

U.S. DEPARTMENT OF COMMERCE
Office of Inspector General



**PUBLIC
RELEASE**

*NATIONAL INSTITUTE OF
STANDARDS AND TECHNOLOGY*

*NIST Needs to Reevaluate Plans
to Support Its Ballistics Testing Program*

Final Inspection Report No. IPE-11923/March 2000

Office of Inspections and Program Evaluations



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EXECUTIVE SUMMARY

In May 1999, the National Institute of Standards and Technology completed designs and plans to award a construction contract to renovate an existing, but abandoned, building near its main Gaithersburg, Maryland, campus to serve as a combination ballistics testing facility and firing range. The renovated facility was to be used for two purposes. First, NIST's Electronics and Electrical Engineering Laboratory was to use it for ballistics research conducted by its Office of Law Enforcement Standards. Secondly, NIST's police force would use it for firearms qualification and training purposes. Specifically, NIST proposed renovating Building 530—which was originally a barracks building on a former Nike missile installation—to accommodate these needs. The building had not been used since the Army abandoned it more than 25 years ago. It would need significant interior and exterior renovations to serve as a ballistics testing or firing range facility.

Since the early 1970s, NIST has conducted ballistics testing evaluations of ammunition, weapons, and protective equipment in support of its reimbursable agreement with the U.S. Department of Justice's National Institute of Justice (NIJ). While NIST has conducted some testing in the former Nike missile storage pits on its NIST Annex Site,¹ it has, for a number of years, searched for a more suitable site to more safely and effectively conduct the testing and research requirements under its reimbursable agreement with NIJ. NIST believes that the current facility is (1) inadequate to conduct certain types of ballistics research, (2) out of compliance with OSHA standards, and (3) unsafe. Although NIST has contracted out some of its testing work while searching for a replacement site, it does not believe that contracting is a viable solution on a permanent basis. NIST says that contractor laboratories are insufficiently responsive and prohibitively expensive.

According to NIST, it further justified its plans to create a replacement facility by indicating that a firing range on or near campus was needed for its approximately 22 police officers who carry semiautomatic pistols. NIST indicated that it was too difficult and costly to continue to arrange for its officers to qualify with their firearms on a quarterly basis outside of the NIST campus on other law enforcement or privately-owned firing ranges. NIST management indicated that it would not be cost-effective to construct a firing range only for the NIST police, but that it did make sense to modify its proposal for a ballistics testing facility to include the needs of the NIST police for a qualification range.

As a result, during the last two years, NIST had taken steps to begin the process of creating a ballistics testing and firing range facility, which was planned to be located in Building 530 at the Nike site. NIST received approval and comments from the National Capital Planning Commission for the project and awarded a contract to a design team, which completed the

¹ The NIST Annex Site comprises 13.7 acres, located 1/4 mile southwest of the main NIST campus. Most of the existing structures and facilities on this parcel of land were built during 1954-55. The property was one of roughly 250 Nike missile (anti-aircraft) sites which provided air defense to U.S. cities (including Washington, D.C.) during the Cold War, but were abandoned in the early 1970s.

designs, technical specifications, and cost estimates in May 1999.

Until recently, NIST had planned to award a contract to renovate Building 530 and its surrounding area in FY 1999 and complete the project in FY 2000. The specifications for the design, renovation and award of the facility would have provided for the flexibility of either a basic renovation for use as a ballistics facility (6 firing lanes, plus significant exterior and site work to make it a usable building) for about \$\$\$\$\$\$\$\$\$\$, or for approximately \$\$\$\$\$\$\$\$\$\$, the facility would also include offices, a conference room, storage areas and bathrooms/locker facilities. At the time of our review in June 1999, the blueprints for the facility were complete.

During the course of our review, we learned that NIST had abandoned plans to renovate Building 530 and is now reviewing options for accommodating its ballistics testing needs on its main campus. NIST also dropped plans for construction of a firing range for its police officers, due to cost considerations, and, instead, will continue to have its police officers qualify at other ranges off-campus.

Based upon our review, we have confirmed that NIST's existing facility is not adequate to support NIST's plans to continue to conduct ballistics testing and research. However, we had concerns about the projected costs and some of the construction options related to renovating Building 530 to meet this need. We did not believe that renovating Building 530 was the most cost-effective option, nor, if built, that it should be expanded to include additional firing lanes and supporting space for NIST's police force to qualify with their firearms. NIST did not adequately justify the extra cost associated with accommodating additional firing range requirements (approximately \$\$\$\$\$\$\$\$\$), given the availability of firing ranges outside the NIST campus.

We were also concerned that NIST did not adequately evaluate its needs for a combination ballistics testing facility/police officer qualification firing range—an assumed need which led NIST to pursue renovating Building 530 (due to its dimensions) without adequate consideration of other options. If NIST had earlier determined that it could not justify an on-campus firing range for its police force, the agency would likely have concluded that a much smaller facility was needed and therefore explored options other than renovating Building 530. We believe that if NIST had prepared better documentation and explored other options, it might have identified more cost-efficient options earlier, instead of spending significant staff time and about \$115,000 to create detailed architectural drawings and plans for a project it now has rejected.

We do, however, commend NIST for reconsidering its plans and, at this point, not proceeding with plans to renovate Building 530 for ballistics testing and police firing range purposes. We recommend that, prior to designing and constructing any future facilities to support its ballistics testing program, NIST should carefully weigh the costs and benefits of all viable options (including contracting out all or portions of its testing program) and document them adequately so as to make an informed decision.



In response to our draft report, NIST concurred with both of our recommendations, agreeing to our suggested steps before making any decision on designing and constructing any future ballistics testing facilities, as well as dropping plans to build a firearms qualification facility for its police force.

INTRODUCTION

Pursuant to the authority of the Inspector General Act of 1978, as amended, the Office of Inspector General conducted an inspection of the National Institute of Standards and Technology's plans to renovate Building 530, which is located on a small parcel near its main Gaithersburg, Maryland, campus, to serve as a ballistics testing facility and firing range. Our field work was conducted from May - June 1999. In June 1999, we sent the NIST Director a memorandum concerning NIST's policy of allowing employees to bring weapons onto campus. We briefed the NIST Director of Administration on all of our findings in September 1999.

Inspections are special reviews that the OIG undertakes to provide agency managers with information about operational issues. One of the main goals of an inspection is to eliminate waste in federal government programs by encouraging effective and efficient operations. By asking questions, identifying problems, and suggesting solutions, the OIG hopes to help managers move quickly to address problems identified during the inspection. Inspections may also highlight effective programs or operations, particularly if they may be useful or adaptable for agency managers or program operations elsewhere. This inspection was conducted in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency.

In May 1999, the National Institute of Standards and Technology completed designs and plans to award a construction contract to renovate an existing, but abandoned, building near its main Gaithersburg, Maryland, campus to serve as a combination ballistics testing facility and firing range. The renovated facility was to be used for two purposes. First, NIST's Electronics and Electrical Engineering Laboratory was to use it for ballistics research and testing conducted by its Office of Law Enforcement Standards. Secondly, NIST's police force planned to use it for firearms qualification and training purposes. Specifically, NIST proposed renovating Building 530—which was originally a barracks building on a former Nike missile installation—to accommodate these needs. Building 530 is a rectangular-shaped building, approximately 6,600 square feet in size. The building had not been use since the Army abandoned it more than 25 years ago. It would need significant interior and exterior renovations to serve as a ballistics testing or firing range facility.

Both the current area used and the proposed facility are located on the NIST Annex Site, an area comprising 13.7 acres, located 1/4 mile southwest of the main NIST campus. Most of the existing structures and facilities on this parcel of land were built during 1954-55 and comprised one of roughly 250 Nike missile (anti-aircraft) sites which provided air defense to U.S. cities (including Washington, D.C.) during the Cold War, but were abandoned in the early 1970s.²

² Nike was the world's first successful, widely-deployed, guided surface-to-air missile system. Nike missile sites were constructed in defensive "rings" surrounding major urban and industrial areas. With this defensive weapon, aircraft could be detected, fired upon, and destroyed, with either high explosive or nuclear warheads, at ranges greater than 75 miles.

BACKGROUND

Since the early 1970s, NIST's Office of Law Enforcement Standards (OLES) has conducted ballistics testing evaluations of ammunition, weapons, and protective equipment in support of its interagency agreement with the U.S. Department of Justice's National Institute of Justice (NIJ). Through this agreement, NIJ provided \$1.4 million for FY 1999 in base funds for ballistics testing and research. In addition, NIST received an additional \$3 million from NIJ in FY 1999 as part of the Domestic Counterterrorism Program for the development of new standards and other research in support of efforts to combat terrorism. OLES conducts research, develops methods for testing, and creates standards in literally dozens of areas related to the law enforcement field, including protective equipment and clothing, communications systems, investigative aids, security systems, vehicles, weapons, and analytical techniques and standard reference materials used by the forensic science community.

While NIST has conducted some testing in the former Nike missile storage pits on its NIST Annex Site, it has, for a number of years, searched for a more suitable site to more safely and effectively conduct the testing and research required under its reimbursable agreement with NIJ. NIST believes that the current facility is (1) inadequate to conduct certain types of ballistics research, (2) out of compliance with OSHA standards, and (3) unsafe. The primary area used for testing and research purposes since 1973 was closed in 1996 due to its contaminated condition (lead, dangerous types of molds) and lack of adequate ventilation. NIST is currently conducting limited testing in a second underground area, but it too has limitations and is clearly not a long-term solution. Although NIST has contracted out some of its testing work while searching for a replacement site, it does not, however, believe that contracting is a viable solution on a permanent basis. NIST told us that the contractor laboratories are insufficiently responsive and prohibitively expensive.

According to NIST, it further justified its plans to create a replacement facility by indicating that a firing range on campus was needed for its approximately 22 police officers who carry semiautomatic pistols. NIST indicated that it was too difficult and costly to arrange for its officers to qualify with their firearms on a quarterly basis outside of the NIST campus on other law enforcement or privately-owned firing ranges. NIST management indicated that it would not be cost-effective to construct a firing range only for the NIST police, but that it did make sense to modify its proposal for a ballistics testing facility to include the needs of the NIST police for a qualification range.

As a result, during the last two years, NIST has taken steps to begin the process of creating a ballistics testing and firing range facility, which was planned to be located in Building 530 at the Nike site (see Figure 2). NIST received approval and comments from the National Capital Planning Commission for the project, awarded a contract to a design team, which completed the designs, technical specifications, and cost estimates in May 1999.

Until recently, NIST had planned to award a contract to renovate Building 530 and its surrounding area in FY 1999 and complete the project in FY 2000. The specifications for the



Figure 2: Building 530

design, renovation and award of the facility provided for the flexibility of either a basic renovation for use as a ballistics facility (6 firing lanes, plus significant exterior and site work to make it a usable building) for about \$\$\$\$\$\$\$\$\$\$, or for approximately \$\$\$\$\$\$\$\$\$\$, the facility would include offices, a conference room, storage areas and bathrooms/locker facilities. At the time of our review, the blueprints for the facility were complete. (See Appendix I for a breakdown of the different renovation alternatives and options and their costs).

During the course of our review, NIST abandoned plans to renovate Building 530. In addition to the estimated \$\$\$\$\$\$\$\$\$\$ to renovate Building 530, there was some belief at NIST that the costs could escalate significantly to clean up and landscape the property, given that the parcel now abuts a residential and retail area. Accordingly, NIST has decided to consider other, less costly options to satisfy its ballistics testing requirements, possibly by utilizing a portion of an existing building on its Gaithersburg campus or constructing a small, storage building, with the firing range in its basement. NIST also decided to drop its plans to build a firing range for its police officers, due to cost considerations. Instead, it will continue to have its police officers qualify at other ranges off-campus.

PURPOSE AND SCOPE

The purpose of this inspection was to review NIST's plans to renovate Building 530 to serve the dual purposes of a ballistics testing facility for its Office of Law Enforcement Standards and a qualification firing range for the NIST police force. More specifically, we analyzed these plans to:

- Determine if NIST has adequately documented and justified the proposal to renovate Building 530 on the NIST Annex Site for ballistics testing and firing range purposes;
- Assess issues related to establishing a firing range on the NIST campus.

OBSERVATIONS AND CONCLUSIONS

Based upon our review, we agree that NIST's existing facility is not adequate to support NIST's plans to continue to conduct ballistics testing and research. However, we had concerns about the costs and some of the construction options related to renovating Building 530 to meet this need. We did not believe that renovating Building 530 was the most cost-effective option, nor, if built, that it should be expanded to include additional firing lanes and supporting space for NIST's police force to qualify with their firearms. NIST did not adequately justify the extra cost associated with accommodating additional firing range requirements (approximately \$\$\$\$\$\$\$), given the availability of firing ranges outside the NIST campus.

Because NIST did not prepare adequate documentation to support this proposed project, we could not verify whether renovating Building 530 was the best or most cost-effective solution to support its ballistics testing needs. NIST did not document cost comparisons between the various options, including (1) constructing a new facility (or retrofitting an existing facility) on its main campus, (2) contracting out much of its testing work, or (3) spending an estimated \$\$\$\$\$\$\$\$\$ to renovate Building 530. In addition, NIST did not adequately justify the extra cost associated with accommodating additional firing range requirements for its police force, given the availability of firing ranges outside the NIST campus. In addition, ancillary costs related to upgrading the Nike site are unknown and could have escalated the cost of the proposed renovation significantly. Given the high cost associated with the chosen option, we believe that a more appropriate and cost-effective solution probably existed to meet NIST's needs.

We were also concerned that NIST did not adequately evaluate its needs for a combination ballistics testing facility/qualification firing range. Rather, NIST assumed that it needed the expanded firing range, and this may have led NIST to pursue renovating Building 530 (due to its dimensions) without adequate consideration of other options.

I. NIST's Current Facility is Inadequate to Support Its Ballistics Testing Program

Based on our discussions with NIST managers and staff, Department of Justice officials involved

in the ballistics testing program, as well as our tour of the existing facilities used for testing, we believe that NIST has a sound basis for its claim that it cannot conduct its ballistics testing indefinitely or adequately in its current underground facility. We were adequately convinced that if NIST is going to continue to conduct such testing, it would need a better facility, whether operated by NIST or by another entity.

We found that NIST's current facility is structurally deficient to support certain types of testing and environmentally unsafe. OLES is currently conducting its research and testing, in part, using Pit 2 at the Nike missile site, which was previously used to store Nike missiles underground.

Our tour of the facility indicated that it cannot adequately support this program in the long-term due to its inappropriate configuration for certain types of ballistics testing. According to NIST officials and OLES researchers, the current facility is not feasible for extensive use in evaluating hand-held firearms; the small, one-position bullet trap cannot contend with stray shots which occasionally occur when firing handguns. We were also told that the facility does not have an adequate "back stop" in order to safely conduct tests on higher caliber weapons and ammunition. Discussions with NIJ officials confirmed that the facility was inadequate both for current and emerging research areas. In fact, one NIJ official called the current facility "completely inadequate" to fulfill their needs under Justice's interagency agreement with NIST. In addition, the facility has a multitude of environmental and mechanical problems due to its age, including:

- Leaks – Primarily in the ground-level roof, but also many small leaks from cable conduits throughout the building. We noted standing water in the facility, due to a recent rainfall. Figures 3 and 4, below, show areas where the roof leaks and rust appears on part of the steel flooring due to this constant moisture.



Figure 3: Rusted steel floor in Pit 2, that often holds standing water



Figure 4: Area that leaks and loose insulation in the retractable ceiling in Pit 2

- Poor indoor climate conditions – Because of inadequate air handling/conditioning equipment, the presence of excess humidity prohibits the short- or long-term storage of ammunition, delicate test equipment, firearms, and other equipment

related to testing. In addition, the damp conditions have resulted in the growth of dangerous molds and mildews (apparently as a result of the combination of the extreme moisture and the nitrates emanating from the small-arms propellents). NIST estimates that this condition alone will make the facility uninhabitable within 1-2 years.

- Access Problems – An old elevator must be used to bring large equipment and supplies in or out. If the elevator fails or needs routine service, parts and service are unlikely to be available, due to its age. If this happens, some critical equipment currently located in Pit 2 would have to be abandoned as is. In addition, the single stairwell makes access to the site difficult or impossible for the handicapped.
- Lack of bathroom facilities – According to NIST, the lack of restrooms or potable water makes Pit 2 noncompliant with OSHA requirements. Modification of the facility to accommodate bathrooms could be costly because of the underground location and the hardened concrete floor.

We noted that Pit 1, used by the program for almost 20 years, had to be closed due to lead and mold/mildew contamination resulting from years of usage. Pit 2 would likely have similar problems in the near future.

II. NIST Has Not Justified Constructing a Proposed Qualification Firing Range for Its Police Force

NIST also proposed to either expand its proposed ballistics testing facility in Building 530 or to construct a firing range at another location on the NIST campus to accommodate the firearms qualification needs of its police force. We believe neither option is justified. The extra cost of \$\$\$\$\$\$\$³ associated with adding firing range lanes and related office/support space to accommodate the officers' firing range requirements in Building 530 (or at other potential NIST locations) is not justified, given the availability of firing ranges for qualification outside the NIST campus.

Part of NIST's justification for proposing renovation of Building 530 was to more efficiently support its need for quarterly firearms qualification for its police force. NIST officials argued that the extra cost associated with qualifying off-campus (in terms of overtime paid to officers who cannot qualify while on duty on the campus) and the difficulty in getting range time outside of NIST made the proposed ballistics testing facility an attractive solution, as its dimensions could easily accommodate four additional firing lanes and booths, and supporting facilities.

³ NIST's contractor estimated that the additional four firing range lanes would be \$\$\$\$\$\$. Costs for constructing supporting space (male and female bathrooms and locker rooms, storage areas, two offices, and a conference room) were estimated to be \$\$\$\$\$\$.

The qualifications standards and needs for the NIST police changed in 1998 when they switched from carrying revolvers as service weapons (with which they qualified semiannually) to carrying semiautomatic pistols. The Department of Treasury's Federal Law Enforcement Training Center recommends that all law enforcement officers qualify on a quarterly basis, particularly those using semiautomatic weapons. NIST management told us that quarterly qualification of its 22-officer police force, currently done at off-campus facilities, is prohibitively expensive and too difficult to schedule with ranges outside of the NIST campus. However, our interviews with range officials and other Commerce agencies that use firearm ranges indicated that, while it requires advance planning to get reservations for range time, it is generally not very difficult, and mostly free or at a nominal cost. (A listing of firing ranges where other departmental agencies with federal officers qualify, and their associated costs, are listed in Appendix II.)

At the three firing ranges NIST has made use of in the past, we found that, with advance planning, NIST should be able to adequately secure firing range space on a quarterly basis. Range officials indicated that reservations should be made from two months to one year in advance. Clearly, firearms qualification off-campus is neither expensive nor impossible to schedule. We also question whether the fairly minor cost in overtime (NIST told us \$6,720 annually was needed for quarterly qualifications for its officers) balances against the \$\$\$\$\$\$\$\$ NIST estimates it would cost to accommodate firing range needs in Building 530.

Whether NIST adopts a new plan to build or renovate a facility to support its ballistics testing and research, the fact still remains that it has not justified an on-campus facility to support the firearms training and qualification requirements of its police force. Accordingly, we are recommending that NIST drop any plans to construct a ballistics test facility with additional firing lanes and supporting facilities or any separate firearms qualification facility for its police force.



In response to our draft report, NIST agreed with our recommendation and has dropped plans for firearms qualification facility for their police force and will explore other options for contracting or scheduling time at local firing ranges to meet their requirements.

III. NIST Did Not Adequately Study Needs and Facility Replacement Options

We believe that NIST did not prepare adequate documentation to support its proposal to construct a ballistics testing facility and firing range. We could not verify whether renovating Building 530 was the best or most cost-effective option to meet its facility needs, because NIST did not document any comparisons between the costs of (1) constructing a new facility or renovating/retrofitting an existing facility on its main campus, (2) contracting out much of its testing work and (3) renovating Building 530, which is estimated to cost \$\$\$\$\$\$\$\$\$\$. In addition, NIST did not determine and include any ancillary costs related to upgrading the Nike site in its decision-making process. Given the high cost of renovating Building 530, we believe that a more appropriate and cost-effective solution probably exists to meet NIST's needs.

We were also concerned that NIST did not adequately evaluate its needs for a combination ballistics testing facility/police officer qualification firing range. If NIST had determined earlier that it could not justify an on-campus firing range for its police force, the agency would likely have concluded that a much smaller facility was needed and therefore explored options other than renovating Building 530. We believe that if NIST had prepared better documentation and explored other options, it might have identified more cost-efficient options earlier. Instead, NIST spent considerable staff time and about \$115,000 on planning and designing the renovation of the Nike site, a project it now has rejected.

NIST, for example, did not document the cost of modifying Building 530 versus contracting out all or a portion of its ballistics testing to an outside contractor. NIST officials, instead, proceeded on the basic assumption that contractors are too costly and take too long to respond to NIST's requests to replace in-house testing. In addition, NIST officials also indicated that testing by contractors would be inefficient as testing is an iterative process and an inseparable part of the research, requiring constant changes and adjustments that would take too long if constantly given to contractors, none of whom are located in the Washington, D.C., area. Nevertheless, NIST officials could not provide any hard data to the OIG review team that they had appropriately considered the comparative costs of the renovated Nike facility and annual maintenance fees, the relative costs of contracting out the same work to private laboratories, or continued use of Pit 2, as long as it is safe.

In addition, other options—such as constructing a new facility on its Gaithersburg campus, or making use of part of an existing building, or leasing a private facility in the area—were also not adequately documented nor were cost estimates calculated to provide a comparison with the cost of renovating the NIST Annex Site. An expenditure of this size should be better documented and justified than NIST has done to date.

Given that NIST appears to have dropped its plans to renovate Building 530 to support its ballistics testing program, we are recommending that NIST document and compare its options prior to designing and constructing or renovating other facilities to support its ballistics testing program in the future. NIST should carefully weigh and document the costs and benefits of all viable options, including contracting out all or portions of its testing program, in order to make an informed, defensible decision.



In response to our draft report, NIST did not comment on the text of the finding, but concurred with our recommendation, agreeing to carefully weigh and document the comparative costs and benefits of all viable options to meet any future ballistics testing facility, including an assessment of opportunities to contract out all or a portion of its testing program. NIST also stated that, due to budgetary constraints, they are reevaluating the ballistics testing program.

RECOMMENDATIONS

We recommend that the Director of NIST ensure that the following actions are taken:

1. To make an informed decision on any future facility to support its ballistics testing program, carefully weigh and document the comparative costs and benefits of all viable options. This should include an assessment of opportunities to contract out all or a portion of its testing program.
2. Drop plans for a firearms qualification facility for its police force, and explore options for contracting or otherwise scheduling time at a local firing range.

Appendix I
NIST Contract Specifications and Options for Renovating Building 530

Contract Bid Areas and Options	Summary of Construction Elements	Estimated Additional Cost	Miscellaneous
Civil Site (all work outside of the building)	Exterior Work/Site Preparation: (demolition, landscaping/paving, utilities/water to bldg)	\$\$\$\$\$\$\$\$\$\$	Exterior work required by National Capital Planning Commission as well as to make building usable.
Base Bid (Minimum amount of work as defined by the contract)	Architectural Structural Mechanical Electrical Plumbing/Fire Protection	\$\$\$\$\$\$\$\$\$\$	“Cold, Dark Shell” Total = \$\$\$\$\$\$\$\$
Alternate 1	Lighting Convenience Power Heating Fire Alarm	\$\$\$\$\$\$\$\$\$\$	“Warm, Lit Shell” Total = \$\$\$\$\$\$\$\$
Option 1	Booths/Target Systems Utilities/Lights Backstop HVAC Soundproofing	\$\$\$\$\$\$\$\$\$\$	6 firing lanes (2 for ballistics testing, 4 for police qualification), no supporting space Total=\$\$\$\$\$\$\$\$\$\$\$
Option 2	4 Closets/2 Urinals 4 Showers 9 Phone Outlets 2 Offices/1 Conf. Room Secure Storage Room	\$\$\$\$\$\$\$\$\$\$	Supporting space for both ballistics testing and firing range qualification Total=\$\$\$\$\$\$\$\$\$\$\$
Alternate 2	Action Target Backstop	\$\$\$\$\$\$\$\$\$\$	Reinforced for up to .50 caliber testing Total=\$\$\$\$\$\$\$\$\$\$\$

***Note: Design/architectural costs not included. The estimate for those costs was \$115,000. Hence, the total cost of a facility that would support at least six firing range lanes and ballistics testing would range from a low of \$\$\$\$\$\$\$\$\$\$ to about \$\$\$\$\$\$\$\$\$\$.**

****Booths/target systems cost \$\$\$\$\$\$\$\$\$\$ each (\$\$\$\$\$\$\$\$\$\$ total for firearms qualifying purposes)**

Likely Combinations of Elements for Construction Contract Award:

1. Civil Site + Base = \$\$\$\$\$\$\$\$ (cold, dark shell)
2. C/S + Base + Alternate 1 = \$\$\$\$\$\$\$\$ (warm, lit shell)
3. C/S + Base + Option 1 + Alternate 2 = \$\$\$\$\$\$\$\$\$\$\$ (2 ballistics testing firing lanes, 4 firearms qualification firing lanes, and reinforced backstop for higher caliber testing)
4. C/S + Base + Option 1 + Alternate 2 + Option 2 = \$\$\$\$\$\$\$\$\$\$\$ (2 ballistics testing firing lanes, 4 firearms qualification lanes, plus offices, locker rooms, storage areas and a conference room)

Source: Information from documents and interviews with Alphatec (NIST contractor).

Appendix II
Status of Department of Commerce
Law Enforcement Officer Firearms Qualification

Commerce Bureau/Agency	Location of Range	Cost	Back-up Range
Office of Inspector General (20 special agents)	Norfolk Southern Police Department range (outdoor), Manassas, VA	\$200/yr. (previous three years) / \$0 this year	USDA/OIG range, Beltsville, MD
NIST Police Gaithersburg, MD (22 police officers)	Montgomery County Police Department range (outdoor), Gaithersburg, MD	\$0	City of Frederick Police Department range, Frederick, MD Indoor private ranges, Md./DC metro area (costs vary)
National Marine Fisheries Service (NOAA) (6 special agents)	Indoor private ranges, various locations in MD	\$240/year	n/a
Bureau of Export Administration (22 special agents)	Andrews Air Force Base, MD	\$0	Indoor private ranges, MD/DC metro area (costs vary)
Departmental Office of Security (8 special agents)	Andrews Air Force Base, MD	\$0	Fort Belvoir, VA

Source: Data collected by the Office of Inspector General

Appendix III Agency Response To Draft Report



NIST

UNITED STATES DEPARTMENT OF COMMERCE
National Institute of Standards and Technology
Gaithersburg, Maryland 20899
OFFICE OF THE DIRECTOR

MAR 28 1999

MEMORANDUM FOR Jill Gross
Acting Assistant Inspector General for
Inspections and Program Evaluations

From: Raymond G. Kammer
Director

Subject: Draft Report: National Institute of Standards and Technology:
*NIST Needs to Reevaluate Plans to Support Its Ballistics Testing
Program (IPE-11923)*

Thank you for your recent memorandum regarding the draft report on the Office of Inspector General's inspection of NIST's plans to renovate Building 530 on the NIST Annex Site to serve as a combination ballistics testing facility and firing range.

We concur with the recommendations of the Office of the Inspector General that we take the suggested steps before we make a decision on the design and construction of any future facilities in support of a ballistics testing program. Due to budget constraints, we have reevaluated this program and we also concur with the recommendation that NIST drop plans for a firearms qualification facility for our police force, and will explore options for contracting or scheduling time at a local firing range.

Thank you for the opportunity to respond to the subject report. If you have any questions, please call Mr. Robert Moore, Deputy Director for Safety and Facilities, at 301-975-6900.