



**DEPARTMENT OF JUSTICE | OFFICE OF THE INSPECTOR GENERAL**

# **MANAGEMENT ADVISORY MEMORANDUM**

## **22-001**

**OCTOBER 2021**

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Notification of Needed Upgrades to the  
Federal Bureau of Prisons' Security Camera  
System

**EVALUATION AND INSPECTIONS DIVISION**



October 27, 2021

Management Advisory Memorandum

To: Michael Carvajal  
Director  
Federal Bureau of Prisons

A handwritten signature in blue ink that reads "Michael E. Horowitz".

From: Michael E. Horowitz  
Inspector General

Subject: Notification of Needed Upgrades to the Federal Bureau of Prisons' Security Camera System

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The purpose of this memorandum is to advise you of critical issues that the Office of the Inspector General (OIG) has repeatedly identified during our work concerning the Federal Bureau of Prisons' (BOP) enterprise-wide security camera system. The camera system helps the BOP secure its 122 BOP-managed institutions and keep safe its nearly 38,000 staff and over 155,000 inmates, as well as deter and hold accountable staff and inmates who commit misconduct.

Through the OIG's work on reviews, audits, and investigations dating back to at least 2013, we have repeatedly observed inadequacies in the BOP's camera system that have impacted the safety and security of BOP institutions and the ability of law enforcement to hold bad actors—including inmates and BOP staff—accountable for crimes and administrative misconduct. In a 2016 report on the BOP's contraband interdiction efforts, the OIG identified significant deficiencies within the BOP's security camera system and recommended that the BOP evaluate the existing security camera system to identify needed upgrades.<sup>1</sup> The deficiencies we observed in 2016 included an insufficient number of cameras to capture alleged misconduct incidents, poor-quality video, inoperable cameras, and inadequate video storage. Over 5 years later, this recommendation remains open and we continue to see the same deficiencies in our investigations that we observed during our 2016 review. These deficiencies have negatively impacted the OIG's investigations and ability to secure prosecution of serious incidents in BOP institutions, including sexual assaults, civil rights violations, introduction of contraband, dereliction of duty, and even inmate deaths. They also have inevitably affected other law enforcement agency investigations, including those of the Federal Bureau of Investigation (FBI) and the BOP's Office of Internal Affairs.

In June 2021, in response to our June 2016 recommendation, the BOP completed a multiyear project to upgrade the cameras at 45 of its 122 institutions (37 percent) and has made upgrades to cameras at other

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<sup>1</sup> U.S. Department of Justice (DOJ) OIG, [Review of the Federal Bureau of Prisons' Contraband Interdiction Efforts](https://www.oig.justice.gov/reports/review-federal-bureau-prisons-contraband-interdiction-efforts), Evaluation and Inspections Report 16-05 (June 2016), [www.oig.justice.gov/reports/review-federal-bureau-prisons-contraband-interdiction-efforts](https://www.oig.justice.gov/reports/review-federal-bureau-prisons-contraband-interdiction-efforts). The OIG released two versions of this report, a Limited Official Use version for the BOP and a Redacted for Public Release version for the public.

institutions on an ongoing basis. Despite these efforts, the BOP's camera system continues to need significant infrastructure and equipment upgrades to transition from an outdated analog system to a modern, fully digital system. The BOP's current system relies primarily on analog cameras that produce poor-quality video, limited coverage of areas within institutions, limited ability to zoom camera coverage, inadequate video search capability, and restricted video storage periods. A fully digital camera system would provide improved video and coverage; enhanced zoom, filter, and search capabilities; and expanded video storage periods that would enhance the BOP's threat assessments, inmate monitoring, and contraband interdictions. While the camera upgrades the BOP implemented at those 45 institutions have addressed some of the camera deficiencies that led to the OIG's 2016 recommendation, we are concerned that the ongoing deficiencies the OIG is encountering in our investigations impact the BOP's ability to maintain safe and secure institutions for staff, inmates, and visitors.

As detailed below, we found that the BOP lacks a comprehensive strategic plan to address these significant deficiencies, including how it can obtain the necessary funding to implement such a plan. To ensure that it can address the need to upgrade its enterprise-wide camera system, the BOP should develop for Department leadership, the Office of Management and Budget, and congressional appropriators a multiyear strategic plan that includes an estimated budget and time frame to complete and implement the necessary upgrades.

We believe that the issues described in this advisory require BOP management's immediate attention, and we make one recommendation to address the concerns we identified.

## **Background**

### **BOP Actions Addressing the OIG's 2016 Recommendation**

In a 2016 report on the BOP's contraband interdiction efforts, the OIG identified deficiencies within the BOP's security camera system, namely inoperable cameras; poor-quality footage; blind spots known to inmates and staff; an insufficient number of cameras; fixed-position cameras instead of those with pan-tilt-zoom capabilities; camera systems with inadequate storage of footage (i.e., retention of footage for 2 weeks or less); and camera systems that are incompatible with other, non-BOP systems. The report found that these camera deficiencies affected the OIG's ability to secure prosecutions of staff and inmates in BOP contraband introduction cases and adversely affected the availability of critical evidence to support administrative or disciplinary action against staff and inmates. The report included examples of BOP staff misconduct cases that the OIG investigated in 2013 and 2014, which it was unable to pursue solely due to lack of—or poor-quality—video footage. The primary impact on the majority of cases involved cameras not being located in the incident area. Inadequate duration of video footage storage and improperly working cameras were cited as causes for the inability to pursue other cases. The OIG recommended that the BOP “evaluate the existing security camera system to identify needed upgrades, including to ensure sufficient coverage of entry points and other critical locations.”

The BOP has been reporting to the OIG since September 2016 on its progress in evaluating its camera system, determining which institutions need upgrades and the specific upgrades needed, and implementing the upgrades. To evaluate its camera system functionality and gain further insight into the camera deficiencies the OIG identified, the BOP issued surveys to the Wardens of all 122 BOP-managed institutions and their staff in January 2017 and November 2018. Survey results showed that there were 24,147 cameras BOP-wide at that time, made by 6 different manufacturers and ranging in age from 1 to 27 years. The majority of the cameras were analog rather than digital, and most were fixed-position devices that lacked pan-tilt-zoom capability. BOP officials explained that the different manufacturers, aging technology, and disparity between analog and digital cameras across all institutions produced incompatible enterprise-wide functionality and poor-quality video at some institutions.

In February 2019, the BOP reported that it had reviewed survey responses from all Wardens and determined that 45 of its 122 institutions required camera system upgrades and only 1 institution reported insufficient camera coverage of entry points and other critical locations. In September 2019, after conducting and reviewing results of market research, updating technical requirements for camera systems, and developing a statement of work, the BOP awarded a blanket purchase agreement to complete camera upgrades at the 45 institutions.<sup>2</sup> In the next section, we discuss our analysis of those upgrades.

### Completed Camera Upgrades at 45 Institutions

From January 2019 through June 2021, the BOP completed a series of upgrades to the security camera systems at 45 of its 122 institutions. In June 2021, the BOP reported that it had updated all cameras at these 45 institutions with the latest software and equipment and that it had installed additional cameras to bolster surveillance at entry points and other critical locations throughout these institutions. We analyzed the specific upgrades and found, as described below, that for these 45 institutions the BOP addressed some, but not all, of the camera deficiencies described in our 2016 report and improved certain aspects that the BOP deemed necessary.

### Location and Security Level of the Upgrades

The 45 institutions at which the BOP selected to implement camera upgrades span all 6 of the BOP's nationwide geographic regions. As Table 1 shows, upgrades are most heavily concentrated in the Northeast region, where the BOP upgraded cameras at 15 of its 19 institutions (79 percent).

**Table 1**  
**Camera Upgrades at 45 Institutions by Region**

Region	Number of 122 BOP-Managed Institutions by Region	Number of 45 Institutions Upgraded by Region	Percentage of 45 Institutions Upgraded by Region
Northeast	19	15	79%
South Central	21	9	43%
Mid-Atlantic	21	7	33%
Western	19	6	32%
North Central	20	4	20%
Southeast	22	4	18%

Source: OIG analysis of the BOP's June 2021 status update

The 45 institutions represent 4 of the 5 BOP institution security levels. As shown in Table 2 below, the BOP implemented over half of the upgrades at 9 of its 17 high security institutions (53 percent). However, the BOP did not implement camera upgrades at any of its minimum security institutions, which include Federal Prison Camps (FPC) and Satellite Prison Camps (SPC).<sup>3</sup>

<sup>2</sup> In its February 2019 status update to the OIG concerning the recommendations in our 2016 report, the BOP reported that 36 of the 45 institutions it identified as needing camera upgrades would require funding to complete the upgrades but that 9 institutions had already received funding and upgrades were underway. Accordingly, the September 2019 blanket purchase agreement covered upgrades at 36 of the 45 institutions.

<sup>3</sup> In a June 2021 Management Advisory Memorandum (MAM) to the BOP, the OIG expressed concerns regarding inmate accountability and security at FPC and SPC locations in connection with multiple investigations involving prison escapes. The June 2021 MAM included two recommendations to the BOP related to security cameras at camps: (1) ensure that all existing video cameras in FPCs and SPCs are in working condition and (2) install video cameras on all exterior building doors at FPCs and SPCs. By the time we issued that MAM, the BOP had begun taking actions to address the concerns we identified. See DOJ OIG, [Notification of Security Concerns at the Federal Bureau of Prisons Camp Locations](https://www.oig.justice.gov/reports/management-advisory-memorandum-notification-security-concerns-federal-bureau-prisons-camp), Investigations Division MAM 21-080 (June 2021), [www.oig.justice.gov/reports/management-advisory-memorandum-notification-security-concerns-federal-bureau-prisons-camp](https://www.oig.justice.gov/reports/management-advisory-memorandum-notification-security-concerns-federal-bureau-prisons-camp).

Table 2

Camera Upgrades at 45 Institutions by Security Level

Institution Security Level	Number of BOP-Managed Institutions by Security Level	Number of 45 Institutions Upgraded by Security Level	Percentage of 45 Institutions Upgraded by Security Level
High	17	9	53%
Low	30	13	43%
Administrative	20	8	40%
Medium	48	15	31%
Minimum	7	0	0%

Source: OIG analysis of the BOP's June 2021 status update

**Cost of the Upgrades**

The BOP spent a total of over \$12 million on the upgrades, ranging from a low of over \$63,000 at one institution to a high of over \$698,000 at another. The OIG notes that \$12 million represents less than 0.15 percent of the BOP's \$8.1 billion fiscal year 2021 enacted budget. The BOP paid for the camera upgrades at the 45 institutions through its annual operating expenses budget (Salary and Expenses account).<sup>4</sup> BOP officials explained that they paid for the camera upgrades in a "piecemeal" fashion, as funding became available, rather than through a budget dedicated specifically for camera or other security-related expenses. Given that camera upgrades present a critical, ongoing need for the BOP, we believe that the BOP should be proactive and strategic in how it plans its camera upgrades and spending. As the BOP continues planning for a transition from analog to a fully digital camera system, it should create a multiyear strategic plan and cost projection to allow Department leadership, the Office of Management and Budget, and congressional appropriators to understand the full business needs and timeline for implementing the upgrades and help ensure dedicated funding through completion.

**Types of Upgrades Implemented**

- **Number of cameras:** The upgrades added an additional 287 cameras across the 45 institutions, from 9,736 cameras pre-upgrade to 10,023 cameras post-upgrade. The cameras at those 45 locations comprise approximately 42 percent of the over 24,000 cameras BOP-wide.
- **Fixed versus pan-tilt-zoom cameras:** The upgrades at the 45 sites added 211 fixed-position cameras and 78 pan-tilt-zoom cameras. Although the OIG's 2016 *Contraband* report found that BOP staff and union representatives expressed concerns about the lack of cameras with pan-tilt-zoom capability and the limited functionality of fixed cameras, BOP officials told us in June 2021 that both pan-tilt-zoom and wide-angle fixed cameras are needed, provided that both are digital to allow high-quality images and zoom capability. BOP staff noted that pan-tilt-zoom cameras can be pre-programmed to move in a certain pattern, such as panning across a large area.
- **Analog versus digital cameras:** The BOP added 138 digital cameras through its upgrades at the 45 sites.
- **Camera manufacturers:** The BOP converted the camera systems at all 45 institutions from 5 different manufacturers to 1 manufacturer.

<sup>4</sup> The BOP's annual budget is divided into two major accounts: (1) Salary and Expenses and (2) Buildings and Facilities. The Salaries and Expenses account is considered the BOP's annual operating budget and funds the costs associated with administering and operating the federal prison system. The Buildings and Facilities account supports the site selection, design, and construction of new correctional facilities and the renovation, repair, and maintenance of existing institutions.

- **Video storage period:** The BOP's camera upgrades created a video footage storage period that meets or exceeds 14 days.<sup>5</sup> At 31 of the 45 institutions (69 percent), the upgrades created a storage period exceeding 14 days; those durations ranged from 20 days to 198 days.

### Completed and Ongoing Camera Upgrades BOP-Wide

The BOP reported in June 2021 that, in addition to having completed upgrades at the initial 45 institutions it identified, it is upgrading cameras at approximately 20 additional locations, which are in various stages of planning, scheduling, or completion, to prepare for a transition from analog to a fully digital camera system. The BOP also reported in June 2021 that it had installed cameras at every entry and exit point at all 122 institutions, that over 90 percent of its 122 institutions—including the 45 upgraded sites—now have camera systems made by 1 camera manufacturer, and that all 122 institutions meet or exceed the previous 14-day video storage minimum standard (newly constructed institutions will have 30 days of video storage capability).

### Remaining Camera Upgrades Needed

Of the over 24,000 cameras across all BOP institutions, 86 percent (about 20,700) are still analog or utilize old technology. Analog cameras produce poor-quality video, limited coverage of areas within institutions, limited ability to zoom and search recorded video, and restricted video storage periods, BOP officials have stated. A fully digital camera system would produce improved video quality and coverage; enhanced zoom, filter, and search capabilities; and expanded video storage periods of between 60 and 120 days. These capabilities would enhance the BOP's threat assessments, inmate monitoring, and contraband interdictions, according to BOP officials. While the BOP has installed the upgraded digital equipment at 45 sites, BOP officials told the OIG that the BOP would need "significant infrastructure upgrades" to achieve a fully digital platform BOP-wide.

### OIG Investigations Impacted by BOP Cameras

While the BOP's upgrades have addressed some of the deficiencies that led to the OIG's 2016 recommendation, over the past 5 years the OIG, in its investigations of BOP staff misconduct allegations, has continued to encounter the same camera deficiencies as those identified in 2016, including an insufficient number of cameras to capture alleged misconduct incidents, poor-quality video, inoperable cameras, and inadequate storage of video.

At institutions throughout the BOP over the past 5 years—including many that were not among the 45 institutions the BOP identified as needing upgrades—camera deficiencies have negatively impacted the OIG's ability to investigate allegations of BOP officials and inmates engaging in serious misconduct, including sexual assault, contraband introduction, civil rights violations, dereliction of duty, and inmate deaths. In fact, Correctional Officers and inmates engaging in such conduct have in many cases sought out known areas without camera coverage to avoid detection. In other cases, video footage was available and helpful, or even essential, to a conviction or administrative misconduct finding, which equally demonstrates the importance of a comprehensive, functioning, and high-quality BOP security camera system.

For example, in one case, the OIG investigated allegations that a Correctional Officer sexually assaulted an inmate on two separate occasions and the Correctional Officer was criminally charged for the assaults. While there was some video footage that was helpful at trial, there were no cameras in the areas where the alleged assaults occurred. The Correctional Officer was convicted of making false statements but acquitted

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<sup>5</sup> When the BOP began implementing camera upgrades at the 45 sites, its technical design guidelines specified a 14-day minimum duration for storing camera footage, according to the BOP. Current technical design guidelines for retaining footage now specify a 30-day duration. See BOP Construction and Environmental Review Branch, Technical Design Guidelines for New Institution Construction, March 1, 2021.

of four criminal charges—deprivation of rights under color of law, aggravated sexual abuse, and two counts of sexual abuse of a ward. In another case, the OIG investigated two alleged excessive use of force incidents by Correctional Officers against inmates at the same facility. The first incident happened in an area with no camera coverage, and the OIG concluded that there was insufficient evidence available to substantiate the allegation.<sup>6</sup> In that incident, the inmate alleged that two Correctional Officers escorted him to a secluded area without cameras and then assaulted him. In the second incident, the assault was captured on camera and the subject Correctional Officer—one of the same officers who was a subject of the first incident—provided an account that was contradicted by the video footage; as a result, the OIG was able to substantiate misconduct. However, even in the second incident, the footage was not high quality and did not have audio; both incidents were declined for criminal prosecution. In a third case, which involved allegations of sexual assault, the video footage was overwritten before the OIG received the complaint, impairing the OIG's investigation.

The OIG also has been investigating numerous instances of BOP staff falsifying time logs, including in incidents involving inmate deaths and other situations in which inmates have caused harm to themselves or others but no staff was present to intervene. In some of these cases, cameras have been essential to proving the falsification allegations. However, the lack of camera coverage or poor-quality video has hindered other cases, undermining accountability and enhancing the threat to inmate health and safety.

Equally importantly, in those instances in which an allegation of abuse or misconduct against a staff member is untrue, the absence of cameras can impact the OIG's ability to determine that the allegations were indeed fabricated. In those instances, while the OIG is likely to find that the allegations are unsubstantiated, the absence of adequate video footage can limit our ability to fully clear the staff member by finding that the allegations were false. It also impairs our ability to hold accountable those persons who make false allegations against BOP staff.

These are just a few examples of the investigations in which camera deficiencies have impacted our work, and they do not take into account the numerous investigations of BOP incidents by other entities, such as the BOP's Office of Internal Affairs and the FBI. Moreover, in addition to the deficiencies that have impacted our ability to investigate and secure prosecution of cases, the OIG continues to observe camera deficiencies in our other oversight work. For example, in a July 2021 audit of the BOP's management and oversight of its Chaplaincy Services Program, the OIG found that the placement of some cameras created blind spots because the camera placement was stationary and could not be adjusted by the chaplains.<sup>7</sup> One chaplain pointed out that inmates had identified these blind spots and have used them to engage in prohibited behavior, noting that he caught multiple inmates smoking when he saw smoke rising from a blind spot while monitoring the camera feed.<sup>8</sup> In its response to a recommendation in the Chaplaincy Services Program report, the BOP stated that it would modify its ongoing cameras upgrade plan to provide additional cameras in religious service areas, which, BOP staff told the OIG, would increase the total number and cost of upgraded cameras. In addition, on August 31, 2021, the OIG issued findings of misconduct against a BOP Warden for, among other things, failing to maintain a fully functioning camera system for more than a year and failing to report the issue to the BOP's regional management for remedy.<sup>9</sup>

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<sup>6</sup> Substantiated cases are allegations of BOP staff misconduct for which the OIG opened an investigation and found that the material facts supported the allegations, without regard to whether criminal charges were prosecuted, or the BOP took disciplinary action.

<sup>7</sup> DOJ OIG, [Audit of the Federal Bureau of Prisons' Management and Oversight of Its Chaplaincy Services Program](#), Audit Report 21-091 (July 2021), 10, [www.oig.justice.gov/reports/audit-federal-bureau-prisons-management-and-oversight-its-chaplaincy-services-program](http://www.oig.justice.gov/reports/audit-federal-bureau-prisons-management-and-oversight-its-chaplaincy-services-program).

<sup>8</sup> DOJ OIG, *Chaplaincy Services Program*, 10.

<sup>9</sup> DOJ OIG, [Findings of Misconduct by a Bureau of Prisons Warden for Failing to Address a Lack of Heat in Housing Units, Failing to Maintain a Functioning Camera System Throughout the Facility, and Lack of Candor](#), Investigative Summary 21-111 (August 2021), [www.oig.justice.gov/reports/findings-misconduct-bureau-prisons-warden-failing-address-lack-heat-housing-units-failing](http://www.oig.justice.gov/reports/findings-misconduct-bureau-prisons-warden-failing-address-lack-heat-housing-units-failing).

## Conclusion

Despite the considerable progress the BOP has made in identifying and implementing selected camera upgrades, the BOP must transition from an outdated analog system to a modern, fully digital system. An effective security camera system is essential for deterring misconduct at BOP facilities; holding those who commit misconduct accountable; and keeping staff, inmates, and the public safe. The OIG is concerned that, 5 years after issuing a report to the BOP identifying the need to upgrade its camera system, the OIG continues to face challenges investigating misconduct at BOP institutions due to camera deficiencies, including critical events not being adequately captured on camera, poor-quality video, inoperable cameras, and inadequate video storage. Moreover, many of the investigations in which the OIG has faced such challenges involved incidents at institutions that were not among the 45 identified by the BOP as needing upgrades. We are additionally concerned that the BOP does not have a dedicated budget, a detailed strategic plan, or a timeline for completing the digital camera system transition BOP-wide.

## Recommendation

The OIG recommends that the BOP take the following action to address the concerns identified in this Management Advisory Memorandum:

1. Develop a comprehensive strategic plan for transitioning to a fully digital security camera system that, among other things:
  - a. identifies enhancements needed to address camera functionality and coverage deficiencies,
  - b. provides cost projections and the BOP appropriations account to fund the upgrades, and
  - c. includes an estimated timeline for completion of the work.

The BOP has provided a formal response addressing the steps it has taken and plans to take in response to this memorandum, which is attached as Appendix 1. The OIG's assessment of those steps is provided in Appendix 2. Please provide an update on the status of the BOP's strategic plan within 90 days of the issuance of this memorandum. If you have any questions or would like to discuss this information and our concerns, please contact me at (202) 514-3435 or René Rocque Lee, Assistant Inspector General for Evaluation and Inspections, at (202) 616-4620.

cc: Gene Beasley  
Deputy Director, Federal Bureau of Prisons

Zachary J. Kelton  
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# Appendix 1: The BOP's Response



U.S. Department of Justice

Federal Bureau of Prisons

Office of the Director

Washington, DC 20534

October 22, 2021

MEMORANDUM FOR RENE ROCQUE LEE  
ASSISTANT INSPECTOR GENERAL  
FOR EVALUATION AND INSPECTION

FROM: M.D. Carvajal  
Director

A handwritten signature in blue ink, appearing to read "M.D. Carvajal", is written over the typed name and title.

SUBJECT: Response to the Office of Inspector General's (OIG)  
Management Advisory Memorandum: Notification of  
Needed Upgrades to the Federal Bureau of Prisons'  
Security Camera System

The Bureau of Prisons (BOP) appreciates the opportunity to provide a formal response to the Office of the Inspector General's above referenced notification. The BOP has completed our review of the notification and agrees with all recommendations. We offer the following response regarding the recommendations.

**Recommendations:**

1. Develop a comprehensive strategic plan for transitioning to a fully digital security camera system that, among other things:
  - a. identifies enhancements needed to address camera functionality and coverage deficiencies,
  - b. provides cost projections and the BOP appropriations account to fund the upgrades, and
  - c. include an estimated timeline for completion of the work.

**BOP's Response:** The BOP is committed to implement the following enhancements to the existing camera systems in an effort to transition to a fully digital platform. This effort will enhance institution safety and security by reducing "blind spots" and improving video quality, providing for wide-range

area coverage and clear picture image for enhanced internal security, criminal prosecutions and public safety.

The BOP has invested \$6.7 million in the 45 identified sites with security camera system deficiencies. Upgrades have been made at all 45 locations to include hardware and software upgrades, coverage of all entrance/exit points, and coverage of critical locations throughout the institutions. All of these upgrades are expected to provide better coverage, thus increasing the safety and security of the institutions. Additionally, upgrades of the operating systems have enabled better bandwidth compression thus providing the ability to increase the storage duration of video and in many cases increase picture quality. The eventual objective is to convert all sites to a 100% digital platform nationwide.

#### **Future Physical Infrastructure Upgrades**

There are three phases to completing all of BOP's needed video surveillance systems upgrades.

The Phase One expense is approximately \$25.6 million. Prior to installing digital cameras, BOP will need to purchase an estimated 700 additional network access switches at an estimated cost of \$10.6 million. In addition, BOP will install the infrastructure required to support the digital cameras at an estimated cost of \$15 million. Currently, due to the age of BOP institutions and their structural layout, many sites have multi-mode fiber. Such wiring works for analog cameras, but does not meet the bandwidth requirements for an all-digital platform. The BOP needs to install an improved infrastructure which consists of a single mode fiber optic backbone and network switching at various sites. Due to the varying degrees of readiness and access, this phase could take approximately 24 months.

The Phase Two expense is approximately \$25 million for the purchase of 21,000 digital cameras to replace the existing analog cameras. This phase could be completed in approximately 24 months.

The Phase Three expense is approximately \$8 million and encompasses the installation and deployment of an enterprise class, cloud-based video analytics, search, and storage solution. This phase could occur concurrently with Phase Two

when cameras are replaced and they are integrated into the analytics solution.

The total budget estimated to complete the video surveillance system upgrade is \$58.6 million over three phases with an estimated time frame for completion of four to five years. The success of the plan is contingent on receiving appropriations for the total amount estimated.

## Appendix 2: OIG Analysis and Summary of Necessary Actions

The OIG provided a draft of this Management Advisory Memorandum to the BOP, and the BOP provided a formal response, which is incorporated in Appendix 1. The BOP stated in its response that it agreed with the OIG's recommendation, noting that it is committed to transitioning all security camera systems nationwide to a 100 percent digital platform. The BOP described upgrades it has already made to its camera system and additional upgrades needed to complete all the upgrades, along with estimated cost projections and timelines.

Below, we provide a summary of the actions necessary to close the recommendation.

1. **Develop a comprehensive strategic plan for transitioning to a fully digital security camera system that, among other things:**
  - a. identifies enhancements needed to address camera functionality and coverage deficiencies,
  - b. provides cost projections and the BOP appropriations account to fund the upgrades, and
  - c. includes an estimated timeline for completion of the work.

**Resolved.** The BOP estimated that it will cost a total of \$58.6 million over three phases and take between 4 to 5 years to complete its transition to a fully digital security camera system, noting that the success of its plan is contingent on receiving appropriations for the total amount. Phase One, which the BOP estimated will cost approximately \$25.6 million and take approximately 24 months, entails purchasing additional network access switches and installing improved infrastructure required to support digital cameras. Phase Two, which the BOP estimated will cost approximately \$25 million and take approximately 24 months, entails purchasing 21,000 digital cameras to replace the existing analog cameras. Phase Three, which the BOP estimated will cost approximately \$8 million and could occur concurrently with Phase Two, encompasses installing and deploying an enterprise class, cloud-based video analytics, search, and storage solution.

The BOP's planned actions are responsive to this recommendation. The OIG requests that the BOP provide an update on the status of its strategic plan within 90 days of the issuance of this memorandum.