

Internal Audit Department

O R A N G E C O U N T Y
6th Largest County in the USA

Internal Control Audit:

JOHN WAYNE AIRPORT CHANGE ORDER PROCESS FOR THE AIRPORT IMPROVEMENT PROGRAM

High
Impact
Audit

For the Period July 1, 2008
through March 31, 2012

Audit Oversight
Committee
Priority

The Airport Improvement Program at John Wayne Airport (JWA) was one of the County's largest public works projects with a budget of \$543 million. JWA properly processed 1,451 change orders totaling \$58 million between July 1, 2008 and March 31, 2012.

We audited John Wayne Airport's change order process for the Airport Improvement Program to evaluate internal controls for processing and approving change orders; to determine compliance with County and contract requirements; and evaluate the efficiency and effectiveness of JWA's change order process.

Our audit found internal controls were adequate and effective to ensure 1,451 change orders totaling \$58 million were accurate, valid, supported, properly recorded, and authorized; complied with County and JWA policies and procedures; and JWA's change order process was efficient and effective.

We identified **five (5) Control Findings** to improve internal controls and compliance with policies and procedures.

AUDIT NO: 1125
REPORT DATE: APRIL 2, 2013

Director: Dr. Peter Hughes, MBA, CPA, CIA
Deputy Director: Eli Littner, CPA, CIA
Senior Audit Manager: Alan Marcum, CPA, CIA
Audit Manager: Kenneth Wong, CPA, CIA
Senior Auditor: Abdul Khan, CPA, CIA

RISK BASED AUDITING

GAO & IIA Peer Review Compliant – 2001, 2004, 2007, 2010



American Institute of Certified Public Accountants Award to Dr. Peter Hughes as 2010 Outstanding CPA of the Year for Local Government

GRC (Government, Risk & Compliance) Group 2010 Award to IAD as MVP in Risk Management



2009 Association of Certified Fraud Examiners' Hubbard Award to Dr. Peter Hughes for the Most Outstanding Article of the Year – Ethics Pays



2008 Association of Local Government Auditors' Bronze Website Award



2005 Institute of Internal Auditors' Award to IAD for Recognition of Commitment to Professional Excellence, Quality, and Outreach

 ORANGE COUNTY BOARD OF SUPERVISORS'
Internal Audit Department

GAO & IIA Peer Review Compliant - 2001, 2004, 2007, 2010

Providing Facts and Perspectives Countywide

RISK BASED AUDITING

Dr. Peter Hughes **Ph.D., MBA, CPA, CCEP, CITP, CIA, CFE, CFF, CGMA**
Director
Certified Compliance & Ethics Professional (CCEP)
Certified Information Technology Professional (CITP)
Certified Internal Auditor (CIA)
Certified Fraud Examiner (CFE)
Certified in Financial Forensics (CFF)
Chartered Global Management Accountant (CGMA)
E-mail: peter.hughes@iad.ocgov.com

Eli Littner **CPA, CIA, CFE, CFS, CISA**
Deputy Director
Certified Fraud Specialist (CFS)
Certified Information Systems Auditor (CISA)

Michael Goodwin **CPA, CIA**
Senior Audit Manager

Alan Marcum **MBA, CPA, CIA, CFE**
Senior Audit Manager

Hall of Finance & Records

12 Civic Center Plaza, Room 232
Santa Ana, CA 92701

Phone: (714) 834-5475

Fax: (714) 834-2880

To access and view audit reports or obtain additional information about the OC Internal Audit Department, visit our website: www.ocgov.com/audit



OC Fraud Hotline (714) 834-3608



Transmittal Letter



Audit No. 1125 April 2, 2013

TO: Alan L. Murphy, Director
John Wayne Airport

FROM: Dr. Peter Hughes, CPA, Director
Internal Audit Department

SUBJECT: Internal Control Audit: John Wayne Airport
Change Order Process for the Airport
Improvement Program

We have completed an Internal Control Audit of John Wayne Airport's Change Order Process for the Airport Improvement Program for the period July 1, 2008 through March 31, 2012. We performed this audit in accordance with our *FY 2011-12 Audit Plan and Risk Assessment* approved by the Audit Oversight Committee and the Board of Supervisors. Our final report is attached for your review.

Please note we have a structured and rigorous **Follow-Up Audit** process in response to recommendations and suggestions made by the Audit Oversight Committee (AOC) and the Board of Supervisors (BOS). Our **First Follow-Up Audit** will begin at six months from the official release of the report. A copy of all our Follow-Up Audit reports is provided to the BOS as well as to all those individuals indicated on our standard routing distribution list.

The AOC and BOS expect that audit recommendations will typically be implemented within six months and often sooner for significant and higher risk issues. Our **Second Follow-Up Audit** will begin at six months from the release of the first Follow-Up Audit report, by which time **all** audit recommendations are expected to be addressed and implemented. At the request of the AOC, we are to bring to their attention any audit recommendations we find still not implemented or mitigated after the second Follow-Up Audit. The AOC requests that such open issues appear on the agenda at their next scheduled meeting for discussion.

We have attached a **Follow-Up Audit Report Form**. Your department should complete this template as our audit recommendations are implemented. When we perform our first Follow-Up Audit approximately six months from the date of this report, we will need to obtain the completed document to facilitate our review.

Each month I submit an **Audit Status Report** to the BOS where I detail any material and significant audit findings released in reports during the prior month and the implementation status of audit recommendations as disclosed by our Follow-Up Audits. Accordingly, the results of this audit will be included in a future status report to the BOS.

As always, the Internal Audit Department is available to partner with your staff so that they can successfully implement or mitigate difficult audit recommendations. Please feel free to call me should you wish to discuss any aspect of our audit report or recommendations. Additionally, we will request your department complete a **Customer Survey** of Audit Services. You will receive the survey shortly after the distribution of our final report.

ATTACHMENTS

Other recipients of this report are listed on the **OC Internal Auditor's Report** on page 6.

Table of Contents



*Internal Control Audit:
John Wayne Airport
Change Order Process for the
Airport Improvement Program
Audit No. 1125*

For the Period July 1, 2008 through March 31, 2012

Transmittal Letter	i
OC Internal Auditor's Report	
OBJECTIVES	1
RESULTS	1
BACKGROUND	3
SCOPE AND METHODOLOGY	5
SCOPE EXCLUSIONS	6
Detailed Results, Findings, Recommendations, and Mangement Responses	
Finding No. 1 – Documentation Needs to be Improved to Support the Evaluation of Change Order Costs for Architect-Engineer Service Contracts (Control Finding)	7
Finding No. 2 – Reason for Overriding an Outside Technical Advisor's Opinion was not Documented (Control Finding)	8
Finding No. 3 – Separate Change Order Logs were not Reconciled (Control Finding)	9
Finding No. 4 – Written Policies and Procedures Need to be Updated (Control Finding)	11
Finding No. 5 – Non-Compliance with JWA Architect & Engineer Policies and Procedures (Control Finding)	12
ATTACHMENT A: Report Item Classifications	15
ATTACHMENT B: John Wayne Airport Management Responses	16



Audit No. 1125

April 2, 2013

TO: Alan L. Murphy, Director
John Wayne Airport

FROM: Dr. Peter Hughes, CPA, Director
Internal Audit Department

SUBJECT: Internal Control Audit: John Wayne Airport Change Order
Process for the Airport Improvement Program

Audit Highlight

We conducted an Internal Control Audit of JWA's Change Order Process for the Airport Improvement Program. Our audit included an evaluation of internal controls; testing compliance with County and JWA policies; and evaluating process efficiencies and effectiveness.

Our audit found internal controls were adequate and effective to ensure change orders were accurate, valid, supported, properly recorded, and authorized; complied with County and JWA policies and procedures; and JWA's change order process was efficient and effective.

However, we identified **five (5) Control Findings** to improve internal controls and compliance with policies and procedures.

OBJECTIVES

In accordance with our *FY 2011-12 Audit Plan and Risk Assessment* approved by the Audit Oversight Committee and the Board of Supervisors, the Internal Audit Department conducted an Internal Control Audit of John Wayne Airport's (JWA) Change Order Process for the Airport Improvement Program. Our audit included an evaluation of internal controls, testing compliance with JWA and County policies; and evaluating process efficiencies and effectiveness. Our audit was conducted in conformance with professional standards established by the Institute of Internal Auditors. The objectives of this audit were to:

1. Evaluate the adequacy of JWA's internal controls over the change order process for the Airport Improvement Program to ensure modifications are accurate, valid, adequately supported, and properly recorded and authorized.
2. Examine a sample of change orders from the Airport Improvement Program at John Wayne Airport to determine compliance with County and JWA policies and procedures.
3. Determine if the change order process is efficient and effective (e.g., no backlogs, duplication of work, manual processes that could benefit from automation).

RESULTS

Objective #1 We found that John Wayne Airport had adequate and effective internal controls to ensure change orders for the Airport Improvement Program were accurate, valid, adequately supported, and properly recorded and authorized.

We identified **four (4) Control Findings** concerning incomplete documentation to support the evaluation of change order costs for Architect-Engineer service contracts; the reason for overriding an outside technical advisor's opinion was not documented; separate change order logs were not reconciled; and a need for policies and procedures to be updated.



Objective #2. We found change orders from the Airport Improvement Program at JWA generally complied with County and JWA policies and procedures. However, we identified **one (1) Control Finding** where compliance should be improved for Architect-Engineer service contracts.

Objective #3. The change order process was efficient and effective. We did not note any instances of backlogs or manual processes that could be automated in JWA's change order process.

The following table summarizes our findings and recommendations for this audit. See further discussion in the *Detailed Results, Findings, Recommendations and Management Responses* section of this report. See *Attachment A* for a description of Report Item Classifications.

Finding No.	Finding Classification (see Attachment A)	Finding and Page No. in Audit Report	Recommendation	Concurrence by Management?
1.	Control Finding	Documentation needs to be improved to support the evaluation of change order costs for Architect-Engineer service contracts. (p.7-8)	John Wayne Airport ensure that the Memorandum (Record) of Negotiations contain sufficient information that someone not connected with the change order can understand the process for negotiating the agreed-upon cost.	Yes
2.	Control Finding	Reason for overriding an outside technical advisor's opinion was not documented. (p.8-9)	John Wayne Airport ensure disputes with the outside technical advisor are thoroughly documented and detailed explanations are provided as to why a change order is issued that conflicts with the field representative's opinion.	Yes
3.	Control Finding	Separate change order logs were not reconciled. (p.9-10)	John Wayne Airport consider reconciling the change order log maintained in Skire Unifier with JWA Accounting's change order log.	Yes



Finding No.	Finding Classification (see Attachment A)	Finding and Page No. in Audit Report	Recommendation	Concurrence by Management?
4.	Control Finding	Written policies and procedures need to be updated. (p.11)	John Wayne Airport revise their internal policy and procedure, ADS P&P B-14-0, <i>Architect-Engineer Agreement Changes</i> to remove the step that the Project Manager prepares an independent cost estimate for each change order unless mandated by law or sponsor agreement.	Yes
5.	Control Finding	Non-compliance with JWA Architect-Engineer policies and procedures. (p.12-14)	<p>A. John Wayne Airport ensure change orders are supported with a Memorandum (Record) of Negotiation.</p> <p>B. John Wayne Airport ensure the review of the Memorandum (Record) of Negotiations by delegated management is documented.</p> <p>C. John Wayne Airport ensure change orders are supported with a cost proposal from the contractor with any exceptions documented on the Memorandum (Record) of Negotiation.</p>	Yes

BACKGROUND

John Wayne Airport (JWA) is owned and operated by Orange County (County). It is the only commercial airport and one of two general aviation airports in the County and located between the cities of Costa Mesa, Irvine, and Newport Beach. In calendar year 2011, JWA ranked 43rd for the number of passenger boarding at US airports. Its mission is to plan, direct and provide high quality aviation services and facilities for the Orange County in a safe, secure and efficient manner.

JWA's Airport Improvement Program was approved by the County Board of Supervisors for the construction of new facilities to meet the growing needs of the traveling public. The Airport Improvement Program created additional terminal area capacity in the form of aircraft gates, hold rooms, concessions, passenger/baggage screening capabilities, and additional parking. It also helped redistribute traffic between Terminals A, B, and C, to balance operations throughout the terminal complex. A key objective of the Airport Improvement Program is to ensure the new facilities are designed and developed to create a single, seamless environment for passengers.



The components of the Airport Improvement Program are segregated into four geographic areas: (1) Terminal (between the curbfront and aircraft); (2) Landside (parking structures and roadways); (3) Airside (airfield, Remain-Over-Night aircraft parking, fueling, and taxiways); and (4) Ancillary (miscellaneous projects). Specifically, the Airport Improvement Program includes:

1. Terminal

A new multi-level Terminal C providing 282,000 square feet; six (6) new bridged aircraft gates for a total of 20 bridged gates; and dedicated facilities for six (6) total commuter aircraft at ground level.

2. Landside

A Parking Structure C providing over 3,000 spaces; and a central plant to provide chilled water to heat and cool the terminal complex.

3. Airside

A reconfigured South Remain-Over-Night aircraft parking area; and an extension of existing aircraft hydrant fueling system.

4. Ancillary

An additional right-turn lane on Campus Drive to Bristol; and the relocation of air cargo facilities and operations.

The Airport Improvement Program at JWA is one of the County's largest public works projects and its budget totaled \$543 million.

Airport Facilities Management is responsible for planning, organizing and directing all aspects of facilities management and engineering of all facilities at the airport. Airport Development is a section of Airport Facilities Management responsible for administering the Airport Capital Improvement Program. The Airport Development section oversees the design and construction of the Airport Improvement Project.

Change Orders

A change order is a written order by the owner to the contractor authorizing an addition, deletion, or revision in the work and/or time of completion within the limits of the contract after it has been executed. A change order is a specific type of contract modification which does not go beyond the general scope of the existing contract.

Between July 1, 2008 and March 31, 2012, JWA executed 1,451 change orders totaling \$58,170,249 in connection with the Airport Improvement Program.

JWA Change Order Process Overview

The change order process begins when a need is recognized for a change in the existing signed contract documents. JWA implemented Skire Unifier to standardize its change order process and manage the flow of change order information. Skire Unifier is also used to track the status and date of a change order and when the change order is executed. Both electronic and scanned hardcopy documents are saved in Skire Unifier.

A change order originates as a recommendation for a change from the contractor or as a request for proposal from JWA, seeking a change to existing contract documents.



A change order is necessary to increase or decrease the contract cost or work, interrupt or terminate the project, revise the completion date, alter the design, or in general to implement any deviation from the original contract terms and conditions.

The change order process for the Airport Improvement Program at JWA relies upon the execution of responsibilities of each of the participants: JWA personnel and outside technical advisors including architects, engineers, planners, and construction managers. JWA personnel and outside technical advisors are responsible for determining whether a proposed change is necessary and whether the cost of the change is reasonable. The outside technical advisors are responsible for preparing and submitting the proposal for change and supporting documentation to JWA. Using the proposal, JWA personnel negotiate the conditions of the proposed change with the contractor.

JWA personnel not taking part in the negotiations review the documentation for completeness, adequacy and the availability of budget, and further evaluate the proposed change order. JWA has specific policies and procedures for preparing and reviewing a proposed change order to ensure it is both necessary and reasonable. If the proposed change order exceeds specific dollar thresholds, JWA then prepares and presents the proposed change order plus supporting documentation to the Board of Supervisors for their review and approval in accordance with the County's Contract Policy Manual. The Deputy Airport Director of Facilities Management is delegated authority for approval of change orders on behalf of JWA.

JWA notifies the contractor of the action taken on the change order request. JWA maintains the following applicable records in Skire Unifier:

1. Proposed change order.
2. Correspondence for additional information or clarification.
3. Record of negotiation and independent cost estimate.
4. Quality control checklists.
5. Executed change order.

SCOPE AND METHODOLOGY

Our audit covered the period July 1, 2008 through March 31, 2012. Our scope and methodology included:

1. Evaluating the adequacy of JWA's internal controls over the change order process for the Airport Improvement Program to ensure modifications were accurate, valid, adequately supported, and properly recorded and authorized. We designed our audit to assess the adequacy of JWA's change order approval controls, including segregation of duties, change order tracking, supervisory/management approvals, and completeness and accuracy in processing change orders.
2. Examining a sample of change orders from the Airport Improvement Program to determine compliance with County and JWA policies and procedures.
3. Evaluating the efficiency and effectiveness of the change order process, such as instances of backlogs, duplication of work, manual processes that could benefit from automation.



SCOPE EXCLUSIONS

Our audit scope did not evaluate any information technology or system controls for the change order process. In addition, we did not independently assess the validity of technical justifications provided by expert project managers and engineers.

Management's Responsibilities for Internal Controls

In accordance with the Auditor-Controller's County Accounting Manual section S-2 *Internal Control Systems*, "All County departments/agencies shall maintain effective internal control systems as an integral part of their management practices. This is because management has primary responsibility for establishing and maintaining the internal control system. All levels of management must be involved in assessing and strengthening internal controls..." Control systems shall be continuously evaluated (by Management) and weaknesses, when detected, must be promptly corrected.

The criteria for evaluating an entity's internal control structure is the Committee of Sponsoring Organizations (COSO) control framework. Our Internal Control Audit enhances and complements, but does not substitute for John Wayne Airport's continuing emphasis on control activities and self-assessment of control risks.

Inherent Limitations in Any System of Internal Control

Because of inherent limitations in any system of internal controls, errors or irregularities may nevertheless occur and not be detected. Specific examples of limitations include, but are not limited to, resource constraints, unintentional errors, management override, circumvention by collusion, and poor judgment. Also, projection of any evaluation of the system to future periods is subject to the risk that procedures may become inadequate because of changes in conditions or the degree of compliance with the procedures may deteriorate. Accordingly, our audit would not necessarily disclose all weaknesses in John Wayne Airport's operating procedures, accounting practices, and compliance with County policy.

Acknowledgment

We appreciate the courtesy extended to us by John Wayne Airport's management and staff during our audit. If we can be of further assistance, please contact me directly at 834-5475 or Alan Marcum, Senior Audit Manager at 834-4119.

Attachments

Distribution Pursuant to Audit Oversight Committee Procedure No. 1:

Members, Board of Supervisors
Members, Audit Oversight Committee
Robert J. Franz, Interim County Executive Officer
Loan Leblow, Assistant Airport Director, JWA
Larry Serafini, Deputy Airport Director, Facilities, JWA
Samer Marei, Airport Development Manager, JWA
Mariane Teschner, Deputy Airport Director, Finance & Administration, JWA
Jason Brown, Budget Manager, JWA
Lisa Kawashima, Accounting Services Manager, JWA
Scott Suzuki, Airport Compliance Manager, JWA
Foreperson, Grand Jury
Susan Novak, Clerk of the Board of Supervisors
Vavrinek, Trine, Day & Co., LLP, County External Auditor



Objective #1: Evaluate the adequacy of JWA’s internal controls over the change order process for the Airport Improvement Program to ensure modifications were accurate, valid, adequately supported, and properly recorded and authorized.

AUDIT STEPS AND RESULTS

To accomplish this objective, we audited internal controls over JWA’s change order process for the Airport Improvement Program. We performed the following audit steps:

1. Held meetings and conducted walkthroughs of the change order process and controls with JWA personnel and outside technical advisors responsible for processing change orders for the Airport Improvement Program.
2. Evaluated the adequacy of JWA’s written policies and procedures for processing change orders.
3. Evaluated the segregation of duties of JWA personnel and outside technical advisors who process change orders to ensure they do not have incompatible duties.
4. Evaluated internal controls by testing a sample of 25 change orders totaling \$30 million.

CONCLUSION

We found controls and processes were adequate and effective to ensure change orders were accurate, valid, adequately supported, and properly recorded and authorized. We acknowledge JWA’s efforts to implement Skire Unifier and maintain an effective and efficient system for maintaining change order information. We identified **four (4) Control Findings** where existing controls and processes should be improved. Our findings and recommendations for this objective are noted below:

Finding No. 1 – Documentation Needs to be Improved to Support the Evaluation of Change Order Costs for Architect-Engineer Service Contracts (Control Finding)

Summary

We found that JWA documentation for Architect-Engineer (A-E) service change orders did not always contain adequate documentation (audit trail) so that someone not connected with the change order could understand the process for negotiating the agreed-upon cost.

Details

A Memorandum (Record) of Negotiation documents all actions leading to execution of a change order and supports the procurement decision. The memorandum should be in sufficient detail to explain and support the rationale, judgments, and authority upon which the change order is predicated. The memorandum documents the negotiation process and reflects the negotiator’s actions and judgments in concluding on satisfactory terms for the change order.

Detailed Results, Findings, Recommendations and Management Responses



We found that the following was not always documented in Memorandum (Record) of Negotiation:

1. The date and narrative for each meeting of negotiations where the original proposal and revised proposals were discussed.
2. Detailed description of the vetting process of how a fair and reasonable price was negotiated.
3. The names and titles of the individuals, both JWA personnel and consultants involved in the negotiation meetings.

Based on discussion held with JWA and our review of available documentation, the managers responsible for reviewing the cost proposals appeared to possess the necessary experience, education and expertise to conclude on the reasonableness of the cost proposals.

Recommendation No. 1

We recommend that John Wayne Airport ensure that the Memorandum (Record) of Negotiations contain sufficient information that someone not connected with the change order can understand the process for negotiating the agreed-upon cost.

John Wayne Airport Management Response:

Concur. This recommendation has been implemented.

We agree that the content of certain records of negotiation selected for this audit could have been improved and have already reminded preparers and reviewers that the record of negotiation document must contain sufficient information describing how the fair and reasonable change in contract price was arrived at.

Finding No. 2 – Reason for Overriding an Outside Technical Advisor’s Opinion was not Documented (Control Finding)

Summary

The Memorandum (Record) of Negotiations for one change order increasing the contract cost by \$92,000 did not have adequate documentation for overriding an outside technical advisor’s assessment that the change order did not have merit.

Details

On November 18, 2012, JWA executed a change order with Swinerton Builders, Inc. for Project 230 – Southwest Parking Structure totaling \$92,000. We found that the Memorandum (Record) of Negotiations did not contain justification by JWA for overriding an outside technical advisor’s assessment that the change order from the contractor did not have merit and the request for additional costs was part of the contractor’s overhead and profit mark-up.

JWA’s internal policy and procedure, Facilities Division, ADS P&P E-Form C-20-7, *Record of Negotiation*, Section IV. required that a narrative and other documentation clearly enumerate how a fair and reasonable change in contract sum and/or time was arrived at.



Recommendation No. 2

We recommend that John Wayne Airport ensure disputes with the outside technical advisor are thoroughly documented and detailed explanations are provided as to why a change order is issued that conflicts with the field representative's opinion.

John Wayne Airport Management Response:

Concur. This recommendation has been implemented.

The audit condition noted in this finding was detected during internal change order quality assurance reviews prior to this audit and project managers were advised to include additional narrative whenever there was a difference of opinion between the field representative and JWA.

JWA staff are involved in the review of all change orders. Occasionally, the field representative will issue a recommendation that certain elements in a change order's scope of work (or the entire change order) not be approved. JWA staff will review this recommendation and the contractor's request for merit and JWA may, from time to time, disagree with the field representative under certain circumstances. As the owner, JWA has the final decision making authority with respect to change order approval. Ultimately, if JWA approves a change order against the field representative's recommendation, we agree that the reason for approving the change order must be completely explained.

Finding 3 – Separate Change Order Logs were not Reconciled (Control Finding)

Summary

JWA maintained two separate change order logs but did not reconcile the separate logs.

Details

Change order logs for each project were maintained separately by JWA Facilities and JWA Accounting. The JWA Facilities' change order log information is stored in the Skire Unifier project management system. Data on JWA's Facilities change order log was considered during the review of proposed change orders to identify the contract's value to date and determine whether the proposed work duplicated any prior change orders.

JWA Accounting received a copy of executed change orders and maintained a separate log of change order activity on electronic spreadsheets. Information from JWA Accounting's change order log affected the amount of funds encumbered to cover project expenditures.

We found that reconciliations were not prepared for the separate project change order logs. Reconciling change order logs helps ensure the accuracy of the JWA's records.

Recommendation No. 3

We recommend that John Wayne Airport consider reconciling the change order log maintained in Skire Unifier with JWA Accounting's change order log.



John Wayne Airport Management Response:

Concur. We have considered the recommendation to reconcile Oracle Primavera Unifier (OPU) with CAPS+. While we agree that certain change order data in OPU should generally agree to CAPS+, OPU is an electronic project management system used for workflow, scheduling, and forecasting purposes and is not intended to be an authoritative source for expenditure cycle data that CAPS+ is charged with. As such, we believe current change order processes and controls are appropriate to ensure that not only are encumbrances sufficient to cover project expenditures, but that ultimately expenditures are accurate and within budget.

Change orders follow a rigorous review when processed through OPU. The negotiated fair and reasonable cost for the change order is entered in the system by the project manager and reviewed by the project control management analyst for accuracy. Such segregation of preparation and review provides a sufficient level of assurance that change order amounts in the electronic project management system are accurate. Once the change order is executed in OPU, a PDF version of the signed change order is submitted to Accounting electronically as part of the OPU change order procedures. Accounting then updates their contract change order schedule with the change in contract sum and time. The resultant updated contract amount is then informally agreed to the contract amount in OPU, i.e., no formal record of this reconciliation is made. Differences (rare) are investigated at that time and resolved through research in OPU and communications with Airport Development.

As an enterprise fund, expenditures made by JWA are ultimately governed by having sufficient budgetary appropriations. JWA believes the current encumbrance management process sufficiently ensures encumbrances are sufficient to remit payment to a contractor in a timely manner while ensuring commitments do not exceed appropriations. In the unlikely event a change order amount is not sufficiently encumbered, an expedited encumbrance request would be submitted and the issue generally resolved within one business day.

Furthermore, the Auditor-Controller, who provides accounting services to JWA, was consulted on this finding. The Auditor-Controller has opined that the mandatory reconciliation of contract balances between OPU and CAPS+ is not an efficient use of Accounting resources since OPU was implemented and is utilized by departmental staff, as intended, for its project workflow, scheduling, and forecasting capabilities. The department relies on CAPS+ and hard-copy documentation maintained by JWA Accounting, when referencing authoritative expenditure information.

JWA management has reviewed the Auditor-Controller's position and concurs with it. As there were no ramifications noted in the audit resulting from the current process, JWA is comfortable with the informal continuous reconciliation methodology and the resultant assurance provided when considering the level of resources utilized.



Finding No. 4 – Written Policies and Procedures Need to be Updated (Control Finding)

Details

JWA's internal policy and procedure, Airport Development Section Policies & Procedures (ADS P&P) B-14-0, *Architect-Engineer Agreement Changes*, revised on November 17, 2006 required that the Project Manager prepare an independent cost estimate.

We found that JWA did not prepare an independent cost estimate for *Architect-Engineer Agreement change* orders. JWA informed us that the requirement for preparing an independent cost estimate was no longer applicable. The technical consultant's change order proposal with a breakdown of labor hours and classifications serves as a starting point for negotiations.

Recommendation No. 4

We recommend that John Wayne Airport revise their internal policy and procedure, ADS P&P B-14-0, *Architect-Engineer Agreement Changes* to remove the step that the Project Manager prepares an independent cost estimate for each change order unless mandated by law or sponsor agreement.

John Wayne Airport Management Response:

Concur. This recommendation has been implemented.

Certain architect-engineer change orders do not require an independent cost estimate. Change orders for architect-engineer contracts commonly involve performing a certain scope of services on a time and materials basis and hourly rates for the architect-engineer's staff are largely defined in the initial contract. When a change order's scope of work involves the increase in hours for the architect-engineer, the only variable missing is the number of hours required to perform the work. In some cases, particularly in open-ended support services where the architect-engineer may not have control over the length of time of its service delivery, the architect-engineer will propose the estimated number of hours required to perform the requested scope of services. Accordingly, the correct way for the owner to review the change order includes reviewing the proposed mix of staffing levels and the hours proposed for reasonableness. These variables are then negotiated which then sets the not-to-exceed amount for the change order. As the work is performed, the architect-engineer will bill against the change order up to the established not-to-exceed amount. As independent cost estimates are typically prepared when there is a mix of unknown variables, e.g., composition, hourly rates, and quantities, such estimate is not required in this case due to the "known" hourly rates.

Accordingly, we have revised our architect-engineer change order policies and procedures to include language that an independent cost estimate may not be required for every change order under certain circumstances.



Objective #2: Examine a sample of change orders from the Airport Improvement Program at John Wayne Airport to determine compliance with County and JWA policies and procedures.

AUDIT STEPS AND RESULTS

To accomplish this objective, we performed the following audit steps:

1. Reviewed contract general conditions for processing change orders.
2. Reviewed JWA's policies and procedures for processing change orders.
3. Reviewed the County's 2007 Contract Policy Manual approved by the Board of Supervisors that provides guidelines for processing change orders.
4. Evaluated compliance with County and JWA policies and procedures by testing a sample of 25 change orders totaling \$30 million.

CONCLUSION

We found change orders from the Airport Improvement Program at JWA generally complied with County and JWA policies and procedures. However, we identified **one (1) Control Finding** where compliance could be improved for Architect-Engineer (A-E) service contracts.

Finding No. 5 – Non-Compliance with JWA Architect & Engineer Policies and Procedures (Control Finding)

Summary

During our test work we selected 25 change orders, of which nine (9) were A-E service contract change orders. The cost increase of the nine (9) A-E change orders ranged from \$725,478 to \$4,190,965 and totaled \$16.4 million. We found that JWA internal policies and procedures were not always followed.

Details

JWA's internal policy and procedure, Airport Development Section Policies & Procedures (ADS P&P) B-14-0, *Architect-Engineer Agreement Changes*, revised on November 17, 2006 described the steps to be taken to address potential changes to the scope of services, fee, and/or schedule. The steps include the following:

- A. The Project Manager prepares a Memorandum (Record) of Negotiation documenting the negotiations and final agreement.
- B. The Manager of Airport Development and Deputy Airport Director of Facilities review and initial the Memorandum (Record) of Negotiation.
- C. The Memorandum (Record) of Negotiation contains when appropriate an A-E proposal.

During our review of nine (9) selected A-E change orders, we found the following:

- A. One (1) instance, JWA executed an A-E change order totaling \$773,853. JWA prepared an analysis prior to executing the change order to estimate the number of hours and costs needed to deliver the technical services. However, JWA did not prepare a Memorandum (Record) of Negotiation as required by JWA's internal procedure.



- B. Eight (8) instances, JWA executed A-E change orders ranging from \$725,478 to \$4,190,965. All eight (8) A-E change orders were supported with a Memorandum (Record) of Negotiation showing the signature of the Manager of Airport Development. However, none of the eight (8) Memorandums (Records) of Negotiation showed the initials or signature by the Deputy Airport Director of Facilities to evidence review as required by JWA's internal procedure.
- C. Two (2) instances, JWA executed A-E change orders for \$815,839 and \$773,853. The cost of both A-E change orders were based upon estimates prepared by JWA. However, both of the A-E change orders were not supported with a cost proposal from the contractor as required by JWA's internal procedure. An explanation for the exception was not documented on the Memorandum (Record) of Negotiation.

Recommendation No. 5.A.

We recommend that John Wayne Airport ensure change orders are supported with a Memorandum (Record) of Negotiation.

John Wayne Airport Management Response:

Concur. This recommendation has been implemented.

Only one of the 25 change orders sampled noted this condition and the lack of this document is attributed to a rare procedural oversight. Policies and procedures require a record of negotiation for all change orders and internal control procedures are in place during the change order review process to ensure the document is present. All project managers and reviewers have been reminded of this requirement.

Recommendation No. 5.B.

We recommend that John Wayne Airport ensure the review of the Memorandum (Record) of Negotiations by delegated management is documented.

John Wayne Airport Management Response:

Concur. This recommendation has been implemented.

Internal control objectives require two people to be involved with the record of negotiation, a preparer and a reviewer. The content in the record of negotiation can sufficiently be reviewed by the Airport Development Manager as currently performed in construction change orders.

While the Deputy Airport Director of Facilities commonly reviews the record of negotiation prior to approving a change order, the formality of initialing the document (in the reduced paper OPU environment) has been removed from architect-engineer change order procedures.



Recommendation No. 5.C.

We recommend that John Wayne Airport ensure change orders are supported with a cost proposal from the contractor with any exceptions documented on the Memorandum (Record) of Negotiation.

John Wayne Airport Management Response:

Concur. This recommendation has been implemented.

While no issues were noted with respect to the methodology in negotiating the values of the two change orders noted with this condition, JWA agrees that documentation setting forth the basis of a contractor's price or A-E's fee should be included for change orders, except in certain instances which will be fully explained in the record of negotiation. Accordingly, project managers have been reminded of this recommendation.

Objective #3: Determine if the change order process is efficient and effective (e.g., no backlogs, duplication of work, manual processes that could benefit from automation).

AUDIT STEPS AND RESULTS

To accomplish this objective, we used auditor inquiry and observation to determine if JWA's change order process was efficient and effective. We also:

1. Held meetings, conducted walkthroughs, and made auditor observations and inquiries of the change order process with JWA personnel and outside technical advisors involved in the change order process.
2. Evaluated JWA's written policies and procedures for processing change orders.
3. Performed testing on a sample of change orders to determine the effectiveness of the change order process and controls.

CONCLUSION

We did not note any instances of backlogs or manual processes that could be automated in JWA's change order process.

As a result, we have no findings and recommendations for this Audit Objective.



ATTACHMENT A: Report Item Classifications

For purposes of reporting our audit observations and recommendations, we will classify audit report items into three distinct categories:

- ▶ **Critical Control Weaknesses:**
Serious audit findings or a combination of Significant Control Weaknesses that represent critical exceptions to the audit objective(s) and/or business goals. Management is expected to address Critical Control Weaknesses brought to their attention immediately.
- ▶ **Significant Control Weaknesses:**
Audit findings or a combination of Control Findings that represent a significant deficiency in the design or operation of internal controls. Significant Control Weaknesses generally will require prompt corrective actions.
- ▶ **Control Findings:**
Audit findings concerning internal controls, compliance issues, or efficiency/effectiveness issues that require management's corrective action to implement or enhance processes and internal controls. Control Findings are expected to be addressed within our follow-up process of six months, but no later than twelve months.



ATTACHMENT B: John Wayne Airport Management Responses




Alan L. Murphy
Airport Director

Memo

DATE: March 28, 2013

TO: Dr. Peter Hughes, Internal Audit Director
Internal Audit Department

FROM: Alan L. Murphy, Airport Director 
John Wayne Airport

SUBJECT: Management Response to Internal Audit Department's Report on
John Wayne Airport Change Order Process for the Airport
Improvement Program, Audit No. 1125

This memo is in response to the Internal Audit Department's Report on John Wayne Airport Change Order Process for the Airport Improvement Program, Audit No. 1125.

Attached is our management response which was reviewed and concurred with by the County Executive Officer.

We have implemented all of the report's recommendations and will have supporting documentation available for your follow-up audit.

John Wayne Airport appreciates the collaborative effort set forth by Internal Audit Department in the preparation of this report.

Attachments

cc: Loan Leblow
Larry Serafini
Mariane Teschner
Lisa Kawashima
Samer Marei
Scott Suzuki
Denise Steckler, Director of Satellite Accounting, Auditor-Controller

3160 Airway Avenue
Costa Mesa, CA
92626-4608
(949) 252-5171
(949) 252-5178 FAX
www.ocair.com



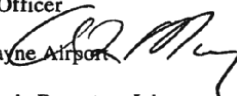


ATTACHMENT B: John Wayne Airport Management Responses (continued)



Alan L. Murphy
Airport Director

Memo

DATE: March 25, 2013
TO: Robert J. Franz, Interim County Executive Officer
FROM: Alan L. Murphy, Airport Director, John Wayne Airport 
SUBJECT: Draft Response to Internal Audit Department's Report on John Wayne Airport Change Order Process for the Airport Improvement Program, Audit No. 1125

Attached for your review is John Wayne Airport's management response to the Internal Audit Department's Report on John Wayne Airport Change Order Process for the Airport Improvement Program, Audit No. 1125. If you concur with our response, please indicate so by signing below and returning this memo to our office.

Thank you for your assistance in this process. Please do not hesitate to call if you require additional information or have any questions. I can be reached at 949.252.5183.

Attachments

Concurrence:

Robert J. Franz
Interim County Executive Officer

3/26/13
Date

3160 Airway Avenue
Costa Mesa, CA
92626-4808
(949) 252-5171
(949) 252-5178 FAX
www.ocair.com





ATTACHMENT B: John Wayne Airport Management Responses (continued)

JOHN WAYNE AIRPORT
Response to the Internal Audit Department's Report on
Change Order Process for the Airport Improvement Program
Audit No. 1125

Finding No. 1 – Documentation Needs to be Improved to Support the Evaluation of Change Order Costs for Architect-Engineer Service Contracts (Control Finding)

Recommendation No. 1

We recommend that John Wayne Airport ensure that the Memorandum (Record) of Negotiations contain sufficient information that someone not connected with the change order can understand the process for negotiating the agreed-upon cost.

JWA Management Response

Concur. This recommendation has been implemented.

We agree that the content of certain records of negotiation selected for this audit could have been improved and have already reminded preparers and reviewers that the record of negotiation document must contain sufficient information describing how the fair and reasonable change in contract price was arrived at.

Finding No. 2 – Reason for Overriding an Outside Technical Advisor's Opinion was not Documented (Control Finding)

Recommendation No. 2

We recommend that John Wayne Airport ensure disputes with the outside technical advisor are thoroughly documented and detailed explanations are provided as to why a change order is issued that conflicts with the field representative's opinion.

JWA Management Response

Concur. This recommendation has been implemented.

The audit condition noted in this finding was detected during internal change order quality assurance reviews prior to this audit and project managers were advised to include additional narrative whenever there was a difference of opinion between the field representative and JWA.

JWA staff are involved in the review of all change orders. Occasionally, the field representative will issue a recommendation that certain elements in a change order's scope of work (or the entire change order) not be approved. JWA staff will review this recommendation and the contractor's request for merit and JWA may, from time to time, disagree with the field representative under certain circumstances. As the owner, JWA has the final decision making authority with respect to change order approval. Ultimately, if JWA approves a change order against the field representative's recommendation, we agree that the reason for approving the change order must be completely explained.



ATTACHMENT B: John Wayne Airport Management Responses (continued)

Finding No. 3 – Separate Change Order Logs were not Reconciled (Control Finding)

Recommendation No. 3

We recommend that John Wayne Airport consider reconciling the change order log maintained in Skire Unifier with JWA Accounting's change order log.

JWA and Auditor-Controller Management Response

Concur. We have considered the recommendation to reconcile Oracle Primavera Unifier (OPU) with CAPS+. While we agree that certain change order data in OPU should generally agree to CAPS+, OPU is an electronic project management system used for workflow, scheduling, and forecasting purposes and is not intended to be an authoritative source for expenditure cycle data that CAPS+ is charged with. As such, we believe current change order processes and controls are appropriate to ensure that not only are encumbrances sufficient to cover project expenditures, but that ultimately expenditures are accurate and within budget.

Change orders follow a rigorous review when processed through OPU. The negotiated fair and reasonable cost for the change order is entered in the system by the project manager and reviewed by the project control management analyst for accuracy. Such segregation of preparation and review provides a sufficient level of assurance that change order amounts in the electronic project management system are accurate. Once the change order is executed in OPU, a PDF version of the signed change order is submitted to Accounting electronically as part of the OPU change order procedures. Accounting then updates their contract change order schedule with the change in contract sum and time. The resultant updated contract amount is then informally agreed to the contract amount in OPU, i.e., no formal record of this reconciliation is made. Differences (rare) are investigated at that time and resolved through research in OPU and communications with Airport Development.

As an enterprise fund, expenditures made by JWA are ultimately governed by having sufficient budgetary appropriations. JWA believes the current encumbrance management process sufficiently ensures encumbrances are sufficient to remit payment to a contractor in a timely manner while ensuring commitments do not exceed appropriations. In the unlikely event a change order amount is not sufficiently encumbered, an expedited encumbrance request would be submitted and the issue generally resolved within one business day.

Furthermore, the Auditor-Controller, who provides accounting services to JWA, was consulted on this finding. The Auditor-Controller has opined that the mandatory reconciliation of contract balances between OPU and CAPS+ is not an efficient use of Accounting resources since OPU was implemented and is utilized by departmental staff, as intended, for its project workflow, scheduling, and forecasting capabilities. The department relies on CAPS+ and hard-copy documentation maintained by JWA Accounting, when referencing authoritative expenditure information.



ATTACHMENT B: John Wayne Airport Management Responses (continued)

JWA management has reviewed the Auditor-Controller's position and concurs with it. As there were no ramifications noted in the audit resulting from the current process, JWA is comfortable with the informal continuous reconciliation methodology and the resultant assurance provided when considering the level of resources utilized.

Finding No. 4 – Written Policies Need to be Updated (Control Finding)

Recommendation No. 4

We recommend that John Wayne Airport revise their internal policy and procedure, ADS P&P B-14-0, *Architect-Engineer Agreement Changes* to remove the step that the Project Manager prepares an independent cost estimate for each change order unless mandated by law or sponsor agreement.

JWA Management Response

Concur. This recommendation has been implemented.

Certain architect-engineer change orders do not require an independent cost estimate. Change orders for architect-engineer contracts commonly involve performing a certain scope of services on a time and materials basis and hourly rates for the architect-engineer's staff are largely defined in the initial contract. When a change order's scope of work involves the increase in hours for the architect-engineer, the only variable missing is the number of hours required to perform the work. In some cases, particularly in open-ended support services where the architect-engineer may not have control over the length of time of its service delivery, the architect-engineer will propose the estimated number of hours required to perform the requested scope of services. Accordingly, the correct way for the owner to review the change order includes reviewing the proposed mix of staffing levels and the hours proposed for reasonableness. These variables are then negotiated which then sets the not-to-exceed amount for the change order. As the work is performed, the architect-engineer will bill against the change order up to the established not-to-exceed amount. As independent cost estimates are typically prepared when there is a mix of unknown variables, e.g., composition, hourly rates, and quantities, such estimate is not required in this case due to the "known" hourly rates.

Accordingly, we have revised our architect-engineer change order policies and procedures to include language that an independent cost estimate may not be required for every change order under certain circumstances.

Finding No. 5 – Non-Compliance with JWA Architect-Engineer Change Order Policies and Procedures (Control Finding)

Recommendation No. 5A

We recommend that John Wayne Airport ensure change orders are supported with a Memorandum (Record) of Negotiation.



ATTACHMENT B: John Wayne Airport Management Responses (continued)

JWA Management Response

Concur. This recommendation has been implemented.

Only one of the 25 change orders sampled noted this condition and the lack of this document is attributed to a rare procedural oversight. Policies and procedures require a record of negotiation for all change orders and internal control procedures are in place during the change order review process to ensure the document is present. All project managers and reviewers have been reminded of this requirement.

Recommendation No. 5B

We recommend that John Wayne Airport ensure the review of the Memorandum (Record) of Negotiations by delegated management is documented.

JWA Management Response

Concur. This recommendation has been implemented.

Internal control objectives require two people to be involved with the record of negotiation, a preparer and a reviewer. The content in the record of negotiation can sufficiently be reviewed by the Airport Development Manager as currently performed in construction change orders.

While the Deputy Airport Director of Facilities commonly reviews the record of negotiation prior to approving a change order, the formality of initialing the document (in the reduced paper OPU environment) has been removed from architect-engineer change order procedures.

Recommendation No. 5C

We recommend that John Wayne Airport ensure change orders are supported with a cost proposal from the contractor with any exceptions documented on the Memorandum (Record) of Negotiation.

JWA Management Response

Concur. This recommendation has been implemented.

While no issues were noted with respect to the methodology in negotiating the values of the two change orders noted with this condition, JWA agrees that documentation setting forth the basis of a contractor's price or A-E's fee should be included for change orders, except in certain instances which will be fully explained in the record of negotiation. Accordingly, project managers have been reminded of this recommendation.