ***ACRP Report 126– A Guidebook for Increasing Diverse and Small Business Participation in Airport Business Opportunities***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 126: A Guidebook for Increasing Diverse and Small Business Participation in Airport Business Opportunities is a compilation of industry best practices and other measures airports can use to attract and enhance participation in their contract opportunities.

**Published:** January 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/171977.aspx>



### ***ACRP Legal Research Digest 23 – A Guide for Compliance with Grant Agreement Obligations to Provide Reasonable Access to an AIP-Funded Public Use General Aviation Airport***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Legal Research Digest 23: A Guide for Compliance with Grant Agreement Obligations to Provide Reasonable Access to an AIP-Funded Public Use General Aviation Airport describes the assurances made by airport sponsors that receive grants from the U.S. Federal Aviation Administration, and how these assurances limit the sponsor from unreasonably restricting access for aeronautical activity at general aviation airports.

**Published:** February 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172078.aspx>



### ***ACRP Report 128– Alternative IT Delivery Methods and Best Practices for Small Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 128: Alternative IT Delivery Methods and Best Practices for Small Airports provides guidance and templates to help airport staff understand the appropriate IT delivery methods and best practices based on their unique strategic goals, requirements, and overall airport goals.

**Published:** March 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172180.aspx>



### ***ACRP Report 124– Airport Parking Garage Lighting Solutions***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 124: Airport Parking Garage Lighting Solutions provides guidance to help airport industry practitioners select the most appropriate lighting technologies for their unique parking garage conditions.

**Published:** March 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172338.aspx>



### ***ACRP CD-161: Estimating Takeoff Thrust Settings for Airport Emissions Inventories***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) has released ACRP CD-161: Estimating Takeoff Thrust Settings for Airport Emissions Inventories that offers guidance designed to help airport practitioners include the effects of reduced takeoff thrust in their emissions inventory calculations. When calculating air quality emissions inventories for airports, modelers frequently assume that aircraft takeoff uses maximum engine thrust. However, many airlines routinely use lower takeoff thrust levels to prolong the lives of the engines.

ACRO CD-161 includes the Takeoff Thrust-Setting Estimator Tool (TTREAT), which calculates takeoff thrust for departures from an airport and produces outputs suitable for use with the Federal Aviation Administration Aviation Environmental Design Tool (AEDT). Validation of TTREAT has shown that it successfully captures the distributions of thrust seen in the airline data, and that the takeoff flight profiles calculated by AEDT are closer matched to those from the airline data than are calculations assuming a maxim thrust takeoffs.

Included in ACRP CD-161 includes the TTREAT tool, a practitioner guidebook, and a final technical report.

The CD-ROM is also available for download from TRB's website as an ISO image.

**Published:** March 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172265.aspx>



### ***ACRP Report 127– A Guidebook for Mitigating Disruptive WiFi Interference at Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 127: A Guidebook for Mitigating Disruptive WiFi Interference at Airports describes the WiFi interference problems at airports and offers potential solutions to mitigate disruptions.

Interference is addressed in the context of the business and regulatory structure within which airports operate.

The guidebook is designed to provide practical assistance for improving WiFi performance by enhancing the ability of airport authorities to identify when radio frequency interference is occurring and then how to eliminate, reduce, or at least minimize its impact.

The guidebook addresses following:

- Quantification of the extent and magnitude of the interference problems;
- Best technical and business practices to provide accessible, secure service with adaptable bandwidth to meet the needs of all stakeholders;
- Communication and collaboration efforts among parties to maximize the benefits of a cooperative approach;
- Reference designs that are adaptable to different airport environments (i.e., small, medium, large, dominant carrier, no dominant carrier, and other tenant mix), including security requirements for all stakeholders;
- Techniques for identifying and resolving interference issues outside reference designs;
- Strategic vision that addresses potential impacts due to increasing demand, rapidly evolving technologies, and new uses (e.g., 802.11 ac, HD video, 4G backhaul); and
- Total cost of ownership and return on investment, including intangibles.

**Published:** March 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172272.aspx>



### ***ACRP Report 129– Evaluating Methods for Counting Aircraft Operations at Non-Towered Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 129: Evaluating Methods for Counting Aircraft Operations at Non-Towered Airports reviews techniques and technologies applied at airports without air traffic control towers to estimate aircraft operations.

**Published:** March 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172335.aspx>

## ***ACRP Report 118– Integrating Aviation and Passenger Rail Planning***



**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 118: Integrating Aviation and Passenger Rail Planning explores planning options, funding challenges, and potential actions to improve integration of rail services with airports, particularly in congested corridors.

The report has an accompanying CD-ROM that includes an Air/Rail Diversion model. A User Guide provides direction in applying the model to evaluate different scenarios and a Technical Appendix provides supplemental information for the model.

The CD-ROM is also available for download from TRB’s website as an ISO image.

**Published:** April 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172409.aspx>

## ***ACRP Legal Research Digest 24 – Sovereign Immunity for Public Airport Operations***



**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Legal Research Digest 24: Sovereign Immunity for Public Airport Operations examines sovereign immunity as it applies to public airports that are owned and operated by units of local government or regional governmental authorities. This report summarizes the extent of sovereign immunity granted to airports from state to state. Appendix A provides a table of cases, and Appendix B contains a chart of authorities.

**Published:** April 2015

**Link:** <http://www.trb.org/Main/Blurbs/172457.aspx>

## ***ACRP Report 130– Guidebook for Airport Terminal Restroom Planning and Design***



**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 130: Guidebook for Airport Terminal Restroom Planning and Design explores a process to help airport practitioners plan, design, and implement terminal restroom projects.

The guidebook’s appendixes, contained on the accompanying CD-ROM (except for Appendixes I and J), include the case studies, focus group summaries, helpful templates and forms, a discussion of the restroom of the future, a bibliography, and glossary. Appendix B and Appendixes A, C-H are available online.

**Published:** May 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172507.aspx>

## ***ACRP Report 131– A Guidebook for Safety Risk Management for Airports***



**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 131: A Guidebook for Safety Risk Management for Airports provides tools, examples, and guidance to help airports manage safety risks using the safety risk management (SRM) process. The guidebook includes scalable features of the SRM processes so that it may be useful to smaller airports with limited resources.

**Published:** May 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172635.aspx>

***ACRP Web-Only Document 21 – Quantifying Aircraft Lead Emissions at Airports***



**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 21: Quantifying Aircraft Lead Emissions at Airports reviews methods for quantifying aircraft-related lead emissions.

ACRP Report 133: Best Practices Guidebook for Preparing Lead Emission Inventories from Piston-Powered Aircraft with the Emission Inventory Analysis Tool provides guidance for quantifying airport lead emissions so that airports may assess aircraft-related lead emissions at their facilities.

**Published:** May 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172599.aspx>



***ACRP Web-Only Document 22 – Passenger Value of Time, Benefit-Cost Analysis and Airport Capital Investment Decisions, Volume 1: Guidebook for Valuing User Time Savings in Airport Capital Investment Decision Analysis***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 22: Passenger Value of Time, Benefit-Cost Analysis and Airport Capital Investment Decisions, Volume 1: Guidebook for Valuing User Time Savings in Airport Capital Investment Decision Analysis provides a method for airport owners and operators to determine how their customers value the travel time impacts of efficiency improvements.

The purpose of this research is to provide an up-to-date understanding of how recent airport developments, such as changes in security measures since 9/11, the proliferation of airside passenger amenities, and the adoption of new technology, have changed the way travelers value efficient air travel.

The report is accompanied by Volume 2: Final Report that summarizes the data collection methodology and Volume 3: Appendix A Background Research and Appendix B Stated Preference Survey.

**Published:** May 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172472.aspx>



***ACRP Web-Only Document 22 – Passenger Value of Time, Benefit-Cost Analysis and Airport Capital Investment Decisions, Volume 2: Final Report***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 22: Passenger Value of Time, Benefit-Cost Analysis and Airport Capital Investment Decisions, Volume 2: Final Report summarizes the data collection methodology to produce a method for airport owners and operators to determine how their customers value the travel time impacts of efficiency improvements.

The purpose of this research is to provide an up-to-date understanding of how recent airport developments, such as changes in security measures since 9/11, the proliferation of airside passenger amenities, and the adoption of new technology, have changed the way travelers value efficient air travel.

The report is accompanied by Volume 1: Guidebook for Valuing User Time Savings in Airport Capital Investment Decision Analysis that summarizes the data collection methodology and Volume 3: Appendix A Background Research and Appendix B Stated Preference Survey.

**Published:** May 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172473.aspx>



***ACRP Web-Only Document 22 – Passenger Value of Time, Benefit-Cost Analysis and Airport Capital Investment Decisions, Volume 3: Appendix A Background Research and Appendix B Stated Preference Survey***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 22: Passenger Value of Time, Benefit-Cost Analysis and Airport Capital Investment Decisions, Volume 3: Appendix A Background Research and Appendix B Stated Preference Survey includes data and information used to produce a method for airport owners and operators to determine how their customers value the travel time impacts of efficiency improvements.

The purpose of this research is to provide an up-to-date understanding of how recent airport developments, such as changes in security measures since 9/11, the proliferation of airside passenger amenities, and the adoption of new technology, have changed the way travelers value efficient air travel.

The report is accompanied by Volume 1: Guidebook for Valuing User Time Savings in Airport Capital Investment Decision Analysis that summarizes the data collection methodology and Volume 2: Final Report that summarizes the data collection methodology.

**Published:** May 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172474.aspx>



***ACRP Synthesis Report 60 – Airport Emergency Post-Event Recovery Practices***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 60: Airport Emergency Post-Event Recovery Practices explores approaches to improving the overall resiliency of airports through planning for the recovery phase of emergency response.

**Published:** May 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172539.aspx>



### ***ACRP Synthesis Report 61 – Practices in Preserving and Developing Public-Use Seaplane Bases***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 61: Practices in Preserving and Developing Public-Use Seaplane Bases reviews current practices in developing and preserving public-use seaplane bases throughout the United States. The report reviews and presents information on the planning process, design considerations, permits, regulatory requirements, and facility and service needs of seaplane bases.

**Published:** May 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172567.aspx>



### ***ACRP Synthesis Report 63 – Overview of Airport Fueling Operations***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 63: Overview of Airport Fueling Operations explores airport fueling system operations at all sizes of airports. The report describes fueling standards and regulations, common operations and components, and serves as a reference for a number of fueling processes and procedures. On-airport fueling systems and components are the main focus of the report.

**Published:** May 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172631.aspx>



### ***ACRP Report 132– The Role of U.S. Airports in the National Economy***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 132: The Role of U.S. Airports in the National Economy examines the economic role of U.S. airports and the national airport system to help communicate the national aggregate value of airports to communities and aviation stakeholders.

A PowerPoint presentation and brochure supplement the report. Appendices 1 through 5 of the contractor’s final report are available online and provide the related data associated with this research effort:

- Appendix 1: Multifactor Productivity
- Appendix 2: Consumer Surplus
- Appendix 2A: Calculations for Consumer Surplus
- Appendix 3: Economic Role of U.S. Airports
- Appendix 3A: NPIAS Database
- Appendix 4: Qualitative Research
- Appendix 5: Literature Review

**Published:** May 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172595.aspx>



### ***ACRP Report 133– Best Practices Guidebook for Preparing Lead Emission Inventories from Piston-Powered Aircraft with the Emission Inventory Analysis Tool***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 133: Best Practices Guidebook for Preparing Lead Emission Inventories from Piston-Powered Aircraft with the Emission Inventory Analysis Tool examines a methodology and tool to assist airports in quantifying aircraft lead emissions at airports.

The accompanying Emission Inventory Analysis Tool allows users to select airport-specific data. The tool also allows for the use of default data from the U.S. Federal Aviation Administration and the U.S. Environmental Protection Agency.

Information on how the project was conducted can be found in the contractor's research report as a part of ACRP Web-Only Document 21: Quantifying Aircraft Lead Emissions at Airports.

**Published:** May 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172598.aspx>



### ***ACRP Report 121– Innovative Revenue Strategies – An Airport Guide***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 121: Innovative Revenue Strategies – An Airport Guide describes a broad range of tools and techniques to improve airport revenue streams, recover costs, and achieve operational efficiencies. The report identifies customer needs; airport-provided services and shared services, facilities, and equipment; revenue participation in real estate and natural resource development; value capture and other financing opportunities; and improvements to existing airport businesses.

**Published:** June 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172699.aspx>



### ***ACRP Report 139– Optimizing Airport Building Operations and Maintenance Through Retrocommissioning: A Whole-Systems Approach***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 139: Optimizing Airport Building Operations and Maintenance Through Retrocommissioning: A Whole-Systems Approach explores ways to optimize operations and maintenance costs and improve overall building system performance through retrocommissioning. The report is accompanied by a CD that contains additional appendices and a spreadsheet tool to help practitioners evaluate and select appropriate facility optimization measures based on cost, savings, complexity, visibility, and greenhouse gas savings.

The CD is also available for download from TRB's website as an ISO image.

**Published:** June 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172739.aspx>



### ***ACRP Impacts on Practice – Airports and Aging Travelers***

**Report Blurb:** The March 2015 issue of TRB's Airport Cooperative Research Program (ACRP) Impacts on Practice explores how Southwest Florida International Airport (RSW) provides aging passengers with an easier, safer, and more enjoyable experience in its terminals. Upon publication of ACRP Synthesis 51: Impacts of Aging Travelers on Airports, employees at RSW met to review its current projects and identified potential projects and service improvements to make travelling through the airport more enjoyable for the aging traveler.

**Published:** June 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172742.aspx>





### ***ACRP Report 134– Applying Whole Effluent Toxicity Testing to Aircraft Deicing Runoff***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 134: Applying Whole Effluent Toxicity Testing to Aircraft Deicing Runoff describes the unique characteristics of stormwater toxicity testing at airports. It also provides guidance for developing sound whole effluent toxicity (WET) testing programs in an airport setting.

**Published:** June 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172751.aspx>



### ***ACRP Impacts on Practice – Improving Emergency Response at Airports***

**Report Blurb:** The April 2015 issue of TRB’s Airport Cooperative Research Program (ACRP) Impacts on Practice highlights how airports like Grand Forks International Airport (GFK) in North Dakota have applied the findings from ACRP Report 95: Integrating Community Emergency Response Teams (A-CERTs) at Airports. Officials at GFK credit the direction provided in ACRP Report 95 with enabling the airport to build, implement, and maintain a successful response team.

**Published:** June 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172743.aspx>



### ***ACRP Synthesis Report 62 – Cell Phone Lots at Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 62: Cell Phone Lots at Airports reviews the information about airport cell phone lots to help airports determine if benefits of the lot outweigh any operating and maintenance costs and foregone revenues. A cell phone lot is typically a free parking lot at an airport that allows temporary parking until a traveler is available for pickup.

**Published:** June 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172784.aspx>



### ***ACRP Report 137– Guidebook for Advancing Collaborative Decision Making (CDM) at Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 137: Guidebook for Advancing Collaborative Decision Making (CDM) at Airports provides a background and historical context for the use of CDM in the United States and Europe. The guidebook provides tools that can be used to help airports of all sizes integrate CDM into airport operations and more effectively work with stakeholders.

Airport collaborative decision making is a process that enables airports, airlines, other stakeholders, and the air navigation service provider to share data that may help these entities make operational decisions. CDM activities may assist airports with achieving efficiencies in daily operations and improve effectiveness of irregular operations activities.

**Published:** June 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172799.aspx>



### ***Airport Cooperative Research Program Brochure***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) has produced an updated brochure that explores various aspects of the program and provides information on the different ways individuals can become involved in ACRP. ACRP is an industry-driven, applied research program that develops near-term, practical solutions to problems faced by airport operators.

**Published:** June 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/163450.aspx>



### ***ACRP Synthesis Report 64 – Issues Related to Accommodating Animals Traveling Through Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 64: Issues Related to Accommodating Animals Traveling Through Airports explores ways for airports to develop a coordinated approach in animal transportation to better accommodate the well-being of animals traveling through airports. The report identifies pertinent regulations; explores issues and ranges of accommodation requirements and strategies to respond to issues; and illustrates effective airport practices to help accommodate animals traveling through airports.

**Published:** June 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172800.aspx>



### ***ACRP Report 135– Understanding Airport Air Quality and Public Health Studies Related to Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 135: Understanding Airport Air Quality and Public Health Studies Related to Airports explores the following air quality issues: the literature regarding standards and regulations; issues at airports; health impacts and risks; and the industry's current understanding of its health impacts.

**Published:** June 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172802.aspx>



### ***ACRP Report 138– Preventive Maintenance at General Aviation Airports Volume 1: Primer***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 138: Preventive Maintenance at General Aviation Airports Volume 1: Primer explores the value of airports to communities and the national airspace system.

The primer also reviews the various infrastructure assets at airports and outlines the value of planning and prioritizing preventive maintenance into the budgeting process and the impacts to operations if an airport fails to conduct preventive maintenance. In addition, it identifies basic principles for establishing and implementing a preventive maintenance program.

The primer is part of a two volume set. Volume 2 is a guidebook on how to plan, prioritize, and conduct preventive maintenance for physical infrastructure assets.

**Published:** July 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172852.aspx>



### ***ACRP Report 138– Preventive Maintenance at General Aviation Airports Volume 2: Guidebook***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 138: Preventive Maintenance at General Aviation Airports Volume 2: Guidebook is designed to assist airport and maintenance management and all staff responsible for maintenance and repair of the airport’s physical infrastructure assets in understanding preventive maintenance programs.

The guidebook is part of a two volume set. Volume 1 is a primer that explores the value of airports to communities and the national airspace system. It reviews the various infrastructure assets at airports and outlines the value of planning and prioritizing preventive maintenance into the budgeting process and the impacts to operations if an airport fails to conduct preventive maintenance. In addition, it identifies basic principles for establishing and implementing a preventive maintenance program.

The guidebook (Volume 2) includes guidance on conducting preventive maintenance for typical airport physical infrastructure assets. The guidebook also contains a CD-ROM that includes system checklists that airport staff can customize for their use, as well as a PowerPoint presentation that can be shown to governing boards or communities on the importance of budgeting for preventive maintenance.

The CD-ROM is also available for download from TRB’s website as an ISO image.

**Published:** July 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172853.aspx>



### ***ACRP Report 140– Guidebook on Best Practices for Airport Cybersecurity***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 140: Guidebook on Best Practices for Airport Cybersecurity provides information designed to help reduce or mitigate inherent risks of cyberattacks on technology-based systems.

Traditional IT infrastructure such as servers, desktops, and network devices are covered along with increasingly sophisticated and interconnected industrial control systems, such as baggage handling, temperature control, and airfield lighting systems.

The guidebook also includes a CD-ROM of multimedia material that may be used to educate all staff at airports about the need, and how, to be diligent against cybersecurity threats.

The CD-ROM is also available for download from TRB’s website as an ISO image.

**Published:** July 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172854.aspx>



### ***ACRP Synthesis Report 67 – Airside Snow Removal Practices for Small Airports with Limited Budgets***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 67: Airside Snow Removal Practices for Small Airports with Limited Budgets covers challenges and successful strategies that airport operators use at small airports with significant budget and other constraints to coordinate and conduct snow removal operations.

**Published:** July 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172978.aspx>



### ***ACRP Synthesis Report 66 – Lessons Learned from Airport Sustainability Plans***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 66: Lessons Learned from Airport Sustainability Plans explores sustainability initiatives at smaller U.S. airports. The synthesis presents an analysis of survey responses and provides information gained

from the telephone interviews to help inform airport leadership and employees who are considering, developing, or implementing sustainability plans.

**Published:** July 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172887.aspx>



### ***ACRP Synthesis Report 65 – Practices to Develop Effective Stakeholder Relationships at Smaller Airports***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 65: Practices to Develop Effective Stakeholder Relationships at Smaller Airports describes practices, tools,

communication techniques, feedback loops, and case examples that highlight how leaders at smaller airports proactively manage stakeholder relationships.

**Published:** July 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172885.aspx>



### ***ACRP Web-Only Document 23 – Guidance on Successful Computer Maintenance Management System (CMMS) Selection and Practices***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 23: Guidance on Successful Computer Maintenance Management System (CMMS) Selection

and Practices provides guidance with selecting a CMMS that is most compatible with an airport’s individual needs. Airports use CMMS to help manage airport assets. The report explores ways to integrate a CMMS into airport processes, procedures, and other information technology systems.

This guidebook is accompanied by an evaluation tool, which may help airports with defining their requirements for a CMMS program.

**Published:** August 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172991.aspx>



### ***ACRP Report 141– Renewable Energy as an Airport Revenue Source***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 141: Renewable Energy as an Airport Revenue Source explores challenges airports may anticipate when considering renewable energy as a revenue source. These considerations include the airport’s geography and terrain, infrastructure, real estate, energy costs, public policy, regulatory and compliance requirements, tax credits, sponsor assurances, ownership, impacts to navigation and

safety, security, staffing issues, and many others. The guidebook also includes detailed financial information on the cost and performance of projects that have been implemented by airports.

The guidebook also includes an appendix available online that provides sample a request for proposals.

**Published:** August 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/172634.aspx>



***ACRP Legal Research Digest 25 – 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***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Legal Research Digest 25: 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 clarifies responsibility for implementation and liability for enforcement of alleged violations of National Pollutant Discharge Elimination System(NPDES) and the State Pollutant Discharge Elimination System (SPDES).

The digest summarizes state and federal stormwater regulations and jurisdictional authority for taking enforcement action against and imposing liability directly on airport owners related to tenant noncompliance issues. In addition, the digest also provides guidance for airport operators in enforcing tenant compliance with stormwater permit requirements.

**Published:** August 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/173023.aspx>



***ACRP Legal Research Digest 26 – Regulations Affecting the Exercise of First Amendment Activities at Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Legal Research Digest 26: Regulations Affecting the Exercise of First Amendment Activities at Airports provides an overview of the different First Amendment activities that occur at airports, the issues that generally affect them, and the legal challenges to airport policies, while laying out the history of case law.

**Published:** August 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/173064.aspx>



***ACRP Report 142– Effects of Airline Industry Changes on Small- and Non-Hub Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 142: Effects of Airline Industry Changes on Small- and Non-Hub Airports describes policy and planning options for small- and non-hub airport operators and managers as they respond to changing conditions in the airline industry. Airport marketing and development programs are highly individualized, but common issues exist over which airports exert varying levels of control. With this context in mind, this report describes the forces that affect airline operations and airport planning and development, and presents a structured approach for planning and development strategies. The report reviews airline industry trends, documents patterns of airline industry change, and assesses current programs that airports are using to respond to changes.

A data analysis from the report showing detailed airport-specific data from 2001 through 2013 is available separately as a Data Appendix.

**Published:** September 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/173167.aspx>



### ***ACRP Synthesis Report 68 – Strategies for Maintaining Air Service***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Synthesis 68: Strategies for Maintaining Air Service explores practices that smaller airports use to maintain air service.

**Published:** September 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/173208.aspx>



### ***ACRP Report 144– Unmanned Aircraft Systems (UAS) at Airports: A Primer***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 144: Unmanned Aircraft Systems (UAS) at Airports: A Primer provides airports of all sizes with information about unmanned aircraft systems (UAS) and their potential use and impact on airports. The report includes a glossary of key terms, a background on the current state of UAS operations, UAS costs and benefits to airports, regulatory and community considerations, UAS infrastructure and operational considerations, UAS safety and security issues, and more.

**Published:** September 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/173263.aspx>



### ***ACRP Web-Only Document 24 – Air Cargo Facility Planning and Development—Final Report***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web-Only Document 24: Air Cargo Facility Planning and Development—Final Report reviews the process and information used in preparing ACRP Report 143: Guidebook for Air Cargo Facility Planning and Development. The guidebook explores tools and techniques for sizing air cargo facilities, including data and updated metrics for forecasting future facility requirements as a function of changing market and economic conditions.

**Published:** October 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/173275.aspx>



### ***ACRP Report 143– Guidebook for Air Cargo Facility Planning and Development***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 143: Guidebook for Air Cargo Facility Planning and Development explores tools and techniques for sizing air cargo facilities, including data and updated metrics for forecasting future facility requirements as a function of changing market and economic conditions. The procedures included in the report may help airport operators develop effective business plans and make decisions that meet the industry’s current and future technological, operational, and security challenges in a cost-effective, efficient, and environmentally-sensitive manner.

In addition to the report, a CD-ROM contains the Air Cargo Facility Planning Model in a spreadsheet format. This model includes procedures for planning, developing, and implementing air cargo facilities that can be adapted and applied by users to reflect local requirements and development conditions for cargo facilities serving a wide variety of markets, including international gateways, national cargo hubs, domestic airports, and others.

The CD-ROM is also available for download from TRB’s website as an ISO image.

**Published:** October 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/173274.aspx>



### ***ACRP Report 145– Applying an SMS Approach to Wildlife Hazard Management***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 145: Applying an SMS Approach to Wildlife Hazard Management introduces and guides the application of a risk-based approach to wildlife hazard management (WHM) programs and outlines additional steps for integrating programs into an airport’s Safety Management System (SMS).

This report also provides a customizable tool, which is available as a CD-ROM. The tool includes:

- A summary of existing database wildlife hazard descriptions
- Numerical values for hazard severity and likelihood by species, derived from the FAA Wildlife Strike Database
- An electronic or manual risk analysis template, which includes the incorporation of variables on or off the airport

The CD-ROM is also available for download from TRB’s website as an ISO image.

**Published:** October 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/173318.aspx>



### ***ACRP Report 146– Commercial Ground Transportation at Airports: Best Practices***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Report 146: Commercial Ground Transportation at Airports: Best Practices covers best management practices to ensure the provision of safe, comfortable, easy-to-use, and efficient commercial ground transportation service. Commercial ground transportation services include taxicabs, limousines, shared-ride services, transportation network companies, courtesy vehicles, buses, and vans. The guidebook reviews the ground transportation industry, potential solutions to challenges airport operators frequently face, how to select a solution, and how to implement the selected best practice.

ACRP Web-Only Document 25: Commercial Ground Transportation at Airports: Best Practices-Appendices C to H includes an annotated bibliography, a list of airports participating in this study, sample request for proposals and request of qualifications to manage ground transportation, sample contracts, and sample Transportation Network Company permits.

**Published:** October 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/173350.aspx>



### ***ACRP Web-Only Document 25 – Commercial Ground Transportation at Airports: Best Practices-Appendices C to H***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Web Only Document 25: Commercial Ground Transportation at Airports: Best Practices-Appendices C to H covers supplementary materials for ACRP Report 146. The appendices include an annotated

bibliography, a list of airports participating in this study, sample request for proposals and request of qualifications to manage ground transportation, sample contracts, and sample Transportation Network Company permits.

ACRP Report 146: Commercial Ground Transportation at Airports: Best Practices covers best management practices to ensure the provision of safe, comfortable, easy-to-use, and efficient commercial ground transportation service. Commercial ground transportation services include taxicabs, limousines, shared-ride services, transportation network companies, courtesy vehicles, buses, and vans. The guidebook reviews the ground transportation industry, potential solutions to challenges airport operators frequently face, how to select a solution, and how to implement the selected best practice. Transportation Network Company permits.

**Published:** October 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/173351.aspx>



### ***ACRP Report 147– Climate Change Adaptation Planning: Risk Assessment for Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 147: Climate Change Adaptation Planning: Risk Assessment for Airports provides guidance for practitioners to understand the specific impacts climate change may have on their airports. The guidebook may help practitioners develop adaptation actions and incorporate those actions into the airport's planning processes.

Accompanying the guidebook, an electronic assessment tool called Airport Climate Risk Operational Screening (ACROS) is enclosed as a CD-ROM. The tool uses a formula to compute an estimated level of risk for assets and operations at the airport. These airport-specific risks are then ranked to provide an enterprise-level estimate of the relative risk posed by each asset and operation.

The CD-ROM is also available for download from TRB's website as an ISO image.

**Published:** November 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/173554.aspx>



### ***ACRP Report 149– Improving Ground Support Equipment Operational Data for Airport Emissions Modeling***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 149: Improving Ground Support Equipment Operational Data for Airport Emissions Modeling provides a potential update to the current data set of default ground support equipment (GSE) fleet and activity used for passenger and cargo aircraft. The report includes a protocol to improve the accuracy and consistency of data collection for airport GSE activity compatible with the Emissions and Dispersion Modeling System (EDMS) and the Aviation Environmental Design Tool (AEDT).

**Published:** December 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/173715.aspx>



### ***ACRP Report 148– LED Airfield Lighting System Operation and Maintenance***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 148: LED Airfield Lighting System Operation and Maintenance provides guidance for operating and maintaining light-emitting diode (LED) airfield ground lighting systems, including taxi guidance signs, elevated light fixtures, and in-pavement light fixtures.



**Published:** December 2015

**Link:** <http://www.trb.org/ACRP/Blurbs/173717.aspx>

# 2016



## ***ACRP Impacts on Practice – Improving the Safety of Runway Safety Areas***

**Report Blurb:** The October 2015 issue of TRB’s Airport Cooperative Research Program (ACRP) Impacts on Practice explores how San Francisco International Airport applied guidance from ACRP Report 50: Improved Models for Risk Assessment of Runway Safety Areas and ACRP Report 3: Analysis of Aircraft Overruns and Undershoots to evaluate safety alternatives and develop cost-effective alternatives to meet federal safety requirements.

**Published:** January 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/173761.aspx>



## ***ACRP Impacts on Practice – Wayfinding and Signing Guidelines for Airports***

**Report Blurb:** The September 2015 issue of TRB’s Airport Cooperative Research Program (ACRP) Impacts on Practice explores how Philadelphia International Airport, Fort Lauderdale-Hollywood International Airport, and Changi Airport in Singapore applied guidance from ACRP Report 52: Wayfinding and Signing Guidelines for Airport Terminals and Landside to help passengers find their way in and around an airport.

**Published:** January 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/173760.aspx>



## ***ACRP Research Results Digest 24 – Recommended Community Noise Model Enhancements to Improve Prediction of Helicopter Activity Impacts***

**Report Blurb:** TRB’s Airport Cooperative Research Program (ACRP) Research Results Digest 24: Recommended Community Noise Model Enhancements to Improve Prediction of Helicopter Activity Impacts provides an overview of research conducted to identify improvements to the most common methods for predicting helicopter community noise, including the research tasks, findings, final conclusions, and next steps. While the research did not attempt to identify which noise metric best predicts annoyance, it offers a computational methodology from which suggested metrics may be accurately determined.

**Published:** January 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/173719.aspx>



### ***ACRP 2015 Annual Report of Progress***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) has released its annual report that reflects on the achievements of the past 10 years, as well as ACRP's strategic outlook on the next 10 years of providing responsive, relevant, and innovative solutions to the challenges and opportunities within the airport industry.

**Published:** January 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/173790.aspx>



### ***Airport Terminal Building Energy Use Intensity (ATB-EUI) Benchmarking Tool***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) CD-ROM 178: Airport Terminal Building Energy Use Intensity (ATB-EUI) Benchmarking Tool provides a tool that can be used to help benchmark and profile airport terminal energy end uses. The CD includes the raw data that was used to develop the tool. The tool helps users complete a form on their energy uses to develop an energy use intensity profile to benchmark against other terminals.

The CD-ROM is also available for download from TRB's website as an ISO image.

**Published:** January 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/173795.aspx>



### ***ACRP Research Results Digest 23 – Synthesis of Information Related to Airport Practices: 2016***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Research Results Digest 23: Synthesis of Information Related to Airport Practices is a digest of the progress and status of ACRP Project 11-03, Synthesis of Information Related to Airport Practices.

**Published:** January 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/173831.aspx>



### ***ACRP Web-Only Document 26 – Methodology to Improve AEDT Quantification of Aircraft Taxi/Idle Emissions***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Web-Only Document 26: Methodology to Improve AEDT Quantification of Aircraft Taxi/Idle Emissions explores potential improvements to the U.S. Federal Aviation Administration (FAA) Aviation Environmental Design Tool (AEDT). AEDT produces emissions estimates based on aircraft activity at an airport, including an estimate of the emissions that would result under these low-thrust conditions. Presently, the model defines the standard thrust setting for this operational mode at seven percent of full thrust, based on International Civil Aviation Organization (ICAO) engine test conditions. This report provides a prioritized list of potential improvements to AEDT to help with the predictive accuracy for estimating jet aircraft emissions during the taxi/idle phase of operation. The report also provides detailed documentation of select near-term, high-priority improvements to AEDT.

**Published:** March 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174126.aspx>



### ***ACRP Report 152 – Evaluating Methods for Determining Interior Noise Levels Used in Airport Sound Insulation Programs***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 152: Evaluating Methods for Determining Interior Noise Levels Used in Airport Sound Insulation Programs provides guidance for selecting and implementing methods for measuring noise level reduction

in dwellings associated with airport noise insulation programs. The report complements the results of [ACRP Report 89: Guidelines for Airport Sound Insulation Programs](#).

**Published:** March 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174142.aspx>



### ***ACRP Report 151 – Developing a Business Case for Renewable Energy at Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 151: Developing a Business Case for Renewable Energy at Airports provides instructions and tools to evaluate proposed renewable energy projects and their alternatives. The guidance may assist airports with making informed energy decisions that maximize financial, self-sustainability, environmental, and social benefits.

In addition to the report, a [decision-making matrix](#) contains criteria that can be used to evaluate a renewable energy project with a system for weighting each factor based on an airport's particular objectives. A sample [request for proposal](#) and a [power purchase agreement](#) are provided for project implementation.

**Published:** March 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/173592.aspx>



### ***ACRP Synthesis Report 69 – Airport Sustainability Practices—Drivers and Outcomes for Small Commercial and General Aviation Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 69: Airport Sustainability Practices—Drivers and Outcomes for Small Commercial and General Aviation

Airports explores drivers and outcomes of green initiatives undertaken at small commercial and general aviation airports. Drivers could include financial viability, staffing considerations, or other social or environmental factors.

**Published:** April 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174223.aspx>



### ***ACRP Legal Research Digest 27 – The Fourth Amendment and Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Legal Research Digest 27: The Fourth Amendment and Airports discusses the Fourth Amendment generally as it pertains to its application to people, houses, papers, and effects. The digest focuses on the application at airports and respective court decisions. It specifically discusses expectations of

privacy at airports, airport administrative inspection actions, and law enforcement actions. This digest will assist airport operators by providing the background and application of the Fourth Amendment as they review their procedures with their attorneys.

**Published:** April 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174240.aspx>



### ***ACRP Report 153 – Guidebook for IROPS Stakeholder Communication & Coordination***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 153: Guidebook for IROPS Stakeholder Communication & Coordination provides details on strategies and tools for reducing IROPS impacts on passengers. This guidebook will assist communication and coordination as airports and airlines implement IROPS contingency plans. A spreadsheet tool accompanying the report includes a response plan for stakeholders' involvement in assessing the likelihood and severity of reoccurrence of IROPS impacts, data sources to help alert an airport when an IROPS event is likely to occur, and the ability to work with stakeholders to create reports on IROPS risk levels. The case studies and tabletop exercises also serve as training materials and can be customized for any airport. The CD-ROM is also available for download from TRB's website as an ISO image.

**Published:** April 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174234.aspx>



### ***ACRP Web-Only Document 27 – Methodology to Develop the Airport Terminal Building Energy Use Intensity (ATB-EUI) Benchmarking Tool***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Web Only Document 27: Methodology to Develop the Airport Terminal Building Energy Use Intensity (ATB-EUI) Benchmarking Tool complements [CD-ROM 178: Airport Terminal Building Energy Use Intensity \(ATB-EUI\) Benchmarking Tool](#). The report outlines the overall data collection and analysis process for developing airport terminal building benchmarks.

**Published:** April 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174291.aspx>



### ***ACRP Synthesis Report 70– Building Information Modeling for Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 70: Building Information Modeling for Airports summarizes current state of the art and practice for Building Information Modeling (BIM). BIM is a digital representation of a facility's physical and functional characteristics. BIM offers tools that allow airport decision makers to understand all components of a facility—their location, and their attributes, both graphically and systematically—to minimize the total cost of owning and operating an airport facility.

The report provides a snapshot of experiences related to the emergence of BIM in North American airports. In addition to the report, a [PowerPoint presentation](#) details use-cases of BIM at airports.

**Published:** May 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174386.aspx>



## ***ACRP Synthesis Report 71– Airport Safety Risk Management Panel Activities and Outcomes***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 71: Airport Safety Risk Management Panel Activities and Outcomes compiles information and tools that help Part 139 airports conduct Safety Risk Assessments (SRAs) effectively. This report enhances

ACRP Report 131: A Guidebook for Safety Risk Management for Airports with additional tools and templates, and presents the conclusions from the survey and interviews as well as the main findings from the literature review. Several tools and templates, including a Quick Reference Guide and a template for the SRA briefing, are provided in the appendices of this report.

**Published:** May 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174359.aspx>



## ***ACRP Report 156 – Guidebook for Managing Compliance with Federal Regulations: An Integrated Approach***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 156: Guidebook for Managing Compliance with Federal Regulations: An Integrated Approach provides guidance on managing compliance with federal regulations pertaining to the operation and management of airports.

Accompanying the guidebook is the [Regulation Compliance Management \(RCM\) Tool](#), an index of the applicable statutes, federal regulations, executive orders, OMB Circulars, and other documents with compliance requirements. Additionally, the RCM Tool is designed to track compliance and allow the addition of state and local regulations and requirements.

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**Published:** May 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174389.aspx>



## ***ACRP Synthesis Report 74– Combining Mixed-Use Flight Operations Safely at Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 74: Combining Mixed-Use Flight Operations Safely at Airports documents practices in safely accommodating mixed-use aeronautical activity at airports. Mixed-use aeronautical activity refers to the different

categories of aircraft a public-use airport is intended to accommodate in compliance with FAA sponsor assurances. These categories include gliders, helicopters, ultralight vehicles, balloons, airships, blimps, skydiving, aerial applications for agriculture and firefighting, banner towing, aerobatic practice, and similar flight operations. Also discussed are unmanned aircraft systems and radio-controlled model aircraft activity that take place on an airport and can become part of the mix of an airport's operation. Not discussed are seaplane operations; [ACRP Synthesis 61: Practices in Preserving and Developing Public-Use Seaplane Bases](#) covers this topic.

**Published:** June 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174589.aspx>



## ***ACRP Report 154 – Water Efficiency Management Strategies for Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 154: Water Efficiency Management Strategies for Airports provides a guidebook and tools that airport operators can use to design and institute a water efficiency management program specific to their facility. The report enables airport operators to understand water uses and usage at airports

to generate a baseline water use profile specific to their airport activities, and to define appropriate water use targets. It will also help operators evaluate appropriate water efficiency measures, including their direct and indirect costs and benefits that can be used to develop a water efficiency management action plan. The report addresses water management tools and practices used worldwide within and outside of the airport industry; methods for collection, management, and analysis of data relevant to airport water management; collaboration and communication with the public and stakeholders, including water providers; program implementation strategies, including motivation for decision makers; infrastructure operation and maintenance considerations; and drought planning considerations.

Additional materials that accompany the report include the [End Use Water Audit Tool](#), which can be used to estimate an airport's baseline water footprint, and a [PowerPoint presentation](#), which provides an overview of the guidebook and the toolbox.

**Published:** June 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174444.aspx>



## ***ACRP Legal Research Digest 28 – Operational and Legal Issues with Fuel Farms***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Legal Research Digest 28: Operational and Legal Issues with Fuel Farms provides guidance to assist airport sponsors and their legal counselors in understanding the basic legal and operational issues of fuel farms to

provide the storage and dispensing of aviation fuels to multiple users at an airport. The report will assist airports with evaluating the appropriate ownership and operating model for use at airports.

**Published:** June 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174587.aspx>



## ***ACRP Report 150 – NextGen for Airports, Volume I: Understanding the Airport's Role in Performance-Based Navigation: Resource Guide***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 150: NextGen for Airports, Volume I: Understanding the Airport's Role in Performance-Based Navigation: Resource Guide, the first report in this series, provides comprehensive information to

practitioners concerning all aspects of Performance-Based Navigation (PBN) and how implementation affects overall airport operations. This Resource Guide encompasses background information, description of effects on short- and long-term airport development, impacts on safety and performance measures, and other critical factors affecting future airport operations. In addition to providing guidance to users on available resources for additional assistance, this volume also includes lessons learned and best practices based on findings from case studies that examined the airport operator's role in PBN implementation.

The Next Generation Air Transportation System (NextGen) refers to the federal programs (predominately airspace, air traffic, or avionics related) that are designed to modernize the National Airspace System (NAS). ACRP's NextGen initiative aims to inform airport operators about some of these programs and how the enabling practices, data, and technologies resulting from them will affect airports and change how they operate.

Published: July 2016

Link: <http://www.trb.org/ACRP/Blurbs/174588.aspx>



### ***ACRP Synthesis Report 72– Tabletop and Full-Scale Emergency Exercises for General Aviation, Non-Hub, and Small Hub Airports***

**Report Blurb:** ACRP Synthesis 72: Tabletop and Full-Scale Emergency Exercises for General Aviation, Non-Hub, and Small Hub Airports provides small airports with the tools and practices needed to practice emergency response. The report provides sample exercise tools and plans, a checklist of effective practices for tabletop and full-scale emergency exercises, and a road map for developing an effective exercise program.

Published: July 2016

Link: <http://www.trb.org/ACRP/Blurbs/174692.aspx>



### ***ACRP Report 157 – Improving the Airport Customer Experience***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 157: Improving the Airport Customer Experience documents notable and emerging practices in airport customer service management that increase customer satisfaction, recognizing the different types of customers (such as passengers, meeters and greeters, and employees) and types and sizes of airports. It also identifies potential improvements that airports could make for their customers.

Published: July 2016

Link: <http://www.trb.org/ACRP/Blurbs/174127.aspx>



### ***ACRP Synthesis Report 73– Emergency Communications Planning for Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 73: Emergency Communications Planning for Airports explores emergency communications planning and is specifically designed for use by airport senior management, public information officers, and first responders and emergency managers. The report includes sample communication plan tables of contents, field operations guides, and a checklist of effective communications plans.

Published: July 2016

Link: <http://www.trb.org/ACRP/Blurbs/174757.aspx>



### ***ACRP Legal Research Digest 29 – Impact of Firearms Laws on Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Legal Research Digest 29: Impact of Firearms Laws on Airports analyzes recent court cases on federal and state laws that have been challenged for restricting or prohibiting the carrying of firearms in public and other places. The digest also includes [ACRP Web Only Document 29: Compendium of State and Federal Laws Affecting the Possession of Firearms at Airports](#) that pertains to the carrying of guns at airports and elsewhere.

The right to carry guns at airports is subject to the U.S. Constitution, federal and state legislation, and judicial decisions. Some state laws allow guns to be carried openly in public places. Most state laws regulate how guns are

to be carried in a vehicle or left in a public or an employer's parking lot. These and other state laws also have ramifications for commercial airports in the United States.

**Published:** August 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174765.aspx>



### ***ACRP Web-Only Document 29 – Compendium of State and Federal Laws Affecting the Possession of Firearms at Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Web Only Document 29: Compendium of State and Federal Laws Affecting the Possession of Firearms at Airports contains an index and text of federal and state statutes as well United States Code and federal regulations affecting the possession of firearms at airports. The document accompanies [ACRP Legal Research Digest 29: Impact of Firearms Laws on Airports](#) that analyzes recent court cases on federal and state laws that have been challenged for restricting or prohibiting the carrying of firearms in public and other places. The digest also includes a compendium of federal and state laws that are relevant to the carrying of guns at airports and elsewhere.

**Published:** August 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174766.aspx>



### ***ACRP Impacts on Practice – Preparing the Next Generation of Airport Leaders***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) has released its latest Impacts on Practice that focuses on preparing the next generation of airport leaders. It explores how ACRP Report 75: Airport Leadership Development Program influenced a collaborative effort in Florida to develop a three-and-a-half day program to develop and train future leaders. Since its inception, 150 professionals from 40 different Florida airports have completed the program. The impact of the training is perhaps best demonstrated by the fact that 33 of the graduates have moved their careers forward either through a promotion or by accepting a new position in the aviation field.

**Published:** August 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174818.aspx>



### ***ACRP Synthesis Report 75– Airport Advisories at Non-Towered Airports***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 75: Airport Advisories at Non-Towered Airports documents the manner in which non-towered airports provide advisories to pilots regarding winds, traffic, and runways in use. Unlike with pilot advisories, there is little guidance available for airport operators in providing airport advisories. The objective of this report is to aggregate available guidance on this topic and document information from non-towered airports with at least 50,000 annual aircraft operations. The report includes a literature review and a telephone interview survey of 165 non-towered airports. Six case examples are included, documenting effective airport advisory programs in place at airports.

**Published:** August 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174840.aspx>





### ***ACRP Synthesis Report 76– Helicopter Noise Information for Airports and Communities***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Synthesis 76:

Helicopter Noise Information for Airports and Communities examines the results of a literature review and survey of ten airports to summarize the impact of outreach, helicopter noise management programs, technology, and abatement procedures in managing helicopter noise. The report is geared to assist both airports and communities with addressing helicopter noise and a description of the current state of effective practices for noise management.

**Published:** August 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174859.aspx>



### ***ACRP Report 158– Deriving Benefits from Alternative Aircraft-Taxi Systems***

**Report Blurb:** TRB's Airport Cooperative Research Program (ACRP) Report 158: Deriving Benefits from Alternative Aircraft-Taxi Systems explores approaches that may reduce fuel use, emissions, and costs while aircraft are on the ground. This report explores how alternative

approaches to taxiing aircraft in movement areas have the potential to provide an overall net benefit for both the airport and aircraft operator. These systems include, among other alternative systems, an electric motor permanently fixed to the aircraft, or an electric tug. While many of these alternatives may provide energy and environmental benefits, their use may introduce potential challenges to aircraft operators and air traffic control, as well as place new demands on airport infrastructure. This report helps to address those challenges.

**Published:** August 2016

**Link:** <http://www.trb.org/ACRP/Blurbs/174896.aspx>