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This project has the following specific objectives:

- 1) Continue to convene Special Technical Committee (STC) meetings for both technology standards (IRRS and LPR) and facilitate STC deliberations in defining the performance requirements specific to each technology.
- 2) Continue to identify existing and ongoing research and/or standards applicable to IRRS and LPR technologies, and perform a series of field assessments of LPR technology in operation to support and further the work of the STC.
- 3) Develop test procedures to measure the performance of IRRS and LPR devices.
- 4) Develop a user's guide to help law enforcement executives better understand the capabilities, limitations, and operational performance parameters of IRRS and LPR technologies, and to assist them in the selection of technology appropriate for their agencies.

3.2 – Review of relevant literature

While there are many publications that discuss policy issues related to video surveillance systems, there is very little literature that addresses video quality, especially in the context of law enforcement applications. One important document is *In-Car Video Camera Systems Performance Specifications: Digital Video Systems Module*, published by the International Association of Chiefs of Police in November 2008.⁵ The publication identifies performance benchmarks for image quality, physical integrity, officer safety concerns, and other technical requirements for mobile digital video systems, and was the foundation of existing standards efforts for in-car cameras by NIJ. Many of these specifications, along with the subsequent work completed on the NIJ in-car camera standards, have also been applicable to LPR and IRRS technologies.

Several Scientific Working Group on Imaging Technology (SWGIT) documents, in particular, *Recommendations and Guidelines for Using Closed-Circuit Television Security Systems in Commercial Institutions*, *Best Practices for Archiving Digital and Multimedia Evidence (DME) in the Criminal Justice System*, and *Digital Imaging Technology Issues for the Courts*, discuss evidentiary use of video and image files and are also relevant to the two technologies within the scope of the current project⁶. A Law Enforcement and Emergency Services Video Association (LEVA) report on the acquisition of Digital Multimedia Evidence⁷ is also another excellent resource applicable to all forms of recorded evidence.

⁵ *Digital Video Systems Minimum Performance Specifications Document*, Version 14, 11/21/2008, published by IACP, <http://www.theiacp.org/LinkClick.aspx?fileticket=QFTaGyKJbfE%3d&tabid=87> Accessed June 11, 2012.

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Specifically in reference to interview room recording, the Center for Wrongful Convictions at the Northwestern University College of Law released a document discussing the value of recorded interviews to police and the courts, but does not directly address performance specifications of recording devices.⁸

In addition to these published documents, the Institute for Telecommunication Services, the research and engineering branch of the U. S. Department of Commerce, National Telecommunications and Information Administration in Boulder, Colorado, has formed a technical working group to assess image quality needs of law enforcement and emergency services. The Video Quality in Public Safety (VQiPS) working group is collecting data on specific use cases of video equipment used in field applications⁹.

To date there has been little published independent research on the accuracy, reliability, and efficacy of LPR technology. This underscores the need for the development of a comprehensive performance standard based on practitioner needs and real world applications of the technology.

3.3 - Project design and implementation

The two STCs in place from FY2011 will continue to work towards developing measurable performance benchmarks and subsequently describing testing procedures. There will be a minimum of six total meetings of the IRRS and LPR STCs in FY2013. Between meetings, work groups will collaborate via email and, if needed, teleconference.

⁸ *Police Experiences with Recording Custodial Interrogations*, Center for Wrongful Convictions, Northwestern University College of Law, 2004.

⁹ For more information, see: http://www.pscr.gov/projects/video_quality/vqips/vqips.php. Accessed June 11, 2012

Work groups will also be encouraged to collaborate with other projects both within the IACP and in the larger technology community, such as VQIPS, LEVA, and SWGIT.

The more complex technology, LPR, requires a great deal of ongoing research, including field assessments to document real world system operation. Unlike IRRS technology, which is primarily used to document audiovisual activity in a closed environment, LPR is often used to initiate investigations by alerting an officer to a vehicle of interest. LPR systems must detect the presence of a plate, capture an image of that plate, employ a process to convert the image to usable data, and then compare the data with a list of previously identified plates of interest, often accomplishing all of these tasks at highway speeds. The complexity of this technology will necessitate more STC meetings than IRRS, but will nonetheless be completed by the end of FY2013.

Performance metrics will be determined for all critical functions of both IRRS and LPR devices. The committees will be tasked with identifying the functions that could have a substantive impact on the accuracy and reliability of the devices, which could include image resolution, compression, exposure latitude, lens distortion, audio quality, data security, electrical safety, operational functions (switches, buttons, and other user-adjustable functions), data interoperability, or other functions.

Manufacturers and vendors of systems that would be subject to the standard will not be permitted to participate directly in the standards development. Once the standards are drafted, however, and in accordance with applicable NIJ and federal guidelines, drafts of all project documents will be released to the public for limited comment and review periods. The responses will be reviewed, and the Committees will determine whether to accept or reject suggested revisions.

Upon the completion of the performance standards, both of the Committees will develop a *Selection and Application Guide* to help law enforcement agencies better understand how to use the standard when acquiring, implementing, and using these technologies. The Committees will also work with NIJ to establish testing and compliance procedures to guide manufacturers interested in voluntarily submitting their systems for testing.

3.4 - Capabilities and competency

IACP is ideally situated to lead this project and continue the facilitation of the IRRS and LPR video standards initiatives. With over 20,000 members in more than 100 countries, IACP has the expertise and resources to develop and deliver training and support to the justice community in a uniform, consistent, and professional manner. This project will continue to utilize Special Technical Committees comprised of law enforcement investigators, forensic video analysts, policy makers, technical experts, and representatives of the justice system who have been approved by the National Institute of Justice to identify key performance requirements of each of the technologies. Each Committee will include at least one member experienced in designing and performing tests of electronic equipment. IACP will leverage the knowledge and experience of its membership through the various committees and sections, including the Forensics Committee, the Communications and Technology Committee, and the Law Enforcement Information Management Section.

3.5 - Implications for criminal justice policy and practice in the United States

Video has quickly become one of the most ubiquitous forms of evidence in police investigations. The use of license plate recognition systems and interview room recording systems has increased substantially in the last decade. Unfortunately as previously noted, to date there are no uniform standards governing the technical performance of these devices, leaving agencies with only the vendors' unsubstantiated claims as the basis to make their purchasing decisions, and leaving the courts with little guidance as to the reliability of video and other images considered digital multimedia evidence (DME).

The establishment of performance standards will help law enforcement agencies better identify reliable and accurate technology. The police, courts, and the public will all benefit from the knowledge that these devices have undergone testing and meet or exceed the performance standard as written.

3.6 - Management plan and organization

For purposes of continuity from Year 2 to Year 3 on this grant initiative, IACP will retain all existing project staff moving forward into FY2013. This continuation project will be overseen by Dr. [REDACTED], Director, State and Provincial Division, IACP, and supervised by [REDACTED], Senior Program Manager, IACP Technology Center, S&P Division, each of whom will review documents and exercise management control. [REDACTED] Program Manager, IACP Technology Center, S&P Division, will provide day-to-day program management, contribute to project research and the drafting of reports, and he will also continue to serve as the IACP representative on both STCs associated with this project. [REDACTED] Project Manager, will continue to serve

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as the principal staff support for the project, coordinating meetings, conducting research, drafting reports, and managing tasks on a daily basis. Danielle Menard, Project Coordinator, will provide logistics and meeting support, and will assist the project team in the timely completion of all project tasks.

3.7 - Dissemination strategy

Draft versions of the technical standards and other accompanying project documents will be made available for public comment and review on <http://www.justnet.org>. Official notice of such postings will be included in the *Federal Register*, and announcements will be made on the IACP website and during presentations at the IACP Annual Conference, the Law Enforcement Information Management (LEIM) Conference, and other appropriate events/conferences.

4 - Budget Narrative

The total cost of this continuation proposal is \$299,995. The proposed project includes the development of two National Institute of Justice video standards: License Plate Recognition (LPR) and Interview Room Recorders (IRRS).

Personnel costs and time allocation for this project will be as follows:

- [REDACTED] S&P Division - [REDACTED]
- [REDACTED] Senior Program Manager - [REDACTED]
- [REDACTED] Program Manager - [REDACTED]
- [REDACTED] Project Manager - [REDACTED]
- [REDACTED] Project Coordinator - [REDACTED]

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Fringe benefits are calculated at [REDACTED] of direct labor ([REDACTED]). The bulk of the remaining costs are related to Special Technical Committee (STC) meetings for both IRRS and LPR technology standards. A minimum of six total meetings will take place over the next 12 month span of this project, all of which will be convened in the Washington, D.C. region; the IRRS committee will meet at least twice in FY2013, and the LPR committee will meet at least four times.

In order to conduct general project outreach, \$5,052 has been allocated for staff travel. This figure reflects a total of four staff trips during FY2013.

To reduce travel costs, meetings for both technology standards will be convened in the Washington, D.C., region where a number of participants are located. For budgeting purposes, it is estimated that for each meeting we will have 6-8 out-of-region participants for IRRS STC meetings, and 7 such participants for LPR STC meetings.

Travel costs for each individual are estimated as follows and are applicable to both committees:

Airfare:	\$550 per meeting
Lodging:	\$135/night + \$20 taxes x 2 nights per meeting
Per Diem	\$71/day x 3 days per meeting
Taxi/Mileage	\$50 per meeting

Based on the estimates above, the travel costs for two meetings of the IRRS standards group will cost approximately \$15,328. Similarly, estimated travel costs for four LPR meetings total approximately \$31,444. In sum, this figure is approximately \$46,772. To date, we have held STC meetings at a location in Loudoun County, VA, which is significantly more cost effective than venues closer to Washington D.C. We will continue to seek out such facilities, and our estimates reflect such reduced costs. Also, approximately \$9,000 (\$450/day x 20 days) has been allocated for contractor STC support; such is needed to provide technical assistance that may include highly technical and specialized services, such as validation of test methodologies, etc. Total contractual costs are estimated at \$55,772.

Additional costs include \$600 for office supplies, \$640 for telephone and teleconferencing services, \$960 for printing and postage, and \$8,844 for staff office rental

5 - Key Personnel

IACP Project Manager, [REDACTED] is in place to oversee the project full-time and has held this position since June 2010. Program Manager [REDACTED] and Project Coordinator [REDACTED] will also be contributing to the advancement of this project in part-time capacities.

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6 - Project Timeline – FY2012

Month

	O	N	D	J	F	M	A	M	J	J	A	S
LPR STC Meeting	*			*			*			*		
LPR Performance Standards Draft					*						*	
LPR Testing & Certification Protocol Draft									*			
LPR Selection & Application Guide Draft					*							
IRRS STC Meeting	*			*								
IRRS Performance Standards Draft	*											
IRRS Testing & Certification Protocol Draft			*									
IRRS Selection & Application Guide Draft	*											

International Association of Chiefs of Police

Video Standards Continuation Project

October 1, 2012 - September 30, 2013

Expense Description	Current Salary	% of Time	Subtotal	Total
A. PERSONNEL				\$97,540
Director, State and Provincial Police Division	\$ [REDACTED]	[REDACTED]	[REDACTED]	
Senior Program Manager	\$ [REDACTED]	[REDACTED]	[REDACTED]	
Program Manager	\$ [REDACTED]	[REDACTED]	[REDACTED]	
Project Manager	\$ [REDACTED]	[REDACTED]	[REDACTED]	
Project Coordinator	\$ [REDACTED]	[REDACTED]	[REDACTED]	
B. FRINGE	(a) [REDACTED]			\$48,770
C. TRAVEL				\$5,052
<i>Project Outreach/Staff Travel</i> (2 IACP staff; 2 trips)				
Airfare: \$550/trip x 2 trips x 2 IACP staff			\$2,200	
Lodging: \$175/night + \$25/taxes x 2 nights x 2 trips x 2 IACP staff			\$1,600	
Meals and incidentals: \$71/day x 3 days x 2 trips x 2 IACP staff			\$852	
Ground Transportation: \$100/trip x 2 trips x 2 IACP staff			\$400	
D. EQUIPMENT				\$0
No capitalized equipment is necessary to facilitate this project.				\$0
E. SUPPLIES				\$600
Consumable office supplies @ \$50 per month				\$600
F. CONTRACTUAL				\$55,772
<i>Interview Room Recorders Work Group Meetings (2)</i> (10 individuals: 8 SMEs, 2 IACP staff)				
Airfare: \$550/trip x 2 trips x 6 individuals			\$6,600	
Lodging: \$135/night + \$20/taxes x 2 nights x 2 trips x 6 individuals			\$3,720	
Meals and incidentals: \$71/day x 3 days x 2 trips x 8 individuals			\$3,408	
Ground transportation @ \$50/trip x 4 trips x 8 individuals			\$1,600	
<i>LPR Work Group Meetings (4)</i> (15 individuals: 13 SMEs, 2 IACP staff)				
Airfare: \$550/trip x 4 trips x 7 individuals			\$15,400	
Lodging: \$135/night + \$20/taxes x 2 nights x 4 trips x 7 individuals			\$8,680	
Meals and incidentals: \$71/day x 3 days x 4 trips x 7 individuals			\$5,964	
Ground transportation @ \$50/trip x 4 trips x 7 individuals			\$1,400	
Contractor for STC technical input (\$450/day @ 20 days)			\$9,000	
H. OTHER				\$10,444
Communications expenses:				
Long-distance telephone (phone outreach, fax, etc. @ \$20 per month)			\$240	
Teleconferences (2 @ \$200 ea)			\$400	
(IACP Facility Rental for Staff)				
Office rental @ \$843 per month for the Program Manager (.25 FTE)			\$2,529	
Cubicle rental @ \$421 per month for the Project Manager (1 FTE)			\$5,052	

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International Association of Chiefs of Police

Video Standards Continuation Project

October 1, 2012 - September 30, 2013

Expense Description	Subtotal	Total
Cubicle rental @ \$421 per month for the Project Coordinator (.25 FTE)	\$1,263	
Printing costs: General office copying and printing @ \$50 per month	\$600	
Postage costs: Other postage for mailings upon request @ \$30 per month	\$360	
TOTAL DIRECT COSTS		\$218,178
INDIRECT COSTS @ [REDACTED] @ [REDACTED]		\$81,817
TOTAL		\$299,995

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Department of Justice
Office of Justice Programs
National Institute of Justice

Cooperative Agreement

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1. RECIPIENT NAME AND ADDRESS (including Zip Code) International Association of Chiefs of Police Inc 515 North Washington Street Alexandria, VA 22314-2346		4. AWARD NUMBER 2009-IJ-CN-K009	
		5. PROJECT PERIOD: FROM 10/01/2009 TO 09/30/2012 BUDGET PERIOD: FROM 10/01/2009 TO 09/30/2012	
		6. AWARD DATE 09/16/2011	7. ACTION Supplemental
1A. GRANTEE IRS/VENDOR NO. 530227813		8. SUPPLEMENT NUMBER 01	
		9. PREVIOUS AWARD AMOUNT \$ 384,213	
3. PROJECT TITLE IACP Video Standards for Law Enforcement Project		10. AMOUNT OF THIS AWARD \$ 399,990	
		11. TOTAL AWARD \$ 784,203	
12. SPECIAL CONDITIONS THE ABOVE GRANT PROJECT IS APPROVED SUBJECT TO SUCH CONDITIONS OR LIMITATIONS AS ARE SET FORTH ON THE ATTACHED PAGE(S).			
13. STATUTORY AUTHORITY FOR GRANT This project is supported under FY11(NIJ - JAG Technology) Pub. L. No. 112-10, div. B, secs. 1101-1104; Pub. L. No. 111-117, 123 Stat. 3034, 3133; 42 USC 3756; 28 USC 530C			
15. METHOD OF PAYMENT GPRS			
AGENCY APPROVAL		GRANTEE ACCEPTANCE	
16. TYPED NAME AND TITLE OF APPROVING OFFICIAL Laurie Robinson Assistant Attorney General		18. TYPED NAME AND TITLE OF AUTHORIZED GRANTEE OFFICIAL Daniel Rosenblatt Executive Director	
17. SIGNATURE OF APPROVING OFFICIAL 		19. SIGNATURE OF AUTHORIZED RECIPIENT OFFICIAL	19A. DATE
AGENCY USE ONLY			
20. ACCOUNTING CLASSIFICATION CODES FISCAL FUND BUD. DIV. YEAR CODE ACT. OPC. REG. SUB. POMS AMOUNT X B DE 60 00 00 399990		21. IDESGT0131	

OJP FORM 4000/2 (REV. 5-87) PREVIOUS EDITIONS ARE OBSOLETE.

OJP FORM 4000/2 (REV. 4-88)

1 - Abstract

Law enforcement is becoming increasingly dependent on various forms of technology. Evidence collection and analysis, interoperable communications, records management and information sharing, mobile computing, and speed enforcement have emerged as highly specialized and technology-intensive disciplines. Inconsistent performance from any technology, however, can negatively impact its overall value to law enforcement, and this is particularly the case with technologies that directly affect evidence collection and use in a criminal case.

Digital imaging has quickly become one of the most abundant forms of evidence in police investigations. The use of digital in-car cameras (ICC), interview room recorders (IVR) and automated license plate recognition systems (LPR) has increased significantly in the last decade. To date, however, there are no uniform standards governing the technical performance of such systems, leaving agencies with only the vendors' often unsubstantiated performance claims as the basis to make their purchasing decisions, and leaving the courts with scarce objective guidance as to the reliability of video and other images considered digital multimedia evidence (DME). This proposed project continuation will enable IACP to continue and finalize standards development initiatives for IVR and LPR technologies.

During the first year of the Video Standards project, IACP staff convened four meetings of a Special Technical Committee (STC) for digital in-car cameras. The Digital In-Car Camera STC members, together with IACP staff, drafted three documents required as part of the NIJ standards development process: *Performance Standards*, *Testing and Certification Protocol*, *Selection and Application Guide*. All three documents

have been released for public comment and review and each are being finalized. It is anticipated that all three documents will be finalized and delivered to NIJ before September 30, 2011.

A substantial amount of work has already been completed by IACP over the past year in developing standards for IVR and LPR. Special Technical Committees (STCs) were formed for both IVR and LPR technologies, and each of the two STCs were convened twice during the first six months of 2011. The IVR and LPR Committees will meet a third time in August 2011. To date, both Committees have made substantial progress in identifying the needs and requirements applicable to each of the technologies, and both are currently in the process of formalizing such information. This preliminary, collaborative work will ultimately serve as the basis for the development of *Performance Standards, Testing and Certification Protocols, Selection and Application Guides* for both IVR and LPR technologies.

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3 - Main Body

3.1 - Purpose, goals and objectives

The purpose of this project is to research video recording systems in use by law enforcement agencies to facilitate the establishment of a set of measureable performance benchmarks to provide guidance to agencies and the courts. Law enforcement is increasingly deploying video technology to assist in the documentation of violations, police interactions with the public, and interviews of suspects and witnesses in criminal investigations. Because there are no established technical standards for the image and/or sound recording performance of these devices, police have no reliable information to assess products in the marketplace. Without standards vetted and broadly accepted by the relevant scientific community, the reliability and accuracy of recorded evidence presented in court may be vulnerable to challenges under Daubert¹ and Frye².

This project will cover two specific categories of video systems used by law enforcement:

- Interview room recorders (IVR)
- License plate recognition systems (LPR)

Long practiced in the United Kingdom, Canada, as well as many domestic law enforcement agencies, the recording of interviews of suspects and witnesses is rapidly increasing in the United States. A growing number of state governments are passing legislation requiring the recording of custodial interviews of suspects in at least some categories of major crimes.

¹ *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993)

² *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923)

A 2004 study on the use of interview recordings found, "Experience shows that recordings dramatically reduce the number of defense motions to suppress statements and confessions. The record is there for defense lawyers to see and evaluate: if the officers conduct themselves properly during the questioning, there is no basis to challenge their conduct or exclude the defendants' responses from evidence. Officers are spared from defending themselves against allegations of coercion, trickery, and perjury during hostile cross examinations."³ How effective the recordings are, however, may depend on the quality of the audio and video captured. The establishment of a minimum performance standard will help ensure the reliability of valuable evidence.

Automated license plate recognition (LPR) technology is one of the fastest growing segments of the police technology market. These devices can capture thousands of license plate images per hour -- often while the police car, the target vehicle, or both are moving at highway speeds -- scanning the images with optical character recognition (OCR) software and comparing the alpha-numeric information with a "hot list" of stolen or wanted vehicles. Because of the very nature of their function, image clarity and accuracy of the OCR translation of the images are critical to the reliability of the data collected. A standard for the performance of LPR systems will help assure agencies and the courts that they are collecting accurate information.

The long term goal of this project is to a) Identify the specific performance parameters that are critical to each video technology's function, b) Develop metrics to accurately measure their performance, and c) Establish protocols for the testing of the equipment by an independent laboratory. The process will be essentially the same for

³ *Police Experiences with Recording Custodial Interrogations*, Northwestern University School of Law Center on Wrongful Convictions, Thomas P. Sullivan, 2004

both technologies, though many of the performance metrics will vary by the function of the device categories.

This project has the following specific objectives:

- 1) Continue to convene Special Technical Committee (STC) meetings for both technology standards (IVR and LPR).
- 2) Continue to identify existing and ongoing research and/or standards applicable to IVR and LPR technologies, and perform a series of site assessments and field measurements of LPR technology in operation to support and further the work of the STC.
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<http://www.safecomprogram.gov/SAFE/COM/currentprojects/videoquality/>

Justice, to identify key performance requirements of each of the technologies. Each Committee will include at least one member experienced in designing and performing tests of electronic equipment. IACP will leverage the knowledge and experience of its membership through the various committees and sections, including the Forensics Committee, the Communications and Technology Committee, and the Law Enforcement Information Management Section.

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The more complex technology, LPR, will likely require a great deal of additional research, possibly including field assessments and performance measurements. Unlike IVR and ICC systems, that are primarily used to document audiovisual activity, LPR is often used to initiate investigations by alerting an officer to a vehicle of interest. LPR systems must detect the presence of a plate, capture an image of that plate, employ a process to convert the image to usable data, and then compare the data with a list of previously identified plates of interest, often accomplishing all of these tasks at highway speeds. The complexity of this technology may necessitate further work on this initiative through FY2013.

Performance metrics will be determined for all critical functions of both IVR and LPR devices. The committees will be tasked with identifying the functions that could

have a substantive impact on the accuracy and reliability of the devices, which could include image resolution, compression, exposure latitude, lens distortion, audio quality, data security, electrical safety, operational functions (switches, buttons, and other user-adjustable functions), data interoperability, or other functions.

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Draft versions of the technical standards and other accompanying project documents will be made available for public comment and review on <http://www.justnet.org>. Official notice of such postings will be included in the *Federal Register*, and announcements will be made on the IACP website and during presentations at the IACP Annual Conference, the Law Enforcement Information Management Conference (LEIM), and other appropriate events/conferences.

4 - Budget Narrative

The total cost of this continuation proposal is \$399,990. The proposed project includes the development of two National Institute of Justice video standards: License Plate Recognition (LPR) and Interview Room Recorders (IVR).

Personnel costs and time allocation for this project will be as follows:

- [REDACTED] Director, S&P Division - [REDACTED]
- [REDACTED] Senior Program Manager - [REDACTED]
- [REDACTED] Program Manager - [REDACTED]
- [REDACTED] Project Manager - [REDACTED]
- [REDACTED] Project Coordinator - [REDACTED]

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Fringe benefits are calculated at 50% of direct labor (\$46,700). The bulk of the remaining costs are related to Special Technical Committee (STC) meetings for both IVR and LPR technology standards. A minimum of eight total meetings will take place over the 12 month span of this project, all of which will be convened in the Washington, D.C. region. Both the IVR and LPR committees will meet at least four times in FY2012.

In order to both conduct LPR field measurements and general project outreach, \$10,704 has been allocated for staff travel. This figure reflects a total of eight staff trips. Locales for LPR field measurements will be identified moving forward.

To reduce travel costs, meetings for both technology standards will be convened concurrently in the Washington, D.C., region, where a number of participants are located. For budgeting purposes, it is estimated that for each meeting we will have 8 participants for IVR STC meetings, and 13 participants for LPR STC meetings. Travel costs for each individual are estimated as follows and are applicable to both committees:

Airfare:	\$600 per meeting
Lodging:	\$150/night + \$20 taxes x 2 nights per meeting
Per Diem	\$71/day x 3 days per meeting
Taxi/Mileage	\$50 per meeting
Breaks	23% of total per diem per participant per day

Based on the estimates above, the travel costs for four meetings of the IVR standards group will cost approximately \$39,802. Similarly, estimated travel costs for four LPR meetings total approximately \$64,516. In sum, this figure is approximately \$104,318. To date, we have held STC meetings at a location in Loudoun County, VA, which is significantly more cost effective than venues closer to Washington D.C. We will continue to seek out such facilities, and our estimates reflect such reduced costs. Also, approximately \$13,500 (\$450/day x 30 days) has been allocated for contractors, who will be engaged as needed to provide technical assistance that may include highly technical and specialized services, such as validation of test methodologies, etc. Total contractual costs are estimated at \$117,818.

Additional costs include \$2,434 in equipment for a laptop computer and essential accessories, \$1,200 for consumable office supplies, \$1,050 for telephone and teleconferencing services, \$2,100 for printing and postage, \$13,497 for staff office rental and \$2,000 facility rental for meetings.

5 - Key Personnel

IACP Project Manager, [REDACTED], is in place to oversee the project full-time and has held this position since June 2010. Program Manager [REDACTED] and Project Coordinator [REDACTED] will also be contributing to the advancement of this project

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in part-time capacities. Casandra Robinson, a contractor with NIJ, will continue to serve as an STC meeting facilitator and will provide technical support. During this project period she will no longer be paid by IACP as a consultant; rather, NIJ will be contracting with her directly to continue to provide services.

6 - Project Timeline – FY2012

Month

	O	N	D	J	F	M	A	M	J	J	A	S
LPR STC Meeting		√			√			√			√	
LPR Performance Standards Draft									√			
LPR Testing & Certification Protocol Draft												√
LPR Selection & Application Guide Draft												√
IVR STC Meeting		√			√			√			√	
IVR Performance Standards Draft						√						
IVR Testing & Certification Protocol Draft											√	
IVR Selection & Application Guide Draft									√			

International Association of Chiefs of Police

Video Standards Continuation Project

October 1, 2011 - September 30, 2012

Expense Description			Subtotal	Total
A. PERSONNEL				\$93,400
Director, State and Provincial Police Division	\$	██████████	██████████	
Senior Program Manager	\$	██████████	██████████	
Program Manager	\$	██████████	██████████	
Project Manager	\$	██████████	██████████	
Project Coordinator	\$	██████████	██████████	
B. FRINGE				\$46,700
C. TRAVEL				\$10,704
<i>Field Measurement Site Visits and Project Outreach</i> (2 individuals: 2 IACP staff)				
Airfare: \$600/trip x 4 trips x 2 IACP staff			\$4,800	
Lodging: \$200/night + \$25/taxes x 2 nights x 4 trips x 2 IACP staff			\$3,600	
Meals and incidentals: \$71/day x 3 days x 4 trips x 2 IACP staff			\$1,704	
Rental Car @ \$150/trip x 4 trips			\$600	
D. EQUIPMENT				\$0
No capitalized equipment is necessary to facilitate this project.			\$0	
E. SUPPLIES				\$3,634
Consumable office supplies @ \$100 per month			\$1,200	
1 laptop computer for use IACP staff			\$2,434	
F. CONTRACTUAL				\$117,818
<i>Interview Room Recorders Work Group Meetings (4)</i> (10 individuals: 8 SMEs, 2 IACP staff)				
Airfare: \$600/trip x 4 trips x 8 individuals			\$19,200	
Lodging: \$150/night + \$20/taxes x 2 nights x 4 trips x 8 individuals			\$10,880	
Meals and incidentals: \$71/day x 3 days x 4 trips x 8 individuals			\$6,816	
Ground transportation @ \$50/trip x 4 trips x 8 individuals			\$1,600	
Breaks and Refreshments @ \$16.33/pp x 2 days x 4 meetings x 10 persons			\$1,306	
<i>LPR Work Group Meetings (4)</i> (15 individuals: 13 SMEs, 2 IACP staff)				
Airfare: \$600/trip x 4 trips x 13 individuals			\$31,200	
Lodging: \$150/night + \$20/taxes x 2 nights x 4 trips x 13 individuals			\$17,680	
Meals and incidentals: \$71/day x 3 days x 4 trips x 13 individuals			\$11,076	
Ground transportation @ \$50/trip x 4 trips x 13 individuals			\$2,600	
Breaks and Refreshments @ \$16.33/pp x 2 days x 4 meetings x 15 persons			\$1,960	
Contractor for test validations (\$450/day @ 30 days)			\$13,500	
H. OTHER				\$18,647
Communications expenses:				
Long-distance telephone (phone outreach, fax, etc. @ \$25 per month)			\$300	

International Association of Chiefs of Police

Video Standards Continuation Project

October 1, 2011 - September 30, 2012

Expense Description	Subtotal	Total
Teleconferences (3 @ \$250 ea)	\$750	
Meeting Facility & Equipment Rental: (for Work Group Meeting Room Rental) 4 meetings held off site @ \$500 facility and A/V each	\$2,000	
(for IACP Facility Rental for Staff) Office rental @ \$818 per month for the Program Manager (.25 FTE)	\$2,454	
Office rental @ \$818 per month for the Project Manager (1 FTE)	\$9,816	
Cubicle rental @ \$409 per month for the Project Coordinator (.25 FTE)	\$1,227	
Printing costs: General office copying and printing @ \$100 per month	\$1,200	
Postage costs: Other postage for mailings upon request @ \$75 per month	\$900	
TOTAL DIRECT COSTS		\$290,902
INDIRECT COSTS @ [REDACTED] @ [REDACTED]		\$109,088
TOTAL		\$399,990

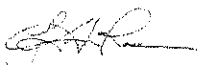
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Department of Justice
Office of Justice Programs
National Institute of Justice

Cooperative Agreement

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1. RECIPIENT NAME AND ADDRESS (Including Zip Code) The International Association of Chiefs of Police Inc 515 North Washington Street Alexandria, VA 22314-2348		4. AWARD NUMBER 2009-IJ-CX-K006	
		5. PROJECT PERIOD: FROM 10/01/2009 TO 09/30/2010 BUDGET PERIOD: FROM 10/01/2009 TO 09/30/2010	
		6. AWARD DATE 09/23/2009	7. ACTION Initial
1A. GRANTEE IRS/VENDOR NO. 530227813		8. SUPPLEMENT NUMBER 00	
		9. PREVIOUS AWARD AMOUNT \$0	
3. PROJECT TITLE Development of Video Standards		10. AMOUNT OF THIS AWARD \$ 384,213	
		11. TOTAL AWARD \$ 384,213	
12. SPECIAL CONDITIONS THE ABOVE GRANT PROJECT IS APPROVED SUBJECT TO SUCH CONDITIONS OR LIMITATIONS AS ARE SET FORTH ON THE ATTACHED PAGE(S).			
13. STATUTORY AUTHORITY FOR GRANT This project is supported under FY09(NIJ - OS&T Gen.) 42 USC 3721-3723, 6 USC 161-165; Pub. L. No. 111-8, 123 Stat. 569, 579; 28 USC 530C			
14. METHOD OF PAYMENT PAPRS			
AGENCY APPROVAL		GRANTEE ACCEPTANCE	
16. TYPED NAME AND TITLE OF APPROVING OFFICIAL Krisna Rose Acting Director		18. TYPED NAME AND TITLE OF AUTHORIZED GRANTEE OFFICIAL Daniel Rosenblatt Executive Director	
17. SIGNATURE OF APPROVING OFFICIAL 		19. SIGNATURE OF AUTHORIZED RECIPIENT OFFICIAL	19A. DATE
AGENCY USE ONLY			
20. ACCOUNTING CLASSIFICATION CODES FISCAL FUND BUD. DIV YEAR CODE ACT. OFC. REG. SUB. POMS AMOUNT X C 75 60 00 00 384213		21. 1735CT0305	

OJP FORM 4000/2 (REV. 5-87) PREVIOUS EDITIONS ARE OBSOLETE.

OJP FORM 4000/2 (REV. 4-88)



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National Institute of Justice

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PROJECT NUMBER 2009-IJ-CN-K009

AWARD DATE 09/29/2009

SPECIAL CONDITIONS

1. The recipient agrees to comply with the financial and administrative requirements set forth in the current edition of the Office of Justice Programs (OJP) Financial Guide.
2. The recipient acknowledges that failure to submit an acceptable Equal Employment Opportunity Plan (if recipient is required to submit one pursuant to 28 C.F.R. Section 42.302), that is approved by the Office for Civil Rights, is a violation of its Certified Assurances and may result in suspension or termination of funding, until such time as the recipient is in compliance.
3. The recipient agrees to comply with the organizational audit requirements of OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations, and further understands and agrees that funds may be withheld, or other related requirements may be imposed, if outstanding audit issues (if any) from OMB Circular A-133 audits (and any other audits of OJP grant funds) are not satisfactorily and promptly addressed, as further described in the current edition of the OJP Financial Guide, Chapter 19.
4. Recipient understands and agrees that it cannot use any federal funds, either directly or indirectly, in support of the enactment, repeal, modification or adoption of any law, regulation or policy, at any level of government, without the express prior written approval of OJP.
5. The recipient must promptly refer to the DOJ OIG any credible evidence that a principal, employee, agent, contractor, subgrantee, subcontractor, or other person has either 1) submitted a false claim for grant funds under the False Claims Act; or 2) committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity, or similar misconduct involving grant funds. This condition also applies to any subrecipients. Potential fraud, waste, abuse, or misconduct should be reported to the OIG by -

mail:

Office of the Inspector General
U.S. Department of Justice
Investigations Division
950 Pennsylvania Avenue, N.W.
Room 4706
Washington, DC 20530

e-mail: oig.hotline@usdoj.gov

hotline: (contact information in English and Spanish): (800) 869-4499

or hotline fax: (202) 616-9881

Additional information is available from the DOJ OIG website at www.usdoj.gov/oig.



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PROJECT NUMBER 2004-D-CX-K008

AWARD DATE 09/23/2004

SPECIAL CONDITIONS

6. Due to the substantial Federal involvement contemplated in completion of this project, the National Institute of Justice (NIJ) has elected to enter into a cooperative agreement rather than a grant. This decision is based on NIJ's ongoing responsibility to assist and coordinate projects that deal with research, technology development, and assessment. NIJ will provide input and re-direction to the program as needed, in consultation with the Recipient, and will actively monitor the project by methods including but not limited to ongoing contact with the Recipient.

In meeting programmatic responsibilities, NIJ and the Recipient will be guided by the following principles: responsibility for the day-to-day operations of this project rests with the Recipient in implementation of the Recipient's approved proposal, the Recipient's approved budget, and the terms and conditions specified in this award. Responsibility for general oversight and re-direction of the project, if necessary, rests with NIJ.

Where appropriate, the Recipient will act jointly with NIJ in accomplishing the following tasks:

- a. determination of research design,
- b. design of data collection instruments, and/or
- c. determination of sites for research.

Data collection, analysis, and interpretation of data and analyses are the responsibility of the Recipient.

In addition to its programmatic responsibilities, the Recipient agrees to provide necessary information as requested by the Office of Justice Programs and NIJ. Information requests may include, but are not limited to, specific submissions related to: performance, including measurement of project outputs/outcomes; meeting performance specifications; developmental decision points; changes in project scope or personnel; budget modifications; and/or coordination of related projects.



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PROJECT NUMBER 2009-IJ-CN-K009

AWARD DATE 09/23/2009

SPECIAL CONDITIONS

7. Within 45 days after the end of any conference, meeting, retreat, seminar, symposium, training activity, or similar event funded under this award, and the total cost of which exceeds \$20,000 in award funds, the recipient must provide the program manager with the following information and itemized costs:

- 1) name of event;
- 2) event dates;
- 3) location of event;
- 4) number of federal attendees;
- 5) number of non-federal attendees;
- 6) costs of event space, including rooms for break-out sessions;
- 7) costs of audio visual services;
- 8) other equipment costs (e.g., computer fees, telephone fees);
- 9) costs of printing and distribution;
- 10) costs of meals provided during the event;
- 11) costs of refreshments provided during the event;
- 12) costs of event planner;
- 13) costs of event facilitators; and
- 14) any other costs associated with the event.

The recipient must also itemize and report any of the following attendee (including participants, presenters, speakers) costs that are paid or reimbursed with cooperative agreement funds:

- 1) meals and incidental expenses (M&IE portion of per diem);
- 2) lodging;
- 3) transportation to/from event location (e.g., common carrier, Privately Owned Vehicle (POV)); and,
- 4) local transportation (e.g., rental car, POV) at event location.

Note that if any item is paid for with registration fees, or any other non-award funding, then that portion of the expense does not need to be reported.

OJP will provide further instructions regarding the submission of this data at a later time.



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PROJECT NUMBER 2669-D-CX-K009

AWARD DATE 09/25/2009

SPECIAL CONDITIONS

8. The recipient acknowledges that the Office of Justice Programs reserves a royalty-free, non-exclusive, and irrevocable license to reproduce, publish, or otherwise use, and authorize others to use (in whole or in part, including in connection with derivative works), for Federal purposes: (1) the copyright in any work developed under an award or subaward; and (2) any rights of copyright to which a recipient or subrecipient purchases ownership with Federal support.

The recipient acknowledges that the Office of Justice Programs has the right to (1) obtain, reproduce, publish, or otherwise use the data first produced under an award or subaward; and (2) authorize others to receive, reproduce, publish, or otherwise use such data for Federal purposes.

It is the responsibility of the recipient (and of each subrecipient, if applicable) to ensure that this condition is included in any subaward under this award.

9. Patents and Inventions.

The clauses at 37 C.F.R. section 401.14 (together, the "Patents Rights Clause") are incorporated by reference, with the following modifications:

(1) Where italicized, the terms "contract," "contractor," and "contracting officer" are replaced, respectively, by the terms "award," "award recipient," and "OJP program manager";

(2) Patent Rights Clause paragraph (f) is modified by adding the following at the end:

"(5) The award recipient agrees to provide a report prior to the close out of the award listing all subject inventions or stating that there were none.

(6) The award recipient agrees to provide, upon request, the filing date, patent application number and title; a copy of the patent application; and patent number and issue date for any subject invention in any country in which the award recipient has applied for a patent."

(3) Patent Rights Clause paragraph (g) is modified to read as follows:

"(g) Subawards and Subcontracts

"The award recipient will include this Patent Rights Clause, suitably modified to identify the parties, in all subawards and subcontracts, regardless of tier, for experimental, developmental, or research work. The subaward recipient or subcontractor will retain all rights provided for the award recipient in this clause, and the award recipient will not, as a part of the consideration for awarding the subaward or subcontract, obtain rights in the subaward recipient's or subcontractor's subject inventions."; and

(4) Patent Rights Clause paragraph (h) is modified to read as follows:

"(h) Communications

"Communications on matters relating to this Patent Rights Clause should be directed to the General Counsel, Office of Justice Programs, United States Department of Justice."

With respect to any subject invention in which the award recipient, or a subaward recipient or subcontractor, retains title, the Federal government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.



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PROJECT NUMBER 2009-4-CX-R099

AWARD DATE

09/23/2009

SPECIAL CONDITIONS

10. To assist in information sharing, the award recipient shall provide the grant manager with a copy of all interim and final reports and proposed publications (including those prepared for conferences and other presentations) resulting from this agreement. Submission of such materials prior to or simultaneous with their public release aids NIJ in responding to any inquiries that may arise. Any publications (written, visual, or sound) - excluding press releases and newsletters - whether published at the recipient's or government's expense, shall contain the following statement: This project was supported by Award No. _____ awarded by the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice. The opinions, findings, and conclusions or recommendations expressed in this publication/program/exhibition are those of the author(s) and do not necessarily reflect those of the Department of Justice.

NIJ defines publications as any planned, written, visual or sound material substantively based on the project, formally prepared by the award recipient for dissemination to the public.

11. The recipient shall transmit to the grant manager copies of all official grant-related press releases at least ten (10) working days prior to public release. Advance notice permits time for coordination of release of information by NIJ where appropriate and to respond to press or public inquiries.
12. Pursuant to 28 C.F.R. Part 18, OJP may suspend or terminate funding under this award, at any time before the completion of the project funded by this award, for the recipient's failure to comply with these special conditions or with the project's goals, plans and methodology set forth in the approved application. The recipient will be unable to draw down funds until OJP determines that the recipient is in compliance.
13. The recipient agrees to submit quarterly financial status reports to OJP. At present, these reports are to be submitted on-line (at <https://grants.ojp.usdoj.gov>) using Standard Form SF 269A, not later than 45 days after the end of each calendar quarter. The recipient understands that after October 15, 2009, OJP will discontinue its use of the SF 269A, and will require award recipients to submit quarterly financial status reports within 30 days after the end of each calendar quarter, using the government-wide Standard Form 425 Federal Financial Report form (available for viewing at www.whitehouse.gov/omb/grants/standard_forms/ffr.pdf). Beginning with the report for the fourth calendar quarter of 2009 (and continuing thereafter), the recipient agrees that it will submit quarterly financial status reports to OJP on-line (at <https://grants.ojp.usdoj.gov>) using the SF 425 Federal Financial Report form, not later than 30 days after the end of each calendar quarter. The final report shall be submitted not later than 90 days following the end of the grant period.
14. The recipient shall submit semiannual progress reports. Progress reports shall be submitted within 30 days after the end of the reporting periods, which are June 30 and December 31, for the life of the award. These reports will be submitted to the Office of Justice Programs, on line-through the Internet at <https://grants.ojp.usdoj.gov/>.
15. The recipient agrees to submit a final report at the end of this award documenting all relevant project activities during the entire period of support under this award. This report will include detailed information about the project(s) funded, including, but not limited to, information about how the funds were actually used for each purpose area, data to support statements of progress, and data concerning individual results and outcomes of funded projects reflecting project successes and impacts. The final report is due no later than 90 days following the close of this award period or the expiration of any extension periods. This report will be submitted to the Office of Justice Programs, on line-through the Internet at <https://grants.ojp.usdoj.gov/>.



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PROJECT NUMBER 2004-JI-CX-K009

AWARD DATE

09/23/2009

SPECIAL CONDITIONS

16. The award recipient shall provide all products specified in the proposal. In addition, ninety (90) days prior to the end of the project period, the recipient shall submit to NIJ the following documents in electronic format: (1) A Draft Final Technical Report. The Draft Final Technical Report shall describe the project's activities in sufficient detail to permit replication of the design, including a review of relevant literature, methods including detailed description of data collection and analysis procedures, modifications to or problems with the original research design, findings, and conclusions. (2) A 2,500 to 4,000 word Draft Summary suitable for publication and/or dissemination which describes results, findings and conclusions from the project, including implications for criminal justice operations. (3) A Draft 600 word Abstract. The abstract should serve as a succinct and accurate description of the project. Research goals and objectives, research design, and methods for achieving the goals and objectives should be concisely described. The abstract should include statement of purpose, description of research subjects, methods, results and conclusions.

The Draft Final Technical Report, Abstract and Summary will, with few exceptions, be submitted to peer review. The recipient shall be responsive to peer reviewers' comments and other issues raised in the review and understand that the review process has implications with respect to publication and dissemination decisions made by NIJ. The recipient shall make appropriate revisions to these documents based on the reviewers' comments and/or any comments from NIJ.

17. The recipient must deliver to NIJ, by the termination of the award period, an electronic copy of the Final Technical Report, Abstract and Summary.

Final Technical Reports, Abstracts, and Summaries should be in Microsoft Word or Corel WordPerfect format. Graphic files should be provided in Adobe Illustrator, Macromedia Freehand, Corel Draw, or Delta Graph. Included images should adhere to GIF, JPEG, PICT, and TIFF format standards, with GIF and PICT images preferred.

Final Technical Reports are, in general, made available to the public through the National Criminal Justice Reference Service (NCJRS) and may be electronically posted in the NCJRS virtual library.

18. Recipient acknowledges and agrees that for purposes of performing work under this award, it, and any of its sub-grantees, are bound by all applicable Federal laws and regulations, including the regulations specifically identified in the Standard Assurances Form located at www.ojp.usdoj.gov/forms.htm. Failure to adhere to these laws and regulations may be considered a significant failure to comply with the terms and conditions of this grant award.
19. OJP reserves the right to conduct periodic on-site monitoring visits upon reasonable notice to the grantee (at least fourteen days) prior to each such site visit.
20. The Project Director and key program personnel designated in the application shall be replaced only for compelling reasons and with the concurrence of OJP. OJP will not unreasonably withhold concurrence. All successors to key personnel must be approved, and such approval is contingent upon submission of appropriate information, including, but not limited to, a resume. Changes in other program personnel require only notification to OJP and submission of resumes, unless otherwise designated in the award document.
21. No portion of these federal grant funds shall be used towards any part of the annual cash compensation of any employee of the grantee whose total annual cash compensation exceeds 110% of the maximum salary payable to a member of the Federal government's Senior Executive Service at an agency with a Certified SES Performance Appraisal System for that year.
- This prohibition may be waived on an individual basis at the discretion of the Assistant Attorney General for OJP.
22. Approval of this award does not indicate approval of any consultant rate in excess of \$450 per day. A detailed justification must be submitted to and approved by the Office of Justice Programs (OJP) program office prior to obligation or expenditure of such funds.



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PROJECT NUMBER 2009-B-CX-R009

AWARD DATE

09/23/2009

SPECIAL CONDITIONS

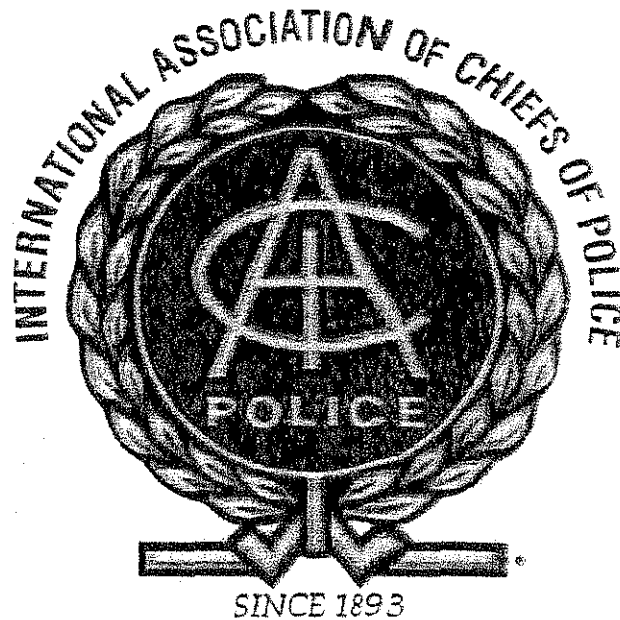
23. The recipient agrees to comply with all Federal, State, and local environmental laws and regulations applicable to the development and implementation of the activities to be funded under this award.

Categorical Exclusions: Based upon the information provided by the recipient in its application for these funds, NIJ has determined and the recipient understands that the proposed activities meet the definition of a categorical exclusion, as defined in the Department of Justice Procedures for Implementing the National Environmental Policy Act found at 28 CFR Part 61. A categorical exclusion is an action that because of the proposed activities' very limited and predictable potential environmental impacts, both on an individual and a cumulative basis, does not have a significant impact on the quality of the human environment. Consequently, no further environmental impact analysis is necessary under the requirements of the National Environmental Policy Act, 42 U.S.C. 4321, for these categorically excluded activities.

Modifications: Throughout the term of this award, the recipient agrees that for any activities that are the subject of this categorical exclusion, it will inform NIJ of any change(s) that it is considering making to the previously assessed activities that may be relevant to the environmental impacts of the activities. The recipient will not implement a proposed change until NIJ, with the assistance of the recipient, has completed any applicable environmental impact review requirements necessitated by the proposed change and NIJ has concurred in the proposed change. This approval will not be unreasonably withheld as long as any requested modification(s) is consistent with eligible program purposes and found acceptable under an NIJ conducted environmental impact review process.

24. The recipient may not obligate, expend or draw down funds until the Office of the Chief Financial Officer (OCFO) has approved the budget and budget narrative and a Grant Adjustment Notice (GAN) has been issued to remove this special condition.
25. Of the total award amount, \$5,000 may not be obligated, expended, or drawn down until the grantee submits the final research/technical report, data, and associated artifacts required by the special conditions of this award. The draft final report must be accepted by NIJ as meeting usual scientific standards for form and content. Required data and any associated artifacts must be accepted by NIJ as satisfying the special conditions of this award. Approval will be provided through a Grant Adjustment Notice that will clear this special condition.
26. The recipient agrees not to obligate, expend, or draw down any funds until documentation verifying the recipient's compliance with revision of the statement of work in collaboration with the program office has been submitted to the OJP program office, the OJP OGC has concurred in the decision, and a Grant Adjustment Notice has been issued removing this condition.
27. The recipient agrees expeditiously to obtain active registration with the Central Contractor Registration (CCR) database, and to notify the program office in writing of its registration. Following satisfaction of this requirement, a Grant Adjustment Notice will be issued to remove this special condition.

Development of Video Standards



A Proposal to the
National Institute of Justice
Advancing Criminal Justice Policy, Practice, and
Technology
CFDA No. 16.560

1. Abstract

Law enforcement is increasingly dependent upon technology. Evidence collection and analysis, communications, records management, speed enforcement, and even vehicle maintenance have become highly specialized and technology-intensive disciplines. However, inconsistent performance in any technology can greatly impact its value to law enforcement. This is especially true with technologies that directly impact evidence in a criminal case.

Video has quickly become one of the most abundant forms of evidence in police investigations. The use of in-car cameras, license plate recognition systems (LPR), and interview room recordings has increased substantially in the last decade. Unfortunately, to date there are no uniform standards governing the technical performance of these devices, leaving agencies with only the vendors' unsubstantiated claims as the basis to make their purchasing decisions, and leaving the courts with little guidance as to the reliability of video and other images considered *digital multimedia evidence* (DME).

This proposed project will develop a separate set of performance benchmarks for each of the aforementioned video technologies, based on their individual use case, with the goal of establishing an NIJ standard. Subject matter experts will be brought together to form work groups that will identify technical specifications appropriate for the specific tasks performed by each technology. Though all these technologies employ video imaging, each technology is unique, so independent working groups will be tasked with developing metrics for LPR, interview room recorders and in-car cameras. However, the

work groups would be encouraged to collaborate and leverage ongoing research being conducted by other public policy and scientific organizations.

The International Association of Chiefs of Police is uniquely positioned to accomplish the goals of this solicitation. With over 22,000 members worldwide, the IACP represents the vast majority of users of these technologies. In addition, the IACP has been involved in the development and maintenance of enforcement technology standards for years; the IACP has overseen the testing of radar speed measurement devices for over two decades.

2. Table of Contents

1. Abstract

2. Table of Contents

3. Main Body

3.1 Purpose, goals and objectives

3.2 Review of relevant literature

3.3 Project design and methods

3.4 Implications for criminal justice policy and practice in the United States

3.5 Management plan and organization

3.6 Dissemination strategy

4. Budget Narrative

5. Key Personnel

6. Project Timeline

7. Appendices

3. Main Body

3.1 Purpose, goals and objectives

The purpose of this project is to research video recording systems in use by law enforcement agencies to facilitate the establishment of a set of measureable performance benchmarks to provide guidance to agencies and the courts. Law enforcement is increasingly deploying video technology to assist in the documentation of violations, police interactions with the public, and interviews of suspects and witnesses in criminal investigations. Because there are no established technical standards for the image and/or sound recording performance of these devices, police have no reliable information to assess the products in the marketplace. Without standards vetted and generally accepted by the relevant scientific community, the reliability and accuracy of recorded evidence presented in court may be vulnerable to challenges under *Daubert* and *Frye*.

This project will cover three specific categories of video systems used by law enforcement:

- In-car cameras (ICC)
- Interview room recorders (IVR)
- License plate recognition systems (LPR)

In-car camera systems are widely employed to document police interaction with the public and to collect evidence of violations. Since the earliest installations over 30 years ago, in-car camera systems have proven to be valuable tools that help protect both officers and the public. An IACP study of state police agencies found that following an investigation by agency personnel, in 93% of misconduct complaints filed against an officer following a traffic stop the officer was exonerated when the video of the

encounter was reviewed¹. In-car video has been invaluable in countless investigations, providing clear evidence of a wide range of offenses, from speeding and unsafe driving to the murder of a police officer. However, technically savvy defense attorneys are mounting sophisticated challenges to the technology, and juries are expecting the clear images and sounds they are accustomed to seeing on television. Establishing a National Institute of Justice (NIJ) performance standard will provide all stakeholders – the police, the courts, and the public – with assurance that compliant in-car camera systems are capable of accurate and reliable recording of images and sounds.

Long practiced in the United Kingdom, Canada, as well as many domestic law enforcement agencies, the recording of interviews of suspects and witnesses is rapidly increasing in the United States. A growing number of state governments are passing legislation requiring the recording of custodial interviews of suspects in at least some categories of major crimes.

A 2004 study on the use of interview recordings found, "... recordings dramatically reduce the number of defense motions to suppress statements and confessions. The record is there for defense lawyers to see and evaluate: if the officers conduct themselves properly during the questioning, there is no basis to challenge their conduct or exclude the defendants' responses from evidence. Officers are spared from defending themselves against allegations of coercion, trickery, and perjury during hostile cross examinations."²

¹ *The Impact of Video Evidence on Modern Policing*, IACP, 2005

² *Police Experiences with Recording Custodial Interrogations*, Northwestern University School of Law Center on Wrongful Convictions, Thomas P. Sullivan, 2004

How effective the recordings are, however, may depend on the quality of the audio and video captured. The establishment of a minimum performance standard will help ensure the reliability of valuable evidence.

License plate recognition technology is possibly the fastest growing segment of the police technology market. These devices can capture hundreds of images of license plates per hour -- often while the police car, the target vehicle, or both are moving at highway speeds -- scanning the images with optical character recognition (OCR) software and comparing the alpha-numeric information with a "hot list" of stolen or wanted vehicles. Because of the very nature of their function, image clarity and accuracy of the OCR translation of the images are critical to the reliability of the data collected. A standard for the performance of LPR systems will help assure agencies and the courts that they are collecting accurate information.

The long term goal of this project is to identify the specific performance parameters that are critical to each video technology's function, develop metrics to accurately measure their performance, and establish protocols for the testing of the equipment by an independent laboratory. The process of developing a standard will be essentially the same for all three technologies, though many of the performance metrics will vary by the function of the device categories.

This project has the following specific objectives: *Objective 1)* Form a working group for each technology. The working group will include technology experts, law enforcement investigators, and representatives of the courts. *Objective 2)* Identify existing or ongoing research and/or standards applicable to the technology. *Objective 3)* Working groups will meet to define the performance requirements specific to each

technology. *Objective 4)* Test procedures will be developed to measure the performance of the devices. *Objective 5)* A draft standard for each technology will be published for public comment. *Objective 6)* The work groups will develop a user's guide to help law enforcement executives better understand the process and to assist them in the selection of technology appropriate for their agency.

3.2 Review of relevant literature

While there are many publications that discuss policy issues related to video surveillance systems, there is little literature that addresses video quality, especially in the context of law enforcement applications. One important document is *In-Car Video Camera Systems Performance Specifications: Digital Video Systems Module*, published in November 2008 by the International Association of Chiefs of Police. The publication identifies performance benchmarks for image quality, physical integrity, officer safety concerns, and other technical requirements for mobile digital video systems. This document was the foundation of existing standards efforts for in-car cameras by NIJ. Many of the specifications could also apply to LPR and IVR systems. Several Scientific Working Group on Imaging Technology (SWGIT) documents, in particular, *Recommendations and Guidelines for Using Closed-Circuit Television Security Systems in Commercial Institutions*, *Best Practices for Archiving Digital and Multimedia Evidence (DME) in the Criminal Justice System*, and *Digital Imaging Technology Issues for the Courts*, discuss evidentiary use of video and image files, which are relevant to all technologies within the scope of this project. The Law Enforcement and Emergency Services Video Association (LEVA) *Best Practices for the Acquisition of Digital*

Multimedia Evidence is another excellent resource applicable to all forms of recorded evidence.

In reference to interview room recording, the Center for Wrongful Convictions at the Northwestern University College of Law released *Police Experiences with Recording Custodial Interrogations* in 2004. The document discusses the value of recorded interviews to police and the courts, but does not directly address performance specifications of recording devices.

In addition to these published documents, the Institute for Telecommunication Services, the research and engineering branch of the U. S. Department of Commerce, National Telecommunications and Information Administration in Boulder, Colorado has formed a technical working group to assess image quality needs of law enforcement and emergency services. The Video Quality in Public Safety (VQIPS) working group is collecting data on specific use cases of video equipment used in field applications. IACP is represented in the work group.

3.3 Project design and methods

IACP is ideally situated to lead this project. With over 22,000 members in more than 100 countries, the IACP has the expertise and resources to develop and deliver training to the justice community in a uniform, consistent, and professional manner. This project will be comprised of working groups of law enforcement investigators, forensic video analysts, policy makers, technical experts, and representatives of the justice system to identify key performance requirements of each of the technologies. Each work group will include at least one member experienced in designing and performing tests of

electronic equipment. We will leverage the knowledge and experience of IACP membership through the various committees and sections, including the Forensics Committee, the Communications and Technology Committee, and the Law Enforcement Information Management Section.

The three work groups will view a range of audio/video recordings from actual systems deployed in the field and review any existing standards or performance metrics that may be applicable. The goal is to develop measurable performance benchmarks and describe testing procedures. There will be a minimum of four meetings of the LPR and IRV work groups; because substantial work has already been completed on the ICC standard, only two meetings will most likely be required. Between meetings the work groups will collaborate via email and, if needed, teleconference. Work groups will also be encouraged to collaborate with other projects both within the IACP and in the larger technology community, such as VQIPS, LEVA, and SWGIT.

Performance metrics will be determined for all critical functions of the devices. The work groups will identify the functions that could have a substantive impact on the accuracy and reliability of the devices, which could include image resolution, compression, exposure latitude, lens distortion, audio quality, data security, electrical safety, operational functions (switches, buttons, and other user-adjustable functions), data interoperability, or other functions.

Manufacturers and vendors of systems that would be subject to the standard will not be permitted to participate directly in the standards development; however, when completed, and in accordance with applicable NIJ and federal guidelines, a draft of the

standard will be released to the public for a limited comment period. The responses will be reviewed and the work groups will take appropriate action.

Upon the completion of the standard, the work groups will develop a User's Guide to help law enforcement agencies better understand how to use the standard when acquiring technology. The group will also work with NIJ to establish testing and compliance procedures to guide manufacturers interested in voluntarily submitting their systems for testing.

3.4 Implications for criminal justice policy and practice in the United States

Video has quickly become one of the most ubiquitous forms of evidence in police investigations. The use of in-car cameras, license plate recognition systems (LPR), and interview room recordings has increased substantially in the last decade. Unfortunately, to date there are no uniform standards governing the technical performance of these devices, leaving agencies with only the vendors' unsubstantiated claims as the basis to make their purchasing decisions, and leaving the courts with little guidance as to the reliability of video and other images considered *digital multimedia evidence* (DME).

The establishment of performance standards will help law enforcement agencies identify reliable and accurate technology. The police, the courts, and the public will all benefit from the knowledge that these devices have undergone testing and meet or exceed the performance standard.

3.5 Management plan and organization

For the purposes of continuity and support, IACP will assign an existing program manager to oversee and manage this effort. In addition, a project manager will be hired fulltime to assist the program manager with all programmatic deliverables, coordinating all meetings and trainings of all three standards work groups, composing communications, and coordinating outreach to the law enforcement and justice community.

3.6 Dissemination strategy

The completed standards will be disseminated widely, with a notice in the Federal Register, announcement on the IACP web site, presentations and distribution at the IACP Annual Conference and/or Law Enforcement Information Management Conference and other appropriate law enforcement events and publications.

4. Budget Narrative

The total cost of this proposal is \$324,732. It includes the development of three standards: License Plate Recognition (LPR), Interview Room Recorders (IVR), and the completion of the In-Car Camera (ICC) standard, already in development.

The project will be overseen by a full-time Project Manager at a salary of [REDACTED], a part-time Project Coordinator [REDACTED], and other administrative staff [REDACTED]. Fringe benefits are calculated at [REDACTED] of direct labor [REDACTED]. The bulk of the remaining costs are related to work group meetings; a minimum of ten total meetings will take place over the 12 month span of this project, most likely in the Washington, b4, b6

D.C. region. The ICC work group will meet only twice to complete work already underway. The LPR and IVR groups will meet at least 4 times each.

Each group will be comprised of eight members. Travel costs for each individual are estimated as follows:

Airfare:	\$500 per meeting
Lodging:	\$209/night + \$20 taxes x 2 nights per meeting
Per Diem	\$64/day x 3 days per meeting
Taxi/parking	\$50 per meeting

Food & Beverage for each meeting is estimated at \$500/day. Based on the cost estimates above, the costs for eight members of the ICC standard group will cost approximately \$20,200 for two meetings, and \$40,400 for four meetings each of the LPR and IVR groups, or a total of \$101,000.

Additional costs include \$2,750 in capital expenditures for a laptop computer, \$1,800 for general supplies, \$1,350 for telephone and teleconferencing services, \$1,200 for printing and materials, \$5,745 for staff office and \$10,750 facility rental for 10 meetings.

When possible, work groups of the three standards will meet in the same location on successive days to minimize travel costs for individuals who may be on more than one of the work groups.

5. Key Personnel

A project Manager will be hired to oversee the project. Other key personnel will include Grant Fredericks, forensic video analyst and technical expert; [REDACTED] bu

prosecutor; and Mark Visbal, expert in technical standards for video security industry.

Other panel members will be selected from leading technical organizations and law enforcement agencies.

6. Project Timeline

Month

	1	2	3	4	5	6	7	8	9	10	11	12
Hire Project Manager												
Identify Work Group Members												
ICC Meeting												
LPR Meeting												
IVR Meeting												
Draft Release												
Final Publication							ICC					IRV LPR

7. Appendices

encounter was reviewed¹. In-car video has been invaluable in countless investigations, providing clear evidence of a wide range of offenses, from speeding and unsafe driving to the murder of a police officer. However, technically savvy defense attorneys are increasingly mounting sophisticated challenges to the technology, and juries are expecting the clear images and sounds they are accustomed to seeing on television in their homes. Establishing a National Institute of Justice performance standard will provide all stakeholders – the police, the courts, and the public – with assurance that compliant in-car camera systems are capable of accurate and reliable recording of images and sounds.

Long practiced in the United Kingdom, Canada, as well as many domestic law enforcement agencies, the recording of interviews of suspects and witnesses is rapidly increasing in the United States. A growing number of state governments are passing legislation requiring the recording of custodial interviews of suspects in at least some categories of major crimes.

A 2004 study on the use of interview recordings found, “Experience shows that recordings dramatically reduce the number of defense motions to suppress statements and confessions. The record is there for defense lawyers to see and evaluate: if the officers conduct themselves properly during the questioning, there is no basis to challenge their conduct or exclude the defendants’ responses from evidence. Officers are spared from defending themselves against allegations of coercion, trickery, and perjury during hostile cross examinations.”²

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NIJ Solicitation: Advancing Criminal Justice Policy, Practice, and Technology

Submitted by International Association of Chiefs of Police, July 2009

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IACP is ideally situated to lead this project. With over 22,000 members in 103 different countries, the IACP has the expertise and resources to develop and deliver training to the justice community in a uniform, consistent, and professional manner. This project will be comprised of working groups of law enforcement investigators, forensic video analysts, policy makers, technical experts, and representatives of the justice system to identify key performance requirements of each of the technologies. Each work group will include at least one member experienced in designing and performing tests of electronic equipment. We will leverage the knowledge and experience of IACP

membership through the various committees and sections, including the Forensics Committee, the Communications and Technology Committee, and the Law Enforcement Information Management Section.

The three work groups will view a range of audio/video recordings from actual systems deployed in the field and review any existing standards or performance metrics that may be applicable. The goal is to develop measurable performance benchmarks and describe testing procedures. There will be a minimum of six meetings of the IRV work group. Because substantial work has already been completed on the ICC standard, most likely only three meetings will be required. Between meetings work groups will collaborate via email and, if needed, teleconference. Work groups will also be encouraged to collaborate with other projects both within the IACP and in the larger technology community, such as VQIPS, LEVA, and SWGIT.

The most complex technology, LPR, will likely require a great deal of additional research and more meetings than the ICC or IVR. However, much of the work on video systems completed by the ICC and IVR groups will be applicable to LPR; for that reason, the LPR group will begin work in the last quarter of FY 2010, with two meetings before the end of the year. The LPR standard will continue in a second phase of the project in FY 2011.

Performance metrics will be determined for all critical functions of the devices. The work groups will identify the functions that could have a substantive impact on the accuracy and reliability of the devices, which could include image resolution, compression, exposure latitude, lens distortion, audio quality, data security, electrical

safety, operational functions (switches, buttons, and other user-adjustable functions), data interoperability, or other functions.

Manufacturers and vendors of systems that would be subject to the standard will not be permitted to participate directly in the standards development; however, when completed, and in accordance with applicable NIJ and federal guidelines, a draft of the standard will be released to the public for limited comment period. The responses will be reviewed and the work groups will take appropriate action.

Upon the completion of the standard, the work groups will develop a User's Guide to help law enforcement agencies better understand how to use the standard when acquiring technology. The group will also work with NIJ to establish testing and compliance procedures to guide manufacturers interested in voluntarily submitting their systems for testing.

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Submitted by International Association of Chiefs of Police, July 2009
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For the purposes of continuity and support, IACP will assign an existing program manager to oversee and manage this effort. In addition, a project manager will be hired fulltime to assist the program manager with all programmatic deliverables, coordinating all meetings and trainings of all three standards work groups, composing communications, and coordinating outreach to the law enforcement and justice community.

3.6 Dissemination strategy

The completed standards will be disseminated widely, with a notice in the Federal Register, announcement on the IACP web site, presentations and distribution at the IACP Annual Conference and/or Law Enforcement Information Management Conference and other appropriate law enforcement events and publications.

4. Budget Narrative

The total cost of this proposal is \$384,213. It includes the development of three standards; License Plate Recognition (LPR), Interview Room Recorders (IVR), and the completion of the In-Car Camera (ICC) standard, already in development.

The project will be overseen by a full-time Project Manager at a salary of [REDACTED], a part-time Project Coordinator [REDACTED], and other administrative staff [REDACTED]. Fringe benefits are calculated at [REDACTED] of direct labor ([REDACTED]). The bulk of the remaining costs are related to work group meetings; a minimum of fourteen total meetings will take place over the 12 month span of this project, most likely in the Washington, D.C. region. The ICC work group will meet up to six times to complete work already underway. The IVR group will meet at least six times, and two initial meetings of the LPR group will be scheduled in the fourth quarter of FY 2010.

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To reduce travel costs, meetings will be planned in the Washington, D.C. region where a number of participants are located. Therefore, for budgeting purposes it is estimated that for each meeting, six participants will travel to the meeting location. Travel costs for each individual are estimated as follows:

Airfare:	\$500 per meeting
Lodging:	\$209/night + \$20 taxes x 2 nights per meeting
Per Diem	\$64/day x 3 days per meeting
Taxi/parking	\$50 per meeting
Food & Beverage	\$500/meeting (total for all meeting participants)

Based on the cost estimates above, the travel costs for six members of the ICC standard group will cost approximately \$46,200 for 6 meetings, \$46,200 for six meetings

of the JVR group, and \$15,400 for the two initial meetings of the LPR group, a total of \$107,800.

Additional costs include \$2,000 in capital expenditures for a laptop computer, \$900 for general supplies, \$1,050 for telephone and teleconferencing services, \$1,719 for printing and postage, \$5,520 for staff office rental and \$4,500 facility rental for meetings if IACP meeting space is unavailable. A contractor will be engaged to facilitate the meetings and provide technical support, budgeted at 80 days at \$450 per day, a total of \$36,000.

5. Key Personnel

A project Manager will be hired to oversee the project. Other key personnel may include Grant Fredericks, forensic video analyst and technical expert: [REDACTED], prosecutor; and [REDACTED], expert in technical standards for the security industry. Other panel members will be selected from leading technical organizations and law enforcement agencies.

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6. Project Timeline

	<i>Month</i>											
	1	2	3	4	5	6	7	8	9	10	11	12
Identify Work Group Members												
ICC Meeting												
LPR Meeting												
IVR Meeting												
Draft Release								ICC	IVR			
Final Publication											ICC	IVR

International Association of Chiefs of Police

Proposed Budget: October 1, 2009 - September 30, 2010

Video Standards Project

Expense Description				Subtotal	Total
A. PERSONNEL					\$84,480
Director, State and Provincial Police Division	\$	[REDACTED]	[REDACTED]	[REDACTED]	
Senior Program Manager	\$	[REDACTED]	[REDACTED]	[REDACTED]	
Program Manager	\$	[REDACTED]	[REDACTED]	[REDACTED]	
Project Manager	\$	[REDACTED]	[REDACTED]	[REDACTED]	
Project Coordinator	\$	[REDACTED]	[REDACTED]	[REDACTED]	
B. FRINGE					\$42,240
C. TRAVEL					
D. EQUIPMENT					\$2,000
1 laptop computer for use IACP staff @ \$2,000				\$2,000	
E. SUPPLIES					\$900
General office supplies @ \$75 per month x 12 months				\$900	
F. CONTRACTUAL					\$143,800
Consultant to facilitate ICC meetings, prepare documents @\$450/day x 35 days				\$15,750	
Consultant to facilitate IVR meetings, prepare documents @\$450/day x 35 days				\$15,750	
Consultant to facilitate LPR meetings, prepare documents @\$450/day x 10 days				\$4,500	
<i>In-Car Camera Work Group Meetings (6)</i>					
<i>(6 individuals: 5 SMEs, 1 Consultant)</i>					
Airfare: \$500/trip x 6 individuals x 6 meetings				\$18,000	
Lodging: \$209/night + \$20/taxes x 2 nights x 6 individuals x 6 meetings				\$16,488	
Meals and incidentals: \$64/day x 3 days x 6 individuals x 6 meetings				\$6,912	
Ground transportation @ \$50/trip x 6 individuals x 6 trips				\$1,800	
Food & Beverage @ \$500/meeting x 6 meetings				\$3,000	
<i>Interview Room Recorders Work Group Meetings (6)</i>					
<i>(6 individuals: 5 SMEs, 1 Consultant)</i>					
Airfare: \$500/trip x 6 individuals x 6 meetings				\$18,000	
Lodging: \$209/night + \$20/taxes x 2 nights x 6 individuals x 6 meetings				\$16,488	
Meals and incidentals: \$64/day x 3 days x 6 individuals x 6 meetings				\$6,912	
Ground transportation @ \$50/trip x 6 individuals x 6 trips				\$1,800	
Food & Beverage @ \$500/meeting x 6 meetings				\$3,000	

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International Association of Chiefs of Police

Proposed Budget: October 1, 2009 - September 30, 2010

Video Standards Project

Expense Description	Subtotal	Total
<i>LPR Work Group Meetings (2)</i> <i>(6 individuals: 5 SMEs, 1 Consultant)</i> Airfare: \$500/trip x 2 trips x 6 individuals \$6,000 Lodging: \$209/night + \$20/taxes x 2 nights x 6 individuals x 2 meetings \$5,496 Meals and incidentals: \$64/day x 3 days x 6 individuals x 2 meetings \$2,304 Ground transportation @ \$50/trip x 6 individuals x 2 trips \$600 Food & Beverage @ \$500/meeting x 2 meetings \$1,000		
H. OTHER		\$12,789
Communications expenses: Long-distance telephone (phone outreach, fax, etc. @ \$25 per month x 12 months) \$300 Teleconferences (3 @ \$250 ea) \$750		
Meeting Facility & Equipment Rental: (for Work Group Meeting Room Rental) Meetings held at IACP: no facility rental costs 6 meetings held off site @ \$750 facility and A/V each \$4,500 (for IACP Facility Rental for Staff) Cubicle rental @ \$400 per month x 12 months for Project Manager (1 FTE) \$4,800 Cubicle rental @ \$400 per month x 12 months for Project Coordinator (15%) \$720		
Printing costs: General office copying and printing \$969		
Postage costs: Other postage for mailings upon request \$750		
TOTAL DIRECT COSTS		\$286,209
INDIRECT COSTS @ [REDACTED]		\$98,004
TOTAL		\$384,213

	<u>SPDD</u>	<u>SPM</u>	<u>PGMMGR</u>
\$ 124,000.00	\$ 85,000.00	\$ 80,000.00	
2%	5%	20%	
2,480.00	4,250.00	16,000.00	

Fringe Calculation Breakdown:

Payroll Taxes:

FICA	6.20%	153.76	263.50	992.00
Medicare	1.45%	35.96	61.63	232.00
Unemployment Insurance	0.40%	9.92	17.00	64.00

Health, Welfare, and Retirement:

Health Insurance	16.20%	401.76	688.50	2,592.00
Dental Insurance	1.25%	31.00	53.13	200.00
Long-term Disability	0.75%	18.60	31.88	120.00
Short-term Disability	0.74%	18.35	31.45	118.40
AD&D	0.10%	2.48	4.25	16.00
Life Insurance	0.75%	18.60	31.88	120.00
Pension	9.75%	241.80	414.38	1,560.00

Accrued Leave:

Annual Leave	7.41%	183.77	314.93	1,185.60
Holiday Leave	2.50%	62.00	106.25	400.00
Sick Leave	<u>2.50%</u>	62.00	106.25	400.00
	<u>50.00%</u>			

Total	42,240.00	1,240.00	2,125.00	8,000.00
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<u>PRJMGR</u>	<u>PC</u>	<u>Total</u>
\$ 55,000.00	\$ 45,000.00	
100%	15%	
55,000.00	6,750.00	\$ 84,480.00

3,410.00	418.50	5,237.76
797.50	97.88	1,224.96
220.00	27.00	337.92

8,910.00	1,093.50	13,685.76
687.50	84.38	1,056.00
412.50	50.63	633.60
407.00	49.95	625.15
55.00	6.75	84.48
412.50	50.63	633.60
5,362.50	658.13	8,236.80

4,075.50	500.18	6,259.97
1,375.00	168.75	2,112.00
1,375.00	168.75	2,112.00

27,500.00	3,375.00	\$ 42,240.00
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International Association of Chiefs of Police

Proposed Budget: October 1, 2009 - September 30, 2010

Video Standards Project

Expense Description				Subtotal	Total
A. PERSONNEL					\$75,580
Director, State and Provincial Police Division	\$	██████	██	██████	
Senior Program Manager	\$	██████	██	██████	
Program Manager	\$	██████	██	██████	
Project Manager	\$	██████	██	██████	
Project Coordinator	\$	██████	██	██████	
B. FRINGE					\$37,790
C. TRAVEL					\$101,000
<i>In-Car Camera Work Group Meetings (2)</i>					
<i>10 individuals: 8 SMEs, 2 IACP staff (local)</i>					
Airfare: \$500/trip x 1 trip x 8 individuals				\$8,000	
Lodging: \$209/night - \$20/taxes x 2 nights x 8 individuals				\$7,328	
Meals and incidentals: \$64/day x 3 days x 8 individuals				\$3,072	
Ground transportation @ \$50/trip x 8 individuals				\$800	
Food & Beverage @ \$500/day x 1 days x 2 meetings				\$1,000	
<i>Interview Room Work Group Meetings (4)</i>					
<i>10 individuals: 8 SMEs, 2 IACP staff (local)</i>					
Airfare: \$500/trip x 1 trip x 8 individuals				\$16,000	
Lodging: \$209/night + \$20/taxes x 2 nights x 8 individuals				\$14,656	
Meals and incidentals: \$64/day x 3 days x 8 individuals				\$6,144	
Ground transportation @ \$50/trip x 8 individuals				\$1,600	
Food & Beverage @ \$500/day x 1 days x 2 meetings				\$2,000	
<i>License Plate Recognition Work Group Meetings (4)</i>					
<i>10 individuals: 8 SMEs, 2 IACP staff (local)</i>					
Airfare: \$500/trip x 1 trip x 8 individuals				\$16,000	
Lodging: \$209/night - \$20/taxes x 2 nights x 8 individuals				\$14,656	
Meals and incidentals: \$64/day x 3 days x 8 individuals				\$6,144	
Ground transportation @ \$50/trip x 8 individuals				\$1,600	
Food & Beverage @ \$500/day x 1 days x 2 meetings				\$2,000	
D. EQUIPMENT					\$2,750
1 laptop computer for use IACP staff @ \$2,750				\$2,750	
E. SUPPLIES					\$1,800
General office supplies @ \$150 per month				\$1,800	

b4
b6
1

International Association of Chiefs of Police

Proposed Budget: October 1, 2009 - September 30, 2010

Video Standards Project

Expense Description	Subtotal	Total
F. CONTRACTUAL		
H. OTHER		\$19,645
Communications expenses:		
Long-distance telephone (phone outreach, fax, etc. @ \$50 per month)	\$600	
Teleconferences (3 @ \$250 ea)	\$750	
Meeting Facility & Equipment Rental:		
(for Work Group Meeting Room Rental)		
Room rental @ \$1,000 per day x 10 meetings	\$10,000	
A/V rental @ \$75 per day x 10 meetings	\$750	
(for IACP Facility Rental for Staff)		
Cubicle rental @ \$383 per month for the Project Manager (1 FTE)	\$4,596	
Cubicle rental @ \$383 per month for the Project Coordinator (25%)	\$1,149	
Printing costs:		
General office copying and printing @ \$100 per month	\$1,200	
Postage costs:		
Other postage for mailings upon request	\$600	
TOTAL DIRECT COSTS		\$238,565
INDIRECT COSTS @ [REDACTED]		\$86,167
TOTAL		\$324,732



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Cooperative Agreement

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1. RECIPIENT NAME AND ADDRESS (Including Zip Code) The International Association of Chiefs of Police Inc 515 North Washington Street Alexandria, VA 22314		4. AWARD NUMBER: 2007-MU-MU-K004	
		5. PROJECT PERIOD: FROM 09/01/2007 TO 09/30/2009 BUDGET PERIOD: FROM 09/01/2007 TO 09/30/2009	
		6. AWARD DATE 09/30/2008	7. ACTION
1A. GRANTEE IRS/VENDOR NO. 530227813		8. SUPPLEMENT NUMBER 01	Supplemental
		9. PREVIOUS AWARD AMOUNT	\$ 499,957
3. PROJECT TITLE Automatic License Plate Reader (ALPR) Systems: Policy and Operational Guidance for Law Enforcement		10. AMOUNT OF THIS AWARD	\$ 187,800
		11. TOTAL AWARD	\$ 687,757
12. SPECIAL CONDITIONS THE ABOVE GRANT PROJECT IS APPROVED SUBJECT TO SUCH CONDITIONS OR LIMITATIONS AS ARE SET FORTH ON THE ATTACHED PAGE(S).			
13. STATUTORY AUTHORITY FOR GRANT This project is supported under FY08/ND - OS&T General) 42 USC 3721-3723; 6 USC 161-165; 28 USC 530C			
15. METHOD OF PAYMENT PAPRS			
AGENCY APPROVAL		GRANTEE ACCEPTANCE	
16. TYPED NAME AND TITLE OF APPROVING OFFICIAL Jeffrey L. Sedgwick Acting Assistant Attorney General		18. TYPED NAME AND TITLE OF AUTHORIZED GRANTEE OFFICIAL Daniel Rosenblatt Executive Director	
17. SIGNATURE OF APPROVING OFFICIAL 		19. SIGNATURE OF AUTHORIZED RECIPIENT OFFICIAL	19A. DATE
AGENCY USE ONLY			
20. ACCOUNTING CLASSIFICATION CODES FISCAL FUND BUD. DIV. YEAR CODE ACT. OFC. REG. SUB. POMS AMOUNT X C 75 60 00 00 187800		21. H7SSGT0121	

OJP FORM 4000/2 (REV. 5-87) PREVIOUS EDITIONS ARE OBSOLETE.

OJP FORM 4000/2 (REV. 4-88)



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PROJECT NUMBER 2007-MU-MU-R004

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SPECIAL CONDITIONS

1. The recipient agrees to comply with the financial and administrative requirements set forth in the current edition of the Office of Justice Programs (OJP) Financial Guide.
2. The recipient acknowledges that failure to submit an acceptable Equal Employment Opportunity Plan (if recipient is required to submit one pursuant to 28 C.F.R. Section 42.302), that is approved by the Office for Civil Rights, is a violation of its Certified Assurances and may result in suspension or termination of funding, until such time as the recipient is in compliance.
3. The recipient agrees to comply with the organizational audit requirements of OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations, as further described in the current edition of the OJP Financial Guide, Chapter 19.
4. Recipient understands and agrees that it cannot use any federal funds, either directly or indirectly, in support of the enactment, repeal, modification or adoption of any law, regulation or policy, at any level of government, without the express prior written approval of OJP.
5. Due to the substantial Federal involvement contemplated in completion of this project, the National Institute of Justice (NIJ) has elected to enter into a cooperative agreement rather than a grant. This decision is based on NIJ's ongoing responsibility to assist and coordinate projects that deal with research, technology development, and assessment. NIJ will provide input and re-direction to the program as needed, in consultation with the Recipient, and will actively monitor the project by methods including but not limited to ongoing contact with the Recipient.

In meeting programmatic responsibilities, NIJ and the Recipient will be guided by the following principles: responsibility for the day-to-day operations of this project rests with the Recipient in implementation of the Recipient's approved proposal, the Recipient's approved budget, and the terms and conditions specified in this award. Responsibility for general oversight and re-direction of the project, if necessary, rests with NIJ.

Where appropriate, the Recipient will act jointly with NIJ in accomplishing the following tasks:

- a. determination of research design,
- b. design of data collection instruments, and/or
- c. determination of sites for research.

Data collection, analysis, and interpretation of data and analyses are the responsibility of the Recipient.

In addition to its programmatic responsibilities, the Recipient agrees to provide necessary information as requested by the Office of Justice Programs and NIJ. Information requests may include, but are not limited to, specific submissions related to: performance, including measurement of project outputs/outcomes; meeting performance specifications; developmental decision points; changes in project scope or personnel; budget modifications; and/or coordination of related projects.



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SPECIAL CONDITIONS

6. Within 45 days after the end of any conference, meeting, retreat, seminar, symposium, training activity, or similar event funded under this award, and the total cost of which exceeds \$20,000 in award funds, the recipient must provide the program manager with the following information and itemized costs:

- 1) name of event;
- 2) event dates;
- 3) location of event;
- 4) number of federal attendees;
- 5) number of non-federal attendees;
- 6) costs of event space, including rooms for break-out sessions;
- 7) costs of audio visual services;
- 8) other equipment costs (e.g., computer fees, telephone fees);
- 9) costs of printing and distribution;
- 10) costs of meals provided during the event;
- 11) costs of refreshments provided during the event;
- 12) costs of event planner;
- 13) costs of event facilitators; and
- 14) any other costs associated with the event.

The recipient must also itemize and report any of the following attendee (including participants, presenters, speakers) costs that are paid or reimbursed with cooperative agreement funds:

- 1) meals and incidental expenses (M&IE portion of per diem);
- 2) lodging;
- 3) transportation to/from event location (e.g., common carrier, Privately Owned Vehicle (POV)); and,
- 4) local transportation (e.g., rental car, POV) at event location.

Note that if any item is paid for with registration fees, or any other non-award funding, then that portion of the expense does not need to be reported.

OJP will provide further instructions regarding the submission of this data at a later time.



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SPECIAL CONDITIONS

7. Recipient acknowledges that the Office of Justice Programs reserves a royalty-free, non-exclusive, and irrevocable license to reproduce, publish, or otherwise use, and authorize others to use (in whole or in part, including in connection with derivative works), for Federal purposes: (1) the copyright in any work developed under an award or subaward; and (2) any rights of copyright to which a recipient or subrecipient purchases ownership with Federal support.

Recipient acknowledges that the Office of Justice Programs has the right to (1) obtain, reproduce, publish, or otherwise use the data first produced under an award or subaward; and (2) authorize others to receive, reproduce, publish, or otherwise use such data for Federal purposes.

It is the responsibility of the recipient (and of each subrecipient, if applicable) to ensure that this condition is included in any subaward under this award.

8. Patents and Inventions.

The clauses at 37 C.F.R. section 401.14 (together, the "Patents Rights Clause") are incorporated by reference, with the following modifications.

(1) Where italicized, the terms "contract," "contractor," and "contracting officer" are replaced, respectively, by the terms "award," "award recipient," and "OJP program manager";

(2) Patent Rights Clause paragraph (f) is modified by adding the following at the end:

"(5) The award recipient agrees to provide a report prior to the close out of the award listing all subject inventions or stating that there were none.

(6) The award recipient agrees to provide, upon request, the filing date, patent application number and title; a copy of the patent application; and patent number and issue date for any subject invention in any country in which the award recipient has applied for a patent."

(3) Patent Rights Clause paragraph (g) is modified to read as follows:

"(g) Subawards and Subcontracts

"The award recipient will include this Patent Rights Clause, suitably modified to identify the parties, in all subawards and subcontracts, regardless of tier, for experimental, developmental, or research work. The subaward recipient or subcontractor will retain all rights provided for the award recipient in this clause, and the award recipient will not, as a part of the consideration for awarding the subaward or subcontract, obtain rights in the subaward recipient's or subcontractor's subject inventions."; and

(4) Patent Rights Clause paragraph (f) is modified to read as follows:

"(f) Communications

"Communications on matters relating to this Patent Rights Clause should be directed to the General Counsel, Office of Justice Programs, United States Department of Justice."

With respect to any subject invention in which the award recipient, or a subaward recipient or subcontractor, retains title, the Federal government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.



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SPECIAL CONDITIONS

9. To assist in information sharing, the grantee shall provide the grant manager with a copy of all interim and final reports and proposed publications (including those prepared for conferences and other presentations) resulting from this agreement. Submission of such materials prior to or simultaneous with their public release aids NIJ in responding to any inquiries that may arise. Any publications (written, visual, or sound) - excluding press releases and newsletters - whether published at the grantee's or government's expense, shall contain the following statement: This project was supported by Award No. _____ awarded by the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice. The opinions, findings, and conclusions or recommendations expressed in this publication/program/exhibition are those of the author(s) and do not necessarily reflect those of the Department of Justice.

NIJ defines publications as any planned, written, visual or sound material substantively based on the project, formally prepared by the grant recipient for dissemination to the public.
10. The recipient shall transmit to the grant monitor copies of all official grant-related press releases at least ten (10) working days prior to public release. Advance notice permits time for coordination of release of information by NIJ where appropriate and to respond to press or public inquiries.
11. Pursuant to 28 C.F.R. Part 18, OJP may suspend or terminate funding under this award, at any time before the completion of the project funded by this award, for the recipient's failure to comply with these special conditions or with the project's goals, plans and methodology set forth in the approved application. The recipient will be unable to draw down funds until OJP determines that the recipient is in compliance.
12. The recipient agrees to submit quarterly financial status reports to the Office of Justice Programs using Standard Form SF 269A on the Internet at <https://grants.ojp.usdoj.gov>. These reports shall be submitted on-line not later than 45 days after the end of each calendar quarter. The final report shall be submitted not later than 90 days following the end of the grant period.
13. The recipient shall submit semiannual progress reports. Progress reports shall be submitted within 30 days after the end of the reporting periods, which are June 30 and December 31, for the life of the award. These reports will be submitted to the Office of Justice Programs, on line-through the Internet at <https://grants.ojp.usdoj.gov/>.
14. The recipient agrees to submit a final report at the end of this award documenting all relevant project activities during the entire period of support under this award. This report will include detailed information about the project(s) funded, including, but not limited to, information about how the funds were actually used for each purpose area, data to support statements of progress, and data concerning individual results and outcomes of funded projects reflecting project successes and impacts. The final report is due no later than 90 days following the close of this award period or the expiration of any extension periods. Recipient shall submit an original and one copy of the report.



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15. The award recipient shall provide all products specified in the proposal. In addition, the recipient will comply with the following requirements. Ninety (90) days prior to the end of the project period, the recipient shall submit to NIJ the following grant products: (a) An original and three unbound copies of a Draft Final Technical Report. The Draft Final Technical Report shall describe the project's activities in sufficient detail to permit replication of the design, including a review of relevant literature, methods including detailed description of data collection and analysis procedures, modifications to or problems with the original research design, findings, and conclusions. (b) An original and three copies of a 2,500 to 4,000 word Draft Summary suitable for publication and/or dissemination which describes results, findings and conclusions from the project including implications for criminal justice operations. (c) A Draft 400 word Abstract. The abstract should serve as a succinct and accurate description of the project. Research goals and objectives, research design, and methods for achieving the goals and objectives should be concisely described. The abstract should include statement of purpose, description of research subjects, methods, results and conclusions. The Draft Final Technical Report, Abstract and Summary will, with few exceptions, be submitted to peer review. The recipient shall be responsive to peer reviewers' comments and other issues raised in the review and understand that the review process has implications with respect to publication and dissemination decisions made by NIJ. The recipient shall make appropriate revisions to these documents based on the reviewers' comments and/or any comments from NIJ.

16. The recipient must deliver to NIJ, by the termination of the award period, an electronic copy of the Final Technical Report, Abstract and Summary.

Final Technical Reports, Abstracts, and Summaries should be in Microsoft Word or Corel WordPerfect format. Graphic files should be provided in Adobe Illustrator, Macromedia Freehand, Corel Draw or Delta Graph. Included images should adhere to GIFF, JPEG, PICT, and TIFF format standards, with GIFF and PICT images preferred.

Final Technical Reports are, in general, made available to the public through the National Criminal Justice Reference Service (NCJRS) and may be electronically posted in the NCJRS virtual library.

17. The Project Director and key program personnel designated in the application shall be replaced only for compelling reasons and with the concurrence of OJP. OJP will not unreasonably withhold concurrence. All successors to key personnel must be approved, and such approval is contingent upon submission of appropriate information, including, but not limited to, a resume. Changes in other program personnel require only notification to OJP and submission of resumes, unless otherwise designated in the award document.
18. The Recipient agrees to comply with all Federal, State, and local environmental laws and regulations applicable to the development and implementation of the activities to be funded under this award.
- Categorical Exclusions: Based upon the information provided by the Recipient in its application for these funds, NIJ has determined and the Recipient understands that the proposed activities meet the definition of a categorical exclusion, as defined in the Department of Justice' Procedures for Implementing the National Environmental Policy Act found at 28 CFR Part 61. A categorical exclusion is an action that because of the proposed activities' very limited and predictable potential environmental impacts, both on an individual and a cumulative basis, does not have a significant impact on the quality of the human environment. Consequently, no further environmental impact analysis is necessary under the requirements of the National Environmental Policy Act, 42 U.S.C. 4321, for these categorically excluded activities.
- Modifications: Throughout the term of this award, the Recipient agrees that for any activities that are the subject of this categorical exclusion, it will inform NIJ of any change(s) that it is considering making to the previously assessed activities that may be relevant to the environmental impacts of the activities. The Recipient will not implement a proposed change until NIJ, with the assistance of the Recipient, has completed any applicable environmental impact review requirements necessitated by the proposed change and NIJ has concurred in the proposed change. This approval will not be unreasonably withheld as long as any requested modification(s) is consistent with eligible program purposes and found acceptable under an NIJ conducted environmental impact review process.



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SPECIAL CONDITIONS

19. The award recipient agrees to comply with the requirements of 28 CFR Part 46 and all other Department of Justice/Office of Justice Programs policies and procedures regarding the protection of human research subjects, including informed consent procedures and obtainment of Institutional Review Board (IRB) approval, if appropriate.
20. The award recipient will not be permitted to draw down any funds for any research involving human subjects until (1) it has submitted adequate documentation to demonstrate that it will conduct or perform research involving human subjects in accordance with an approved Federal-wide assurance issued by HHS or a Single Project Assurance issued by OJP/NIJ, and that the research has been determined, by an appropriate IRB (or the Office of the General Counsel/OJP), to be an exempt research activity, or has been reviewed and approved by an appropriate IRB in accordance with the requirements of 28 CFR Part 46, (2) the NIJ Human Subjects Protection Officer has authorized, in writing, removal of this special condition, and (3) a Grant Adjustment Notice (GAN) has been issued removing this special condition.
21. The award recipient agrees, as a condition of award approval, to comply with the requirements of 28 CFR Part 22, including the requirement to submit a properly executed Privacy Certificate that is in compliance with 28 CFR § 22.23 to the National Institute of Justice for approval.
22. The award recipient will not be permitted to draw down any funds for any research or statistical activity or project involving the collection, use, analysis, transfer, or disclosure of information identifiable to a private person until: (1) a Privacy Certificate has been submitted to and approved by the National Institute of Justice (NIJ) in accordance with the requirements of 28 CFR Part 22, (2) removal of this special condition has been authorized in writing by the NIJ Human Subjects Protection Officer, and (3) a Grant Adjustment Notice (GAN) has been issued removing this special condition.
23. The recipient may not obligate, expend, or draw down \$5,000 until the recipient submits, in a form satisfactory to NIJ, the draft final research/technical report required by the special conditions of this award. The draft final report must be accepted by NIJ as meeting usual scientific standards for form and content. Approval will be provided through a Grant Adjustment Notice that will clear this special condition.
24. The applicant budget is pending review or approval. The recipient may not obligate, expend or draw down any grant funds until the Office of the Chief Financial Officer, Office of Justice Programs has issued clearance of the application budget, and a Grant Adjustment Notice has been issued removing this special condition.

**International Association of Chiefs of Police
Automatic License Plate Reader (ALPR) Systems:
Policy and Operational Guidance for Law Enforcement**

The International Association of Chiefs of Police passed a resolution about Automatic License Plate Reader (ALPR) technology during the 2007 IACP Annual Conference in New Orleans, Louisiana:

"This resolution strongly encourages the U.S. Congress to fully fund license plate reader and related digital photographing systems, including interrelated information sharing networks, for the northern and southern borders of the United States and encourages all countries to use like technology, to the extent possible, to share appropriate law enforcement information."

Abstract

Technology for capturing, storing, assessing, and sharing law enforcement data has advanced phenomenally. Agencies have made steady improvements in the development and implementation of information sharing systems that facilitate their agencies' business processes. Furthermore, the prevalence of automatic license plate reader (ALPR) systems in law enforcement has significantly increased over the last few years. Agencies have increased officer efficiency and safety by deploying ALPR systems and have seen a multitude of cascading returns with their investment. As with any technology, there are policy implications that law enforcement agencies must consider before deploying ALPR systems, and the International Association of Chiefs of Police (IACP) is prepared to examine those implications.

The IACP will employ a two phased approach in examining ALPR technology. In the first phase, IACP will identify twelve (12) law enforcement agencies that have deployed an ALPR system and conduct a process evaluation of that agency's experience with the installment of the system. In the second phase, IACP will develop a leading

practices guide about ALPR technology for the law enforcement community. The key topics that will be addressed in the leading practices guide will include (1) the benefits of using standards to exchange ALPR data with other information sharing systems; (2) the policy and privacy implications for deploying ALPR systems; and (3) documenting leading practices for implementation and utilization of ALPR systems. Combining ALPR research with practice will enhance the efficacy of this project. The IACP has full institutional support¹ of this project from the IACP Technology Coordinating Panel.²

Employing a structured and multi-dimensional groundwork approach to identify and consolidate lessons learned from agencies that are leveraging ALPR IACP's key deliverables will include: (1) a leading practices guide on ALPR systems; (2) compendium of context specific success stories across the wide range of law enforcement agencies and missions; (3) a survey instrument to gauge which agencies have acquired or are in the process of procuring ALPR systems technology; (4) a gap analysis of implementation levels for various data sharing initiatives; and (5) leveraging the existing IACP Technology Clearinghouse website to post ALPR leading practices and success stories.

IACP will work directly in partnership with agencies involved in successful ALPR system implementations. These leading practices will be analyzed and presented to optimize opportunities for replication and customization across law enforcement agencies.

¹ In October 2007, the IACP passed a resolution that "strongly encourages Congress to fully fund LPR and related digital photographing systems, including related information sharing networks, for the northern and southern borders of the United States and encourages all countries to use like technology, to the extent possible, to share appropriate law enforcement information."

² The IACP Technology Coordinating Panel brings together committee and section chairs on matters relating to technology, including the IACP CJIS Committee, Communications and Technology Committee, Private Sector Liaison Committee, Private Sector Liaison Committee, the Law Enforcement Information Management Section.

Project Goals and Objectives

- ❑ **Project Goal:** To articulate, document, and disseminate the real-world ALPR implementation challenges and successes faced by law enforcement agencies and to identify and disseminate successful ALPR initiatives from a *lessons learned* perspective.
- ❑ **Project Objectives:** To achieve this goal, the following objectives will be completed:
 - Gather information on existing law enforcement ALPR implementations, capture their guidelines or standard operating procedures for ALPR use, ALPR user guides, and technology standards
 - Document the technological, organizational and cultural challenges posed by ALPR use and implementing technology standards
 - Identify context specific solutions to specific problems
 - Identify and document the leading practices of successful ALPR enterprises and determine the common elements evident across successful endeavors (e.g., leadership, planning, work-team configuration, and mission clarity)
 - Disseminate resources widely to the law enforcement community through the IACP membership

Proposed Approach

To better understand and contextualize ALPR challenges and solutions, IACP proposes a multifaceted approach.

- ☐ Determine the scope of the current ALPR implementation, deployment, and usability issues at local agencies both quantitatively and qualitatively
- ☐ Conduct up to 2 regional focus groups with law enforcement executives, as well as the persons within the agency that are most familiar with ALPR technology and how it is used within the agency
- ☐ Develop an inventory of agencies that have deployed ALPR technology
- ☐ Identify, interview, and document agencies that are effectively using ALPR technology in their jurisdiction (e.g., Los Angeles County Sheriff's Department, Arlington County (VA) Police Department, Mesa (AZ) Police Department, etc)
- ☐ Identify and document problem-specific and concrete examples of ALPR successes and challenges
- ☐ Identify the operational, technical, organizational, and leadership elements common to these successful approaches
- ☐ Contextualize the findings from the field into meaningful lessons learned
- ☐ Disseminate these effective practices and effective strategies through IACP's outreach vehicles including publications, conferences, and our website
- ☐ Integrate material with similar projects and forge discussions with organizations with similar missions as IACP
- ☐ Determine and document which approaches to ALPR have made progress in achieving compatibility with federal standards and information sharing initiatives

Deliverables

Resulting from our research and outreach efforts, IACP will produce the following:

- ❑ Development and publication of a leading practices guide on ALPR systems
- ❑ A compendium of ALPR specific success stories across a wide range of law enforcement agencies and missions
- ❑ Based on quantitative and qualitative data, develop a barometer of where agencies are with implementing ALPR technology. We will analyze this data by agency type and size. In addition we will use mapping to assess geographic variations in ALPR initiatives and approaches.
- ❑ An analysis of gaps in the various ALPR efforts and strategies. These will be the problems that have been identified as common among law enforcement but for which no clear success stories exist.

Based on the compilation of success stories, IACP will leverage the existing Technology Clearinghouse website to post success stories and leading practices

Program Implementation

Phase One:

In the first phase, IACP will identify twelve (12) law enforcement agencies that have deployed an ALPR system and conduct a process evaluation of that agency's experience with the installment of that system. We will collect qualitative data through field interviews from those agencies in order to better understand the ALPR systems. Namely, we want to capture and assess the benefits of using standards to exchange ALPR data with other information sharing systems, document the policy issues on security and

privacy, and use these findings to develop a leading practices guide in phase two. In addition, during phase one IACP will host two (2) regional focus group meetings consisting of ALPR subject matter experts and law enforcement practitioners who are using ALPR technology. During these one-day meetings, IACP will capture the critical discussion points and use that information to develop the leading practices guide for law enforcement. Finally, during phase one, IACP will issue a survey to a random and nationally representative sample of law enforcement agencies to find out how many agencies are using ALPR technology, the type (small, medium, large) of agency using ALPR, how they are using the technology in their daily operations, and whether or not they are exchanging ALPR data across other databases/information systems. Combining ALPR research with practice will enhance the efficacy of this project.

Phase Two:

In the second phase, IACP will develop a leading practices guide about ALPR technology for the law enforcement community. The key topics that will be addressed in the leading practices guide will include (1) identifying leading practices for implementation and utilization of ALPR systems; (2) documenting the benefits of using standards to exchange ALPR data with other information sharing systems; and (3) addressing the policy and privacy implications for deploying ALPR systems.

The power of the IACP structure lies in its ability to engage the association's membership in project activities. It is imperative to the success of the project to include input from all of the key stakeholders, including agency information technology personnel and representatives from industry when applicable. Integration and information sharing projects are deemed as high-risk ventures. Given the history of these

types of projects, it is important to take advantage of lessons learned. IACP fully intends to leverage existing work that has been done in collecting the leading practices on related information sharing initiatives at the local, state, regional, and federal level.

Rather than discussing problems as generalities, IACP will use a framework consistent with the problem-solving approach that has taken root across law enforcement agencies. By addressing specific problems, we increase the prospects that agencies will be able to identify problems similar to those that they have experienced, find more context relevant solutions, and tailor them (if necessary) to meet their own agency needs.

Impact/Outcomes, Evaluation, and Sustainment

The primary benefit to the proposed work is to gain a comprehensive understanding about ALPR technology. Particularly, this work will shed light on the overall benefits of using standards to exchange ALPR data with other information sharing systems, understanding the policy and privacy implications for deploying ALPR systems; and identifying leading practices for implementation and utilization of ALPR systems. We believe this work will inform all law enforcement agencies.

As a result of this project, and specifically through being exposed to real-world success stories from their peers, law enforcement agencies will be in a better position to understand both short and long-term benefits of ALPR technology. Using peer-to-peer networking to solve real-world law enforcement challenges is central to IACP's core mission.

As the key deliverable for this project, IACP will distribute a leading practices guide on ALPR technology to the law enforcement community. IACP has the benefit of

full access to its membership of over 20,000 members and will use this asset to its full advantage by distributing the leading practices guide to its membership through mailings, e-mails, distribution and presentations at meetings and conferences.

It is critical to measure the efficacy of the project through the collection and evaluation of data. The project will be analyzed according to project goals and objectives, outputs, outcomes, and efficiencies. Both qualitative and quantitative data will be collected throughout the project.

After the qualitative and quantitative data is collected and entered into a database, we will proceed with an analysis of the data. With the data we collect we will, at a minimum, be able to run descriptive statistics, frequencies, confidence intervals, and t-tests to identify any difference in significance between categories. After the analysis is complete we will interpret our data and summarize our findings in a technical report.

Through IACP's Law Enforcement Information Management (LEIM) Section and other relevant committee, project, and divisional work, the groundwork has been laid to efficiently document and establish the leading practices for ALPR in law enforcement. With funding secured through this grant, IACP will build on this solid foundation and help address policy and operational challenges and promote leading practices in ALPR.

International Association of Chiefs of Police

Proposed Budget - Attachment 2

Automatic License Plate Reader (ALPR) Systems: Policy and Operational Guidance for Law Enforcement

Expense Description			Subtotal	Total
A. PERSONNEL				\$41,875
	Year 1	% of Time		
Director, State and Provincial Police Division	\$	[REDACTED]	[REDACTED]	
Senior Program Manager	\$	[REDACTED]	[REDACTED]	
Program Manager	\$	[REDACTED]	[REDACTED]	
Project Manager	\$	[REDACTED]	[REDACTED]	
Project Coordinator	\$	[REDACTED]	[REDACTED]	
B. FRINGE				\$20,938
@ [REDACTED]				
C. TRAVEL				\$45,680
<u>Regional Focus Groups Meetings (2)</u> (17 individuals: 5 local and 10 out-of-state individuals and 2 consultants)				
Airfare: \$550/trip x 2 trips x 10 out-of-state individuals			\$11,000	
Lodging: \$175/night + \$20/taxes x 2 trips x 1 night x 10 out-of-state individuals			\$3,900	
Meals and incidentals: \$64/day x 2 trips x 2 days x 10 out-of-state individuals			\$2,560	
Local travel @ \$75/trip x 2 trips x 17 individuals			\$2,550	
Working lunch / breaks @ \$45 per person x 1 day x 2 meetings x 17 total attendees			\$1,530	
<u>Site Visits to ten (10) agencies</u>				
Airfare \$550/ trip x 10 trips x 2 IACP staff			\$11,000	
Lodging \$175/ night + \$20/ taxes x 2 nights x 10 trips x 2 IACP staff			\$7,800	
Meals and incidentals \$64/day x 3 days x 10 trips x 2 IACP staff			\$3,840	
Local travel @ \$75/ trip x 10 trips x 2 IACP staff			\$1,500	
D. EQUIPMENT				\$2,750
1 laptop computer for use by project staff			\$2,750	

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E. SUPPLIES		
Ordinary office supplies @ \$100 per month	\$1,200	\$1,200
F. CONTRACTUAL		
Technical Consultants (\$450/day x 20 days)	\$9,000	\$9,000
G. OTHER		
Communications expenses:		
Long-distance telephone (phone outreach, fax, etc. @ \$200 per month)	\$2,400	\$16,836
Facility and Equipment Rental:		
Office rental @ \$722 per month for the Project Manager (.4 FTE)	\$3,466	
Meeting space @ \$1,000 per day x 2 meetings	\$2,000	
Equipment rental @ \$500 per day x 2 meetings	\$1,000	
Printing costs:		
Printing of leading practices guide (1,550 copies @ \$3.00 per copy)	\$4,650	
General copying and printing @ \$100 per month	\$1,200	
Postage:		
Mailing of leading practices guide (1,000 copies @ \$0.92 per copy)	\$920	
General postage @ \$100 per month	\$1,200	
TOTAL DIRECT COSTS		\$138,278
INDIRECT COSTS @ 36.54%		\$49,522
TOTAL		\$187,800

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A. PERSONNEL

Division Director

IACP State and Provincial Division Director, [REDACTED], will be responsible for setting policies, identifying priorities, and providing oversight for all the program's activities. As with all new policy and research projects, the Senior Program Manager and the Program Manager will report directly to him during the project year. The Division Director's annual salary is approximately [REDACTED]. He is expected to devote approximately [REDACTED] of his time to the project for a total of [REDACTED].

Senior Program Manager

A Senior Program Manager will be responsible for all aspects of the program including technical assistance development and delivery. Salary for the Senior Program Manager will be approximately [REDACTED] per year. This position is expected to devote [REDACTED] to the project for a total cost of [REDACTED].

Program Manager

A Program Manager will be responsible for all aspects of the program including technical assistance development and delivery. Salary for the Program Manager will be approximately [REDACTED] per year. This position is expected to devote [REDACTED] to the project for a total cost of [REDACTED].

Project Manager

A Project Manager will be appointed to conduct ongoing operations to fulfill the objectives of the project. The Project Manager will serve as the primary point of contact for project activities. This person will manage meetings, present information of said subject matter at professional forums, develop marketing material, and coordinate the internal and external dissemination of information. We have budgeted this position at an annual salary of [REDACTED]. The Project Manager will devote approximately 45% of his time to the project for a total of [REDACTED].

Project Coordinator

The Project Coordinator will be responsible for assisting the Project Manager with coordinating all project activities. Salary for the Project Coordinator will be approximately [REDACTED]. The position is expected to devote 10% to the project for a total cost of [REDACTED].

Total personnel are estimated to cost \$41,875 in the twelve-month period.

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B. FRINGE BENEFITS

The fringe benefits for full-time LACP employees are computed at the federally approved provisional rate of [REDACTED] of total personnel costs. Total fringe benefits for this project are budgeted at \$20,938. 164

C. TRAVEL

Two (2) Regional Meetings - Two regional trainings comprised of seventeen (17) total attendees - 10 out-of-state attendees and 5 local attendees and 2 consultants. Airfare is budgeted at \$550 per trip for two (2) trips for ten (10) out-of-state attendees for a total of \$11,000. Lodging is budgeted at an average per diem rate of \$175 per night plus \$20 for taxes 1 (1) night for two (2) trips for ten (10) out-of-state attendees for a total of \$3,900. Meals and incidentals are budgeted at an average rate of \$64 per day for 2 (2) days for two (2) trips for ten (10) people for a total of \$2,560. Local travel is budgeted at \$75 per trip for all attendees for two trips for a total of \$2,550. A working lunch and breaks will be provided to the group at an expected cost of \$45 per person for 1 (1) day for two (2) meetings for 17 people for a total of \$1,530. If provided, per diem will be reduced accordingly. Total cost of the two (2) regional meetings is estimated at \$21,540.

Site Visits- Site visits are planned to ten (10) law enforcement agencies. Airfare is budgeted at \$550 per trip for two LACP staff members for a total of \$11,000. Lodging is budgeted at an average per diem rate of \$175 per night plus \$20 for taxes for two (2) nights for ten (10) trips for a total of \$7,800. Meals and incidentals are budgeted at an average per diem rate of \$64 per day for three (3) days for twelve (10) trips for a total of \$3,840. Ground transportation is expected to cost \$75 per trip for ten (10) trips for a total of \$750. Total cost of the twelve (12) site visits is estimated at \$24,140.

Total travel costs will be \$45,680.

D. EQUIPMENT

We need to purchase one laptop computer for the project staff. We estimate that the computer will cost \$2,750.

Total equipment is estimated to cost \$2,750.

E. SUPPLIES

Ordinary office supplies for general operations of the project are estimated at \$100 per month for a total of \$1,200.

Total supplies are estimated to cost \$1,200.

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F. CONTRACTUAL

We have budgeted 20 days at a rate of \$450 per day (the rate we pay most consultants whom we employ on federal grants) for technical assistance and publication development of outreach materials for a total of \$9,000.

Total contractual costs are estimated at \$9,000.

G. OTHER

Ordinary telephone (faxes, local and long distance calling and phone outreach) is budgeted for \$200 per month for a total of \$2,400.

Rental space is available in our existing rental location for an average cost of \$722 per office including utilities. This space is owned by Waterfront Investment Group LLC and managed by Gates, Hudson & Associates, Inc of which the IACP has no financial interest or any relationship other than business. Space would need to be obtained for the Project Manager and would be based also upon his percentage of time devoted to the project. As a result, total rental cost is estimated at \$3,466. Meeting space is budgeted for the regional meetings at \$1,000 per day for two days for a total of \$2,000. Total facility rental is estimated at \$5,466. Equipment rental for the regional meetings is budgeted at \$500 per day for two days for a total of \$1,000. Total equipment rental is estimated at \$1,000. Total facility and equipment rental cost is estimated at \$6,466.

Copying costs are estimated at \$100 per month for a total of \$1,200. Printing of 1550 leading practices guides is expected to cost \$3.00 each for a total of \$4,650. The printing costs are estimated at \$5,850.

Ordinary postage is estimated at \$100 per month for a total of \$1,200. Mailing of 1,000 leading practices guides is expected to cost \$0.92 each for a total of \$920. The postage costs are estimated at \$2,120.

Total other costs are estimated at \$16,836.

Total Direct Costs are estimated at \$138,278.

H. INDIRECT COSTS

Indirect costs are calculated at the approved rate of 36.54% of the total direct costs, excluding equipment. Only the first \$20,000 of each subcontractor is subject to indirect. This rate was approved by the U.S. Department of Justice, the IACP's cognizant agency. The total indirect costs are calculated at approximately \$49,522.

Total Costs are estimated at \$187,800.