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Office of Inspector General
Western Region

Audit Report

Forest Service's Replacement Plan for Firefighting Aerial Resources

Report No. 08601-53-SF
July 2009



UNITED STATES DEPARTMENT OF AGRICULTURE

OFFICE OF INSPECTOR GENERAL

Washington D.C. 20250



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REPLY TO

ATTN OF: 08601-53-SF

TO: Tom Tidwell
Chief
Forest Service

ATTN: Art Seggerson
Audit Liaison

FROM: Robert W. Young /s/
Assistant Inspector General
for Audit

SUBJECT: Forest Service's Replacement Plan for Firefighting Aerial Resources

This report presents the results of our review of the Forest Service's (FS) replacement plan for firefighting aerial resources. The FS' written response to the draft report is included as exhibit B with excerpts and the Office of Inspector General's (OIG) position incorporated into the relevant sections of the report.

Based on the written response, we have accepted the FS' management decision for all the report recommendations except for Recommendation 1. We will be able to accept your management decision for the remaining recommendation when you provide us with additional information as outlined in the OIG Position section of the report.

In accordance with Departmental Regulation 1720-1, please furnish a reply within 60 days describing the corrective actions taken or planned and the timeframes for completion of the recommendation for which management decision has not yet been reached. Please note that the regulation requires a management decision to be reached on all recommendations within a maximum of 6 months from report issuance. Follow your internal agency procedures in forwarding final action correspondence to the Office of the Chief Financial Officer.

We appreciate the assistance your staff provided to our auditors during our review.

Attachment

Executive Summary

Forest Service's Replacement Plan for Firefighting Aerial Resources

Results in Brief

The Office of Inspector General (OIG) evaluated Forest Service's (FS) overall plan for procuring new airplanes and helicopters for its aerial firefighting program. Over the next decade, FS plans to modernize its firefighting aircraft, particularly its airtanker fleet which has an average age of 50 years. Airtankers (planes that carry flame retardant to fires) are key resources because they can fly to remote areas and quickly contain small fires before they become larger, costlier, and more dangerous. In 2002, FS had 44 airtankers, but lost more than half in 2004 after they were grounded due to safety concerns. FS estimates that by 2012 the remaining 19 airtankers will begin to be either too expensive to maintain or no longer airworthy. Unlike its other aircraft which FS has the option to lease, FS will likely have to purchase the airtankers due to the lack of manufacturers with this type aircraft willing to lease them at a reasonable rate. According to FS, replacing airtankers alone will cost up to \$2.5 billion. Overall, we agreed with FS' assessment of its future needs for firefighting aircraft, but concluded that the agency should strengthen both its justification for acquiring them and its ability to collect funds to repair and replace them once procured.

Specifically, to receive Congressional funding for new aircraft, FS must first demonstrate its need for them to the Office of Management and Budget (OMB) by developing Capital Asset Plans and Business Case Summaries (exhibit 300s). In part, the exhibits must justify acquisition costs by connecting the benefits of the proposed aircraft to performance measures and goals in FS' strategic plan. OMB uses approved exhibits as part of its budget decision-making process, but this does not guarantee funding. After FS convinces OMB to budget for new firefighting aircraft, FS must next justify the cost to Congress, which holds the final funding authority. Since both OMB and Congress allocate limited funds among competing agencies, FS should not only meet OMB's minimum requirements to justify acquiring new aircraft, but also make its strongest argument to fund the acquisitions. FS has worked with two different independent contractors since 2005 to help it develop an exhibit 300 for its aviation program that meets OMB's requirements. To date, FS has formally submitted only two of its exhibit 300s to OMB for approval. According to FS, OMB rejected the first exhibit 300 because it lacked both an acquisition plan and a cost-benefit analysis and OMB has yet to render its decision on the second exhibit 300.

Our review of FS' exhibit 300s concluded that they do not present the best case for acquiring new firefighting aircraft because the agency has not: (1) used aviation firefighting performance measures that directly demonstrate cost-impact, (2) collected current aviation performance data to determine how new aircraft will improve firefighting performance, and (3) formally established an

integrated team to take charge of developing the agency's exhibit 300. If FS does not make a convincing case, Congress and OMB may not give funding support for replacing aging aircraft, which may weaken future firefighting effectiveness and firefighter safety. In addition, we determined that FS has not effectively used its working capital fund (WCF), which collects fees from users of the aircraft, to help pay for repairing and replacing the agency's fleet.

Specifically, to strengthen its case for acquiring new aircraft and improve its ability to repair and eventually replace them, we recommend the following:

Better Performance Measures

In early efforts to justify replacing aging aircraft, FS did not use aviation firefighting performance measures that directly demonstrated cost-impact. Instead, FS linked its plans for new aircraft to goals that were either too general to measure (like improved "responsiveness") or were for interagency firefighting and so did not specifically gauge the success of FS' own aviation program. Instead, we recommend that FS use two performance measures it developed to assess wildland fire management. The first tracks FS' initial attack success—i.e., the percentage of fires contained early before they become larger, costlier, and more dangerous to fight. The second measure quantifies FS' ability to fight similar fires for comparable costs—i.e., the percentage of fires which escape initial attack that exceed a stratified cost index. By analyzing the effect of firefighting aircraft on these two measures, FS can prove the cost-benefit of acquiring new aircraft.

For example, FS' initial attack success rate has dropped since it began losing airtankers in 2004 due to safety concerns. By 2007, FS' success rate had dropped from 98.8 percent to 97.3 percent. FS estimates that this 1.5 percent decrease represents approximately 150 more fires that escaped initial attack and cost FS an additional \$300 million to \$450 million to suppress. In comparison, new airtankers cost up to \$75 million each. So, if FS can demonstrate that new, faster, more reliable, higher-capacity airtankers increase the agency's initial success rate, then it can show that acquiring them is cost effective.

Actual Performance Data

In order to link the benefit of acquiring aircraft to the performance measures above, FS needs to collect current, actual aviation firefighting data. Instead, the agency relies on earlier studies, including a 1995 computer model's analysis, to make its case to OMB for acquiring new airtankers. The model shows that fighting fires with airtankers is nine times more cost effective than fighting fires without them, but it averages all fires together (both when airtankers were and were not appropriate) and uses data gathered over a decade ago. Due to concerns over the adequacy of the data, FS dropped it from its most recent exhibit 300.

Instead, we recommend that FS collect performance data from its current aerial firefighting operations, which will better support its need for new aircraft. For example, FS determines its initial attack success rate from data collected through fire reports on each wildfire it fights. FS stores this data in the National Interagency Fire Management Integrated Database. By modifying the reports and database to include airtankers' impact on firefighting, FS can quantify the actual role played by its current airtankers, and so better project the effect of new airtankers. In addition, FS can use this data to guide its selection of new airtankers since it can determine which combination of airtanker characteristics (e.g., speed, retardant capacity, etc.) yields the most suppression benefit.

Integrated Team

According to OMB, agencies should develop exhibit 300 acquisition proposals using an integrated project team that, at a minimum, includes a program manager and personnel from operations, budget, accounting, and procurement. In 2005, FS consulted experts throughout the agency as it began developing an exhibit justifying airtankers. However, the agency eventually settled on a group representing procurement, program, and budget, and did not formally include personnel in other relevant areas, such as operations staff from the National Interagency Fire Center (NIFC). Currently, responsibility for overseeing FS' exhibit 300s rests primarily with one program official.

Considering the significant cost of the proposed acquisition and its overall impact on the effectiveness of FS' aviation program, the FS must ensure that it acquires aircraft that are the best overall fit for firefighting missions. The agency should establish an integrated team capable of selecting aircraft in consideration of all relevant factors—program, operations, budget, etc. Such a team should have its own charter specifying the team's purpose, authority, and responsibilities. The charter should also set goals and timeframes for completing both planning and procurement. Once these acquisition steps are complete, the team will also need to continually assess whether the aircraft procured are meeting the performance measures in the agency's strategic plan, and, if not, make appropriate adjustments for future procurements.

Effective Working Capital Fund for Aircraft Replacement

FS did not manage its WCF effectively to collect sufficient money to replace existing aircraft. The fund was established to help FS gather money to repair and replace its fleet by charging fees to users of the aircraft. However, FS did not update its fees as the years passed to reflect escalating costs. By the time FS realized its error in 1997, it decided not to adjust the fees to reflect current expenses because this would have been cost-prohibitive—essentially charging 1990s prices for 1980s aircraft. Currently, the fund only holds \$8 million while smokejumper aircraft can cost over \$5 million each and airtankers, the lynchpins of FS' proposed acquisitions, can cost up to \$75 million each to replace. FS

suspended the fund in 2008 because it was not achieving its purpose of collecting enough to replace its current fleet of 26 aircraft.

As a result, FS will now have to rely on yearly Congressional appropriations to replace aircraft as they age and eventually wear out. According to FS, without the fund, FS will not recoup its ownership expenses when other organizations use its planes. FS' budget will be subject to volatile, unpredictable spikes as occasional accidents necessitate buying expensive new aircraft to preserve the agency's firefighting effectiveness. Also, organizations without aircraft replacement funds tend to have older fleets, which increases operation and maintenance costs, and decreases safety.

If properly administered, the WCF can be a valuable tool for FS to timely replace its aircraft. We therefore recommend that the agency reinstitute the fund and establish realistic rates that will enable it to meet its long-term needs for aircraft repair and replacement. This will also help ensure the continuing effectiveness of FS' aerial firefighting without depending solely on Congressional appropriations or annual budget decisions.

Recommendations In Brief

To strengthen its case for acquiring new aircraft, we recommend that FS:

- Establish an integrated team to complete both the planning and procurement processes for acquiring new firefighting aircraft. Such a team should have its own charter specifying the team's purpose, authority, and responsibilities. At minimum, the team should include program, operations, budget, accounting, and procurement personnel.
- In coordination with stakeholders, require that the team adapt goals and performance measures, such as those in its wildland fire management analysis, to include in the agency's aviation strategic plan. The team should also plan to assess whether the aircraft FS ultimately procures are meeting the performance measures in the agency's aviation strategic plan, and, if not, make appropriate adjustments for future procurements.
- Modify both the fire report and the National Interagency Fire Management Integrated Database to include an assessment of airtankers' impact on suppressing fires during initial attack and after for those fires that escape.
- Require that the integrated team perform the necessary analysis using actual performance data from the Fire Management Integrated Database to demonstrate the benefits the agency receives from firefighting aircraft in relation to FS' goals and performance measures.

To properly plan for and fund the replacement of its firefighting fleet, we recommend that FS:

- Reinstitute the WCF using realistic rates that enable the agency to meet its long-term needs for aircraft repair and replacement.

**Agency
Response**

In its written response to the draft report, dated June 10, 2009, FS generally concurred with all of our findings and recommendations. The complete written response is shown in exhibit B of the report.

OIG Position

Based on FS' written response, OIG accepts FS' management decision on all but one of the audit recommendations. Additional FS actions are needed in order to reach management decision on the remaining recommendation.

Abbreviations Used in This Report

CFO	Chief Financial Officer
DOI	Department of Interior
FOR	Fixed Ownership Rate
FS	Forest Service
FSM	Forest Service Manual
FY	Fiscal Year
IRC	Increased Replacement Cost
NFMAS	National Fire Management Analysis System
NIAC	National Interagency Aviation Committee
NIFC	National Interagency Fire Center
NFS	National Forest System
OIG	Office of Inspector General
OMB	Office of Management and Budget
USDA	United States Department of Agriculture
WIRUS	Wildfire Initial Response Assessment System
WCF	Working Capital Fund

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Background and Objectives

Background

FS primarily uses its aviation resources to support ground firefighters through missions such as transporting cargo and personnel, dropping fire retardant, and flying reconnaissance missions. In total, FS owns 24 fixed-wing airplanes and 3 helicopters and contracts for 804 other aircraft, including helicopters, airtankers, lead planes, and smokejumpers (see exhibit A). Over the next decade, FS plans to modernize its firefighting aircraft, particularly its fleet of airtankers which has an average age of 50 years. Airtankers (planes that carry flame retardant to fires) are key resources because they can fly to remote areas and quickly contain small fires before they become larger, costlier, and more dangerous.

In 2002, FS had 44 airtankers, but lost more than half in 2004 after they were grounded due to safety concerns. FS' decision to ground the airtankers was based on an independent review of its aviation program following the loss of two airtankers. The airtankers crashed during the 2002 fire season after suffering wing losses while delivering retardant. These accidents resulted in the death of five crewmembers. FS estimates that by 2012 the remaining 19 airtankers will begin to be either too expensive to maintain or no longer airworthy. Because the number of airtankers has sharply declined since 2002, annual flight time for the remaining aircraft has almost doubled, which leads to more stress on the remaining fleet, more repairs and maintenance, and costlier operating expenses. Unlike its other aircraft which FS has the option to lease, FS will likely have to purchase the airtankers due to the lack of manufacturers with this type aircraft willing to lease them at a reasonable rate. According to FS, replacing airtankers alone will cost up to \$2.5 billion.

FS has completed a number of studies to determine the appropriate mix and type of aircraft needed for an effective firefighting program and also to address modernizing its fleet. Recent studies addressing the need for airtankers and other aircraft include a series of national airtanker studies completed in 1995, 1996, and 2005, referred to as NATS 1, 2, and 3.¹ NATS 1 determined the optimal number and location of the aircraft, NATS 2 determined the performance attributes needed for the aircraft, and NATS 3 re-examined the aircraft performance attributes recommended in NATS 2. The study concluded that airtankers are more efficient on initial attacks than helicopters, and that one or two airtankers is as effective as eight large helitankers (helicopters that carry flame retardant to fires). The study also concluded that the optimal number of airtankers is between 34 and 41.

¹ The official title for NATS 3 is the "Wildland Fire Management Aerial Application Study."

Congress also tasked FS and its firefighting partner agencies in the Department of Interior (DOI)² to develop a comprehensive, long-term (15-20 year) interagency strategic plan for their wildfire suppression aviation programs. The plan was to identify the quantity and type of aircraft the agencies needed,¹ funding options for the aircraft, and where the aircraft would be located among the agencies. Although finalized by agency officials in April 2008, it still has to be reviewed and approved by OMB.

Before agencies can acquire new aircraft, OMB Circular No. A-11, Preparation, Submission and Execution of the Budget, requires that they include their plans for acquiring new aircraft in their initial budget submissions to OMB.³ Agencies use Capital Asset Plans and Business Case Summaries (exhibit 300s) to make a business case for their major acquisitions.⁴ Essentially, agencies justify their proposals to OMB. If OMB approves, it then proposes them to Congress. Congress approves the acquisition when appropriations are enacted for the asset. OMB then apportions the funds as appropriate.⁵ OMB reviews the exhibit 300 annually as a part of the budget cycle. In addition, agencies must complete applicable portions of the exhibit for any year in which they acquire aircraft, and they must update the entire exhibit every 5 years.

Until recently, the exhibit 300 was geared towards information technology procurement projects. As a result, agencies were unfamiliar with the requirements to successfully complete an aircraft exhibit 300. To clarify the requirements and to assist Federal agencies with completing consolidated aircraft exhibit 300s, the General Services Administration developed an Aircraft and Vehicle Capital Asset Planning Desk Guide. FS has been working with two different independent contractors since 2005 to help it develop an exhibit 300 for its aviation program that meets OMB's requirements. To date, FS has formally submitted only two of its exhibit 300s to OMB for approval. According to FS, OMB rejected the first exhibit 300 because it lacked both an acquisition plan and a cost-benefit analysis and OMB has yet to render its decision on the second exhibit 300.

The Department of Agriculture Organic Act of 1956, allowed agencies to establish WCFs for their major capital acquisitions such as aircraft. The WCF enables agencies to plan for the timely replacement of their aircraft without having to depend on their annual budget allocations and Congressional appropriations, both of which can change as priorities shift from year to year. Through the WCF for aircraft, FS can charge internal and external aircraft users—such as State firefighting agencies—for operating,

² These firefighting partner agencies include the Bureaus of Land Management and Indian Affairs, the Fish and Wildlife Service, and the National Park Service.

³ OMB Circ. No. A-11, Sec. 25.5 (June 27, 2002).

⁴ OMB Circ. No. A-11, Sec. 300.9 (June 27, 2002).

⁵ Pg. 25 of the Capital Programming Guide, Supplement to OMB Circular No. A-11, Pt. 3: Planning, Budgeting, and Acquisition of Capital Assets, July 1997.

depreciation, and replacement costs. FS' WCF rates for aircraft consist of a use rate per hour and a monthly fixed ownership rate. Use rates are established by regions and include fuel, oil, maintenance, and planned airworthiness and maintenance costs. The fixed ownership rate includes program management costs, direct labor, training, hangar costs, depreciation, and increased replacement costs. Both use and fixed ownership rates should be adjusted to take into account the rising costs of aircraft, inflation, and operations.

Objectives

The overall objective of our audit was to evaluate FS' strategic planning for aerial resources needed to support its firefighting program. Specifically, we evaluated FS' program to: 1) determine the optimal number and mix of firefighting aircraft; 2) employ accurate cost data and relevant measures to continually assess aircraft performance; and 3) constantly improve the effectiveness of its firefighting aviation program by replacing inefficient, ineffective, unsafe, and obsolescent aircraft. To accomplish our overall objective, our audit focused on FS' efforts to develop exhibit 300s that adequately documented and supported its aircraft replacement needs. We also evaluated FS' management of the WCF aircraft reserve account created to fund the replacement of its existing aircraft.

Details of our audit methodology can be found in the Scope and Methodology section at the end of this report.

Findings and Recommendations

Section 1. Aircraft Acquisition Funding

Finding 1

FS' Justification for Acquiring New Firefighting Aircraft Needs to be Strengthened

FS has not made its strongest case for acquiring new firefighting aircraft. This occurred because the agency has not: (1) used aviation firefighting performance measures that directly demonstrate cost-impact, (2) collected current aviation performance data to determine how new aircraft will improve firefighting performance, and (3) formally established an integrated team to take charge of developing the agency's justification to OMB. FS believed it already had adequate performance measures and an integrated team working on its justification for new aircraft. FS did acknowledge however that the team was never formally established with specific goals and responsibilities and that participation from team members therefore varied. FS had not considered the need to use actual performance data to support its case for new aircraft. If FS does not make a convincing case, Congress and OMB may not give funding support for replacing aging aircraft, which may weaken future firefighting effectiveness and firefighter safety.

According to OMB, agencies should assemble integrated teams (budget officials, operations staff, etc.) to develop exhibit 300s that demonstrate the need for major acquisitions, such as aircraft. The exhibits must justify the Government's expense, in part, by connecting the acquisitions' benefits to performance measures and goals in agencies' strategic plans.⁶ OMB uses approved exhibits as part of its budget decision-making process, but they do not guarantee funding.

If agencies convince OMB to include their proposed acquisitions in its budget plans, they must next justify their proposals to Congress, which holds final funding authority.⁷ In particular, regulations require that agencies obtain "specific-authority from Congress" to purchase aircraft.⁸ Since both OMB and Congress allocate limited funds among competing agencies, FS should not only meet OMB's minimum requirements to justify acquiring new aircraft, but also make its strongest argument for OMB and Congress to fund the acquisitions.

⁶ OMB Circ. No. A-11, Sec. 300.9 (June 27, 2002).

⁷ OMB Circ. No. A-11, Capital Programming Guide (2006).

⁸ 41 CFR 102-33.5 (July 1, 2008)

In early efforts to demonstrate the need to replace aging aircraft, FS did not clearly link the agency's strategic goals to performance measures for achieving those goals. However, FS is currently developing an exhibit 300 for OMB that connects performance measures such as "acreage protected within a one-hour flight" and "percent of fires not contained in initial attack that exceed a stratified cost index" to agency goals and objectives, such as "suppress wildfires efficiently and effectively." Further, through 2005, FS has sponsored several studies to make clear its need for firefighting aircraft, including one in 1995 that used a computer model to demonstrate the cost-benefit of replacing its airtankers. Also, before developing analyses to support acquiring aircraft, FS consulted relevant experts, such as operations staff at NIFC, for input about the need for replacement aircraft, which ones to replace, and which aircraft models to use for replacement.

While we agree that the scope and depth of such actions represent significant accomplishments, we maintain that FS can further strengthen its case. Specifically, FS can (1) reinforce the link between performance measures and acquisition costs by including measures that relate directly to firefighting costs, (2) supplement analyses from earlier studies and computer models with data drawn from current aircraft performance, and (3) assemble an integrated team of experts to oversee acquisition proposals from beginning to end. Together, these steps will help FS strengthen its case to OMB and Congress on the advantage of replacing aircraft in terms of cost-effectiveness and strategic benefit, which will in turn improve the agency's funding chances. We discuss our recommended actions in more detail below.

Link Aircraft Performance Measures to Firefighting Costs

In 2003, FS developed a strategic plan for aerial firefighting, but the performance goals and measures were largely too general to make an adequate case to OMB for acquiring aircraft. Where OMB's exhibit 300 instructions called for clearly measurable performance measures, FS' strategic plan set goals, such as "to have a cost effective, responsive, and sustainable aircraft fleet equipped to meet all fire and aviation requirements when called upon." Broad goals like "cost effective," "responsive," and "sustainable" are not clear performance measures that can be used to prove the proposed planes' advantage over FS' present ones. Further, the plan did not specify how cost-effectiveness is calculated and what constitutes responsiveness. FS revised the strategic plan in 2004, but it still did not contain adequate performance goals and measures and was never implemented.

In 2007, the National Interagency Aviation Council (NIAC), which includes FS, completed a strategic plan for the aviation programs of both FS and its firefighting partners in DOI. According to FS, the interagency plan serves as FS' strategic plan, but shared objectives were generally too broad to measure

against and did not distinctly demonstrate a benefit to FS' aviation firefighting program. To justify acquiring aircraft for the agency, FS needs to have performance measures specific to the agency.

We believe that two performance measures FS developed to assess its wildland fire management can also be used to gauge aerial firefighting. The first measure tracks FS' initial attack success—i.e., the percentage of fires contained early before they become larger, costlier, and more dangerous to fight. The second measure quantifies FS' ability to fight similar fires for comparable costs—i.e., the percentage of fires which escape initial attack that exceed a stratified cost index.⁹ By analyzing the effect of firefighting aircraft on these two measures, FS can demonstrate the cost-benefit of acquiring new aircraft.

For example, FS' initial attack success rate has decreased since it began losing airtankers in 2004 due to safety concerns. By 2007, FS rate had dropped from 98.8 percent to 97.3 percent. FS estimates that this 1.5 percent decrease represents approximately 150 more fires that escaped initial attack and cost FS an additional \$300 million to \$450 million to suppress. In comparison, new airtankers cost up to \$75 million each. So, if FS can demonstrate that new, faster, more reliable, higher-capacity airtankers increase the agency's initial success rate, then it can show that acquiring them is cost effective. Similarly, if FS can demonstrate that the new airtankers will help suppress fires that escape initial attack faster and are cheaper to operate than its current fleet, this further justifies their proposed acquisition.

In its latest exhibit 300, FS added the first performance measure discussed above but not the latter addressing the initial attack success rate. FS stated in the exhibit 300 that the investment in 25 new airtankers will reduce the cost of large fires through increased effectiveness during initial attack of wildfires and that the potential savings alone may offset the initial cost of the investment. The general consensus among the firefighting community is that airtankers are most effective during the initial attack stage of a fire. However, FS still lacks a performance measure in its exhibit 300 that measures the airtankers worth to the firefighting effort during this very critical stage of the fire. FS believes that OMB would be opposed to such a measure since it would be contrary to FS policy to no longer fight every fire. However, airtankers are generally used only after the decision has already been made to fight the fire and the performance measures used in the exhibit 300 should be specific to the use of the aircraft and their overall impact on the firefighting effort.

⁹ Using historical data, the stratified cost index calculates expected suppression costs of large fires (i.e., those that are at least 300 acres) with similar fire characteristics such as fuel type, fire intensity, topography, region, and values at risk.

Prove Cost-Benefit Using Current, Actual Performance Data

In order to link the benefit of acquiring aircraft to the performance measures above, FS needs to collect current, actual aviation firefighting data. For example, FS does not currently track or measure airtankers' actual firefighting performance. Instead, the agency relies on earlier studies, including a 1995 computer model's analysis, to make its case to OMB for acquiring new airtankers.¹⁰ The model shows that fighting fires with airtankers is nine times more cost effective than fighting fires without them, but it averages all fires together (both when airtankers were and were not appropriate) and is based on data gathered over a decade ago. Due to concerns over the adequacy of the data, FS dropped it from its most recent exhibit 300.

Instead, we maintain that by gathering actual performance data from its current aerial firefighting operations, FS can better justify its proposed acquisitions. For example, FS determines its initial attack success rate from data collected through fire reports on each wildfire it fights. Data from the reports is also entered and tracked in FS' National Interagency Fire Management Integrated Database. FS could modify both its fire report and database to include airtankers' impact on suppressing the fire during initial attack, and after for those that escape. This would provide a source of data to quantify the actual role played by its current airtankers, and to project the effect of proposed airtankers. In addition, FS could use this data to guide its selection of new airtankers since it could determine what combination of airtanker characteristics (e.g., speed, retardant capacity, etc.) yields the most suppression benefit.

Assemble an Integrated Team To Oversee Acquisition

According to OMB, agencies should develop exhibit 300 acquisition proposals using an integrated project team that, at minimum, includes a program manager and personnel from operations, budget, accounting, and procurement.¹¹ FS consulted experts throughout the agency as it began developing an exhibit to justify the acquisition of new airtankers in 2005. However, the agency eventually settled on a group representing procurement, program, and budget, but did not formally include personnel in other relevant areas, such as operations staff from NIFC. Currently, responsibility for FS' exhibit 300s rests primarily with one program official. As a result, FS lacks assurance that the aircraft it proposes to purchase are best suited to accomplish their firefighting missions.

¹⁰ FS uses two automated systems to perform its analysis, the National Fire Management Analysis System (NFMAS) and the Wildfire Initial Response Assessment System (WIRAS). NFMAS' initial attack assessment model analyzes initial attack effectiveness. WIRAS models the fire suppression activities by using historically recorded fire times and locations from multiple fire seasons. WIRAS is used in conjunction with NFMAS.

¹¹ Pg. 9 of the Capital Programming Guide, Supplement to OMB Circular No. A-11, Pt. 7: Planning, Budgeting, and Acquisition of Capital Assets, June 2006.

For example, FS' aviation program officials disagreed with NIFC's operations staff about the best model of smokejumper (a light plane that firefighters parachute from). NIFC's operations staff was concerned that the model favored by program officials did not have enough space for firefighters to work safely and that it would take too long to prepare for missions. However, these issues were not addressed by FS' program staff before it decided to include the model in the exhibit 300 that supported acquiring new smokejumper aircraft. Had NIFC operations staff been part of the team that prepared the acquisition proposal, these issues could have been formally resolved and FS would have had more assurance that it had selected the best model aircraft to include in the exhibit 300.

Considering the significant cost of the proposed acquisition and its overall impact on the effectiveness of FS' aviation program, the FS must ensure that it acquires aircraft that are the best fit for their firefighting missions. The agency needs to establish an integrated team capable of selecting acquisitions in consideration of all relevant factors—program, operations, budget, etc. Such a team should have its own charter specifying the team's purpose, authority, and responsibilities. This charter should set goals and timeframes for completing both the planning and procurement processes. Once these acquisition steps are complete, the team will also need to continuously assess whether the aircraft procured are meeting the performance measures in the agency's aviation strategic plan, and, if not, make appropriate adjustments for future procurements.

Once assembled, the team should adapt goals and performance measures, such as those in FS' wildland fire management analysis, for the FS' aviation program to include in the agency's aviation strategic plan. The FS should demonstrate its need for new aircraft by analyzing their benefit over its current fleet in relation to achieving these goals and measures and by connecting them to firefighting costs. Further, FS needs to prove the aircrafts' worth to the firefighting program by tracking current performance of its aircraft in the actual firefighting environment. Together, these actions will help FS make a stronger case to OMB and Congress for acquiring new firefighting aircraft to replace its aging fleet.

Recommendation No. 1

Establish an integrated team to complete both the planning and procurement processes for acquiring new firefighting aircraft for FS' aviation program. Such a team should have its own charter specifying the team's purpose, authority, and responsibilities. At a minimum, the team should include program, operations, budget, accounting, and procurement staff.

Agency Response

The FS concurs with this audit recommendation. Fire and Aviation Management (FAM) will establish an Integrated Team Project to complete the planning and procurement process for selecting and acquiring aircraft. This Integrated Team Project will be initiated upon OMB or Congressional approval of the budget request for aircraft. Integrated Project Teams (IPT) will have a charter and meet OMB direction for qualified project managers as well as federal and agency AQM authorities. FS will include the staff necessary to insure that the agency selects the best aircraft. FS' estimated completion date for this action is June 30, 2010.

OIG Position

We do not fully accept FS' management decision on this recommendation. To reach management decision, FS needs to immediately establish the integrated project team so that it can also be involved in completing the planning phase of the proposed acquisition as recommended. The team's involvement will ensure not only that the appropriate performance measures are developed and used in the Exhibit 300, but that the number and type of aircraft the FS wants to acquire will enable it to meet its performance measures in the most cost efficient and effective manner possible. Excluding the integrated project team from this critical phase of the acquisition process increases the FS' risk that it will not acquire the best suited aircraft for its firefighting mission.

Recommendation No. 2

In coordination with stakeholders, require that the integrated team set specific goals and timeframes for completing both the planning and procurement processes.

Agency Response

The FS concurs with this audit recommendation. Once established, the IPT will receive agency goals and strategic decision from the FS Executive Leadership Team (ELT) commensurate with the Aviation Strategy and stakeholders input. Timeframes will adhere to Federal Acquisition Regulations and be negotiable between the government, contractors or manufacturers. FS' estimated completion date for this action is June 30, 2010.

OIG Position

We accept FS' management decision on this recommendation. For final action, FS needs to provide the Office of the Chief Financial Officer documentation showing that the agreed upon action has been taken.

Recommendation No. 3

In coordination with stakeholders, require that the team adapt goals and performance measures, such as those in the wildland fire management analysis, to include in the agency's aviation strategic plan. The team should also plan to assess whether the aircraft FS ultimately procures is meeting the performance measures in the agency's aviation strategic plan, and if not, make the appropriate adjustments for future procurements.

Agency Response

The FS agrees that performance measures are important, however it does not entirely concur with this audit recommendation. FAM reports on a number of program accomplishments through a variety of measures, including those in the agency's Strategic Plan, the Department of Agriculture's Strategic Plan, measures established through the Program Assessment and Rating Tool (PART) process (which are negotiated with OMB), measures associated with the 10-Year Comprehensive Strategy, measures used in the management tool Fire Program Analysis (FPA), and a number of other measures collected and reported for management purposes. These include a measure reported for PART, the agency's strategic plan, and the 10-Year Strategy: "Percentage of fires not contained in initial attack that exceed a Stratified Cost Index" and a measure used in FPA: "initial attack success rate". These types of measures would be included. While measures such as these are valuable as overall wildland fire program measures, they take into account numerous factors, including the presuppression forces and vegetative treatments that contribute to the initial attack success and the ultimate cost of the fire. The FS feels it is important to develop a measure or measures that: (1) more effectively isolate the specific benefits and effectiveness of its aerial suppression resources, especially the large airtankers and helicopters and (2) take into account the complexity of how airtankers are used on wildland fires. FS is currently in negotiations with an independent firm to work collaboratively with personnel and scientists engaged in Fire Program Analysis and others to conduct an analysis that will include developing options for these types of measures. The analysis will also assess the current mix of airtankers and helicopters, including the potential trade-offs and future mix of aviation resources. FS' estimated completion date for this action is March 30, 2010.

OIG Position

We accept FS' management decision on this recommendation. For final action, FS needs to provide the Office of the Chief Financial Officer documentation showing that the agreed upon action has been taken.

Recommendation No. 4

Modify both the fire report and the National Interagency Fire Management Integrated Database to include an assessment of airtankers' impact on suppressing fires during initial attack, and after for those fires that escape.

Agency Response

The FS does not concur with this audit recommendation to modify the agency's fire report, however, it acknowledges there may be merit in modifying the interagency database, FAMWEB (Fire and Aviation Management Web applications), but further analysis is needed.¹² FIRESTAT, a component of FAMWEB, is the agency's fire reporting application for documenting agency wildfire activity. Agency fire reports are a statistical reporting document, in which FS has intentionally limited the reporting of subjective data, such as resource effectiveness, for several reasons. There are over a thousand individuals entering fire report data. Subjective entries, such as the effectiveness of airtankers, inject personal bias and interpretations which frequently lead to inconsistent conclusions. The agency is currently prototyping a process to document subjective large fire decisions which will be initially housed within FAMWEB. A similar system, or process, to document the subjective analysis of airtanker effectiveness for initial response and large fires on FS and cooperator lands completed by professional interagency aviation managers could result in credible and useful data. Until such a system is established, agency fire reports will continue to document initial response airtanker use, but not their effectiveness. Further action on the recommendation is contingent upon completion of *Recommendation 3*. At that time, FS will make an assessment as to the appropriate measures and make a determination how the data should be collected and stored to effectively report on those measures on an annual basis. FS' estimated completion date for this action is September 30, 2010.

OIG Position

We accept FS' management decision on this recommendation. For final action, FS needs to provide the Office of the Chief Financial Officer documentation showing that the agreed upon action has been taken.

Recommendation No. 5

Require that the integrated team perform the necessary analysis using actual performance data collected from the Fire Management Integrated Database to support FS' need for new aircraft by demonstrating the benefits the agency

¹² According to FS, FAMWEB replaced the National Interagency Fire Management Integrated Database referred to in the recommendation.

receives from the aircraft in relation to the goals and performance measures it adapted from its wildland fire management analysis.

Agency Response

The FS agrees that if acceptable performance measures are developed in the proposed analysis, the integrated team will incorporate the performance measures in the planning and procurement of new aircraft. The team will also plan to assess whether the aircraft FS ultimately procure are meeting these performance measures in the agency's aviation strategic plan, and if not, make the appropriate adjustments for future procurements. FS' estimated completion date for this action is September 30, 2010.

OIG Position

We accept FS' management decision on this recommendation. For final action, FS needs to provide the Office of the Chief Financial Officer documentation showing that the agreed upon action has been taken.

Finding 2

FS Needs To Reinstate Its Working Capital Fund for Aircraft Replacement

FS did not manage its WCF effectively to collect sufficient money to replace existing aircraft. This occurred because the agency did not timely recognize the need to update fees it charged to the users of its firefighting aircraft to reflect current costs. This left FS with only an \$8 million balance in the aircraft reserve account, barely enough to replace even one aircraft. By the time FS realized its error, it became cost prohibitive to charge higher fees to compensate for the shortfall. Since the fund was not collecting enough to achieve its purpose, FS suspended it in 2008 and, as a result, will now have to rely on yearly Congressional appropriations to replace aircraft as they age and eventually wear out.

In general, working capital funds are intended to provide agencies with the means to manage their long-term costs. FS' manual requires that money in working capital funds be reserved for future needs so that the agency can replace assets while financing current operations.¹³ The manual also states one of the fund's objectives is to preserve capital investments by recovering inflationary costs.¹⁴

¹³ FS Manual 6580.43 (1) (October 5, 1999).

¹⁴ FS Manual 6580.2 (4) (October 5, 1999).

Between 1978 and 1982, FS acquired most of its firefighting aircraft for prices ranging between \$250,000 and \$450,000. Based on these values, FS determined the appropriate amount to charge users of its aircraft for replacement costs. Over time, partial fees charged to each user should have accumulated to pay for replacing aircraft that wore out or broke down. However, by 1997, FS recognized that it had not accounted for inflationary price increases. FS decided not to adjust the rates to reflect then current prices because the new fees would have been cost-prohibitive; essentially charging users late-1990s replacement prices for early-1980s aircraft. By 2003, similar aircraft cost between \$3 million and \$5 million, but FS had only collected \$4.8 million from users—not nearly enough to replace the 45 firefighting aircraft it owned at the time.

In 2008, FS' Chief Financial Officer (CFO) suspended the WCF aircraft replacement account because the fund was not achieving its purpose of providing FS with sufficient cash reserves to acquire new aircraft. The fund had grown to only \$8 million, while aircraft prices had increased significantly. For example, replacing smokejumper aircraft can cost over \$5 million each, and airtankers—the lynchpins of FS proposed acquisitions—can cost up to \$75 million each.

We discussed this issue with the Assistant Director for Fire and Aviation Management who argued that the WCF for replacement was critical to the long-term effectiveness of FS' firefighting aviation program. In July 2008, the assistant director responded to the CFO's suspension of the fund in a briefing paper that outlined the rationale for reinstatement. Most significantly, he noted that FS would lose the ability to recoup its ownership costs when other firefighting organizations used its aircraft. Further, he warned that FS' budget would be subject to volatile, unpredictable spikes since occasional accidents necessitate buying expensive new aircraft to preserve the agency's firefighting effectiveness. He also referred to the experience of other firefighting organizations that lacked aircraft replacement funds, which tend to have older fleets and so higher operating and maintenance costs. We also note the increased safety risk that comes with flying older aircraft over wildfires.

We agree with the assistant director's assessment. If used effectively with realistic rates, the WCF will help FS manage the long-term replacement costs that a new fleet will eventually require. Further, the fund will protect FS from having to depend on the agency's annual budget allocations and Congressional appropriations, which both can change as priorities shift from year to year. For example, DOI has been able to replace its most critical aircraft through a WCF. According to DOI officials, the agency's fund has helped offset budget fluctuations even without collecting the full replacement value for aircraft. The fund also allows DOI to replace its aircraft more quickly, which helps the agency to respond timely to unpredictable events like accidents, and to take advantage of price discounts that become available. DOI noted the support of

Congress, which, in 2004, recommended that DOI begin collecting for the full replacement cost of its firefighting aircraft.

If properly administered, the WCF can be a valuable tool for agencies to timely replace their aircraft. FS should therefore reinstitute the WCF aircraft reserve account and establish realistic rates that will enable it to meet its long-term needs. To ensure that the rates established are adequate, FS will also need to prepare a replacement plan for its aircraft that shows estimated timeframes and costs, periodically review the rates it establishes to ensure that it timely meets its long-term needs for replacing aircraft, and adjust the rates when needed. These actions will help ensure the continuing effectiveness of FS' aerial firefighting program without depending solely on Congressional appropriations and annual budget decisions.

Recommendation No. 6

Reinstitute the WCF aircraft replacement account based on FS' long-term plans for purchasing new aircraft.

Agency Response

The FS agrees with this recommendation and has already issued a letter to Regional Foresters reinstating the collection of cash into the National Working Capital Fund (WCF) Reserve Account 352 as prescribed in FSH 6509.11f-11.2.

OIG Position

We accept FS' management decision on this recommendation. For final action, FS needs to provide the Office of the Chief Financial Officer a copy of the letter it issued reinstating the collection of cash into the WCF aircraft replacement account.

Recommendation No. 7

Develop a WCF replacement plan for aircraft that shows FS' estimated timeframes and costs for replacing aircraft.

Agency Response

The FS concurs with this audit recommendation and will develop a replacement plan that includes timeframes and costs for replacing aircraft. FS' estimated completion date for this action is May 31, 2010.

OIG Position

We accept FS' management decision on this recommendation. For final action, FS needs to provide the Office of the Chief Financial Officer a copy of the replacement plan it develops for its aircraft.

Recommendation No. 8

Establish rates for the WCF using the replacement plan developed in Recommendation 7 that will enable FS to meet its long-term needs for replacing aircraft.

Agency Response

The FS concurs with this audit recommendation. The Supervisor of WCF and Aviation Maintenance will formulate the rate structure, including increased replacement costs. FS' estimated completion date for this action is May 31, 2010.

OIG Position

We accept FS' management decision on this recommendation. For final action, FS needs to provide the Office of the Chief Financial Officer documentation showing that the agreed upon action has been taken.

Recommendation No. 9

Periodically review the rates established in Recommendation 8 to ensure that FS is timely meeting its long-term needs for replacing aircraft and adjust the rates when needed.

Agency Response

The FS concurs with this audit recommendation. Once the rates are established, the FS will annually review and adjust the rates on a periodic basis to ensure that its long-term needs for replacing aircraft are met. FS' estimated completion date for this action is May 31, 2011.

OIG Position

We accept FS' management decision on this recommendation. For final action, FS needs to provide the Office of the Chief Financial Officer documentation showing that the agreed upon action has been taken.

Scope and Methodology

Our review covered FS' overall plan for procuring new aircraft for its firefighting program. As mentioned in the Background section of this report, FS plans to modernize its aerial resources, particularly its air tanker fleet whose average age is over 50 years. However, to obtain the funds it needs from Congress to purchase new aircraft, FS must first justify its need for the new aircraft to OMB using exhibit 300s. Our audit focused on FS' efforts to complete an exhibit 300 to prove that new planes are warranted. Our audit also evaluated FS' management of the WCF aircraft reserve account created to fund the replacement of its existing aircraft.

To accomplish our audit objectives, we performed audit work at FS' Washington office in Washington, D.C., FS' National Interagency Fire Center in Boise, Idaho, and FS' Albuquerque Service Center in Albuquerque, New Mexico. Fieldwork was performed between August 2007 and October 2008.

In developing findings for this report, we performed the following steps and procedures:

At FS' Washington Office:

- Obtained and reviewed all applicable laws, regulations, policies and procedures pertaining to FS' plans for acquiring new aircraft for its firefighting program.
- Interviewed key FS Washington office staff, including the Assistant Director for Fire and Aviation Management, about FS' plans for acquiring new aircraft.
- Evaluated prior reviews, studies, and analyses that FS and other Federal and non-Federal entities conducted related to FS' aerial firefighting program.
- Reviewed the NIAC report considered by FS to be the strategic plan for its aerial firefighting program.
- Reviewed all draft exhibit 300s FS completed to date supporting its need for new aircraft.
- Interviewed the two contractors FS hired to help develop exhibit 300s for its aerial firefighting program to determine their progress.

- Interviewed General Services Administration officials about the guidance they provided FS for developing exhibit 300s.
- Reviewed national statistics on the number and type of aircraft FS currently uses in its firefighting program.

At the National Interagency Fire Center:

- Interviewed operations staff at NIFC to obtain their views about FS' plans for acquiring new firefighting aircraft.
- Interviewed NIAC's chairperson and other committee members regarding the NIAC report that FS used for its strategic plan. Also interviewed NIAC representatives from the Department of the Interior to obtain their perspective on interagency aviation strategies.
- Interviewed national contracting officers regarding strategic planning initiatives and their effect on obtaining the best value when acquiring firefighting aviation resources.
- Reviewed statistics on aircraft use and rates from FY 2000 through 2007.

At the Albuquerque Service Center:

- Reviewed all applicable laws and regulations pertaining to FS' use of the WCF aircraft reserve account to replace existing aircraft.
- Interviewed FS' CFO about suspending the WCF aircraft reserve account.
- Interviewed staff with WCF accounting responsibilities to determine how usage and ownership rates were established.
- Reviewed current financial data for WCF aircraft activity.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Exhibit A – Firefighting Aircraft Currently Leased or Owned by FS

Exhibit A – Page 1 of 1

FS-Leased Aircraft	
Aircraft Type	Number of Aircraft
Helicopters	461
Fixed-Wing:	
Large Airtankers	19
Single Engine Airtankers	4
Lead Planes	10
Smoke Jumper	4
Other	306
Total Aircraft Leased	804
FS-Owned Aircraft	
Aircraft Type	Number of Aircraft
Helicopters	3
Fixed-Wing:	
Lead Planes	2
Smokeyumper	8
Other	14
Total Aircraft Owned	27
Total Aircraft Leased or Owned	831

Exhibit B – Agency Response

Exhibit B – Page 1 of 5



Forest
Service

Washington
Office

1400 Independence Avenue, SW
Washington, DC 20250

File Code: 1430
Route To:

Date: JUN 10 2009

Subject: Management Decision on Office of Inspector General Official Draft Report, Audit No. 08601-53-SF, Forest Service's Replacement Plan for Firefighting Aerial Resources"

To: Robert W. Young, Assistant Inspector General for Audit,
Office of Inspector General, USDA

Enclosed is the Forest Service's response to Audit Report No. 08601-53-SF, Recommendation Numbers 1 through 16 that were sent to the Acting Chief Financial Office on May 18, 2009. If you have any questions, please call Sandy T. Coleman, Assistant Director, GAO/OIG Audit Liaison staff, at 703-605-4699 or sandycoleman@fs.fed.us.

Donna M. Carmical

DONNA M. CARMICAL
Chief Financial Officer

Enclosures
cc: Erica Kim, Art Seggerson



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USDA Forest Service (FS)

Office of Inspector General (OIG) Audit Report No.08601-53-SF
Forest Service's Replacement Plan
For Firefighting Aerial Resources

Official Draft Recommendations

OIG Recommendation 1: Establish an integrated team to complete both the planning and procurement process for acquiring new firefighting aircraft for FS' aviation program.

FS Response to Recommendation 1: The FS concurs with this audit recommendation. Fire and Aviation Management (FAM) will establish an Integrated Team Project to complete the planning and procurement process for selecting and acquiring aircraft. This ITP will be initiated upon OMB or Congressional approval of the budget request for aircraft. Integrated Project Teams (IPT) will have a charter and meet OMB direction for qualified project managers as well as federal and agency AQM authorities. We will include the staff necessary to insure that the agency selects the best aircraft.

Estimated Completion Date: June 30, 2010

OIG Recommendation 2: In cooperation with stakeholders, require that the team set specific goals and timelines for completing both the planning and procurement processes.

FS Response to Recommendation 2: The FS concurs with this audit recommendation. Once established, the IPT will receive agency goals and strategic decision from the FS Executive Leadership Team (ELT) commensurate with the Aviation Strategy and stakeholders input. Timeframes will adhere to Federal Acquisition Regulations and be negotiable between the government, contractors or manufactures.

Estimated Completion Date: June 30, 2010

OIG Recommendation 3: In coordination with stakeholders, require that the team adapt goals and performance measures, such as those in the *wildland fire management analysis*, to include in the agency's aviation strategic plan

FS Response to Recommendation 3: The FS agrees that performance measures are important, however we do not entirely concur with this audit recommendations. FAM reports on a number of program accomplishments through a variety of measures,

including those in the agency's Strategic Plan, the Department of Agriculture's Strategic Plan, measures established through the Program Assessment and Rating Tool (PART) process (which are negotiated with OMB), measures associated with the 10-Year Comprehensive Strategy, measures used in the management tool Fire Program Analysis (FPA), and a number of other measures collected and reported for management purposes. These include a measure reported for PART, the agency's strategic plan, and the 10-Year Strategy: "Percentage of fires not contained in initial attack, that exceed a Stratified Cost Index" and a measure used in FPA: "initial attack success rate". These types of measures would be included. While measures such as these are valuable as overall wildland fire program measures, they take into account numerous factors, including the pre-suppression forces and vegetative treatments that contribute to the initial attack success and the ultimate cost of the fire. We feel it is important to develop a measure or measures that: (1) more effectively isolate the specific benefits and effectiveness of our aerial suppression resources, especially the large airtankers and helicopters and (2) take into account the complexity of how airtankers are used on wildland fires. We are currently in negotiations with an independent firm to work collaboratively with personnel and scientists engaged in Fire Program Analysis and others to conduct an analysis that will include developing options for these types of measures. The analysis will also assess the current mix of airtankers and helicopters, including the potential trade-offs and future mix of aviation resources.

Estimated Completion Date: March 30, 2010

OIG Recommendation 4: Modify both the fire report and the National Interagency Fire Management Integrated Database to include an assessment of airtankers' impact on suppressing fires during initial attack, and after for those fires that escape.

FS Response to Recommendation 4: The FS does not concur with this audit recommendation to modify the agency's fire report, however, there may be merit in modifying the interagency database, FAMWEB (Fire and Aviation Management Web applications), but further analysis is needed.

FIRESTAT, a component of FAMWEB, is the agency's fire reporting application for documenting agency wildfire activity. Agency fire reports are a statistical reporting document, in which we have intentionally limited the reporting of subjective data, such as resource effectiveness, for several reasons. There are over a thousand individuals entering fire report data. Subjective entries, such as the effectiveness of airtankers, inject personal bias and interpretations which frequently lead to inconsistent conclusions. The agency is currently prototyping a process to document subjective large fire decisions which will be initially housed within FAMWEB. A similar system, or process, to document the subjective analysis of airtanker effectiveness for initial response and large fires on FS and cooperator lands completed by professional interagency aviation managers could result in credible and useful data. Until such a system is established.

agency fire reports will continue to document initial response airtanker use, but not their effectiveness.

Further action on the recommendation is contingent upon completion of *Recommendation 3*. At that time, we will make an assessment as to the appropriate measures and make a determination how the data should be collected and stored to effectively report on those measures on an annual basis.

Note that the system referred to in the recommendation as the National Interagency Fire Management Database has been replaced by FAMWEB.

Estimated Completion Date: September 30, 2010.

OIG Recommendation 5: Require that the integrated team perform the necessary analysis using actual performance data collected from the Fire Management Integrated Database to support FS' need for new aircraft by demonstrating the benefits the agency receives from the aircraft in relation to the goals and performance measures it adapted from its *wildland fire management analysis*.

FS Response to Recommendation 5: The FS agrees that if acceptable performance measures are developed in the proposed analysis, the integrated team will incorporate the performance measures in the planning and procurement of new aircraft. The team will also plan to assess whether the aircraft FS ultimately procure are meeting these performance measures in the agency's aviation strategic plan, and if not, make the appropriate adjustments for future procurements. Although the NIAC aviation strategy is primarily focused on federal agencies, coordination with state aviation programs is ongoing, as their support significantly contributes to the ability of federal wildland firefighting agencies to successfully suppress wildfires. This coordination is demonstrated through joint programs, cooperative agreements and seamless mobilization of resources including aviation assets.

Estimated Completion Date: September 30, 2010.

OIG Recommendation 6: Reconstitute the working capital fund aircraft replacement account based on FS' long-term plans for purchasing new aircraft.

FS Response to Recommendation 6: The FS agrees with this recommendation and has completed the action provided in the attached letter from Chief Financial Officer stating we will continue the collection of cash into the National Working Capital Fund (WCF) Reserve Account 352 as prescribed in FSH 6509.11f-11.2.

Estimated Completion Date: September 26, 2008

OIG Recommendation 7: Develop a WCF replacement plan for aircraft that shows FS' estimated timeframes and costs for replacing aircraft.

FS Response to Recommendation 7: The FS concurs with this audit recommendation. Forest Service will develop a replacement plan that includes timeframes and costs for replacing aircraft.

Estimated Completion Date: May 31, 2010

OIG Recommendation 8: Establish rates for the WCF using the replacement plan developed in Recommendation 7 that will enable FS to meet its long-term needs for replacing aircraft

FS Response to Recommendation 8: The FS concurs with this audit recommendation. The Supervisor of WCF and Aviation Maintenance will formulate rate structure, including increased replacement costs.

Estimated Completion Date: May 31, 2010

OIG Recommendation 9: Periodically review the rates established in Recommendation 8 to ensure that FS is timely meeting its long-term needs for replacing aircraft and adjust the rates when needed.

FS Response to Recommendation 9: The FS concurs with this audit recommendation. The agency will annually review and adjust on a periodic basis to ensure that our long-term needs for replacing aircraft are met.

Estimated Completion Date: May 31, 2011

Informational copies of this report have been distributed to:

Office of the Chief Financial Officer
Planning and Accountability Division

Director

(1)

Office of Management and Budget

(1)

Government Accountability Office

(2)