

Office of the Inspector General
Miami-Dade County
REPORT

Miami-Dade Aviation Department

A study by the Office of the Inspector General of the
Miami-Dade Aviation Department's Professional Services Agreement
with Dade Aviation Consultants and in relation to the Capital
Improvement Program at Miami International Airport.

May 29, 2002

I. INTRODUCTION

By way of memorandum, the County Manager requested the Office of the Inspector General (OIG) to undertake an extensive and independent review of Miami-Dade County's contract with Dade Aviation Consultants (DAC). While the County Manager raised several specific areas of inquiry, the review mandated a broader inquiry of DAC's role in relation to the Capital Improvement Program (CIP) at the Miami International Airport.

DAC's contract with Miami-Dade County (the County) is perhaps the largest and most significant of the County's Professional Services Agreements. Compensation to DAC, since 1992, exceeds \$140 million. And as Miami International Airport (MIA) is often referred to as the economic engine of the County, the success of the capital expansion efforts and management of the airport is vital to the overall prosperity of the region. In this regard, DAC's role at MIA, and within the Miami-Dade Aviation Department (MDAD), carries much significance.

The contract between DAC and the County is all-inclusive in describing DAC's duties. The contract gives DAC the task of providing MDAD with a lengthy list of support and management functions as an extension of MDAD staff in pursuit of the expansion of facilities at Miami International Airport and, to a lesser extent, the General Aviation airports. DAC compensation is determined by a multiplier applied to its direct salary costs. Additionally, contract-related expenses, such as office expenses, travel, vehicles, etc. are reimbursable. DAC submits a budget each year to MDAD, stating the salaries for its core staff and estimating its reimbursable expenses. During the fiscal year, requests for additional services outside of the core (budgeted) services may be made by MDAD via "Service Order." The County provides DAC with office space to perform its functions.

The relationship between DAC and the MDAD has become more complex as the CIP has evolved. It has progressed far beyond the stage where DAC is merely a "consultant" retained for a particular project, albeit the Capital Improvement Program. It is not unreasonable to say that DAC has become institutionalized with MDAD and in effect, a fully vested sub-unit of the MDAD.

The Department of Audit and Management Services (AMS) prepared a review report of DAC in November 1998. While that report was used as a reference by the OIG, this report is not intended to be, and should not be construed as, a follow-up to the 1998 AMS report. In order to maintain this perspective, the OIG will briefly address in the next section some of the major issues that were raised in, and changes that were made as a result of, the AMS report. The remainder of this report is based on the OIG's independent review of this matter.

The OIG recognizes that project management of a multi-billion dollar aviation construction program and, indeed, airport management itself are both highly specialized and technical fields. Our review, study, and findings related to the DAC Professional Services Agreement should not be taken as a comment on the actual construction or the actual project management of the CIP. Rather, our observations and findings relate to the management of the contract itself and programmatic and organizational efficiencies and/or deficiencies that have developed as a result of the arrangement. This report is fashioned as a study, outlining our observations and findings. The report does not contain recommendations. Given a consulting contract of this size, magnitude and significance, the OIG feels that it is more appropriate to report our findings and allow the matter to be subject to public debate.

II. 1998 AMS PERFORMANCE REVIEW REPORT

The Department of Audit & Management Services' (AMS) Performance Review Report of the DAC Agreement primarily focused on the determination of compensation, overall performance and effectiveness of services rendered, and contractual compliance. AMS' Summary Recommendations and MDAD's response to them are briefly outlined below.

A. Summary Recommendations from AMS Audit

The report, in summary, suggested that the County institute the following recommendations:

1. That MDAD cease reimbursing all expenses except those directly related to MDAD jobs (such as blueprints) and eliminate the payment of the full multiplier on DAC program support staff.
2. That MDAD should no longer direct DAC to hire specific consultants or procure products from a specified vendor.
3. That MDAD initiate the process to enter into a contractual arrangement with PC Advice, which had been developing MDAD's Projects Graphing Tracking System as a sub-consultant under the DAC PSA.
4. That DAC employees, working under the full-time supervision of MDAD, be hired as County employees or returned to DAC.
5. That DAC implement a waiting period for its former employees between resignation from DAC, or one of its joint venture partners, and employment as a non-core consultant to avoid the appearance of impropriety.

6. That DAC provide its Industry Peer Review Group with expenditure guidelines and prohibit first class business travel and hourly compensation for services.
7. That MDAD amend and update contracts in a timely manner; consolidate the contract extension function; and adhere to reimbursement guidelines, and
8. AMS requested that Sharpton and Brunson, a member of the DAC joint venture, seek an opinion from the Florida Board of Accountancy regarding its role as an auditor for outside contracts with MDAD.

B. Action taken resulting from AMS Audit Recommendations

The OIG interviewed both DAC and MDAD staff and determined that the majority of recommendations were either implemented or resolved, and, in some instances, satisfactory compromises were reached, as noted below:

1. Reimbursable expenditures are now in accordance with County procedures.
2. Regarding the multiplier, DAC now applies a 2.42 multiplier to its technical staff positions, a 1.90 multiplier to non-technical staff, and a 2.50 multiplier for consultants that are brought in for unique purposes.
3. According to both DAC and MDAD staff, there are no longer requests made to hire specific consultants. Rather, when necessary, DAC pulls experts from its joint venture partners that have the appropriate expertise to advise MDAD on a particular matter.
4. The Projects Graphing Tracking System is operational.
5. The issues surrounding the “mirrored staff” were eliminated. There are no longer DAC counterparts for MDAD employees. The present arrangement is currently referred to as “an extension of staff.” This avoids duplication of effort and provides the MDAD staff with the support that is needed.
6. A contracts section was created in DAC to work more closely with the Contracts Administration Division of MDAD.
7. The waiting period issue was resolved as it only pertained to one person and the issue has not come up again.

8. The advisory opinion that Sharpton & Brunson received prior to the issuance of the 1998 AMS report was sufficient for legal purposes and satisfied MDAD officials at the time it was rendered.

III. SCOPE OF OIG REVIEW

A. Specific Inquires made by the County Manager

In directly addressing the questions posed by the County Manager's memorandum of March 19, 2002, the OIG provides the following responses.¹

1. *Does DAC's contract prohibit charitable or political contributions? If not, were they voluntary?*

The PSA does not address these issues. All of DAC's expenses pertaining to the work for MDAD are either approved in its annual budget or via Service Orders issued by MDAD. All of its charitable and political contributions were classified as "non-reimbursable expenses." DAC maintains that these expenditures are discretionary on its part.

2. *Does the contract prohibit the hiring of consultants, lawyers, or lobbyists?*²

Section 4.9 of the DAC PSA reads:

¹ Some questions beg for a legal determination of the Agreement terms and provisions. It remains the OIG's position that legal determinations that may affect the County's contractual rights and obligations must be left to the opinion of the County Attorney's Office as the entity which is vested with the authority to bind the County.

² It has been well publicized, and documents obtained from DAC reveal, that DAC has retained, employed, and/or otherwise compensated individuals for services that fit the definition of lobbying, and who are known individuals who frequently lobby and register as lobbyists on county aviation issues. In one example, DAC, by way of a separate contract executed with Dade Aviation Marketing, Inc., pays over \$150,000 per year for its services, which are spelled out in the agreement as:

- "Ongoing public affairs advice and services."
- "Advice regarding local and community issues related to the Dade County Airports."
- "Ongoing coordination with other consultants of DAC."

While this consultant's name suggests that it is a marketing company, the substance of the agreement resembles the same duties as a lobbyist. This is one of several agreements entered into by DAC with consultants and/or marketing firms for similar types of services.

4.9 SOLICITATION: Except as provided by Section 2-11.1 (s) of the Dade County Code, relating to the registration of lobbyists, the General Consultant warrant(s) that: 1) it has not employed or retained any company or person other than a bona-fide employee working solely for the General Consultant to solicit or secure this Agreement; and 2) that it has not paid, nor agreed to pay any company or other person any fee, or commission, gift, or other consideration contingent upon the execution of this Agreement.

For breach or violation of this warranty, the County has the right to annul this agreement without liability to the County for any reason whatsoever.

Other than the above-cited section, the hiring of consultants, lawyers, or lobbyists is not addressed by the PSA.

3. *Has DAC ever billed Miami-Dade County for any inappropriate expenditure?*

There have been no indications that DAC has billed Miami-Dade County for any inappropriate expenditures. All of DAC's expenses pertaining to the work billed to MDAD are either approved in its annual budget or via Service Orders issued by MDAD. All of its other expenditures are classified as "non-reimbursable expenses." DAC maintains that these expenditures are discretionary on its part.³

The time constraints imposed upon this report precludes the inclusion of a full ten-year audit of all DAC expenses.

4. *Has Miami-Dade County ever reimbursed DAC for any inappropriate expenditure?*

See response to question three (3), above.

5. *What is the total amount of payments made to DAC over the term of the contract?*

³ While these expenditures are accounted for as "non-reimbursable expenses" and are not passed through to MDAD, many of the actual expenditures reviewed by the OIG give rise for concern. Expenses incurred by DAC, on behalf of county officials and employees, which may be classified as gifts, may violate the provisions in Conflict of Interest/Code of Ethics ordinance. Conversely, the failure of county officials and employees to report gifts may also violate the ethics ordinances. The OIG is continues to investigate this matter.

\$140740,245 has been paid to DAC since 1992. A breakdown of payments by contract year is found in section III.(B) of this report. (See page 10).

6. *What is the contract's term, its expiration date, and its extension and termination provisions?*

DAC was awarded the contract and entered into a Professional Services Agreement with Miami-Dade County that became effective on December 15, 1992. The maximum term of the agreement is for twenty (20) years. The initial term is for ten (10) years, which may be followed by one additional five (5) year term and, thereafter, may be followed by up to five (5) additional one (1) year terms at the County's option. The initial ten (10) year term will expire on December 15, 2002. The termination provisions are found in section 4.8 of the PSA.

4.8 TERMINATION OF AGREEMENT:

a. The County may terminate this Agreement for cause without liability to the General Consultant with not less than ninety (90) days written notice prior to the effective date of termination.

b. The General Consultant may terminate this Agreement for cause without liability to the County by giving the County not less than one hundred eighty (180) days written notice prior to the effective date of termination upon a demonstration of bad faith on the part of the County in the performance of County's obligations under this Agreement.

c. Notwithstanding any other provisions contained in this Agreement, the County may terminate this Agreement for convenience of the County without cause and without liability to the General Consultant by giving the General Consultant not less than one year's written notice to the General Consultant at any time during the initial ten year term of this Agreement or at any time during any subsequent extensions of this Agreement beyond the initial ten year term.

d. In any such event of termination, as set forth above, the General Consultant shall be compensated for all authorized services performed as set forth in Article 3.

B. Focus of OIG Review

Unlike the AMS report, the OIG study focuses on the following:

- Review the agreement's stated scope of service and will analyze DAC's role in providing these services, as well as its impact in MDAD's overall operations.
- Examine DAC's duties in relation to the completion of the various projects that constitute the Capital Improvement Program.
- Compare the DAC compensation arrangement (multiplier) against other comparable airports in the United States, and against professional services contracts industry wide.
- Evaluate the professional services that DAC provides to MDAD and the staffing arrangement and relationship that has developed between the two organizations.
- Compare the DAC contract with other similar agreements among consultants performing large scale project management functions at other comparable airports.
- Evaluate the progress that has been made on the Capital Improvement Program, and the overall performance of DAC in this program.

III. BACKGROUND

A. History of the Capital Improvement Program

The need for expanded facilities and increased capacity has existed at Miami International Airport (MIA) for decades. During the 1970's and 1980's, these issues were largely addressed by efforts to build a new "Jetport" in northwest Miami-Dade County, as the expansion options at the existing MIA were

geographically limited. Widely debated, the Jetport concept was finally defeated in 1990 when the Florida legislature rejected a request from the Florida Department of Transportation for funding to purchase the required land. With the demise of the Jetport concept, MDAD was forced to refocus its efforts for expansion on the existing MIA facility, which had not been seriously considered up to this point.

To address these needs, MDAD embarked on a facilities development program, as well as the development of an Airport Master Plan to determine the specific needs of MIA. The Capital Improvement Program (CIP) as it now exists has evolved from these efforts. The CIP actually contains two sub-components, the Capital Expansion Program (CEP) which are those projects that primarily involve creating new facilities and expanding existing facilities, and the Facilities Improvement Program (FIP) which are those projects that primarily involve improvements to existing facilities.

The initial cost of the facilities development program was estimated at \$1.6 billion in January 1992. By May 1995, the estimate had grown to \$4.1 billion, largely due to the completion of the Airport Master Plan, which resulted in a more specific and better-defined CIP. The updated \$4.1 billion estimate was based on MIA's then projected needs and MDAD's projected affordable limits. Even at that time, there were additional projects that were not included in the CIP, because MDAD could not fund them and keep the landing fee competitive. Since 1995, the cost of the CIP has escalated annually primarily due to inflationary factors and changes in technology, construction methods, and building requirements. By July 1999, the CIP was estimated at \$5.4 billion. Again this revised estimate still did not include the unfunded projects that had been left off the CIP each year.

In 2002, for the first time, all of the intended CIP projects (including those previously left out) were placed into the formal CIP, resulting in a total cost estimate of \$7.2 billion. After including all CIP projects, the program itself was divided into a Phase One, budgeted at \$4.8 billion, an Intermediate Phase, consisting of an additional \$400 million to add to Phase One, and a Phase Two estimated at \$1.9 billion, which would only be undertaken after the first and intermediate phases are complete.

**Changes in the Capital Improvement Program
1992-1999**

From	To	Change
January 1992	February 1994	
\$1,648,510,000	\$2,675,744,000	\$1,027,234,000
February 1994	May 1995	
\$2,675,744,000	\$4,152,369,000	\$1,476,625,000
May 1995	January 1996	
\$4,152,369,000	\$4,603,374,000	\$451,005,000
January 1996	January 1997	
\$4,603,374,000	\$4,601,775,000	(\$1,599,000)
January 1997	January 1998	
\$4,601,775,000	\$4,679,305,000	\$77,530,000
January 1998	July 1998	
\$4,679,305,000	\$4,709,179,000	\$29,874,000
July 1998	July 1999	
\$4,709,179,000	\$5,451,705,000	\$742,526,000
July 1999	February 2002	
\$5,451,705,000	\$7,192,023,000	\$1,740,318,000
Total Change since 1992		\$5,543,513,000

B. History of the Contract

From the outset, there were concerns within MDAD regarding the manageability of the CIP. It was apparent that the existing staff was not large enough and did not possess the necessary technical expertise to undertake a program of this size. It was felt by management that to acquire staff of sufficient size and qualifications would

have taken an inordinate length of time. There were also additional concerns regarding the placement of staff after the CIP was complete. To address these concerns, it was decided to seek the services of a general consultant to manage the CIP at MIA.

In December 1992, the County entered into a Professional Services Agreement (PSA) with Dade Aviation Consultants (DAC). DAC is a joint venture, made up of eight (8) companies, that was created in 1992 for the express purpose of bidding on the proposed MDAD facilities development contract. The partners in this joint venture are:

- Bechtel Corporation (managing partner)
- Day and Zimmerman, Inc.
- Spillis, Candela, and Partners, Inc.
- The Bugdal Group
- Maurice Gray Associates, Inc.
- Forrest Construction Management, Inc.
- Sharpton, Brunson & Company
- Thompson Consultants International, Inc.

The original PSA called for DAC to serve as a special support staff for MDAD and provide program management for the facilities improvement program, including the management of engineering, architectural, and other technical support services necessary to assure orderly airport development. The PSA between Miami-Dade County and DAC was described in the local media as “the mother of all contracts” due to its scope, length, and projected values.

Since the inception of the contract, MDAD has paid a total of \$140,740,245 to DAC for services as follows:

Fiscal Year	Expenditure
92/93	\$3,754,661.65
93/94	\$14,926,682.63
94/95	\$15,859,485.77
95/96	\$13,170,688.50
96/97	\$14,119,840.39
97/98	\$15,149,049.29
98/99	\$14,151,790.52
99/00	\$15,846,530.11
00/01	\$20,394,012.46
YTD (5/28/02)	\$13,367,504.09
TOTAL	\$140,740,245.41

IV. OBSERVATIONS & FINDINGS

A. Services Provided by DAC

1. The Original PSA and previously made modifications

DAC was engaged to serve as an extension of MDAD staff and to manage all aspects of the design and construction of the various expansion, improvement, and remodeling projects that had been combined into the Capital Improvement Program (CIP). While the CIP is not specifically mentioned in the PSA, terms such as the “Program of Facilities Development,” “airport development” and “facility construction” are scattered throughout the PSA. The PSA, as originally written in 1992, goes beyond mere oversight of the construction projects and is so broad and all encompassing that it would appear to give DAC involvement in virtually all aspects of the operation of MDAD,⁴ some examples of which are:

⁴ The PSA with Dade Aviation Consultants is written in extremely general and all-inclusive terminology. In Article 2, Services, (page 7 and 8) the PSA reads:

- Passenger forecasts
- Future facility requirements
- Developing finance sources
- Recommending information, environmental and passenger systems
- Negotiating other PSA's
- Contract Administration and monitoring
- Cash flow controls
- Provide preventative and predictive maintenance programs
- Support the general needs of MDAD in maintaining and developing airport facilities

In 1992, when the PSA for a Program Management consultant was created, the CIP was still very much in a conceptual stage. At about the same time that the DAC was retained, MDAD had also commissioned the preparation of a Master Plan for MIA. This Master Plan was to be based on the then current and mid-range facilities needs of MDAD. The first comprehensive description of the CIP, resulting from the Miami Airport Master Plan, was issued by DAC in August 1994 as the **“Capital Program Description of Projects.”** This document identifies the various components of the CIP by Airside, Terminal & Concourses, Landside, Support, and General Aviation Airport divisions. Each project is listed with a description, need, cost estimate, and estimated construction start and completion date.

Over the years, the services provided by DAC have fluctuated as the CIP has evolved and DAC's duties have been redefined. As previously mentioned, DAC's stated scope of services, as listed in the original PSA, are defined in broad and general terms. It appears that the first statement of DAC's duties in relation to CIP projects were codified in its Annual Operating Budget submitted

“Services may include, but will not necessarily be limited to: short and long-range airport, airport system, and facilities planning, transportation, noise abatement and environmental planning, value engineering, project programming, project sequencing, design review, construction administration, claims prevention, construction quality assurance, inspection and testing, environmental compliance and remediation services, information systems and other diverse technical and engineering skills in support of the general needs of the Department at Miami International Airport, as well as the general aviation airports which complete Dade County's Aviation system.”

for FY 95-96. DAC's general duties were re-focused to concentrate on the CEP portion of the overall capital improvement program, which at that time consisted 119 projects with a 1995 value of \$2.3 billion. Apparently, MDAD re-directed primary responsibility of the FIP, to the Department's own Facilities Development Division. The FIP, in 1995, consisted of 94 projects with an estimated value of \$1.1 billion. DAC continued to provide limited support to the FIP in the areas of planning, contract formation, civil and environmental engineering, and partial involvement in design support and oversight.

As a result of the FY 95-96 modifications, DAC's core staff was initially reduced from 149 to 99 people. Since then, DAC's yearly staffing numbers fluctuates as dictated by the annual budget. The core staff for the current year is 106 people.

The specific services to be provided by DAC, for any given year, are found in the Annual Scope Statement that DAC submits along with its budget proposal. The OIG reviewed the current DAC budget proposal and was unable to find an Annual Scope Statement for the current FY 01-02. The budget submitted for the current FY contains a more general budget narrative statement. DAC and MDAD personnel advised the OIG that due to the events of 9/11, and the uncertainty of the immediate future of the CIP, the FY 00-01 Scope Statement was still in effect. Now that MDAD's financial picture has stabilized somewhat, DAC is in the process of preparing the FY 01-02 scope statement.

2. Current Role of DAC – an extension of staff

DAC's role at MIA, and in the CIP, has evolved along with the CIP itself. In a general sense, DAC's responsibility is to provide program management. Specifically with regard to the CIP, the program management function involves overseeing the construction of the Capital Expansion Projects (CEP). The scope of DAC's program management function in relation to the CIP entails:

- Project management, support, planning and oversight for each capital expansion project
- Design management, support and oversight
- Project scheduling (scheduling and coordinating all of the various components of a large construction project)
- Preparing a weekly cash management computation
- Constructibility Review
- Cost review and control

- Support to other entities within the MDAD

DAC carries out its program management functions as an extension of MDAD's staff. In addition to direct oversight of the construction program, DAC also provides consulting services ancillary to the CIP. In some other instances, the consulting services provided by DAC bear no relation to the CIP.

Of the 32 divisions within MDAD, five (5) divisions mainly use DAC as a supplemental body of employees. They are: the Facilities Administration Division, the Procurement Division's Contract Administration Section, the Facilities Maintenance Division, the Information Systems Division, and the Environmental Division. Additionally, there are three (3) other divisions that, to a lesser extent, use DAC employees to supplement its staff and assist in carrying out its functions. These three (3) are: the Public Affairs Division, the Properties Division, and the Finance Division. Each division, its function and DAC's services are discussed in turn below.

a) The Facilities Administration Division

The fundamental nature of the DAC contract is to assist the Facilities Administration Division in completing MDAD's aggressive Capital Improvement Program. Facilities Administration was the division formerly charged with administering construction projects before DAC was retained as MDAD's general consultant. The functions of the division were previously performed by a core group of county employees ranging from architects to engineers, with clerical staff to support them. Prior to the CIP, the needs of MDAD were considerably smaller and less complex.

With regard to the CIP, project controls such as estimating, scheduling, claims dispute resolution and design review were areas of expertise that the Facilities Division lacked among its staff. These four components constitute a construction project's critical path and is where the principal oversight function must occur. Adhering to the course of action outlined in the critical path will determine whether the project will be accomplished on time, within the budgetary expectations, and represent the quality that is expected.

The construction industry disciplines that are key to the timely completion of a construction project along its critical path are:

- Estimators
- Schedulers
- Mechanical Engineers
- Electrical Engineers
- Structural Engineers
- Architects
- Utilities Coordinators

While there were, and still are, similar employment classifications within the County, MDAD has not recruited these types of positions for the Facilities Administration Division, and currently does not have any of these professionals on its staff at this time. Prior to 1992, before DAC's arrival, MDAD relied upon various consultants to perform the more specialized functions relating to construction oversight.

DAC fills this Division's needs with staff members that possess this expertise from among its joint venture partner's pool of employees. MDAD establishes the staffing needs, makes the request of DAC, and then selects individuals from a list of resumes supplied by DAC.

b) The Contracts Administration Section

The Contracts Administration Section is a part of MDAD's Procurement Division.⁵ This Section administers the "front end" of any procurement selection process, and is responsible for administering the process up to the awarding of the contract. Its responsibilities include:

- Initiating the selection process for construction contracts, change orders, professional services, personal service agreement amendments, and special tasks.
- Establishing the method of selection (RFQ, RFP, etc.)

⁵ In the past, the Contract Administration Section was a part of the Facilities Division. The Countywide centralization of procurement caused a reorganization that placed the Contracts Section into the MDAD Procurement Division.

- Developing the contract documents
- Coordinating inter/intra departmental communications and efforts concerning the particular procurement
- Advertising the contracting opportunity to potential bidders
- Providing guidance to bidders throughout the process
- Safeguarding documentation received from bidders
- Issuing addenda, as necessary
- Evaluating bids and proposals
- Coordinating the selection and negotiation sessions, and
- Coordinating the recommendations to the County Manager for award of the contract.

DAC plays an integral role in this process. Attached is a more intricate matrix that delineates MDAD's contract responsibilities versus DAC's contract responsibilities. (See Exhibit A)

Unlike the Facilities Administration Division, which lacked the expertise to perform its function effectively, the Contracts Administration Section simply lacks staff. Although the Section uses the expertise of DAC project managers in supplying and reviewing the technical specifications that are incorporated into the bid documents, DAC contract managers perform the great majority of the procurement function for construction contracts. MDAD contracts officers generally provide the oversight and approval function. For PSAs, MDAD contract officers perform a more active role and uses the DAC staff as support.

The contract administration function is integral to the operation of MDAD. The skills necessary to perform the function exist within MDAD and are prevalent throughout the County. Currently, DAC provides eight (8) employees (not including project managers) to assist the Contract Administration Section.

c) The Facilities Maintenance Division

The Facilities Maintenance Division performs the upkeep of MIA and the other county airports. It is responsible when facilities fail or are in need of repair. The Facilities Maintenance Division accounts for half of the MDAD staff and has the largest operating budget among the divisions. The Division's responsibilities include:

- Maintaining electrical and mechanical systems,
- Insuring the public's safety in the use of the Airport facility
- Adhering to the general maintenance needs i.e. landscaping, painting, minor electrical, etc.
- Responding to the overall repair needs of the occupants of the facility, and
- Managing major maintenance and repair contracts for the Department.

The improvement and expansion of facilities has expanded the responsibilities of the Maintenance Division. This expansion of responsibility combined with normal attrition through retirement, etc., has resulted in staffing shortages within the Division. Division management advised that previous countywide hiring freezes and budgetary constraints left the Division unable to hire enough staff to perform its function. Apparently, this resource shortage caused the need for DAC to extend its staff to the maintenance division.

DAC provides support by supplying the division with one (1) mechanical engineer, two (2) schedulers, and one (1) junior engineer. These four (4) individuals have assisted in writing specifications for building management and airfield lighting, studies of existing equipment, the chiller plant project, and have aided in the 40-year re-certification plan.

Once a construction project is completed, that facility is transferred to the Facilities Maintenance Division for future maintenance and care. According to MDAD management, an aspect of construction that was virtually ignored, until recently, is commissioning. The term "commissioning" refers to the assurance that plumbing, air-conditioning, electrical, security, mechanical, and all other major systems that a building requires are functioning adequately. Since the Division will manage all MDAD facilities once the CIP is completed, its staff must receive training during the construction phase in order to properly maintain the facility. Currently, DAC's maintenance support group provides this training before MDAD takes ownership of the facility. MDAD management stated that prior to the implementation of the commissioning concept, punch lists were

often negotiated away and buildings often would be delivered to the County in less than perfect condition.

MDAD now requires that punch list items be addressed at a rate of 100%. Recently, MDAD made the commitment to incorporate the commissioning concept into the CIP. The manager of maintenance and the above referenced DAC staff will perform the function.

d) The Information Systems Division

The Information Systems Division (ISD) coordinates and maintains the computer operations and telecommunications needs of the Airport. ISD is responsible for:

- Purchasing, maintaining, and assessing the information systems need of Miami International Airport,
- Managing the telecommunications infrastructure for the Airport,
- Coordinating training classes for MDAD employees.
- Providing technical support for system users,
- Implementing hardware and software upgrades as necessary, and
- Administering major telecommunications and computer related maintenance contracts.

ISD has utilized DAC, in non-CIP related areas, such as assisting in the renegotiation of the Nextira contract (formerly known as Williams Communications). DAC also provided technical assistance on the Total Airport Management System (TAMS). These two contracts simply required technical expertise that MDAD did not have.

e) The Environmental Engineering Division

The Environmental Engineering Division supports the environmental, civil and fuel engineering needs of MDAD. DAC provides support in the areas of planning and project management in the areas of water, sewer, storm water, pavement, fuel and asbestos management. Three (3) engineers aid in conducting studies for the Airport Master Plan, the resurfacing of the existing runways, and the design and construction of Pumps. DAC provides the Division support that allows the MDAD's airports to remain in compliance with the South Florida Water and

Management District and the Florida Department of Environmental Protection.

According to MDAD management, both the lack of expertise and the lack of staff contribute to the need to use DAC as an extension of staff in this Division. MDAD management stated that this type of specialized engineering work requires experienced engineers, well above the entry-level grade. According to MDAD, the County has refused the request to hire engineers at a step seven pay grade, which is the competitive pay level, based on industry standards.

f) Properties, Public Affairs, & Finance Divisions

The three other MDAD divisions that use DAC's services are the Properties, Public Affairs, and Finance Divisions. These divisions use DAC in small but significant ways. The Properties Division, for example, used DAC to assist with an utility study. Public Affairs has used DAC in the past to assist in promotional events such as Tug-A-Plane, United Way benevolent functions, and other causes that increase the airport's visibility. The Finance Division uses DAC on a monthly basis. Each month, DAC prepares a draw schedule to assist the MDAD Finance Manger in the cash management function. According to the Finance Manager, there have been discussions to increase DAC's role in MDAD's financial area.

While these functions are rather small as compared to those of the other divisions, DAC provides assistance that would otherwise require a competitive selection process or actually hiring staff to perform.

B. Contract Multiplier

The contractual salary multiplier for all DAC core staff is 2.42. Since FY 00/01 DAC has applied the 2.42 to only technical staff and voluntarily reduced the multiplier for clerical staff to 1.90. The technical staff multiplier is consistent with the results of a survey conducted by the OIG, and is in accordance with an accepted national study on this subject. However, the actual savings created by this voluntary reduction in clerical multiplier is marginal. For FY 00/01, there was a

total savings of \$176,980.00 against a total payment to DAC of \$20,394,012.00. (See Exhibit B)

The OIG conducted an informal survey of eleven (11) US airports with large construction and/or expansion programs underway. The survey, attached as Exhibit C, includes the approximate size of each airport’s capital improvement program as well as the most recent passenger volume figures from the FAA, as consistent units of comparison between the various airports.

All of the airports surveyed, with the exception of Chicago-O’Hare, use some form of multiplier to determine compensation for their consultants. Atlanta-Hartsfield, Ft. Lauderdale, and the Port Authority of New York and New Jersey (PANYNJ) use a multiplier that is tiered based on classification. Chicago-O’Hare bases consultant compensation on what it calls the “fully loaded billing rate” which is a fixed rate for each classification including salary, fringe benefits, overhead and profit. The consultant is paid for the hours worked by the various classifications times this fixed rate, regardless of what the individual employees may actually be paid. O’Hare officials say that this gives the consultant flexibility to pay people individually without providing an incentive to overpay.

Several airports that use multiple consultants negotiate the multiplier individually with each consultant. Multiplier consideration for office space provided an averaged 0.3 reduction in the multiplier for this benefit. On the other hand, the Minneapolis-St. Paul Airport pays the survey-high multiplier of 2.95 and charges, what it refers to as, a “standard tenant rate” for the consultant’s office space.

Airport	Multiplier		Office Included?	Comments
	Professional Staff	Clerical		
Atlanta-Hartsfield	2.44	2.00	Y	
Boston-Logan	2.30	2.30	Y	W/O Office 2.50
DFW	2.10	2.10	Y	W/O Office 2.60
Ft. Lauderdale	2.41	1.48	N	

Minneapolis-St. Paul	2.95	2.95	N	Office space provided at normal tenant rate
Salt Lake City	2.45	2.45	Y	
Seattle	2.40	2.40	Y	
Newark	2.20	2.20	Y	Range of 2.2 to 3.0 depending on whether office space is provided or not
JFK	2.20	2.20	Y	
La Guardia	2.20	2.20	Y	
Miami	2.42	1.90	Y	
Average	2.37	2.31		

For further analysis of the multiplier issue, the OIG reviewed the 2001 A/E Financial Performance Survey prepared by PSMJ Resources, Inc. (formerly known as the Professional Services Management Journal). PSMJ conducts an annual survey of the financial performance of design firms and reports its findings. For this report, the OIG used the table entitled Billing Rate Factors. The multiplier cited is based upon salary plus fringe benefits (taxes, insurance, etc.). This table as well as the methodology used are included in this report as **Exhibit D**.

The Billing Rate Factors component of the survey pertains to the multiplier that is used by A&E firms to price their services. The survey indicates that the median multiplier for architectural and engineering firms in the southern region of the U.S., based on direct labor costs plus fringe benefits, was 2.30 in 2000 and 2.50 in 2001. Nationwide, these figures were 2.50 in 2000 and 2.45 in 2001. A sample of the survey findings follows:

PSMJ Survey Billing Rate Factors, 2001		
Component	Target Multiplier	
	Median	Mean
Southern US	2.50	2.40
Government	2.30	2.33
Government (Buildings)	2.54	2.70

Of concern to the OIG are the components that are provided for DAC at no cost, which should be factored into the agreement and multiplier computation. According to the 1998 Audit and Management Services report, Miami-Dade County has, per the terms of the DAC PSA, paid \$8,105,600.00 in professional liability insurance premiums for DAC thru March 1998. In addition to this, MDAD has provided DAC with 30,000 square feet of office space, including telephones, utilities, network connectivity, and all other related services, since the

first year of the PSA. This office space was valued at \$450,000.00 per year in 1993 by MDAD. These two items total \$12.6 million over the ten-year period of the PSA. When the OIG questioned these allowances during numerous interviews, it was met with explanations such as “DAC would just charge these things back to the County” or “DAC would have to increase its multiplier,” etc.

Sound business practices and fairness to all parties require that all significant financial factors be addressed and weighed in the appropriate sections of the contract, and their impact on compensation be quantified with certainty. MDAD may want to consider these compensation determinates in light of the OIG’s survey results.

Furthermore, the DAC partnership agreement dated February 5, 1993, Article XIII, states *“Insurance of the kinds and in the amounts specified in the Contract shall be carried by the Joint Venture, unless, and to the extent, the parties hereto mutually agree to carry particular insurance in their own names in accordance with their customary business practices.”* This seems to indicate that the partners of the joint venture were prepared to pay their own insurance premiums, either jointly or separately.

C. OIG Review of Staffing and the Fiscal Impact

As previously discussed, one of the reasons for retaining a consultant such as DAC was because the County lacked the expertise to efficiently complete the projects in the CIP.

DAC’s 2002 approved budget totals \$17,648,700. The budget consists of costs related to core and non-core staff and direct expenses. Of this amount, \$16,860,900 is the cost for DAC’s staff. A review of DAC’s budget and organizational table reveals, at a minimum, nine (9) disciplines that are common employment opportunities within the County. According to DAC’s budget, these nine (9) disciplines make up 45 budgeted positions. The nine (9) classifications are:

- Assistant Project Manger
- Contracts Chief
- Contracts Administrator/Administrative Officer III
- Construction Cost Estimator
- Mechanical Engineer
- Civil Engineer

- Scheduler
- Architect, and
- Planner

The OIG conducted an analysis of these nine (9) DAC positions and compared them to their County equivalents. (See Exhibit E) For each position, the OIG assumed a pay grade of level 7, which, according to our review, is the comparable industry competitive salary level. The analysis revealed the following:

- There are equivalent or similar County positions for each of these positions.
- DAC's average hourly base rate is \$33.50 for these forty-five (45) positions and the County's average hourly grade 7 rate is \$30.02, while the average rate billed to the County for these positions when the multiplier is applied is \$81.06.
- The County would realize a savings of \$51.04 per hour for the positions used in this analysis. Savings range from \$43.61 per hour to \$63.33 per hour.
- The County pays DAC annually \$6,779,793 for these positions. The cost the County would pay to hire individuals at pay grade 7 would be \$3,804,415 annually. This estimate includes fringe benefits.
- The County could save \$2,893,221 annually if it staffed these generic positions.

Since this OIG comparison is not a formal analysis, which weighed the cost of having DAC as a general consultant against the benefit of the services they provide, MDAD may want to consider conducting a more detailed assessment regarding the fiscal impact and benefits of DAC's staffing services.

Other significant factors:

Based on interviews held with MDAD division managers, there are two primary reasons, which preclude MDAD from filling these positions with county employees.

1. Unable to get permission from the County to offer a competitive salary that would attract experienced applicants, and
2. Finding work for these individuals once the CIP is complete.

According to MDAD management, they have not been allowed to negotiate salaries for these positions competitive with industry salaries for the level of required experience that the CIP requires. According to MDAD management, finding applicants for these positions at the entry-level county pay grade presents a challenge to fill existing vacancies, not to mention hiring “seasoned experts.”

Secondly, MDAD’s airports will always, to some degree, have a construction program. The CIP is far from being completed and many individual CIP projects have remained in the planning stages for several years. The CIP publication, produced in January 1996, includes projects that are, at present, still substantially incomplete or have been moved to another phase of the CIP, for example, the D-E-F Wrap Program, Central Terminal Renovation project, as well as several others. Given the magnitude of the CIP, one may reasonably assume that there will continue to be ongoing construction at MDAD’s several airports for quite some time.

D. Measuring DAC Performance

A key component of this inquiry was for the OIG to make an evaluation as to the overall performance of DAC under this PSA. The OIG discovered that there are no methods or systems in place to measure, record, or evaluate the progress being made by DAC either in its work on individual projects or in assistance provided to MDAD. The OIG could find no goals, objectives, timelines, mile markers, or other measures to track any of DAC’s activities. Although there appears to be a general consensus among MDAD management that DAC is doing a good job, there is no empirical data to confirm or disprove this. The OIG also found that MDAD does not maintain any independent figures tracking the progress of the CIP. In the absence of specific progress data on DAC, the OIG has chosen to illustrate the current and projected progress on the CIP itself.

The MIA CIP is one of the largest construction programs currently underway in the United States. Because of its size, complexity, and the number of changes that have been made to both individual projects and the overall concept over the years, the OIG had great difficulty in tracking the progress of the program. As previously mentioned, the degree of DAC’s involvement in the various projects within the CIP

varies greatly. DAC has a primary role in the management of the Capital Expansion Projects, has a limited and varying role in most Facilities Improvement Projects, and provides assistance as requested to many of the operational divisions of MDAD. Many of DAC's activities cannot be quantified, and although DAC is not involved in all of the projects within the CIP, it is apparent that the best available measure of DAC's performance is to look at the progress of the CIP itself.

The OIG found that although MDAD does not maintain specific figures as to the progress of the CIP, it does produce a status report entitled "Capital Projects Status Report – Summary" which, according to Facilities Development staff, includes the CIP as well as other construction projects that may not be related to or funded by the CIP.

MDAD Capital Projects Status Summary April 25, 2002		
Project Status	Number	Dollar Amount
Design/Build and Award Phase	156	\$2,228,762,000
Planning and Programming	189	\$673,610,000
In Construction	88	\$1,407,926,000
Substantially Completed	455	\$1,818,707,000
Total	888	\$6,129,005,000

The OIG noted that the total number of projects and the dollar figure in the MDAD Capital Projects Summary Report exceeded the current level of Phase I of the CIP. MDAD Facilities Development staff advised that this is because this report also includes projects that pre-date the CIP, and other non-CIP construction projects.

More accurate figures illustrating the current status of the CIP were obtained from DAC. In order to get some idea of the progress that has been made and progress that can be anticipated on the CIP, the OIG assembled current and projected construction totals for the program. The figures that were compiled are projects that are classified as:

- Design/Build and Award Phase
- Planning and Programming
- In Construction, and
- Substantially Completed

The largest single component of the CIP is the North Terminal Development Program (NTD), which is being managed by American Airlines. Because DAC is not involved in the NTD, the OIG deducted the NTD construction dollar amount from the comparisons. The following table shows the current and projected completion levels for the Capital Improvement Program at Miami International Airport, including Capital Expansion Projects (CEP) and Facilities Improvement Projects (FIP). The FIP projects are primarily managed by MDAD Facilities Development, and DAC has varying degrees of involvement in them. It is not possible to assign a comparative weight to the level of DAC's involvement in the various FIP projects. This problem of quantifying and weighing DAC's activities was encountered continually by the OIG and illustrates the difficulty in tracking, evaluating, and managing a single program the size of the CIP.

These figures are based on the current and projected construction totals provided by DAC. The table below uses dollar value to measure progress, rather than number of projects, as the CIP is measured in dollar value.

CIP Element	Phase I		Total CIP	
Amount	\$4,800,000,000		\$7,200,000,000	
Minus NTD	-\$1,476,613,000		-1,476,613,000	
DAC Component CIP	\$3,323,387,000		\$5,723,387,000	
Substantially Completed as of	Dollars	% Of CIP	Dollars	% Of CIP
April 30, 2002	\$772,648,000	23.25 %	\$772,648,000	13.50 %
Projected Complete By FY 04/05	\$2,360,000,000	71.01 %	\$2,360,000,000	41.23 %

Projected Completed projects included projects already substantially completed and projects under construction that are projected to be completed by FY 04/05. Data was taken from the Capital Improvement Program Projects Annual Expenditure Forecast Report, March 2002, prepared by DAC. In Phase I of the CIP, 23.25% of the projects are presently completed, and 71.01% are projected to be completed by FY 04/05. In relation to the total \$7.2 billion CIP, 13.50% are presently completed and 41.23% are projected to be completed by FY 04/05.

E. Comparison with Similar Consulting Agreements

In the OIG's survey of the eleven (11) major U.S. airports (see Exhibit C, previously referenced), the OIG compared the size (by construction dollars) of each

airport's capital improvement/expansion program. The survey also compares contract terms of each airport's program management consultant. Also attached is a table of the surveyed airports comparing the total number of passengers and the ratio of domestic and international passengers at each airport, as well as figures showing the ratios of Origin-Destination passengers (whose trip either began or concluded at the airport) and connecting passengers. **(Exhibit F)** These figures are of significance in airport planning as they directly relate to the need for parking facilities, vehicle traffic flow, terminal facilities and passenger traffic flow within the terminal(s).

The OIG found that consultant contracts for these types of projects vary greatly in terms of scope of services, duration, and multiplier or other compensation method used. Six of the airports surveyed use a single overall consultant as a program manager. The other five airports surveyed use variations of multiple consultants, from two (Atlanta) to over 35 (Seattle-Tacoma). Several use consultants on individual projects only. All airports surveyed integrate existing staff with the consultants to oversee construction activity. A common concern expressed was that the airport did not want to turn over complete control of the CIP to a Program Manager consultant, but wanted staff to also be actively involved. This is not only for the day-to-day oversight, but also to insure that at the projects completion there will be staff on hand who are familiar with the projects development.

Six airports surveyed use one general consultant as a Program Manager to oversee the Capital Improvement Program on behalf of the airport. The length of these contracts range from two years to ten years. These airports are:

- Chicago-O'Hare Airport (3 year contract with two 1-year renewals)
- The Port Authority of New York/New Jersey (PANYNJ) consisting of Newark, JFK, and La Guardia Airports (each airport has a two year contract and may only extend if the work is not done, with no contract renewals)
- Salt Lake City Airport (one program manager consultant with a 10 year contract)
- Ft. Lauderdale Airport (contract must be renewed each year)

F. The CIP's current and projected program management requirements

The CIP, based upon its size in total dollars (\$7,184,946 billion) and total number of projects (412) requires oversight that demands considerable manpower, the capability of managing copious tiers of sub-consultants, insightful fiscal management and astute management skills. Even when considering the immediate

need to handle Phase I of the CIP, \$4.8 billion, this is still an incredible challenge to undertake.

The stated goal is to construct an airport that will handle the projected passenger loads of the present and future more efficiently. The size of the program coupled with the inherent constraints of constructing on top of an existing airport makes the CIP extremely difficult to manage. While this program will eventually produce a completely renovated airport facility, the major components of the CIP are individualized projects of significant size. The group of projects that make up the CIP are packaged this way in order to:

- Maintain the character of the program as originally presented to the bond holders
- Maintain construction continuity, and
- Chart the program's overall progress

However, these reasons alone do not mandate that only one Program Manager be retained to oversee the entire duration of the expansion program. For comparative example, PANYNJ is undergoing renovation efforts at three of its major airports: John F. Kennedy, LaGuardia International, and Newark airports. PANYNJ also exceeds the dollar volume of construction, passenger volume, and operations of MIA. Yet, there are three (3) separate contracts for managing the expansions. Each contract is for two (2) years. The two-year duration ends the contract without any options to renew. However, when a contract term is near expiration, the managing firm would be allowed to remain to complete work that was near completion. According to PANYNJ staff, these contracts are sequentially bid which prevents crippling of the airport expansion by not over relying on one firm.

Likewise, a recent study commissioned by MDAD (**Exhibit G**) suggested that MIA's CIP can also be divided into phases comprised of shorter-term construction targets. This would provide identifiable milestones, which can more easily track the progress of the overall construction program. The fact that the CIP has recently emerged into a program that is now identified in financial phases, confirms the need for viewing the oversight aspect similarly. Based on interviews held with airport personnel from around the country, program management, in general, is becoming more compartmentalized. A migration into construction phasing and compartmentalization would likely require some increase in MDAD. As previously noted, staffing levels in many MDAD divisions have tapered off since DAC's retention and the corollary dependence on the availability of its consultants. However, this is an issue that MDAD must address department-wide in the course of any long term planning.

Segmenting the management of the CIP into more manageable components could prove viable for the current and future oversight of the Capital Improvement Program.

V. CONCLUSION

The OIG is concerned that many within the MDAD staff have developed a dependency on DAC that is unhealthy for the long-term operation of MDAD. In conducting this inquiry, the OIG found that on many occasions MDAD personnel would defer to DAC for information directly relating to the management or progress of the CIP. On several occasions during our inquiry, the OIG sought data from MDAD staff regarding the CIP construction progress, only to discover that staff had queried DAC to obtain the information that the OIG had requested.

The arrangement between MDAD and DAC for general consulting services is very loosely defined. Over the course of this contract there have been many iterations of what DAC's role was supposed to be. In light of the changes made to the CIP since 1992, and the continuous evolution of CIP planning and staging of its various construction projects, it is evident that any agreement for CIP-related consulting services must be clearly stated by objective, goals, and benchmarks.

OIG observations, as well as concerns voiced by both MDAD and DAC personnel, revealed a lack of purposeful objectives. Each fiscal year begins as a continuation of ongoing work, as opposed to a charted course of action that can be clearly measured. Even though work is accomplished as requested, determining what that work should be at some regular interval would give better direction toward the completion of the CIP. Two recently enacted programs, the implementation of "commissioning" and the contracts responsibilities matrix, both previously referenced, are good examples of well-defined objectives. These type of agreed upon duties create defined responsibilities, promote accountability, and foster progress. Defining specific responsibilities also make communication channels more effective and expose weaknesses in programs that can now be addressed more promptly.