Active Cooperative Research and Development Agreements (CRDAs) in FY 2016							
Executed Date	**FAA R&D Program**	**FAA POC**	**CRDA Number**	**Industry Partner**	**Start Date**	**Stop Date**	**Subject**
7/25/2006	Technology Development & Prototyping	Chu Yao	06-CRDA-0216	Rowan University	7/24/2014	7/25/2019	Improve the analysis and display of air traffic data.
10/30/2007	Aviation Research	John Bakuckas	07-CRDA-0236	The Boeing Company	10/21/2014	10/31/2019	Mutual industry and FAA research in areas of safety, airframe integrity, verification and certification of the design, analysis, and applications of bonded repairs.
2/19/2008	Engineering Development Services	Bill Crozier	08-CRDA-0245	New Mexico State University	2/19/2015	2/19/2017	Research to integrate unmanned aircraft system (UAS) into the NAS, and to validate procedures and proposed regulations.
12/10/2008	Laboratory Services	Joseph DiLuzio	08-CRDA-0251	Daikon Solutions LLC	11/4/2014	12/10/2019	Supports development, production, commercialization, and advances to the Sun Keyboard System Translator (SunKeyST) capability.
1/27/2009	Laboratory Services	Joe Diluzio	09-CRDA-0257	Daikon Solutions LLC	1/27/2014	1/27/2019	Facilitates the development, test, installation and implementation of a production-model Aircraft Geometric Height Measurement Element (AGHME) capability.
6/15/2009	Engineering Development Services	Neal Suchy	09-CRDA-0258	General Atomics Aeronautical Systems Inc.	6/15/2015	6/15/2017	Research to perform a series of collaborative unmanned aerial vehicle (UAV/UAS) modeling, simulation, demonstration and analysis activities.
6/26/2009	Engineering Development Services	Karen Buondonno	09-CRDA-0259	AAI Corporation	12/26/2014	12/26/2016	Perform variety of operational and technical assessments to meet specific objectives which support integration of Unmanned Aircraft Systems (UAS) into the National Airspace System (NAS).
6/19/2009	Engineering Development Services	Michael McNeil	09-CRDA-0260	GE Aviation Systems LLC	6/19/2014	6/19/2016	Perform variety of operational and technical assessments to meet specific objectives which support integration of Unmanned Aircraft Systems (UAS) into the National Airspace System (NAS).
5/13/2010	Laboratory Services	Michael Konyak	10-CRDA-0266	Insitu, Inc.	1/29/2014	1/29/2019	Optimizes UAS technology capabilities, and expand non-military applications in support of civil aviation standard development.
12/23/2010	Engineering Development Services	Steve Beamer	10-CRDA-0268	United Parcel Service Co.	12/23/2010	12/23/2020	To develop information and data regarding the usefulness of the Surface Decision Support System (SDSS) in daily operations that would facilitate surface traffic requirement development, and enhance surface traffic management operations with the National Airspace System (NAS).
1/20/2012	Aviation Research	Warren Underwood	12-CRDA-0281	United Parcel Service Co.	9/15/2014	9/20/2016	Collaboration to observe anti-icing fluid failure characteristics on aircraft flaps and slats under conditions of winter precipitation, and simultaneously observe fluid failure behaviors on aircraft wings.
6/8/2012	Verification & Validation Strategies Practices	Ian Levitt	12-CRDA-0282	NextGen AeroSciences, LLC	6/6/2014	6/8/2016	Enable the technical evaluation of NextAero's airspace modeling approach for assessment of FAA NextGen Air Transportation System concepts.

Active Cooperative Research and Development Agreements (CRDAs) in FY 2016							
Executed Date	**FAA R&D Program**	**FAA POC**	**CRDA Number**	**Industry Partner**	**Start Date**	**Stop Date**	**Subject**
5/30/2012	Engineering Development Services Division	Robert Erikson	12-CRDA-0284	Moog, Inc.	5/30/2014	5/30/2016	Collaborative partnership to identify changes to Distance Measuring Equipment (DME) transponders that enable enhanced DME system performance in Navigation (RNAV) 0.3 and Required Navigation Performance (RNP) 0.3 operations, and support navigation and positioning in a non-Global Positioning System (GPS) environment.
7/2/2012	Aviation Research	Joseph Breen	12-CRDA-0285	Team Eagle Ltd	7/2/2012	7/2/2016	Independent research projects with the common objective of evaluating and measuring the effect of contaminants on aircraft wheel braking performance. The project's focus is to develop a better understanding of the performance of the Aircraft Anti-Skid Brake System (ASBS) on contaminated runway surfaces.
7/18/2012	Test & Evaluation Services	Michael Prata	12-CRDA-0286	Selex Systems Integration, Inc.	7/14/2015	7/18/2017	Testing and research to study the overall impact of spectrum congestion and the feasibility of utilizing data received by the Automatic Dependent Surveillance Broadcast (ADS-B) Radio Stations to reduce that congestion.
1/30/2014	Center Operations	John Floyd	13-CRDA-0288	The Richard Stockton College of New Jersey	1/30/2014	1/30/2017	Facilitate cooperative field and laboratory research projects that address wildlife, natural resource, and ecological management needs through the use of geospatial technologies and high-definition surveying scanning tools.
11/29/2012	Laboratory Services	Christina Young	13-CRDA-0289	The Boeing Company	6/23/2014	11/29/2017	Technical evaluation of Federal Aviation Administration (FAA) Next Generation (NextGen) Air Transportation System concepts and other mutually beneficial aviation research.
6/24/2013	Aviation Research	Joseph Breen	13-CRDA-0292	ESCO-Zodiac	11/4/2013	6/24/2017	Research to evaluate performance of Aircraft Anti-Skid Brake Systems (ASBS's) when stopping on contaminated (low friction) runway surfaces.
9/29/2014	Engineering Development Services	Steve Beamer	14-CRDA-0295	FedEx	9/29/2014	9/30/2024	Research NextGen surface initiatives to evaluate the viability and benefits of new concepts and applications in an operational environment. Evaluates Surface Decision Support System (SDSS) and Non-Movement Area (NMA) surveillance.

Active Cooperative Research and Development Agreements (CRDAs) in FY 2016							
Executed Date	**FAA R&D Program**	**FAA POC**	**CRDA Number**	**Industry Partner**	**Start Date**	**Stop Date**	**Subject**
11/4/2013	Aviation Research	Mike Walz	13-CRDA-0296	Ametek Aerospace and Defense	11/4/2013	11/4/2017	Provide access to testing equipment, technical expertise and setups for prototype testing of Electronic Power Distribution Systems (EPDS). This technology is currently displacing standard electromechanical devices that have been used for years. Research provides insight into how this technology will perform under abnormal conditions in an aircraft.
7/25/2014	Aviation Research	Keith Bagot	14-CRDA-0297	DFW	7/25/2014	7/25/2019	To conduct of research and exploratory development efforts in aircraft rescue and firefighting.
4/29/2014	Aviation Research	Michael Walz	14-CRDA-0298	Astronics AES	4/29/2014	4/28/2017	Provide access to testing equipment, technical expertise and setups for prototype testing of solid state power control devices. This technology is currently displacing standard electromechanical devices that have been used for years.
6/6/2014	Aviation Research	Charles Cliff Johnson	14-CRDA-0299	Northrop Grumman Systems Corporation	6/6/2014	6/6/2017	Research to produce data, information, and characteristics required for the development of UAS standards, certification criteria and procedures for routine flight operations. These activities will evolve platforms for testing UAS capabilities and airspace integration strategies in controlled environments.
8/14/2014	Laboratory Services	Christopher Malitsky	14-CRDA-0300	Exelis, Inc.	8/14/2014	8/14/2017	To perform mutually beneficial Internal Research and Development (iRaD) activities for NextGen, via connection to the NextGen Prototyping Network (NPN) located at the William J. Hughes Technical Center (WJHTC) federal laboratory.
9/9/2014	Aviation Safety-Flight Standards Service	Stephen Plishka	14-CRDA-0302	CNN, Inc.	9/9/2014	9/9/2016	To explore the use of Unmanned Aircraft Systems (UAS) in news coverage.
10/9/2015	NAS Information Systems Security	Michael Weatherby	15-CRDA-0303	Raytheon	10/9/2015	10/9/2017	To develop a version of the commercial of the shelf product (COTS) Security Blanket for the IBM AIX platform, while simultaneously addressing FAA's operating system baseline hardening requirements across the NAS.
12/15/2014	Aviation Research	Dave Atwood	14-CRDA-0304	Shell Global Solutions (US), Inc.	12/15/2014	5/15/2020	This agreement supports testing unleaded fuels admitted into the FAA testing program under the FAA Solicitation DTFACT-13-R-00015.
11/4/2014	Aviation Research	Dave Atwood	14-CRDA-0305	Swift Fuels, LLC	11/4/2014	4/4/2020	This agreement supports testing unleaded fuels admitted into the FAA testing program under the FAA Solicitation DTFACT-13-R-00015.

Active Cooperative Research and Development Agreements (CRDAs) in FY 2016							
Executed Date	**FAA R&D Program**	**FAA POC**	**CRDA Number**	**Industry Partner**	**Start Date**	**Stop Date**	**Subject**
10/1/2014	Aviation Research	Dave Atwood	15-CRDA-0306	Total Marketing Services	10/1/2014	3/1/2020	This agreement supports testing unleaded fuels admitted into the FAA testing program under the FAA Solicitation DTFACT-13-R-00015.
5/28/2015	NextGen R&D Integration	Chas Lin	15-CRDA-0307	Rockwell Collins	5/28/2015	5/28/2017	Prove the basic feasibility to use a small form factor radio in a composite Small Unmanned Aircraft System (sUAS) airframe at point-to-point (P2P) ranges.
5/15/2015	Aviation Research	Albert Larkin	15-CRDA-0308	Rowan University	5/15/2015	5/15/2018	Mutual exchange of general information and relevant research results on state-of-the-art airport pavement and safety topics.
10/21/2015	Aviation Safety-Flight Standards Service	Clifford Sweatte	15-CRDA-0309	Burlington Northern Santa Fe Railway	10/21/2015	10/19/2018	The safety of airspace and railway operations is critical to government and industry. The FAA and BNSF agree to collaborate to develop technologies that will enhance the safe integration of UAS into the NAS, including small UAS operations beyond visual line of sight, detect and avoid technologies, and unique inspection methods.
8/12/2015	Aviation Research	John Bakuckas	15-CRDA-0310	ALCOA/Arconic	8/12/2015	8/12/2019	To conduct a full-scale test using the FAA's Full-Scale Aircraft Structural Test Evaluation and Research (FASTER) lab on the next generation advanced metallic fuselage structure, to access durability and damage tolerance of emerging technologies including unitized welded structure, new metallic alloys (aluminum -lithium), and hybrid construction.
10/1/2015	Aviation Research	Andrew Cheng	15-CRDA-0312	Kongsberg Aeronautical Information Services	10/1/2015	9/29/2017	Collaboratively evaluate the application of Kongsberg's patent technology to report real-time runway friction conditions. The technical validity and process complexity of the developed method/technique will be demonstrated with flight data for all potential runway surface conditions and B737 configurations.
6/12/2015	Airspace Policy & Regulation Group	Gemechu Gelgelu	15-CRDA-0313	PrecisionHawk USA, Inc.	6/12/2015	6/12/2018	To collaborate and develop technologies that enhance the safe integration of UAS into the NAS, including small UAS operations beyond visual line of sight/ extended visual line of sight, detect and avoid technologies, UAS tracking technologies, UAS airspace management technologies, and unique certification methods.

Active Cooperative Research and Development Agreements (CRDAs) in FY 2016							
Executed Date	**FAA R&D Program**	**FAA POC**	**CRDA Number**	**Industry Partner**	**Start Date**	**Stop Date**	**Subject**
10/6/2015	Flight Standards Service - Unmanned Aircraft systems (UAS) Integration	Elizabeth Soltys	16-CRDA-0316	CACI	10/6/2015	10/6/2017	This Cooperative Research and Development Agreement serves as a mechanism to safely explore procedures and processes in and around the FAA's airport environment to identify rogue Unmanned Aircraft (UA/UAS) and Pilot in Command (PIC).
6/16/2016	Aviation Research	Nick Subbotin	16-CRDA-0317	ATECH Inc.	6/16/2016	6/15/2018	To develop an EMAS system and evaluate its modeling, testing, evaluation, data analysis, and technical monitoring to meet FAA Advisory Circular 150-5220-22b.
11/20/2015	Technology Development & Prototyping	Marie Kee	16-CRDA-0318	Rowan University	11/20/2015	11/20/2017	To exchange several algorithms and associated software tools for their incorporation into classroom and/or FAA engineering clinic student projects.
5/5/2016	Technology Development & Prototyping	Jessica Young	16-CRDA-0319	Stockton University	2/5/2016	2/2/2018	To enhance simulation and analysis processes used to perform NextGen research.
6/30/2016	Engineering Development Services	Christopher Wolf	16-CRDA-0321	Honeywell International	6/30/2016	6/28/2019	To exchange equipment and data between Honeywell Int'l (HI) and the FAA with the goal of supporting final validation work for the draft ICAO GAST-D (GBAS Approach Service Type D) SARPS, including any additional data collection.
6/16/2016	Engineering Development Services	John Dinofrio	16-CRDA-0322	R Cubed Engineering	6/16/2016	6/15/2018	To evaluate, understand and document the performance of the R Cubed's SWaP units, develop realistic flight scenarios, and research performance capabilities of small commercially available UAS.
3/15/2016	Aviation Research	Paul Swindell	16-CRDA-0323	Genesys Aerosystems	3/15/2016	3/16/2018	To develop regulatory guidance or the certification of fly by wire advanced flight control systems (AdFC). Conduct tests to determine pilot response to various AdFC configurations.
3/15/2016	Laboratory Services	John Beres	16-CRDA-0324	ASB Avionics LLC	3/16/2016	3/16/2018	Provide the aircraft platform and support for ASB Avionics LLC to achieve Supplement Type Certification of AMLCD EFIS displays as direct replacements for existing CRT displays.
9/6/2016	Aviation Safety-Flight Standards Service	Paul Rumberger	16-CRDA-0325	CNN, Inc.	9/6/2016	9/6/2018	To explore the use of Unmanned Aircraft Systems (UAS) in news coverage.
4/20/2016	Engineering Development Services	John Dinofrio	16-CRDA-0326	GSSL, Inc. dba Near Space Corporation	4/20/2016	4/20/2018	Providing ADS-B data to the ground in the Tillamook Valley, and incorporate it into the RTTS feed for NSC to monitor flight activities. The resulting data will be able to provide continuous ADS-B data sets for platform flight paths from the surface through altitudes up to 120kft.
8/1/2016	Technology Development & Prototyping	Albert Schwartz	16-CRDA-0327	AgentFly Technologies s.r.o.	8/1/2016	8/1/2019	To further enhanced and increase usage of AgentFly environment for different projects and studies, and exchange data to improve AgentFly functions and performance for specific FAA use.

Active Cooperative Research and Development Agreements (CRDAs) in FY 2016							
Executed Date	**FAA R&D Program**	**FAA POC**	**CRDA Number**	**Industry Partner**	**Start Date**	**Stop Date**	**Subject**
5/9/2016	Flight Standards Service - Unmanned Aircraft systems (UAS) Integration	Elizabeth Soltys	16-CRDA-0329	Gryphon Sensors, LLC	5/9/2016	5/9/2018	To safely explore procedures and processes in and around the FAA's airport environment(s) to identify errant or hostile Unmanned Aircraft Systems (UAS) consisting of the Unmanned Aircraft (UA) and Pilot-in-Command (PIC).
6/16/2016	Engineering Development Services	Stu Searight	16-CRDA-0330	uAvionix	6/16/2016	6/15/2018	To test the performance of low Size Weight and Power (SWaP) transceivers. Utilize GPS simulators and FAA's Virtual Target Generator to evaluate and understand the true performance of the low SWaP units.
5/9/2016	Flight Standards Service - Unmanned Aircraft systems (UAS) Integration	Elizabeth Soltys	16-CRDA-0322	Liteye Systems, Inc.	5/9/2016	5/9/2018	To safely explore procedures and processes in and around the FAA's airport environment(s) to identify errant or hostile Unmanned Aircraft Systems (UAS) consisting of the Unmanned Aircraft (UA) and Pilot-in-Command (PIC).
5/9/2016	Flight Standards Service - Unmanned Aircraft systems (UAS) Integration	Elizabeth Soltys	16-CRDA-0333	Sensofusion	5/9/2016	5/9/2018	To safely explore procedures and processes in and around the FAA's airport environment(s) to identify errant or hostile Unmanned Aircraft Systems (UAS) consisting of the Unmanned Aircraft (UA) and Pilot-in-Command (PIC).
6/3/2016	Laboratory Services	Richard Smail	16-CRDA-0334	Pentagon Performance, Inc.	6/30/2016	6/30/2016	To cooperatively develop a proof-of-concept that measures the suitability, effectiveness, efficiency, and safety of the Smart Airport Landing System (SALS) and coordinate the completion of a Safety Management Systems (SMS) Study if applicable and/or feasible.
8/1/2016	Technology Development & Prototyping	Chu Yao	16-CRDA-0335	Fairfield University	8/1/2016	8/1/2018	To transfer several algorithms and associated software tools for incorporation into classroom and/or engineering student projects. The collaboration is envisioned to generate new and creative solutions to determine how new features and capabilities could be developed and enhance FAA M&S tools.
9/6/2016	Aviation Research	Cliff Johnson	16-CRDA-0336	Astronics Corporation, MaxViz	9/6/2016	9/6/2018	To reduce the fatal accident rate associated with helicopter operations, the FAA is undertaking a campaign to encourage increased use of Instrument Flight Rules, primarily in adverse weather conditions and for specific helicopter mission segments.
8/16/2016	Aviation Research	Julian Canizales	16-CRDA-0338	Afton Chemical Corp. Mix-Viz	8/16/2016	8/13/2021	To perform extensive testing on alternative unleaded aviation gasolines.
9/7/1994	Aviation Research	Nick Subbotin	94-CRDA-0065	Engineered Arresting Systems Corporation	9/7/2014	9/7/2016	Continue to learn, refine, and improve upon the safety, development, and procedures of soft ground arresting systems call engineered material arresting systems (EMAS) for civil airports.

Active Cooperative Research and Development Agreements (CRDAs) in FY 2016							
Executed Date	**FAA R&D Program**	**FAA POC**	**CRDA Number**	**Industry Partner**	**Start Date**	**Stop Date**	**Subject**
7/29/1996	Aviation Research	Satish Agrawal	96-CRDA-0097	The Boeing Company	7/29/2011	7/29/2021	Research on real-time real-weight pavement testing at the FAA's National Aviation Pavement Test Facility, to determine wheel interaction effects and to develop pavement failure criteria.

Active Aviation Grants in FY 2016					
Award Date	**FAA POC**	**Grant Number**	**Grant Title**	**Recipient Institution**	**Award Amount**
3/1/2012	William Emmerling	2012-G-001	Composite Material Model for Impact Analysis	Arizona Board of Regents for and on behalf of ASU	$17,845
9/5/2012	Ryan King	2012-G-015	CEAT Airport Safety Management Program	The Board of Trustees of the University of Illinois	$1,283,171
9/1/2013	Navneet Garg	2013-G-016	Three-Dimensional Finite Element Modeling of High Tire Pressure Effect on Airport Pavement	Rutgers, The State University of New Jersey	$141,104
9/17/2013	William Emmerling	2013-G-020	Material Model Development and Its Application Using Finite Element Methods in Engine Failure Analysis	George Mason University	$354,933
1/23/2014	Charles C Johnson	2014-G-001	Collect, Aggregate, and Disseminate Rotorcraft Flight Data Monitoring Data to Provide Data Driven Safety Analysis	Helicopter Association International	$241,000
9/11/2014	Chad Brewer	2014-G-015	Global Safety Information Project	Flight Safety Foundation, Inc.	$2,000,000
2/6/2015	Albert Larkin	2015-G-004	Evaluation of Airfield Pavement Responses under F/HWD and Moving Aircraft Loading	Rutgers, The State University of New Jersey	$84,893
5/1/2015	Timothy G Smith	2015-G-009	Effect of Ice Accretion on Full-Scale, Swept-Wing Aerodynamic Performance	University of Washington	$248,910
7/7/2015	Steven Summer	2015-G-013	Development of NextGen Burner for Power Plant Applications and Evaluation of Power Plant Fire Test Equipment	University of Cincinnati	$142,446
7/20/2015	David Brill	2015-G-014	Implementing a Multiple-Slab Response Model for Top-Down Cracking Mode in Rigid Airport Pavements	Iowa State University of Science and Technology	$180,981
8/27/2015	David Galella	2015-G-016	Probabilistic Integrity and Risk Assessment of Turbine Engines, Phase II	Southwest Research Institute	$1,500,000
7/13/2016	Zhi-Ming Chen	2016-G-006	Study of Damage Modes in Lightweight Sandwich Structures Using Analysis and Testing	National Institute of Aerospace	$328,592
8/1/2016	William Emmerling	2016-G-007	Deformation and Failure Material Models for Aircraft Dynamic Impact Loading Applications	The Ohio State University	$399,911
8/1/2016	William Emmerling	2016-G-008	Cabin Interior and Engine Related Impact and Failure Analysis Guidelines for Non-Linear Finite Element Modeling	Central Connecticut State University	$69,766
9/1/2016	Nelda Milburn	2016-G-009	Development and Validation of a Standard Color Palette and Updates to the FAA Color Standard	Wright State University	$103,351
10/1/2016	Fred Snyder	2016-G-011	FAA Joint University Program for Air Transportation Activities	Massachusetts Institute of Technology	$75,000
8/22/2016	Fred Snyder	2016-G-012	Integrated Avionics Technology Development	Ohio University	$125,000
9/15/2016	Benjamin Mahaffay	2016-G-013	Geothermal Heating System for Airport Pavement and Terminal Cooling	Broome County Industrial Development Agency	$95,000
9/1/2016	David Blake	2016-G-014	Improvements in Aircraft Fire Detection	University of Maryland	$44,701
9/1/2016	Charles C Johnson	2016-G-015	Visualization of Rotorcraft Safety within a CAVE Virtual Reality Environment	Rowan University	$60,581
9/15/2016	Navneet Garg	2016-G-016	Investigation into the Identification and Potential Specification for the Fatigue Performance of Asphalt Binders	Rutgers, The State University of New Jersey	$273,855
9/1/2016	Richard Lyon	2016-G-017	A Computational Tool for Prediction of Material Performance in Standard Flammability Tests	University of Maryland	$113,776
9/10/2016	Albert Larkin	2016-G-018	FAA Pavement Evaluation and Design Model	Board of Regents, NSHE, obo University of Nevada, Reno	$100,000
9/13/2016	Donald Gallagher	2016-G-019	Lighting Research for Airport Visual Guidance	Rensselaer Polytechnic Institute	$532,142

Active International Agreements in FY 2016						
Effective Date	**FAA R&D Program**	**FAA POC**	**Agreement Number**	**Agreement Title**	**Partner**	**Objective**
6/18/1970	Aircraft Icing	Warren Underwood	MOC NAT- I-0831 PA- 17	Deicing and Anti-Icing Research	Transport Canada	Deicing and Anti-Icing Research: The investigation of aerodynamic flow-off characteristics of anti-icing fluids contaminated with different types of frozen precipitation; the investigation of the effectiveness of proposed laboratory test procedures in evaluating aircraft anti-icing fluids' failure modes in mixed icing conditions; and the investigation into other associated aircraft deicing problems and issues.
7/10/2001	System Safety Management	Hossein Eghbali	AIA/CA-52	Aviation System Safety	CAA - Netherlands	Establishes a method of cooperation in R&D programs in the area of aviation system safety including the risks to the public connected with civil aviation activities and operations in the vicinity of airports.
7/10/2001	System Safety Management	Hossein Eghbali	AIA/CA-52-8	Aviation System Safety:	CAA - Netherlands	Cooperatively study risk, safety modeling and safety analysis
4/2/2004	Fire Safety	Constatine Sarkos	AIA/CA-41 Annex 3 Appendix 7		CAA – United Kingdom	Establish a method of cooperation in performing research to improve passenger survivability during aircraft emergencies or accidents involving fire.
9/24/2004	Wake Vortex Research	Paul Fontaine	NAT- I-3454-1	Air Traffic Management Research	EUROCONTROL	Air Traffic Management Research: Collaborate and share experiences on various ATM research topics that are of interest to both the U.S. and Europe.
9/24/2004	Environmental Modeling for ATM and Safety Management Techniques	Lourdes Maurice	NAT-I- 3454-5	Harmonizing Safety and Environmental Factors	EUROCONTROL	Collaborate on and share methods for evaluating safety management, ATM security and ATM environmental factors.
6/19/2007	Airport Technology Capacity	Albert Larkin	AIA/CA-5 Annex 16		La Direction Generale de L'Aviation Civile (DGAC)	Coordination of R&D activities and the sharing of information resulting from related studies, tests, and analyses in the field of airfield pavement
4/04/2011	NextGen/SESAR Cooperation	Darryel Adams	NAT- I-9406-1	NextGen/SESAR Cooperation for Global Interoperability	European Union	Establish cooperation on global interoperability of ATM modernization programs, NextGen and SESAR
12/9/2011	Aircraft Icing	Chris Dumont	NAT-I-8417 Annex 1	Aircraft Icing and Propulsion Systems Research	National Research Council of Canada	Aircraft and Propulsion System Icing Research (Annex 1 to MOC): This agreement forms cooperative research on simulation of ice crystal environments for the investigation of effects of such environments on engines.
10/7/2011	Aircraft Icing	Chris Dumont	CON-I-2901-1	Aircraft Icing	Bureau of Meterology (BOM), Australia	Research of inflight icing conditions, including supercooled large droplet conditions.
10/7/2011	Aircraft Icing	Chris Dumont	CON-I-2901-1-1	Atmospheric Icing Flight Research	Bureau of Meterology (BOM), Australia	Research of inflight icing environmentss and the instrumentation used to measure the variables employed to describe those environments.
2/12/2013	ATM Performance Measurement	Darryel Adams	NAT- I-9406-2	Collaboration on ATM Performance Measurement	European Union	US-EU Coordination of ATM-related Operational Performance Reports
9/24/2013	ATM Performance Measurement	Ahmad Usmani	NAT-I-3001	Collaboration on ATM	CAA- Singapore	Establish cooperation in performing ATM modernization
12/9/2013	Aircraft Icing	Jim Riley	CON-I-3101-1	Aircraft Icing Research	Centre National de la Recherche Scientifique	Reseach of in-flight icing conditions, including convective weather ice crystal and supercooled large droplet icing conditions
12/9/2013	Aircraft Icing	Jim Riley	CON-I-3101-1-1	Atmospheric Icing Flight Research	Centre National de la Recherche Scientifique	Research of inflight icing environment and the instrumentation used to measure the variables employed to describe those environments.
9/3/2014	Alternative Fuels	Monica Merritt	NAT-I-8417 Annex 4	Alternative Fuel Research	National Research Council of Canada	Aircraft and Propulsion System Alternative Fuels Research
9/4/2015	Aircraft Icing	Warren Underwood	CON-I-5102-1-1	Aircraft Icing	Finnish Transport Safety Agency (Trafi)	Aircraft icing research, including frost formation studies, computation fluid dynamics for ground de/anti-icing fluids and de/anti-icing fluids aerodynamics charachteristics.
4/27/2004	Environment	Don Scata	MOC NAT-I-0831 PA-18	Environmental Impact and Mitigation of Aircraft Noise and Emissions	Transport Canada	Conducting and coordinating research projects and exchanging research data, analyses and related information and material concerning the environmental impacts of aircraft noise and emissions.
5/12/2011	Air Traffic	ATO/AJR-5	NAT-I-8417 Annex 3	Wake Turbulence R8D	National Research Council of Canada	This agreement covers cooperative research on the effects of aircraft wake turbulence on trailing aircraft.