Subcontracting: A Case Study

Final Report to the Small Business Administration
January, 1991

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College of Commerce and Industry
Department of Management
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# Table of Contents

## EXECUTIVE SUMMARY

- Problem Statement .................................................. 1
- Method ........................................................................... 2
- Findings and Conclusions .............................................. 4
- Recommendations .......................................................... 8

## PROBLEM STATEMENT .................................................... 10

## METHOD ........................................................................ 13

- Research Purpose and Scope ........................................... 14
- Research and Analysis Plan ............................................. 15
- Data Collection Procedure ............................................. 17
- Data Resources and Limitations ....................................... 17
- Data Analysis ............................................................... 19

## FINDINGS ....................................................................... 21

- Background ..................................................................... 22
  - GEC Avionics ............................................................... 22
  - FN Manufacturing ...................................................... 23
  - Lockheed Aeromod Center, Inc. ..................................... 24
  - Summary Characteristics ............................................. 25
- Purchasing Organization, Policies and Strategies .............. 28
  - Role and Position of the SBLO ...................................... 28
    - GEC ..................................................................... 28
    - FN ....................................................................... 28
    - LAC ..................................................................... 29
  - Comparison of SBLO Roles ........................................... 30
- Vendor List Management and Purchasing Strategy .......... 32
  - GEC ..................................................................... 32
  - FN ....................................................................... 33
  - LAC ..................................................................... 34
  - Comparison of Vendor Management and Purchasing Strategies ................. 36

(continued)
# Table of Contents, continued

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subcontracting Processes</strong></td>
<td>38</td>
</tr>
<tr>
<td>Bid and Subcontracting Plan Development</td>
<td>39</td>
</tr>
<tr>
<td>Estimating the quantity and types of subcontracted parts and services</td>
<td>39</td>
</tr>
<tr>
<td>Estimating the cost of subcontracted parts and services</td>
<td>41</td>
</tr>
<tr>
<td>Computing the face value of the contract</td>
<td>43</td>
</tr>
<tr>
<td>Preparing the individual subcontracting plan</td>
<td>43</td>
</tr>
<tr>
<td><strong>Process After the Prime Contract is Awarded</strong></td>
<td>45</td>
</tr>
<tr>
<td>Timing commitments</td>
<td>45</td>
</tr>
<tr>
<td>Selecting actual vendors</td>
<td>45</td>
</tr>
<tr>
<td><strong>Report Filing Procedures</strong></td>
<td>47</td>
</tr>
<tr>
<td>Who prepares the reports</td>
<td>47</td>
</tr>
<tr>
<td>GEC’s process and reports</td>
<td>47</td>
</tr>
<tr>
<td>FN’s process and reports</td>
<td>54</td>
</tr>
<tr>
<td>LAC’s process and reports</td>
<td>55</td>
</tr>
<tr>
<td>Process findings</td>
<td>58</td>
</tr>
<tr>
<td><strong>CONCLUSIONS AND IMPLICATIONS</strong></td>
<td>60</td>
</tr>
<tr>
<td>Efforts to Encourage Proactive Use of Small/SD Business</td>
<td>63</td>
</tr>
<tr>
<td>Designated SBLO/Lists of Vendors</td>
<td>63</td>
</tr>
<tr>
<td>Goal-setting</td>
<td>64</td>
</tr>
<tr>
<td>Summary</td>
<td>65</td>
</tr>
<tr>
<td>Accounting of the Extent of Small/SD Business</td>
<td>65</td>
</tr>
<tr>
<td>Direct Commitments by Contract (294)</td>
<td>65</td>
</tr>
<tr>
<td>Indirect Commitments by Contract</td>
<td>67</td>
</tr>
<tr>
<td>Cumulative Commitments for Summary (295)</td>
<td>68</td>
</tr>
<tr>
<td>Performance Comparisons</td>
<td>69</td>
</tr>
<tr>
<td>Comparison of Commitments to Goals</td>
<td>69</td>
</tr>
<tr>
<td>Comparisons of Commitments this Year to Commitments last Year</td>
<td>71</td>
</tr>
<tr>
<td>Other Conclusions</td>
<td>71</td>
</tr>
<tr>
<td><strong>RECOMMENDATIONS</strong></td>
<td>74</td>
</tr>
</tbody>
</table>

(continued)
Table of Contents, continued

ATTACHMENTS

Background on Investigators 80
Appendix A - GEC 81
Appendix B - FN
Appendix C - LAC

LIST OF FIGURES

Figure 1: Characteristics of Prime Contractors 27
Figure 2: Goals of Legislation vs. Implementation Procedures 62
EXECUTIVE SUMMARY
EXECUTIVE SUMMARY

As part of a project sponsored by the Small Business Administration, in-depth case studies were conducted of the subcontracting processes of three Department of Defense prime contractors. The key conclusions are 1) the goal-setting process specified by PL 95-507 documents expected use of small and small, disadvantaged (SD) subcontractors and creates a base level of awareness but does not result in proactive treatment of small/SD business vendors, 2) the federal reports (294, 295) are frequently invalid indicators of contractor performance, and 3) overall, the reports tend to underestimate the federal dollars that flow down to small/SD businesses.

Problem Statement

When Congress passed PL 95-507, the intent of the legislation was to 1) encourage use of small and SD businesses by federal contractors, and 2) provide a system for the accurate accounting of the extent of small/SD involvement on federal contracts. To encourage contractors to use small/SD business, the legislation specified that contractors designate a Small Business Liaison Officer, keep records of potential small/SD vendors, set goals for small/SD business use by contract, and prepare specific small business plans to accompany bids on government contracts. To collect information on the extent of small/SD contracting and progress toward goals, the legislation required that contractors complete reports on individual contracts over $500,000 in face value (Form 294) twice a year and summary reports on all contracts (Form 295) each quarter.

The purpose of this project was to determine the degree to which the required actions and procedures bring about the intended result: proactive use of small/SD business and accurate information on the extent of small/SD business use on federal contracts. The specific objectives were to: 1) profile the subcontracting process and the role of small businesses in that process, 2) determine the uses and limitations of the existing federal reporting system, and 3) recommend alternative reporting procedures.

Method

The case study involved profiling the full extent of subcontracting activity on three prime contracts held by three different federal prime contractors. Subcontracting "activities" were divided into two categories: 1) plans and procedures used to facilitate small business subcontracting, and 2) results achieved.

Plans and procedures used by firms in the "preplanning" stage of subcontract development were profiled including 1) identification of jobs/materials to subcontract, 2) identification of acceptable vendors, 3) development of target goals for small businesses and small, disadvantaged businesses (SD), 4) bid preparation, and 5) subcontractor selection. The study of the process of subcontractor selection provided
foundation information on the methods used by prime contractors to follow the letter and spirit of the legislation encouraging use of small businesses. Results achieved by these subcontracting procedures, in other words, the extent of subcontracting, were profiled using 294 and 295 forms filed by the contractors.

The data to answer these questions was collected as part of a multiple case study involving three prime contractors: GEC Avionics, Inc. of Atlanta, Georgia, FN Manufacturing of Columbia, S.C., and Lockheed Aeromod Center, Inc. of Greenville, S.C. At all three prime contractor sites, the first interviews were about the organization of the buying group and the procedure used to prepare bids and develop subcontracting plans. Second interviews were about the process of filing 294/295 forms. Third interviews were used to clarify issues about processes and forms. When a fourth interview was conducted, it was to follow-up on a problem or inconsistency.

There are several potential limitations to the data that was used in this study. One major source of information was the records and documents of the prime contractor. After reviewing the documents, we know that they are sometimes incomplete and inaccurate. The second major source of information was from direct interviewing of employees with responsibilities in the subcontracting area. It is hoped that the use of two information sources within each firm and two researchers to conduct interviews helped in the identification of problems with the data.

Our confidence in the information collected differs across the three firms. We have confidence in our conclusions about FN and LAC. We are less confident in our conclusions about GEC. We feel comfortable saying that, on the whole, FN's reports are accurate and that LAC's forms systematically under-report use of small and SD business because of reasons detailed in this report. At GEC, we did not understand the explanations of where some numbers came from and how some calculations were made, therefore, we are unable to explain why the sets of 294 forms that were reviewed exhibit inconsistencies.

We structured our findings into three categories: 1) descriptions of companies and their industry conditions, 2) descriptions of purchasing strategies and vendor management policies, and 3) the processes used to prepare bids, subcontracting plans, and reports. The descriptions of company practices and industry conditions provide important background information and a framework for comparing companies. The processes for preparing bids, subcontracting plans, and reports reveal issues that influence the validity and reliability of the federal reporting system and judgements about progress toward goals.
Findings and Conclusions

A key finding of this study was that preparation of a small business plan involves recording the percentage of small/SD low-bidders that the company identified during a preliminary Request-for-Quote procedure. Therefore, the goals represent actual planned involvement by small/SD and not a challenging target the firm will try to achieve. The process of goal development documents an existing business decision. A second finding of this study is that SBLOs have very different positions within organizations. Consequently, some SBLOs have a great deal of influence over the buying decisions of the contractor while others have little. Our research suggests, then, that the goal-setting/small business plan requirement and the SBLO position create a base level of awareness. The fact that a plan is filed and there will be periodic reviews provides a subtle pressure that encourages the prime contractor to be aware of small/SD businesses. They are forced to be alert to a unique small/SD opportunity and frequently mention not wanting to "get in trouble" on their goal accomplishment. However, the decision of which vendor to use on a given contract has to stand on its own as a good business decision. The presence of an SBLO and the development of subcontracting plans do not, in and of themselves, create opportunities for small/SD vendors. For proactive handling of small/SD vendors to occur, 1) the contractor must be actively looking for new vendors, and 2) small/SD businesses must provide competitively-priced products and services that meet quality and delivery standards.

The 294 and 295 forms are used to collect data on the extent of small/SD subcontracting on federal contracts and to make performance evaluations of a contractor's progress toward its goals and the federally-mandated 5% SD goal. We found several sources of error in the 294 and 295 forms. Some of the errors are caused by flaws in the design of the forms -- particularly those related to the evaluation of performance toward goals and performance over time. However, we found evidence that contractors are making errors that systematically under-report direct and indirect commitments. The result of these patterns of errors is under-reported commitments to small and SD business and distorted performance ratios. The specific conclusions are outlined below:

1) Sources of error in the reports of direct commitments by contract occur when the person responsible for filing reports makes errors in judgement, classification or tabulation. Since many contractors classify and summarize commitments by hand, there is a great deal of room for careless classification and tabulation errors. For example, one contractor was reporting 3 month commitments on 294 forms even though 6 month commitments were required.
2) The most important source of error in the reporting of direct commitments on individual contracts comes from failing to file at all. As we saw with LAC, some subcontracts held by large businesses are not being reported on at all. Since these types of errors would tend to under-report allocations to all performers, they under-represent dollars but not percentages allocated to small/SD business.

3) Indirect costs are costs that, by definition, can not be assigned to a project. The attempts by contractors to assign indirects to projects are resulting in more fiction than fact. As seen with the three prime contractors we studied, there are various procedures for allocating indirects to projects and various procedures for distributing indirects over the life of the contract which means that indirect costs at one firm can not be aggregated with or compared to indirects at another firm.

4) A common procedure for allocating indirect costs is to divide indirects in proportion to the face values of contracts. However, this procedure rests on several assumptions that are frequently violated. First, it assumes that all contracts use indirect resources in proportion to the face value of the contract. Is it fair to say that a $10 million prime contract with all manufacturing, assembly, and testing performed in-house uses indirects at the same rate as a $10 million contract with all activity subcontracted out? Second, it assumes that activity takes place on all contracts at a steady pace. What if one project is put on hold? Are indirects still assigned to the project even though there is no activity at all? If indirects are assigned at regular intervals over the life of the contract, what happens if delays cause the total value of indirects reported on the 294s to sum up to more than the value of indirects that is implicitly incorporated in the face value of the contract? Third, since allocations are based on face values, it assumes that the face values of contracts stay the same over the life of the contract. As our findings show, face values frequently change over the life of contracts without being updated on the 294 forms.

5) Cumulative Commitments on the summary form (295) are supposed to include direct and indirect commitments on all contracts regardless of size. In our study, we found various levels of reporting of indirects on the summary form. Our conclusion is that there is probably widespread under-reporting of cumulative commitments for the fiscal year because of omitted contracts and omitted indirect commitments.
6) There are several performance comparisons that are embedded in the 294 and 295 forms. On 294 forms, commitments on a project are compared to goals on that project. On 295 forms, commitments on all projects are compared to overall goals in dollars. On 295 forms, commitments this year are compared to commitments last year. All of these performance comparisons are dependent on assumptions that are frequently violated.

7) It is very common for the face value of a contract and even the scope of work to change after a contract is underway. If the face value change involves more of the same kind of work, then commitments may increase in dollar value without a change in the distribution to small, SD, and large business. Therefore, reported commitments in dollars may well exceed the planned commitments in dollars but the small/SD commitments as a percent of total commitments would stay roughly the same as those specified in the goals.

8) If the face value change involves a change in the scope of work, as was the case at LAC, then the dollars and percentages of commitments planned for small and SD business would no longer be relevant. The planned dollars and percentages no longer serve as a valid indicator of a contractor’s intentions on the project.

9) The problem is even more magnified on the 295 form if face values of contracts go up. "Actual goal achievement" on the 295 is calculated as actual commitments to small/SD business (in dollars) divided by planned commitments (in dollars) specified in the subcontracting plan. As noted above, the planned commitments in dollars are not adjusted to reflect the new size of a contract. Because of the low (planned) denominator and the true (actual) numerator, the percent of goal achievement figure really over-represents the firm’s use of small and SD business.

10) The 295 form asks for commitments to date in the fiscal year compared to commitments for the same period last year. This comparison assumes several conditions that do not exist for many contractors. First, it assumes that the types of contracts that the firm is working on this year are the same as the types of contracts worked on last year. For example, if a firm is making all rifles this year but made all machine guns last year, then the distribution of commitments to small and SD businesses could well be different because of the types of parts being purchased. Second, the year-to-year comparisons assume that commitments occur evenly over the life of the contract. If, for example, a contractor received two new prime contracts in November of one year, there would be a surge of commitments placed with vendors during the initial buying period that would show up
in reports filed between November and June. If during the next year, the contractor was in the middle of those contracts and had not received any new ones, the commitments to all categories of business would be substantially less. The year-to-year comparisons would suggest that commitments to small/SD were falling off when in reality the forms had just captured the irregularity of the buying patterns.

ii) Sole source arrangements have the potential to alter the interpretation of a firm’s goal achievement. If, for example, a firm plans to subcontract $10 million worth of parts yet $5 million must come from a sole source of a patented product, then only $5 million worth of subcontracts would be competitively awarded. If the contractor places 100% of its competitively awarded subcontracts with small/SD business, the plans and forms would report it as 50% of commitments placed with small/SD business.

12) If a firm removes its foreign commitments from all reporting procedures, it can alter the appearance of goals achieved. If, for example, a firm plans to subcontract $20 million by placing $10 million with foreign vendors and $5 million with small/SD vendors then the plans and forms would show $10 million in total commitments with 50% of commitments placed with small/SD business.

13) There are several sources of systematic under-representation of small/SD use on government contracts. Small businesses that hold large contracts and subcontracts are not required to file reports. Since forms are only required of large contractors with contracts valued at $500,000, there are many large contractors with numerous small contracts that are not being reported on. Also, as noted earlier, some large businesses holding large subcontracts may not be reporting on them as required.

14) The fact that 2 of 3 contractors in this study continue to rely on a manual process for sorting, classifying and tabulating data for the 294 and 295 forms was surprising. The report filing process is a time-consuming burden for those contractors and becomes even more complicated if the contractor is trying to report indirects by project and has many different items to source from many different vendors. When planned computer systems are installed, random computational errors will be eliminated but the systematic errors created by changing face values, allocation of indirects, omission of some subcontracts, misclassifications, and omission of categories of directs will not be eliminated.
Recommendations

The intention of PL 95-507 is to 1) encourage use of small/SD business, and 2) provide a system of accurate description of the extent of small/SD subcontracting and progress toward goals. Our recommended changes in procedures are intended to correct problems that are preventing the current system from fulfilling those two objectives.

As our findings showed, DOD prime contractors are required to choose lowest-priced acceptable bidders. To do otherwise would penalize the prime contractor. Consequently, the current system just documents a business decision and does not encourage prime contractors to act proactively on behalf of small/SD business. Contractors will give opportunities to small/SD businesses if they need new vendors and small/SD businesses are competitive. If those two conditions do not exist, there must be some other incentive for the prime contractor to deviate from the pragmatic business decision. We recommend that small/SD business advocates consider incentives such as set-asides for prime contractors and rewards for several years of increased use of small/SD business.

The SBA and other advocates of small/SD business could take a more active role in developing businesses that are competitively and financially sound. For example, they could 1) provide guidance on quality and financial controls, 2) help small/SD vendors develop skills in bid preparation, and 3) assist small/SD vendors in identifying contractors that need their products and are looking for additional sources of supply.

We recommend the following changes in the 294/295 report procedure:

1) All attempts to allocate indirect costs to specific contracts should be discontinued and the forms should be redesigned accordingly. The reporting of indirects by contract not only defies accounting logic but results in meaningless numbers of such magnitude that direct commitments are potentially overwhelmed.

2) The "Same period last year" comparison should be dropped since it is inherently an "apples and oranges" comparison. The Actual Goal Achievement calculation that presents actual commitments over planned commitments should be dropped. The actual divided by planned commitments ratio overstates performance if the total dollars flowing down to the contractor have increased but planned commitments have stayed the same.

3) An annual reporting system would be considerably less cumbersome for contractors and would result in data that is potentially more accurate than what is reported now. The annual reports could include: 1) annual direct commitments to small, SD, large and foreign vendors by contract in dollars and as a percent of actual total commitments, 2)
cumulative direct commitments over the life of the contract by type of business with percent of actual cumulative commitments reported, 3) total indirect commitments for the year by type of vendor but not allocated to contracts, and 4) reports of "performance against plan" after all face value adjustments made. An appropriate way to calculate "performance against plan" would be to divide actual small/SD commitments by actual total commitments and compare it to planned small/SD commitments divided by planned total commitments.

4) Because of the tremendous reduction in paper flowing to the reviewing agencies, the reporting system (not goal-setting) could be extended to all federal contractors and subcontractors regardless of their size and could be extended to include all contracts over $25,000. Although errors of omission would continue to pervade the system, overall the system would provide a more accurate accounting of extent of small/SD subcontracting.
PROBLEM STATEMENT
PROBLEM STATEMENT

In Fiscal Year 1989, small business subcontractors won $27.2 billion in awards from federal prime contractors (1). As part of the federal reporting system required under PL 95-507, prime contractors on projects totaling over $500,000 ($1,000,000 for construction projects) are required to submit a subcontracting plan outlining the following:

1) % goals for use of subcontractors from small businesses,
2) % goals for use of subcontractors from small businesses owned and controlled by socially and economically disadvantaged individuals,
3) efforts taken to ensure equitable treatment of small and disadvantaged businesses,
4) descriptions of the kinds of records the offeror will maintain to demonstrate attempts to comply with requirements and goals including a source list of small business concerns,
5) the name and job description of the individual who will administer the subcontracting program.

The purpose of the required subcontracting plan is to encourage prime contractors to develop systematic plans for regular use of small businesses subcontractors. Secondarily, the plan and the status reports that support it allow the SBA
and contracting agencies to collect information from prime contractors on the extent of their small business subcontracting activities.

The existing federal reporting system is limited in scope and accuracy and, therefore, is of limited use in making policy decisions. Judgements about the ability of existing programs and proposed new programs to promote small business subcontracting require a thorough understanding of the process of subcontracting and a data collection process that is thorough, reliable and comparable across all prime contractors.

In the broadest sense, the issue being investigated here is policy implementation. The SBA has a policy of encouraging the involvement of small and small disadvantaged businesses in government-sponsored activity. To see that this policy is carried out, the SBA requests that firms file plans and status reports showing progress toward specific goals of small business involvement. The SBA needs to know to what degree the policy is being implemented and where further legislative activity might be needed. The SBA initiated this case study of subcontracting because of concerns that the system that is in place to ensure implementation, the federal reporting system, is of limited reliability and accuracy.
METHOD
METHOD

Research Purpose and Scope

The purposes of this case study were to 1) profile the subcontracting process and the role of small businesses in that process, 2) determine the uses and limitations of the existing federal reporting system, and 3) investigate alternative reporting procedures. The case study involved profiling the full extent of subcontracting activity on three prime contracts held by three different federal prime contractors.

Subcontracting "activities" were divided into two categories: 1) plans and procedures used to facilitate small business subcontracting, and 2) results achieved.

Plans and procedures used by firms in the "preplanning" stage of subcontract development were profiled including 1) identification of jobs/materials to subcontract, 2) identification of acceptable vendors, 3) development of target goals for small businesses and small, disadvantaged businesses (SD), 4) bid preparation, and 5) subcontractor selection. The study of the process of subcontractor selection provided foundation information on the methods used by prime contractors to follow the letter and spirit of the legislation encouraging use of small businesses. Results achieved by these subcontracting procedures, in other words, the extent of subcontracting, were profiled using 294 and 295 forms filed by the contractors.
Research and Analysis Plan

The unit of analysis is the subcontracting activity of a federal prime contractor on one prime contract. That activity is defined as the subcontracting plans and procedures which are in place and the results achieved as a result of those plans and procedures.

The broad research questions for this case study are:

1) What are the plans and procedures each of the three prime contractors use to:
   a. select activities to be subcontracted?
   b. set goals for small business involvement?
   c. set goals for minority and women-owned business involvement?
   d. prepare bids on government contracts?
   e. select subcontractors?

2) What is the extent of use of subcontracting and to what degree are small and small disadvantaged businesses represented?

3) What is the procedure for collecting and tabulating the information required for the federal reports?

4) Does the federal reporting system provide accurate and timely account of these plans, procedures and results?

5) Are there alternative reporting systems that would provide more thorough and reliable information and result in a less cumbersome procedure for federal prime contractors?
The data to answer these questions was collected as part of a multiple case study involving three prime contractors: GEC Avionics, Inc. of Atlanta, Georgia, FN Manufacturing of Columbia, S.C., and Lockheed Aeromod Center, Inc. of Greenville, S.C. The field work for the study followed the research procedures for multiple case studies recommended by Yin (2). A multiple case study follows a replication logic. Each individual case study is complete in and of itself. The conclusions drawn from each case provide information needing replication by other individual cases. Convergent evidence is sought for the facts and conclusions of the study.

Several steps were taken to ensure the validity of this research. Construct validity - correct operational measures for the concepts being studied - was supported through the use of multiple sources of evidence: documents and records maintained by the contractors and on-site interviews with administrators of small business subcontracting programs. Also, the participants at each of the prime contractor sites were asked to review the draft reports describing the plans and procedures used at their sites. External validity was supported by the use of the multiple case study approach. As with experiments and unlike surveys, case studies rely on analytical generalization to broader concepts rather than statistical generalization to a broader population. Multiple cases provided a stronger foundation for making any generalizations. The Department of Defense accounts for the vast majority of small business
subcontracting opportunities, therefore, DOD prime contractors were selected for this study in an attempt to ensure representativeness. To avoid bias, all contradictory findings were reported. To improve the reliability of the case method, the two principal investigators were present for all interviewing and document evaluation, and most interviews were recorded.

Data Collection Procedure

At all three prime contractor sites, the first interviews were about the organization of the buying group and the procedure used to prepare bids and develop subcontracting plans. Second interviews were about the process of filing 294/295 forms. Third interviews were used to clarify issues about processes and forms. When a fourth interview was conducted, it was to follow-up on a problem or inconsistency.

At all three contractor sites we interviewed the people responsible for preparing subcontracting plans and filing 294/295 forms. The people we interviewed were usually prepared for our visits and supplied copies of documents when requested. We tape recorded most interviews then compared the forms to the processes described on tape.

Data Resources and Limitations

There are several limitations to the data that was used in this study. One major source of information was the records and documents of the prime contractor. After reviewing the documents, we know that they are sometimes incomplete and
inaccurate. The second major source of information was from direct interviewing of employees with responsibilities in the subcontracting area. Interviews are always subject to the biases of the interviewer and the interviewee. It is hoped that the use of two information sources within each firm and two researchers to conduct interviews helped in the identification of problems with the data.

As a matter of standard practice, we asked many questions twice to see if we would get the same answer on two different occasions. When we saw ambiguity in answers, we asked for clarification. When the person we were interviewing could not provide the clarification, we asked to bring in someone else. At LAC, bringing in a representative from the Contracts Group clarified a serious problem of how LAC defined "face values."

We did not try to tell the people we interviewed how to fill out the forms and we did not tell them when we saw major inconsistencies. When a major inconsistency surfaced at one contractor site, the people responsible for filing the forms realized it when we did. When we tried to get clarification on major inconsistencies at another contractor site, we repeated questions and asked for examples rather than pointing out errors and asking for explanations.

Our confidence in the information collected differs across the three firms. We have confidence in our conclusions about FN and LAC. We are less confident in our conclusions about GEC. We feel comfortable saying that, on the whole, FN's reports are
accurate. We feel comfortable saying that LAC's forms systematically under-report use of small and SD business because of reasons detailed in this report. We are not comfortable with our conclusions about GEC. We see inaccuracies but we do not know why they are there. Because we do not understand where some numbers came from and how calculations were made, we do not know the source(s) of error or to what degree the reports are effected.

Data Analysis

Since this was a multiple case study, the data analysis involved looking for patterns that could be supported across all three prime contracts. We found several commonalities and differences among the three contractors. While they follow procedures that are similar in general, they differ in the details of implementation.

We structured our findings into three categories: 1) descriptions of companies and their industry conditions, 2) descriptions of purchasing strategies and vendor management policies, and 3) the processes used to prepare bids, subcontracting plans, and reports. The descriptions of company practices and industry conditions provide important background information and a framework for comparing companies. The processes for preparing bids, subcontracting plans, and reports reveal issues that influence the validity and reliability of the federal reporting system and judgements about progress toward goals.
References


FINDINGS
The study findings are organized under three major headings: 1) background on contractors, 2) purchasing organization, policies and strategies including discussions of the role of the SBLO and the company’s vendor management practices, and 3) subcontracting processes for bid preparation and report filing. In the next chapter, Implications and Conclusions, we will discuss the significance of the findings.

**Background**

**GEC Avionics**

GEC Avionics, an affiliate of GEC Limited of Rochester, England, is a depot level repair firm located in Atlanta, Georgia with 100% of its business in DOD prime contracts and subcontracts. GEC Avionics assembles a variety of advanced optical equipment including the heads-up display in the F-16 Fighter Jet and the optical range finding device of the Abrams Main Battle Tank. The Atlanta facility has maintenance and spare parts responsibilities for items manufactured by the parent company in England and performs final assembly and testing of new optical devices.

As of October, 1989, the firm was involved with 12 prime contracts and 1 subcontract that exceeded $500,000. The total face value of these contracts approached $100 million. On a typical heads-up display contract, GEC will purchase approximately 1200 items from vendors equal to roughly 20% of the value of the prime contract. Approximately 50% of the items are not competitively sourced but are purchased from the parent company in England or other sole-source foreign suppliers. The
types of parts purchased include electronic and optical parts, materials and displays.

In late 1989, total competitively awarded subcontracting activity on contracts over $500,000 was about $9 million. Overall, GEC places 75-80% of the competitively awarded subcontracted dollars with large business, 15-20% with small business, and less than 2% with small, disadvantaged business.

**FN Manufacturing**

F.N. Manufacturing, a U.S. subsidiary of Fabrique Nationale of Belgium, is a weapons manufacturer that produces solely for the U.S. government and approved allied governments. The company produces a narrow product line of approximately six end-items including the M16A2 rifle, M2 .50 caliber machine gun, .30 caliber machine gun, and the M240. The company also produces spare weapons parts.

As of March 1990, FN had 9 prime contracts valued at $150,000,000 that were either active or closing with the March report. The planned subcontracted commitments for those 9 contracts was $75 million or 50% of the face value of the contracts. Across all 9 contracts, FN planned to place 64% of subcontracted dollars with small business and 5% of subcontracted dollars with SD business. The four contracts that closed had a planned level of subcontracting equal to $2.4 MM with planned small business commitments of $1.6 MM (67%) and planned SDB commitments of $133,619 (5%). Once the contracts closed, the actual subcontracted dollars equaled $3.6MM ($1.2MM more than planned) with $3.1 million (84%) actual commitments to
small business and $32,534 (1%) actual commitments to SDB. While FN far exceeded its goals for small business participation on all 4 contracts, the company failed to meet its goals for SDB on 3 of the 4 contracts.

F.N. Manufacturing assembles and tests all weapons. There are roughly 200 parts on the simplest weapons and considerably more on more complex weapons. The company purchases precision machined parts, screws, springs, rod steel and other items from over 500 quality-approved vendors. Because of the length of the production runs, FN purchases these relatively low-tech items in extremely large quantities.

Lockheed Aeromod Center, Inc.

Lockheed Aeromod Center, Inc. (LAC) is a subsidiary of Lockheed Corporation. Lockheed Aeromod performs maintenance and modification to both commercial and government aircraft. In our initial visits with LAC, the Purchasing Manager indicated that government contracts represented 30-40% of the firm’s business. In subsequent interviews with the Subcontracting Group, the number was revised to 15% based on the face values of the three active prime contracts - $7.9 million. In our last meeting with them in July, 1990, it was determined that the $7.9 million and the 15% estimate did not include a very large subcontract (> $10 million) that the company was involved in with its sister organization in Ontario, California. The members of the subcontracting group thought the Ontario organization, the prime contractor, was responsible for reporting on it. The significance of this finding will be discussed in more detail
In performing maintenance and modification of many different types of aircraft, every job is different. It is common for the face value of a contract to go up after it is awarded. After the aircraft is inspected and additional repairs are discovered, the face value of the contract will go up due to "over and above" work. Therefore, the percent of activity subcontracted and the small and SD business involvement will vary substantially from contract to contract. Depending on the particular contract, subcontracting may represent 20 to 60% of the value of the prime contract. Subcontracted activity includes purchased aircraft parts and assemblies as well as some specialized services. Small businesses account for between 40 and 60% of subcontracted dollars while SD businesses account for approximately 2%.

The largest prime contract Lockheed has is for a $5.4 million renovation of a C-22. LAC plans to subcontract $1.1 million or 20% of the face value of the contract. When the small business subcontracting goals were prepared, planned small business involvement was $488,474 or 45% of subcontracted dollars. Planned SDB involvement was $21,710 or 2% of subcontracted dollars.

Summary Characteristics

The characteristics of the three prime contractors are summarized in Figure 1. As shown, the three contractors represent very different purchasing environments. FN purchases very large quantities of low-tech parts. FN buys the types of
parts where design capability and economies of scale do not play much of a role, therefore, small business vendors are particularly well suited to serve as suppliers. GEC purchases small to moderate quantities of some high-tech parts. As a result, GEC has several parts categories that must be sole-sourced and buys quantities of parts from its parent in order to take advantage of its parent’s purchasing power. LAC purchases unpredictable and typically small quantities of high tech and low tech parts and materials. As a consequence, LAC must negotiate long-run supply contracts and rely on parts distributors in order to get the quantities of parts they need on time.
Figure 1

Characteristics of Prime Contractors

<table>
<thead>
<tr>
<th>Type of Contracts Evaluated</th>
<th>GEC</th>
<th>FN</th>
<th>LAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heads-Up Display for F-16 Fighter</td>
<td></td>
<td>Rifles, Machine Guns</td>
<td>Maintenance and Modification of Aircraft</td>
</tr>
</tbody>
</table>

| Percent of Business in Federal Contracts | 100% | 100% | < 15 - 45% |
| Total Face Value of All Contracts | $ 100 MM | $ 150 MM | $ 8 - 18 MM |
| Number of Items Purchased on typical Contract | 1200 | > 300 | > 1000's |
| Quantity of Each Item | Few | Many | One or Few |
| Percent of Face Value Subcontracted | 20% | 50% | 20 - 60% |
| Percent Subcontracted with Large Business | 75 - 80% | 15% | 5 - 38% |
| Percent Subcontracted with Small Business | 15 - 20% | 84% | 40 - 60% |
| Percent Subcontracted with Small Disadvantaged Business | 2% | 1% | 2% |
| Number of Contracts over $ 500,000 | 12 | 9 | 3 |
| Attempting to Report Indirects by Project | Yes | No | Yes |
| Number of People Involved in Compiling Data | 1 | 1+ | 2+ |
Purchasing Organization, Policies and Strategies

Role and Position of the SBLO

**GEC:** The Small Business Liaison Officer (SBLO) at GEC Avionics is a commodity parts buyer who reports to the Purchasing Manager. As a buyer, the SBLO has responsibility for purchasing a particular category of products, maintaining a list of vendors for those items, and serving as the contact person for small and SD business owners who want an opportunity to supply GEC. When a small or SD vendor contacts the SBLO about products or services that are within the jurisdiction of another buyer, the vendor name is passed onto the relevant buyer. There is no systematic procedure that all buyers use for following up with potential new vendors. As a buyer, GEC’s SBLO is not in a position to influence the buying practices of the buyers in other areas. The SBLO prepares the small business plan that accompanies the GEC bid package as well as the 294 and 295 forms. The information collection procedure that precedes the preparation of 294 and 295 forms is largely computerized.

**FN:** The Small Business Liaison Officer at FN is the Procurement Manager. The Procurement Manager/SBLO personally handles all of the buying activities at FN including maintaining vendor lists, preparing RFQs when a new contract is being considered, negotiating with and selecting all vendors, and filing all procurement reports including the 294 and 295 forms.

The SBLO is contacted frequently by small business owners that want an opportunity to subcontract to FN but is rarely contacted by disadvantaged businesses. The policy of FN is to
allow all small businesses to bid if their products/services are of a type needed by FN. The procedure FN follows for encouraging new vendor participation is described in more detail in the Subcontracting Processes section.

**LAC:** At LAC, the purchasing manager holds the official title of SBLO. However, the title is held in name only. The individual responsible for filing the 294/295 reports and for finding small and SD vendors is the Procurement Policy Analyst (PPA). The PPA reports to the Subcontracting Supervisor, who, in turn, reports to the Purchasing Manager. A new PPA has recently been hired and is being trained by the Subcontracting Supervisor.

Unlike the situations at GEC and FN, the Procurement Policy Analyst at LAC does not have any buying responsibilities. Those duties are handled by a different group of people who report to the Purchasing Manager. The Procurement Policy Analyst is responsible for the activities that are typically associated with the SBLO and for some training of other employees. In the past, the Procurement Policy Analyst has not been responsible for preparing the individual subcontracting plan that goes out with the bid package. In the past, the Contracts group prepared all bids and submitted a copy of the Master Subcontracting Plan with what they refer to as "rough historical estimates" of goals for the contract. They are in the process of changing this procedure. The Subcontracting Supervisor and the Procurement Policy Analyst are now responsible for preparing the individual subcontracting plans and will include them in bid packages.
Comparison of SBLO Roles: As shown in the discussion above, the title of SBLO has very different meanings in each of the three companies. At one extreme is FN whose Procurement Manager/SBLO controls all of the decision-making in purchasing including whether new vendors get a chance and final vendor selection. The SBLO says FN cultivates small/SD business vendors because small vendors have lower overhead and are able to offer lower prices.

The situation is very different at GEC. While new vendors may contact GEC, the SBLO is not in a position to decide or influence the purchasing practices of buyers in other areas. At LAC, the role of the SBLO is even more ambiguous. The Purchasing Manager who holds the title of SBLO has no direct involvement in developing small business plans, preparing reports, or maintaining small/SD vendor files. Those activities are removed from the buying activities altogether and are delegated two organizational levels below the actual SBLO position.

We found a great deal of variability in understanding among the individuals responsible for filing reports. The SBLO at FN is completely comfortable explaining how forms are prepared. The SBLO understands the difference between direct and indirect costs and, as a result, does not make an attempt to report indirect costs in any way. When consecutive forms for each contract are set side-by-side, they can be interpreted without difficulty. Although there were some errors in the summary 295 forms (putting the wrong sub-total in the wrong place, no
indirects included although instructions say they should be included), those problems were minor compared to what we found at the other companies.

At LAC, a series of personnel turnovers and changes in policy were creating some turbulence in the organization. The Purchasing Manager resigned approximately half-way through the project. The Policy Procurement Analyst responsible for filing the 294/295 forms resigned from LAC shortly after our first interview and was eventually replaced. The Subcontracting Supervisor took over the report filing duties in the interim and continued the process as it had been conducted in the past. While the process LAC uses for preparing reports is systematic and thorough, we found that much of the information gathered from other parts of the company (face values of contracts, which contracts to report on, etc.) was not correct or up-to-date. Therefore, approximately 50% of the government contracting at Lockheed Aeromod has gone unreported in recent periods.

At GEC, the SBLO responsible for filing the reports takes many of the numbers directly off of a computer print-out then gets help in computing percentages. The 294/295 reports have many inconsistencies. While we believe some of the errors are transcription errors, we believe others are the result of computation without full understanding of what it is all supposed to mean. Details about the errors we found are in later sections of this paper.
F1: In the three companies studied, the SBLOs had different power to influence the organization. They exhibited different levels of direct involvement in a) efforts to identify small and SD vendors, b) decisions to make use of small and SD vendors, and c) report filing processes.

F2: In the three companies studied, the people responsible for filing the 294/295 forms (not always the SBLO) exhibited different levels of understanding of the report filing process.

Vendor List Management and Purchasing Strategy

GEC: At GEC, vendors must be approved by the Quality Assurance Group. Each buyer maintains a list of qualified vendors in his or her buying area. GEC's SBLO indicated that buyers at GEC Avionics are not actively trying to lengthen their lists of qualified suppliers. While cultivating good sources of supply is an ongoing part of the job in purchasing, the costs of mailing RFQs to a lengthy list of vendors and of creating purchase orders (over $125 per purchase order according to their calculations) discourages GEC Avionics from soliciting bids and placing orders with unproven vendors and from spreading purchases around among many vendors. GEC tries to place several items that are similar with the same vendor and, if a particular vendor is unable to supply at the agreed upon price, will turn to a vendor that is already on the project for needed items before going to other vendors.

GEC's SBLO gave the example of a requirement for a quantity of 50 of a $4.00 part that could either be sourced from a vendor that is already selling many similar parts or from a separate
vendor. To split that item out and source it from a separate vendor would cost the company $125 to conduct the bidding and cut the purchase order -- effectively increasing the price of the 50 parts by over 60%.

The posture at GEC Avionics, therefore, is to more closely align with a smaller number of proven vendors as a way to improve quality and delivery reliability as well as reduce the costs of purchasing. The SBLO cited another example of two vendors who have demonstrated such consistently high product quality that beginning next year their products will be taken directly onto the shop floor without an incoming quality inspection. Even if another vendor wanted to sell the same part to GEC, the company would be very reluctant to make a change because of the higher internal costs (reestablishing quality control procedures, waste, etc.) and the risk of trying a new vendor.

FN: Although FN has 500 quality-approved vendors, the company is trying aggressively to expand its vendor list and proudly reports that the list has increased by 30% in the last two years. The SBLO/Procurement Manager keeps a separate list of new vendors including small and disadvantaged businesses that have contacted her. With each new contract, FN tries to send a RFQ to two new vendors. If a new vendor is high bidder each of two or three times, it is dropped from the list. If it is a low bidder, FN sends the company a vendor survey. If the completed vendor survey suggests that the company has satisfactory quality
and financial controls, FN will place an order with the company. If there are additional questions about quality or finances, FN sends a vendor inspection team to the new vendor’s site. At FN, if quality standards are met and on-time delivery is assured, price is the basis for deciding among vendors. A higher priced vendor is chosen only if the SBLO/Procurement Manager has reason to believe the low-price vendor will not be able to adhere to quality or delivery requirements.

**LAC:** LAC purchases from three major sources: Original Equipment Manufacturers, distributors, and overhaul specialists. On some occasions, government-furnished equipment is used. Small businesses provide items to the facility as distributors of aircraft parts and as overhaul specialists. Original Equipment Manufacturers are typically very large manufacturers of highly technical aircraft parts and assemblies.

LAC maintains blanket agreements with some vendors for sheet metal stock and fabricated parts and relies on distributors for the small quantities of parts that are often needed. When we had our first interview with LAC in fall 1989, they had just signed a blanket agreement with a minority raw stock supplier. Under the blanket agreement, LAC would go to this particular vendor for all of its raw stock requirements. By March of 1990, the arrangement was breaking down because the vendor could not meet the agreed upon commitments.
All parts and services that are used directly on the aircraft must be supplied by quality-approved vendors. If a buyer wants to purchase from a vendor who is not on the approved vendor list, the buyer must ask QA for a one-time approval. If a buyer is approached by a vendor that is not on the list but would like the opportunity to supply LAC, the buyer is supposed to fill out a vendor maintenance form requesting that the QA department qualify the vendor. QA will then send a series of forms to the vendor that are designed to evaluate the vendor’s product quality and quality control system. Once the vendor is approved and added to the approved vendor list, the SBLO sends out a questionnaire to determine the vendor’s status as a small, SD, or large business.

The same procedure is followed if the buyer uses the Inventory Locator Service to find a vendor of a particular kind of part. The buyer must ask for an approval from QA each time the vendor is used until the vendor is officially added to the approved vendor list.

Like GEC, LAC frequently buys very small quantities of items. It is fairly common for the maintenance crew to determine that a part is needed and for much of the activity on the aircraft to stop until the part can be replaced. In such an environment, it is not feasible to send out RFQs to multiple vendors. For items under $1000, LAC may go directly to an approved vendor that has supplied that product before. For items under $1000, LAC may be willing to pay considerably more money for a part just to get it there immediately. For items
that are over $1000, LAC must get at least two competitive bids. When time is a factor, though, speed of delivery can override a higher price.

For those items that LAC buys in larger quantities, decisions are usually based on price. If two vendors bid on a particular item and they offer identical quality and dependability, the one with the lower price will always be chosen—whether it is a small, SD, or large business. If there is an issue of quality or dependability involved, the higher priced vendor may be used.

If LAC gets a contract to work on a type of aircraft they have not serviced before, then new vendors may be needed. If, for example, an aircraft is one that the Navy has sourced for in the past, LAC will go directly to the vendors the Navy developed.

LAC is not aggressively trying to increase its base of vendors just to encourage price competition. LAC looks for new sources as new needs come up by using the Inventory Locator Service, talking to competitors and using vendors that the military has developed.

Comparison of Vendor Management and Purchasing Strategies: All three contractors maintain lists of qualified vendors and source from those vendors only. To become qualified, a vendor must complete a vendor survey that asks about financial stability and quality control procedures. After reviewing the vendor survey form, the quality assurance group will add the
vendor to the qualified vendor list and/or conduct an on-site inspection. It is absolutely critical that vendors be able to establish their quality performance and existence of proper financial and quality control processes and standards.

Whether the name of a new vendor is suggested by a competitor, the SBLO, the contracting agency, or any buyer, someone has to initiate the qualification procedure through the QA group. For example, if a prospective new vendor contacts the SBLO at GEC, the name is referred to the buyer in that area. If the buyer is interested in following up with new vendors, he or she may call the new vendor and ask some preliminary questions. If the new vendor seems price competitive with the proper quality and financial controls in place, the buyer will refer the name to the QA group.

The three prime contractors we studied follow essentially the same process: the companies follow-up on promising new vendors by having the QA group approve them. However, the details that accompany the process are very different and the attitudes throughout reflect the company’s posture toward cultivating new vendors. At FN, new vendors contact the SBLO who then makes the decision whether to give that vendor an opportunity. If so, the SBLO initiates the QA approval process. At GEC, new vendors contact the SBLO who refers the names to the relevant buyers. If the buyers are interested, they may follow up with the vendors and initiate the QA approval process. Not only are there more people involved in the
referral process, but the people at GEC, as a rule, are not interested in giving new vendors a chance just to increase competition. They must have a bonafide need for a new vendor. At LAC, the process is similar to GEC’s. New small vendors will contact the SBLO who will refer their call to the relevant buyers. If the buyers choose to use a new vendor, they will initiate the QA approval process. Some vendors are found by the Policy Procurement Analyst and referred to the buyers. At LAC, when a critical part is involved, buyers prefer to align with vendors that have established a reputation with other aircraft companies or with the contracting agency. Like at GEC, LAC is not actively searching for new vendors just to create additional price competition.

F3: While the processes for qualifying new vendors are similar across all three contractors, the purchasing strategies of the firms and the numbers of people involved in the referral process differ. While all three contractors are interested in developing new vendors (small, SD, or large) that can provide unique capabilities, only one (FN) has a system that actively creates bid opportunities for new vendors on a regular basis.

Subcontracting Processes

While all three prime contractors use very similar processes for putting together bid packages, some differences exist. The purpose of this section is to describe the processes used by the three prime contractors and note any characteristics and patterns that would undermine the validity and reliability of the federal reporting system.
Bid and Subcontracting Plan Development

Each of the prime contractors is notified regularly of opportunities to bid on federal prime contracts. In each company, the Contracts group either makes the decision to submit a quote or presents the best opportunities to an executive advisory group that makes the decision. The decision is influenced by the current workload and the firm's experience with similar types of requests. If the firm has the capability to produce some of the subcomponents used in the contract, a make-or-buy decision will be made. In our study, FN was the only company that had to make a decision about whether to make some subcomponents. The decision was contingent upon the current and expected load through the facility and whether additional capital equipment would have to be purchased.

Estimating the quantity and types of subcontracted parts and services: Once the decision is made to submit a quote, the RFQ is sent to the materials estimating group. The process of materials estimating is the first place where major differences exist among the three prime contractors. At Fabrique Nationale (FN) and GEC Avionics (GEC), bills of materials on similar past products are retrieved and modified if necessary. The specific parts requirements are developed from bills of material and any new engineering drawings. At Lockheed Aeromod (LAC), the process is different. Because the scope of work required to repair, overhaul and/or modify an aircraft can vary widely among contracts, it is not feasible to retrieve an historical bill of
materials. Instead, LAC relies on a preliminary scope of work statement from the contracting agency and the experience of its engineering groups to decide what materials and services will be needed to complete the activities specified in the preliminary scope of work statement. It is understood that the types and quantities of materials and services may increase "over and above" the initial estimates once Lockheed has had an opportunity to inspect the aircraft.

F4: Because of the type of products and services involved, FN and GEC are able to develop firm statements of the type and quantity of parts and services required for a particular government contract. At this bid preparation stage, LAC is not able to estimate accurately the type and quantity of parts and services ultimately needed.

GEC and LAC buy some items that are sole-sourced. GEC purchases many items from foreign vendors including GEC's parent in England, GEC Limited. To get a lower price than they could negotiate on their own, GEC Avionics frequently purchases key parts from its parent. GEC refers to all foreign business (parent and other sole source arrangements) as "other business" and excludes it from the competitive bidding and goal setting process. GEC also has some sole-source items that are purchased from U.S. vendors. Those items are excluded from the competitive bidding process but are included in the goal statements as small, small disadvantaged, or large businesses -- depending on the circumstances.
LAC establishes long-run contracts with suppliers of materials that are needed frequently during the repair of aircraft - such as sheet steel for body work. They are able to negotiate better prices and delivery arrangements than if they tried to buy limited quantities throughout the year. These contracts are renegotiated periodically and are included in the goal figures in the appropriate category of small, small disadvantaged, or large business.

F5: At GEC, a large portion of subcontracted dollars go to foreign vendors including GEC's parent, GEC Limited. The foreign vendors usually provide sole-source items or, in the case of the parent, provide GEC with better pricing arrangements than they could get on their own. LAC establishes long-run supply contracts for some materials that are used frequently.

Estimating the cost of subcontracted parts and services:
Under most circumstances, FN, GEC and LAC follow very specific processes for developing cost estimates once the types and quantities of purchased parts and services are known. The process begins when parts requirements are submitted to Purchasing.

GEC, FN and LAC maintain lists of hundreds of vendors who have been approved by each company's Quality Assurance Group. At GEC, individual buyers send RFQs to the two or three vendors of the needed parts who they feel have established a good reputation with the company. The process at FN differs substantially. While FN will estimate the costs of parts from experience on rare occasions, during this bid preparation stage,
the procurement manager (not individual buyers) usually sends RFQs to every qualified vendor that is capable of providing the needed parts. Also, the procurement manager sends RFQs to new vendors who have made contact with the company. Handwritten records are kept showing the bid prices of all vendors who responded to the RFQ. If the contract is for multiple years, vendors are allowed to quote a different price for each year. If the new vendor submits a low or reasonable bid at this stage, the procurement manager will request that the Quality Assurance Group take action to have the new vendor qualified as an approved source.

LAC does not ask for quotes from its vendors in determining cost estimates for the bid. Instead, the buying groups review the materials requirements and estimate unit prices from experience and the few long-run supply contracts that are in place.

**F6:** When preparing a bid on a government contract, FN usually asks for specific price quotes from all approved vendors and prospective new vendors (as many as 10-15 vendors per part) while GEC asks for specific price quotes from the few most reputable, approved vendors (2 or 3 per part or group of parts). LAC uses the judgement of engineers and buyers to estimate the cost of parts and services.

**F7:** At FN, the vendors who are asked to quote on parts are selected by the one individual who conducts all purchasing activities. At GEC, the individual buyers decide which of the vendors in their buying area they will ask to quote.
Computing the face value of the contract: When bids on parts and services are received, GEC and FN use the lowest bids to compute an estimated total cost of subcontracted parts and services. The Contracts Group then takes the total subcontracted parts and services figure along with predetermined overhead rates and labor rates to calculate the face value of the contract. At LAC the process is the same except that the cost of subcontracted parts and services is derived from estimates rather than actual quotes. Also, LAC, at this point, has computed the face value of the work detailed in the preliminary scope of work statement. Because of the nature of the work at LAC, the face value of a contract may increase significantly over the life of the contract. When additional requests are made by the contract officer, they are paid for out of an incremental fund that covers both capital and labor contract line items. As a result, for example, an initial contract of $1 million could require incremental adjustments that amount to as much as the initial face value of the contract.

F8: The face value of the contract that LAC computes during the bid preparation stage is an estimate of the value of the preliminary work only and does not reflect the "over and above" work that is an important part of most contracts.

Preparing the individual subcontracting plan: If the estimated face value of the contract exceeds $500,000, a small
business subcontracting plan is required. FN and GEC follow similar processes for preparing their individual subcontracting plans. FN and GEC determine which of the lowest bid prices were offered by small and small disadvantaged businesses. FN and GEC then compute the "goals" for small and SD business for the subcontracting plan using 1) the face value of purchased parts computed from the low bids, and 2) the actual count of large, small, and small disadvantaged low bidders. GEC discounts the involvement of small and small disadvantaged business by 25% because of their past experience that small and SD businesses can not hold their prices for the 6 to 12 months that it takes for a contract to be awarded.

At LAC, small and SD subcontracting goals are now prepared by the Subcontracting Group. Until this year, however, goals were not developed for each individual project. Instead, the Contracts Group inserted numbers that reflected a "rough historical estimate" of the firm's use of small and SD vendors. Since every job is different at LAC, the historical performance figures as goals had little meaning. Now LAC is trying to move toward a system where they estimate small and SD business involvement from the scope of work statement and the company's existing relationships with small and SD vendors. Since they are based on the scope of work statement, they do not reflect the "over and above" activities that are a regular part of most contracts.
At FN and GEC, the small and SD subcontracting goals are calculations derived from bids that are already in hand — with, in the case of GEC, some discounting. At LAC, the goals are estimates based on the original scope of work statement from the contracting agency and the company's existing raw stock contracts and distributor relationships. As such, the LAC goals reflect expected involvement of small and SD businesses in the initial phase of service but not the "over and above" activities. In all three firms, the goal-setting is an attempt to portray small and SD business involvement as it is expected to be. Goals are not intended to be a challenging target the company will attempt to achieve.

Process After the Prime Contract is Awarded

Timing Commitments: Once the bid is awarded, each of the companies follows a very different procedure for placing the first orders with subcontractors. Whether the planned contract life is months or years, FN and GEC place most of the subcontracting commitments in an initial "buy". If the contract is modified or extended, or if there are items that do not require any kind of lead time, commitments will be placed later. LAC makes commitments as they come up during the course of the contract.

At GEC and FN, commitments for virtually all parts and services are made during the first months of the contract. At LAC, commitments for parts and services are placed as they come up during the contract.

Selecting Actual Vendors: It is during the initial buying period that commitments may begin to deviate from the goals in the subcontracting plan. At GEC, the buyers place orders for
all commitments with the low bidders that were identified during the bid preparation stage. If a vendor that was a low bidder is unable to hold its price, GEC tries to negotiate a comparable price with another vendor on the project. GEC does not initiate a re-bidding from multiple vendors except under extraordinary circumstances. Since GEC discounts the expected involvement of small/SD business by 25% when preparing goals, there is a buffer built in for when small/SD vendors are unable to hold their prices.

At FN, the procurement manager repeats the entire request-for-quote procedure with new mailings to all vendors who submitted a quote during the first RFQ procedure and then negotiates contracts with the new lowest bidders. It is common for the low-priced vendor identified during bid preparation to be different from the new low-priced vendor that supplies the parts. Because FN uses so many small business vendors, the percentage of purchases allocated to small business usually does not change significantly.

At LAC, purchases are made as they are needed. For items over $1000, they ask for two bids from vendors on their qualified vendor list. In some cases, LAC pays a price premium to get the part delivered quickly so that workers will not have to be idled.

F11: Although FN and GEC used firm price quotes and specific vendors when developing subcontracted parts totals and goals, once the contract is awarded, the prices and vendors may change.
F12: At FN and GEC, the quality-approved, reliable-delivery vendor with the lowest price is always selected. At LAC, the quality-approved, reliable-delivery vendor with the lowest price is selected unless there is a speed of response issue that overrides the decision. Whether the business is small or SD does not enter into the decision unless all other things are equal.

Report Filing Procedures

Who Prepares the Reports: At GEC, the 294 and 295 forms are completed by a buyer who is also the designated SBLO. At FN, the 294 and 295 forms are completed by the Procurement Manager who holds the title of SBLO. At LAC, the forms are completed by the Procurement Policy Analyst. While LAC was trying to hire for that position, the Subcontracting Supervisor completed the forms. In the future, the new Procurement Policy Analyst will complete the reports. At LAC, the Subcontracting Supervisor reports to the Purchasing Manager who holds the title of SBLO.

F13: Across the three companies studied, the people responsible for preparing the 294 and 295 forms had different organizational responsibilities: procurement manager overseeing all purchasing activities, buyer for a particular category of commodity parts, and procurement policy analyst with some training responsibilities but no direct buying responsibilities.

GEC’s Process and Reports: GEC is the only one of the three with an automated system. At the end of each report filing period, the SBLO at GEC asks for a print-out of a report that has been custom-designed by the company to provide some of the information necessary for the individual 294 forms. The report
shows dollar values of direct commitments for each contract in the most recent period with subtotals calculated for small, small disadvantaged, labor surplus, large business, and other business. As noted before, at GEC, "other business" is non-U.S. commitments. The "Total Direct Subcontract Commitments" on Form 294 is the sum of small, small disadvantaged, labor surplus, and large business reported on the contract and does not include the "other business" commitments.

The SBLO at GEC calculates the percentages of small, small disadvantaged, and large business by hand. In describing the process for filing forms, the SBLO said that the numbers from previously-filed forms are used to make the cumulative commitment calculations. When a summary 295 form is filed, individual 294 worksheets are prepared using exactly the same process then the individual contract figures are summed to get totals. Although this process seems straightforward when described and the computer print-outs are reviewed, there are several inconsistencies in the actual 294 forms that we reviewed.

The reports that we reviewed contained numerous inconsistencies that, when accumulated over the life of a contract, would result in major interpretation problems. For example, on one contract (See Appendix A-GEC), the total direct commitments exceeded the face value of the contract in the first reporting period. After 8 reports had been filed, the face value of the contract was still the same ($303,000) but total
direct commitments on the contract were close to $1 million. Theoretically, the face value of a contract should well exceed total direct commitments since "face value" represents all direct costs over the life of the project, all indirect costs over the life of the project, and profit to the firm. The total direct commitments figure was probably correct since those numbers are taken directly from the computer records of the Accounting Group. However, the face value of the contract was not updated at all over the two years reviewed which suggested that the number was being carried over from report to report without any corrections. While the SBA does not require contractors to change goals when a contract is modified, the instructions do require that face values be updated.

The reporting period dates at the top of the page are frequently wrong. For example, in one contract that we reviewed the first 294 reporting dates were October 1987 through September 1988 (covers a full year instead of six months). The second reporting dates were October 1988 through March 1989 (correct) and the third 294 reporting dates were October 1988 through September 1989 (wrong, should be April 1989 through September 1989).

In addition to errors in reporting periods, the reports are not numbered properly. The first 294 filed on a project will be designated report number 1. When the SBLO prepares a worksheet for the summary 295 that goes out three months later, that worksheet 294 form is given the report number 2. It is used to
prepare the 295 but is not mailed to anyone. When it is time to complete the next (actual second) 294 form, the SBLO gives that form the number 3. Consequently, the SBLO has copies of real 294s and worksheet 294s in the GEC files that are sequentially numbered. However, DCAS in Atlanta has 294 forms with either all even or all odd numbers. The three consecutive 294 reports on the Hill Air Force Base prime contract that were obtained from DCAS in Atlanta illustrate this inconsistency (Appendix A-GEC).

Preparing separate worksheets each quarter seems to be creating another problem. Since the SBLO receives a print-out with commitments for one quarter, commitments are reported for just that one quarter. Even though a 294 form is supposed to report 6 months worth of commitments, GEC is reporting the commitments in the most recent quarter only. We drew this conclusion after we compared the computer print-out to the forms filed by GEC. The impact of this inconsistency would be that cumulative commitments would seem to be increasing by more than the declared direct commitments on any given report. It is true that GEC’s cumulative totals do not increase in direct proportion to the direct commitments in the period, but there seems to be more than one reason.

To see if the under-reporting of direct commitments on the semi-annual 294s was the reason direct commitments did not add-up to cumulative totals, we set 294s and worksheets for the 295 side-by-side. This method would show quarterly commitments
and quarterly increases in cumulative totals. However, the contract we reviewed in this manner still did not have cumulative totals that were meaningful. Theoretically, under most conditions, cumulative direct commitments over the life of the contract will gradually increase. Cumulative totals in period 2 should equal cumulative totals from period 1 plus commitments made in period 2. In the consecutive reports (294s and the worksheets for 295s) that we reviewed, cumulative direct commitments progressed from $433,951 to $457,678 to $1,034,005 to $267,581 to $262,406 to $283,243 to $952,229 to $952,299. There was no relationship between direct commitments in the reporting period and the new cumulative totals. According to the SBLO, cumulative commitments can fluctuate up and down because commitments placed on one report may be cancelled by the time the next report comes out. The SBLO explained that sometimes management will direct that commitments with outside vendors be cancelled and then placed with the foreign parent. This move, in effect, removes those commitments from the reporting system altogether because foreign commitments do not have to be reported.

Since the SBLO had told us earlier that cumulatives were calculated by adding the direct commitments from the computer print-out to the cumulative totals on previous 294 forms, we asked how it was determined that adjustments needed to be made. Although it seemed to conflict with the process described
earlier, the SBLO said a separate computer print-out that gave totals to date by contract was available.

The process GEC uses to include SD indirects is still unclear. Statements made in interviews seemed to contradict each other and the forms that we reviewed did not support any of the explanations. GEC includes indirect costs in its SD goals. The SBLO said the Accounting department provided a figure of 0.5% to add to the SD goals. The purpose of the 0.5% was to cover the indirect costs of the janitorial services -- an annual contract of approximately $50,000. The SBLO explained that the number meant .5% of all indirect costs on a particular project were attributable to the janitorial services. To report SD indirect commitments, then, total indirect commitments on a given project in a given period would have to be multiplied by .5%. Yet, the SBLO had said earlier that a figure for total indirect commitments did not exist. In follow-up interviews, the SBLO indicated that SD indirects were computed as 1.7% of "total budget" or the total costs on the project, a figure supplied by Accounting.

The SBLO stressed that GEC did not calculate indirect commitments for large and other small business because GEC was not in trouble on their small business goals. However, the forms we reviewed after-the-fact showed that indirects for small and large business were reported. In a follow-up telephone interview, we asked where the indirect figures came from and if there was a separate print-out of indirects by project, but the
question was not answered. Since it is unlikely that Accounting issues a print-out assigning indirect costs to specific projects, the numbers must be calculated some way, but we are not sure how. We suspect that the small, SD, and large indirects are calculated as separate percentages of "total budget," the planned total cost to be incurred on the project. Since total budget figures were not provided (confidential in most companies), we could not confirm our suspicions.

According to the SBLO, the purpose of reporting small disadvantaged indirects was to account for a single $50,000 janitorial contract. Since annual SD indirect expenditures equal $50,000, the total SD indirect commitments across all contracts should total to $50,000 (the only SD indirect expenditure) over a full year. However, a review of the reports showed that the small disadvantaged indirect commitments in one period on one contract exceeded $50,000.

F14: The reports filed by GEC seem to be filled with inaccuracies (See Appendix A -GEC). Although total direct commitments to large, small, and SD business seem to be correct, the cumulative totals across are inconsistent. The face values of contracts are not being updated on the forms. Reporting periods and report numbers are not assigned as specified in the instructions. The process for allocation of indirect costs is not fully understood by these researchers. The result of these findings seems to be: inaccurate reporting of direct commitments by project (numbers report commitments for 3 months instead of 6 months), inaccurate reporting of cumulative commitments, inaccurate representation of progress toward goals (contracts are obviously going up in face value without face value changes on the forms and without new goals), and possibly overstated indirect commitments.
FN's Process and Reports: At FN, the report filing process is entirely manual. As Procurement Manager, the SBLO is responsible for placing all commitments and maintains all project files. When it is time to file the reports, the SBLO manually sums direct commitments made during the filing period by contract and by type of vendor and then calculates all percentages and totals by hand. As at GEC, the SBLO at FN prepares all calculations by contract and then sums the individual contract figures to compute the figures for the summary report. It takes approximately one and one-half days to prepare the reports.

Because of the nature of their business, all of their parts contracts are competitively awarded to U.S. companies and most are awarded to small businesses. FN does not report indirect commitments for small, small disadvantaged, or large business on 294 or 295 forms. They feel the allocations and calculations would be too cumbersome with their manual system.

In reviewing the forms prepared by FN, we found that the numbers are calculated exactly as represented by the SBLO. As shown in Appendix B- FN, the individual forms can be summed up to equal the numbers in the summary form. Also, when all of the reports on one contract are set side-by-side, the numbers are consistent over time.

We found some errors on a 295 summary form that would create interpretation problems. Under Contracts With Small Business
Goals, "$ value of subcontracts," the SBLO entered the total face value of FN's contracts, $151,235,782, rather than the value of subcontracts which would have been $74.9 million. For "$ value of subcontract goals" the SBLO entered the total planned subcontracts of $74.9 million rather than $69.5 million planned contracts for small and SD vendors. Since the summary form does not require that a percentage be calculated with these numbers, the error was not detected by FN. As reported, it appears that FN plans to place 50% ($74.9 million of $151 million) of its subcontracts with small/SD business when, in reality, FN plans to place 93% ($69.5 million of $74.9 million) of its subcontracts with small/SD business.

FI5: With the exception of some numbers being placed in the wrong columns, the reports of direct commitments filed by FN appear to be consistent and accurate. FN does not report indirects on their 294 or 295 forms.

LAC's Process and Reports: At LAC, the report filing process is extremely labor-intensive. To collect information for the 294s, the Subcontracting Supervisor and Procurement Policy Analyst request a computer print-out of all purchases made during that period. The computer print-out records thousands of purchases made against government and commercial contracts. They cross-reference each purchase with a project number and classify it by contract. Using the vendor code, they classify vendors as small, small disadvantaged, or large by color-coding the listing with three different markers. The
categories are summed and percentages computed with a
calculator. The exact same process is used for preparing 295s.
Individual 294s are prepared then summed. From start to finish,
the process takes 4 -6 days and involves approximately one to
two days of work each by the Subcontracting Supervisor,
Procurement Policy Analyst, secretary and data processing
staff.

LAC is a subcontractor on a DOD prime contract for another
division of LAC in Ontario, California. Although the
subcontract is higher in value than the prime contracts (well
over the $500,000 minimum for reporting), LAC in Greenville has
not prepared a subcontracting plan and has not reported the
commitments through 294 and 295 forms. According to the
Subcontracting Supervisor, Ontario had told him they would
report it through their system. As noted earlier, the
involvement of small/SD business on this very large contract has
gone unreported. The result is a severe, systematic
underrepresentation of LAC’s total direct subcontracting
commitments and use of small and small, disadvantaged business.
It also has resulted in an underrepresentation of indirect costs
as described below.

To determine indirects, they manually sort through the
computer print-out of purchases, remove all direct commitments
to commercial business, then sum what should be the remaining
indirect costs. They classify indirects as small, SD, and
large, then compute 15% of each category. This year they are
using 15% because the total value of the three prime contracts they have in-house is 15% of the value of work at LAC. However, because of the large subcontract that they have in-house, the true estimate of DOD work is 35-40% of total work. Therefore, they are reporting on less than half of the direct and indirect commitments made on government contracts.

Another source of error in the reporting process stems from the changing face values of contracts. As noted earlier, virtually all contracts involve "over and above" work. Although LAC may get approval to perform additional work and may accrue commitments on the contract because of the approved additional work, the official change in face value may come months later or after the close of the contract. Therefore, at any given time, the relationship between goals and commitments may be distorted. The goals were set with a particular scope of work and face value in place. The commitments are accumulated against a very different scope of work and face value. Since LAC does not recalculate goals to include the new scope of work, they do not serve as a reliable basis for comparison of actual performance to planned performance.

Since LAC is attempting to allocate indirec ts to individual contracts based on the face value of the contract, the low initial face values means indirec ts are being allocated using a systematically low number. As a result, indirec ts on each project are underestimated.
FI6: At LAC, the failure to include a very large subcontract in the reporting system has resulted in a very large underrepresentation of total direct commitments and total indirect commitments by LAC. On the three prime contracts, reports of direct commitments and cumulative commitments appear to be accurate. The changing face values of contracts results in an underrepresentation of indirects on each project and alters the relationship between goals and commitments so that the two can not be compared.

Process findings:

The findings pertaining to the validity and reliability of the 294 and 295 reports were noted in the preceding section. The commonalities and differences in the report filing processes followed by the three contractors are summarized below.

FI7: The complexity of the report filing process is influenced by 1) the number of parts purchased, 2) the number of contracts over $500,000, 3) the number of vendors used, 4) whether the contractor is a 100% government contractor, 5) whether the contractor is attempting to report indirect costs by project and by type of vendor, 6) the number of people that have to be involved in compiling data, and 7) the degree to which the process is automated.

FI8: For firms with a manual report filing system, the report filing process takes days to complete. The two firms that have manual systems will be implementing automated systems shortly. These systems should cut down substantially on the time required to retrieve, sort, and summarize contract cost data.

FI9: It is not materially easier or less time consuming to file a summary 295 form. All three of the prime contractors we studied prepared the equivalent of a 294 form for each contract and then compiled the numbers for the 295 form. The one difference is that indirects do not have to be allocated by contract for the 295 form.
F20: In all cases, direct commitments to small, SD, and large business are totals of actual orders placed. The three prime contractors have completely different procedures for reporting indirects. FN does not report indirects at all. LAC allocates indirects based on the face values of contracts. GEC's process for reporting indirects is not understood.

F21: None of the prime contractors keeps records of the subcontracting activities of their subcontractors (2nd tier). Although subcontractors with subcontracts valued at over $500,000 are required to report on them, the prime has no control over whether they do it or not. As seen in this study, LAC acting as subcontractor was not reporting on a large subcontract. The SBLO at FN is of the opinion that subcontractors frequently do not file small business plans and report on contracts as they are supposed to.
CONCLUSIONS AND IMPLICATIONS
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When Congress passed PL 95-507, the intent of the legislation was to 1) encourage use of small and SD businesses by federal contractors, and 2) provide a system for the accurate accounting of the extent of small/SD involvement on federal contracts. To encourage contractors to use small/SD business, the legislation specified that contractors designate a Small Business Liaison Officer, keep records of potential small/SD vendors, set goals for small/SD business use by contract, and prepare specific small business plans to accompany bids on government contracts. To collect information on the extent of small/SD contracting and progress toward goals, the legislation required that contractors complete reports on individual contracts over $500,000 in face value (Form 294) twice a year and summary reports on all contracts (Form 295) each quarter.

The purpose of this project was to determine the degree to which the required actions and procedures bring about the intended result: proactive use of small/SD business and accurate information on the extent of small/SD business use on federal contracts. Those relationships are shown in Figure 2 on the next page.
### Figure 2

<table>
<thead>
<tr>
<th>Goals of the Legislation</th>
<th>Implementation Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1)</strong> proactive use of small/SD business</td>
<td>1a) designate a SBLO&lt;br&gt;b) maintain small/SD vendor files&lt;br&gt;c) prepare small/SD business plans for contracts with specific goals for small/SD business use</td>
</tr>
<tr>
<td><strong>2)</strong> accurate accounting of the extent of small/SD use</td>
<td>2a) semi-annual reports of direct/indirect commitments on large contracts&lt;br&gt;b) quarterly reports of total commitments on all contracts</td>
</tr>
<tr>
<td><strong>3)</strong> basis for comparing actual use to goals, year-to-year use, aggregate numbers and summaries</td>
<td>3a) comparisons of actual commitments to goals by contract and overall&lt;br&gt;b) comparisons of commitments this year compared to commitments last year</td>
</tr>
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Are the implementation procedures accomplishing the goals of the legislation?
Efforts to Encourage Proactive Use of Small/SD Business

Designated SBLO/Lists of Vendors - As our findings showed, all three prime contractors have a designated Small Business Liaison Officer (SBLO). All of the firms have someone who performs the duties of the SBLO whether or not that person holds the official title. In one firm, the designated SBLO had no direct involvement in the activities associated with the SBLO position, in another firm the SBLO had no power to influence the buying organization, and, in a third firm, the SBLO was the same individual that controlled all buying decisions.

For a small/SD vendor to supply on a prime contract, the prospective vendor must be given the opportunity to bid and, then, must be selected. To get an opportunity to bid, the vendor must first make contact with the prime contractor. If the vendor contacts the SBLO, the SBLO must get that vendor's name and qualifications in front of the appropriate buyer. If the SBLO does not take that responsibility seriously, if the SBLO does not have any power to influence other buyers to give the vendor a chance, or if the posture of the organization discourages use of new vendors because of strong service by existing vendors, then it is likely the new vendor will never get the first opportunity to bid.

As our study showed, the different positions of the SBLOs and purchasing postures of the firms resulted in very different environments for prospective small/SD vendors. FN was willing
to give any new vendor a chance to bid and the SBLO/Procurement Manager was the only person involved in the decision process from the first contact by the new vendor, through bid preparation, to final vendor selection. Another contractor, GEC, was aligning itself more and more with its most reputable vendors. The SBLO at GEC passed the names of prospective new vendors on to other buyers but was not in a position to influence whether the vendor was given an opportunity to bid. Our conclusion would be, then, that the presence of a designated SBLO does not, in and of itself, make a material difference in the proactive handling of prospective small/SD vendors.

Goal-Setting - As our findings showed, the process of setting goals for small/SD business involves reporting planned commitments to actual small/SD low-bidders identified during the bid preparation process. If a small or SD business is given the opportunity to bid, is a viable competitor with acceptable quality and delivery performance, and is the low-bidder during the bid preparation stage, the small business plan will include those dollars as small/SD goals. As all of the contractors pointed out, they are required by the DOD to select the lowest-priced, acceptable bidder. They do not receive any set-aside money to help them cultivate small/SD businesses that are unable to produce at competitive prices. Whether a business is small or SD does not enter into the decision unless all other things are equal. Our conclusion is that the goal-setting process does not encourage use of small/SD businesses or result
in increases in use over time. Instead, the process of goal-setting documents the decision process followed by contractors.

Summary - Our research suggests that the goal-setting/small business plan requirement and the SBLO position create a base level of awareness. The fact that a plan is filed and there will be periodic reviews provides a subtle pressure that encourages the prime contractor to be aware of small/SD businesses. They are forced to be alert to a unique small/SD opportunity and frequently mention not wanting to "get in trouble" on their goal accomplishment. However, the decision of which vendor to use on a given contract has to stand on its own as a good business decision. For use of small/SD business to increase over time, 1) the contractor must be actively looking for new vendors, and 2) small/SD businesses must provide competitively-priced products and services that meet quality and delivery standards. Therefore, proactive handling of prospective small/SD vendors is a function of whether new vendors are being sought and the products and services needed by the contractor are of the type that a small/SD business can supply competitively.

Accounting of the Extent of Small/SD Business Use

Direct Commitments by Contract (Form 294) - As the findings illustrate, all contractors keep records of the direct commitments made by contract. All contractors have the capability to classify commitments by type of business: small,
SD, and large. Sources of error in the reports of direct commitments by contract occur when the person responsible for filing reports makes errors in judgement, classification or tabulation. For example, the SBLO at GEC reported direct commitments for 3 months rather than for 6 months on all 294 reports. Since many contractors classify and summarize commitments by hand, there is a great deal of room for careless classification and tabulation errors.

The most important source of error in the reporting of direct commitments on individual contracts comes from failing to file at all. As we saw with LAC, some subcontracts held by large businesses are not being reported on at all. If these findings are typical across all prime contractors, the net result of all of these errors would be an underestimation of the dollars allocated to small and SD business. Since these types of errors would tend to under-report allocations to large business also, they under-represent dollars but not percentages allocated to small/SD business.

Cumulative commitments over the life of a contract should be a simple sum of the direct commitments in each period minus any stock adjustments. To the degree cumulative commitments are contaminated in any way, we feel it is an aberration of the firm's accounting procedure and not typical of other contractors. Theoretically, if the firm's direct commitments are correct, the cumulative commitments by contract should be correct.
Indirect Commitments by Contract - Indirect costs are costs that, by definition, can not be assigned to a project. The attempts by contractors to assign indirects to projects are resulting in more fiction than fact. As seen with the three prime contractors we studied, there are various procedures for allocating indirects to projects and various procedures for distributing indirects over the life of the contract.

One procedure that is followed is to not report indirects at all (FN). Another procedure is to allocate indirects according to the face value of contracts (LAC). For example, if a contractor has 10 contracts valued at $10 million each for a total of $100 million worth of federal contracts, then 10% of indirects would be allocated to each contract in each reporting period. This procedure sounds straightforward but it makes several assumptions. First, it assumes that all contracts use indirect resources in proportion to the face value of the contract. Is it fair to say that a $10 million prime contract with all manufacturing, assembly, and testing performed in-house uses indirects at the same rate as a $10 million contract with all activity subcontracted out?

Second, it assumes that activity takes place on all contracts at a steady pace. What if one project is put on hold? Are indirects still assigned to the project even though there is no activity at all? If indirects are assigned at regular intervals over the life of the contract, what happens if delays cause the total value of indirects reported on the 294s
to sum up to more than the value of indirects that is implicitly incorporated in the face value of the contract?

Third, since allocations are based on face values, it assumes that the face values of contracts stay the same over the life of the contract. What happens if the face values of contracts change so that levels of activity shift around but new face values are not used during the allocation procedure? Finally, how are indirects tied back to goals statements?

Other allocation procedures are possible, too. It is possible that some contractors assign indirects in proportion to direct labor hours or some other procedure. In our study we found that GEC seems to allocate indirects as a percentage of total costs on the project. However, the result of this allocation procedure is allocated small disadvantaged indirect commitments that far exceed the only annual SD indirect expense of $50,000.

All of the different procedures mean that indirect commitments by contract and cumulative indirect commitments over the life of a project do not mean the same thing at one firm that they do at another. At GEC and LAC, reporting of indirect commitments by project was an attempt to increase the firm's commitments to small disadvantaged business and improve the firm's position relative to the 5% mandated SD goal.

**Cumulative Commitments for Summary Report (295)** - The Cumulative Commitments on the summary form are supposed to
include direct and indirect commitments on all contracts regardless of size. In our study of three contractors, we found one that does not report indirects at all (FN), one that failed to report directs and indirects on a multi-million dollar subcontract (LAC), and one that reports directs and indirects on all contracts regardless of size (GEC). Our conclusion is that there is probably widespread under-reporting of cumulative commitments for the fiscal year because of omitted contracts and omitted indirect commitments.

**Performance Comparisons**

There are several performance comparisons that are embedded in the 294 and 295 forms. On 294 forms, commitments on a project are compared to goals on that project. On 295 forms, commitments on all projects are compared to overall goals in dollars. On 295 forms, commitments this year are compared to commitments last year. All of these performance comparisons are dependent on assumptions that are frequently violated as discussed below.

**Comparison of Commitments to Goals** - As demonstrated by the findings of this study, goals are prepared with a particular scope of work in mind. It is very common for the face value of a contract and even the scope of work to change after a contract is underway. While the reporting procedure requires that face values be updated, it does not require that new goals be developed. If the face value change involves more of the same kind of work, then commitments may increase in dollar value
without a change in the distribution to small, SD, and large business. Therefore, reported commitments in dollars may well exceed the planned commitments in dollars but the small/SD commitments as a percent of total commitments would stay roughly the same as those specified in the goals.

However, if the face value change involves a change in the scope of work, as was the case at LAC, then the dollars and percentages of commitments planned for small and SD business would no longer be relevant. The planned dollars and percentages no longer serve as a valid indicator of a contractor’s intentions on the project.

Two of the contractors we studied faced regular changes in face values of contracts. Neither contractor made timely adjustments to face values and neither contractor recomputed goals. Consequently, items 13, 14 and 15 on the 294 form had little to do with the reports of commitments.

The problem is even more magnified on the 295 form if face values of contracts go up. "Actual goal achievement" on the 295 is calculated as actual commitments to small/SD business (in dollars) divided by planned commitments (in dollars) specified in the subcontracting plan. As noted above, the planned commitments in dollars are not adjusted to reflect the new size of a contract. Because of the low (planned) denominator and the true (actual) numerator, the percent of goal achievement figure really over-represents the firm’s use of small and SD business.
Comparisons of Commitments This Year to Commitments Last Year - The 295 form asks for commitments to date in the fiscal year compared to commitments during the same period last year. This comparison assumes several conditions that do not exist for many contractors. First, it assumes that the types of contracts that the firm is working on this year are the same as the types of contracts worked on last year. For example, if a firm is making all rifles this year but made all machine guns last year, then the distribution of commitments to small and SD businesses could well be different because of the types of parts being purchased. Second, the year-to-year comparisons assume that commitments occur evenly over the life of the contract. If, for example, a contractor received two new prime contracts in November of one year, there would be a surge of commitments placed with vendors during the initial buying period that would show up in reports filed between November and June. If during the next year, the contractor was in the middle of those contracts and had not received any new ones, the commitments to all categories of business would be substantially less. The year-to-year comparisons would suggest that commitments to small/SD were falling off when in reality the forms had just captured the irregularity of the buying patterns.

Other Conclusions

Sole source arrangements have the potential to alter the interpretation of a firm's goal achievement. If, for example, a firm plans to subcontract $10 million worth of parts yet $5
million must come from a sole source of a patented product, then only $5 million worth of subcontracts would be competitively awarded. If the contractor places 100% of its competitively awarded subcontracts with small/SD business, the plans and forms would report it as 50% of commitments placed with small/SD business.

On the other hand, if a firm removes its foreign commitments from all reporting procedures, it can alter the appearance of goals achieved. If, for example, a firm plans to subcontract $20 million by placing $10 million with foreign vendors and $5 million placed with small/SD vendors then the plans and forms would show $10 million in total commitments with 50% of commitments placed with small/SD business.

There are several sources of systematic under-representation of small/SD use on government contracts. Small businesses that hold large contracts and subcontracts are not required to file reports. Since forms are only required of large contractors with contracts valued at $500,000, there are many large contractors with numerous small contracts that are not being reported on. Also, as noted earlier, some large businesses holding large subcontracts may not be reporting on them as required.

The fact that 2 of 3 contractors in this study continue to rely on a manual process for sorting, classifying and tabulating data for the 294 and 295 forms was surprising. The report filing process is a time-consuming burden for those contractors and becomes even more complicated if the contractor is trying to
report indirects by project and has many different items to source from many different vendors. When computer systems are installed, it will take considerably less time to compile the information for the reports. While random computational errors will be eliminated by the computer system, the systematic errors created by changing face values, allocation of indirects, omission of some subcontracts, misclassification of vendors and costs, and omission of categories of directs will not be eliminated.
RECOMMENDATIONS
Our findings suggested that SBLOs and subcontracting plans were instilling a base level of awareness among contractors and documenting a business decision rather than actively encouraging small/SD business use. Since contractors are required by the DOD to select the lowest-priced, acceptable bidder and there are no set-asides, there is no reason for a contractor to select a small or SD vendor over a lower-priced large vendor. In other words, there is no incentive for prime contractors to pull through marginal small or SD vendors.

For more small/SD vendors to get opportunities to supply on federal prime contracts, the prospective vendors must be able to establish their past quality performance and current use of quality control procedures. They must be able to supply the quantities ordered on time and they must be the low bidder. They must have sufficient financial maturity to be able to estimate their costs reasonably so that a contractual commitment will not put them out of business. Finally, they must market themselves to contractors who are actively seeking new vendors and that use the products the vendors make. Given the trend among many American manufacturers of aligning more closely with the highest quality, most dependable vendors, it may become even more difficult in the future for small/SD businesses to get the critical first opportunity to bid.
Advocates of small/SD business may want to reconsider the procedures that are intended to encourage small/SD business use. Contractors must have an incentive to risk trying a new vendor and to absorb the sometimes higher prices of small/SD vendors. Set-asides and financial awards to those contractors that increase their direct commitments to small/SD business vendors over time would encourage contractors to absorb slightly higher prices and the risks of trying new vendors. An incentive system that rewards for exceeding the goals on a particular contract would not work since contractors would set their goals low in order to be recognized for performance in excess of goals.

The SBA and other advocates of small/SD business could take a more active role in developing businesses that are competitively and financially sound. For example, they could 1) provide guidance on quality and financial controls, 2) help small/SD vendors develop skills in bid preparation, and 3) assist small/SD vendors in identifying contractors that need their products and are looking for additional sources of supply.

The current reporting system is filled with inaccuracies and misrepresentations. Some items on the 294 and 295 reports should be dropped altogether. All attempts to allocate indirect costs to specific contracts in each reporting period should be discontinued and the forms should be redesigned accordingly. The reporting of indirects by contract not only defies accounting logic but results in meaningless numbers of such
magnitude that direct commitments are potentially overwhelmed.

The "Same period last year" comparison should be dropped since it is inherently an "apples and oranges" comparison. The Actual Goal Achievement calculation that presents actual commitments over planned commitments should be dropped. The actual divided by planned commitments ratio overstates performance if the total dollars flowing down to the contractor have increased but planned commitments have stayed the same.

A reporting system that places 294 and 295 forms on the same reporting cycle and reduces the total number of reports to one set (295 and supporting 294s) per year would be considerably less cumbersome for contractors and would result in data that is potentially more accurate that what is reported now. The annual reports could include: 1) annual direct commitments to small, SD, large and foreign vendors by contract in dollars and as a percent of actual total commitments, 2) cumulative direct commitments over the life of the contract by type of business with percent of actual cumulative commitments reported, 3) total indirect commitments for the year by type of vendor but not allocated to contracts, and 4) reports of performance with the performance-to-plan computed as actual small/SD commitments divided by actual total commitments compared to planned small/SD commitments divided by planned total commitments.

Because of the tremendous reduction in paper flowing to the reviewing agencies, the reporting system (not goal-setting) could be extended to all federal contractors and subcontractors regardless of their size and could be extended to include all
contracts over $25,000. Although errors of omission would continue to pervade the system, overall the system would provide a more accurate accounting of extent of small/SD subcontracting.
ATTACHMENTS
BACKGROUND ON INVESTIGATORS

The investigators on this project bring together experience in policy implementation research and small business development. The Principal Investigator is Caron St. John, Assistant Professor of Management, Clemson University, Clemson, South Carolina. Dr. St. John has a PhD in Management with emphasis on strategic and operations management. Her research has focused on the role of the functional organization in the implementation of business plans and policies, and on the planning and control procedures used to bring about coordinated actions at the functional level. She has completed research projects investigating coordination among interdependent departments in the carpet and electrical equipment industries.

The Co-Principal Investigator is Kirk Heriot, the Director of the Clemson University Small Business Institute Program and a consultant with the Clemson Small Business Development Center. His experience with small business includes counseling small business clients in the areas of government procurement, loan application, and marketing research. As Director of the Small Business Institute program at Clemson, Mr. Heriot is responsible for supervising the case work of students assigned to small business clients.

Mr. Heriot is also a doctoral student in the Department of Management at Clemson University.
Appendix A - GEC

1) SF 295 from GEC for October through December, 1989.

2) SF 294's Submitted by Samantha Price to DLA, DCASR for October, 1987 through June, 1990, Subcontract Report Number F09603-86-C-0429, Numbers 1 -7. These Reports were provided by GEC.

3) SF 294 October 1987 through March, 1990. Prime Contract Number F09603-84-G1438, QP41, Numbers, 2, 4, 6, 8. These Consecutive SF 294s were provided by DCASR in Atlanta.


5) GEC's Subcontracting Plan for Small Business and Small Disadvantaged Business Firms.

6) Copy of GEC Printout of Financial Information to support 295 and 294 forms.
### SUMMARY SUBCONTRACT REPORT

(Report to be submitted quarterly. See Instructions on reverse) (Type or Print)

<table>
<thead>
<tr>
<th>1. CONTRACTING AGENCY</th>
<th>2. ADMINISTERING AGENCY</th>
</tr>
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<tbody>
<tr>
<td>DEPARTMENT OF DEFENSE</td>
<td>DEFENSE LOGISTICS AGENCY DCASR ATLANTA</td>
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<table>
<thead>
<tr>
<th>3. DATE OF LAST GOVERNMENT REVIEW</th>
<th>4. REVIEWING AGENCY</th>
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<tr>
<td>5 JUNE 1989</td>
<td>DCASR ATLANTA</td>
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<table>
<thead>
<tr>
<th>5. DUNS NO.</th>
<th>6. REPORT SUBMITTED AS:</th>
</tr>
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<tbody>
<tr>
<td></td>
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<table>
<thead>
<tr>
<th>7. CORPORATION, COMPANY, OR SUBDIVISION COVERED (Name, Address, ZIP Code)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEC AVIONICS, INC.</td>
</tr>
<tr>
<td>P.O. BOX 81999</td>
</tr>
<tr>
<td>ATLANTA, GEORGIA 30366-1999</td>
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<table>
<thead>
<tr>
<th>8. MAJOR PRODUCTS OR SERVICE LINES:</th>
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</thead>
<tbody>
<tr>
<td>a. AVIONIC SYSTEMS</td>
</tr>
<tr>
<td>b.</td>
</tr>
<tr>
<td>c.</td>
</tr>
</tbody>
</table>

---

**CUMULATIVE COMMITMENTS**

Subcontract and Purchase Commitments for the Period October 1, 1989 through 31 December 1989

<table>
<thead>
<tr>
<th>COMMITMENTS</th>
<th>CURRENT FISCAL YEAR (To date)</th>
<th>SAME PERIOD LAST YEAR</th>
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</thead>
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<tr>
<td></td>
<td>DOLLARS</td>
<td>PERCENT</td>
</tr>
<tr>
<td>9. TOTAL (Sum of 6 and 7)</td>
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<td>a. SMALL BUSINESS CONCERNS</td>
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<td>57.3</td>
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<tr>
<td>b. LARGE BUSINESS CONCERNS</td>
<td>$390,913</td>
<td>42.7</td>
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<tr>
<td>10. SMALL DISADVANTAGED BUSINESS CONCERNS (Sum of 9 and 7)</td>
<td>$26,553</td>
<td>2.9</td>
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<tr>
<td>11. LABOR SURPLUS AREA CONCERNS (Sum of 9 and 7)</td>
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<td>2</td>
</tr>
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</table>

**SUBCONTRACT GOAL ACHIEVEMENT**

<table>
<thead>
<tr>
<th>GOALS</th>
<th>NO. OF CONTRACTS</th>
<th>$ VALUE OF SUBCONTRACTS (000)</th>
<th>$ VALUE OF SUBCONTRACT GOALS</th>
<th>ACTUAL GOAL ACHIEVEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. CONTRACTS WITH SMALL BUSINESS SUBCONTRACT GOALS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. ACTIVE CONTRACTS</td>
<td>9</td>
<td>$8,679,792</td>
<td>$2,532,252</td>
<td></td>
</tr>
<tr>
<td>b. CONTRACTS COMPLETED THIS QUARTER WHICH MET GOALS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. CONTRACTS COMPLETED THIS QUARTER NOT MEETING GOALS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. CONTRACTS WITH SMALL DISADVANT. BUS. SUBCONTRACT GOALS</td>
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<td></td>
<td></td>
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<tr>
<td>a. ACTIVE CONTRACTS</td>
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<td>$8,679,792</td>
<td>$217,605</td>
<td></td>
</tr>
<tr>
<td>b. CONTRACTS COMPLETED THIS QUARTER WHICH MET GOALS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. CONTRACTS COMPLETED THIS QUARTER NOT MEETING GOALS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**REMARKS**

(Enter a short narrative explanation if: a) zero is entered in Blocks 6 or 10 for current fiscal year, (b) the percent entry in Block 5 is more than 3 percentage points below the percent reported for same period last year, or (c) the percent entry in Block 10 for current fiscal year is lower than the percent reported for same period last year.)

---

**15. NAME AND TITLE OF LIAISON OFFICER**

Samantha C. Price
Small Business Liaison Officer

**16. NAME AND TITLE OF APPROVING OFFICIAL**

William M. Broyles
President and Chief Executive Officer

---

Appendix A - GEC 1) SF 295 from GEC for October through December, 1989.
## Subcontracting Report for Individual Contracts

### General Information

**Agency/Contractor Awarding Contract (Name & Address):**

- **Lockheed Corporation**
- **Aeronautical Systems Company**
- **O. Box 35**
- **Ontario, CA 91761-0033**

**Reporting Contractor (Name and Address):**

- **GEC Avionics, Inc.**
- **2975 Northwoods Parkway/Norcross**
- **P.O. Box 81999**
- **Atlanta, GA 30366**

**Contract No. (and Subcontract No. if applicable):**

- **F09603-86-C-0429**

**Administrative Agency:**

- **DLA - DCASR Atlanta**

**Dollar Value of Prime or Subcontract: 303,964**

**Estimated Dollar Value of Commitments As in Plan:**

- **53,939**

### Subcontract and Purchase Commitments

<table>
<thead>
<tr>
<th>Commitments</th>
<th>This Reporting Period</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dollars</td>
<td>Percent</td>
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<tr>
<td><strong>Total Direct Subcontract Commitments (Sum of 6 &amp; B)</strong></td>
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<td>100</td>
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<tr>
<td><strong>Total Small Business Concerns</strong></td>
<td>369530</td>
<td>84.88</td>
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<td><strong>Small Disadvantaged Business Concerns</strong></td>
<td>121848</td>
<td>28.18</td>
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<tr>
<td><strong>Other Small Business Concerns</strong></td>
<td>247682</td>
<td>57.10</td>
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<tr>
<td><strong>Large Business Concerns</strong></td>
<td>66421</td>
<td>14.80</td>
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<td><strong>Total Indirect Commitments (Sum of 6 &amp; B)</strong></td>
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<td><strong>Total Small Business Concerns</strong></td>
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<td><strong>Small Disadvantaged Business Concerns</strong></td>
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<td><strong>Other Small Business Concerns</strong></td>
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<td>66.90</td>
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<tr>
<td><strong>Large Business Concerns</strong></td>
<td>152481</td>
<td>25.40</td>
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</table>

### Notes

- Subcontract Report Number F09603-86-C-0429, Numbers l - 7. These Reports were provided by GEC.

---

**The Name and Title of the Individual Nominating Contract**

- **Samantha C. Price, Small Business Liaison Officer**

**The Name and Title of the Approving Officer**

- **J. M. Broyles, President**
SUBCONTRACTING REPORT FOR INDIVIDUAL CONTRACTS
(Report to be submitted semi-annually. See back of form for instructions)

From: October 1989
To: January 1990

I. PRIME CONTRACT NO. (and Subcontract No., if applicable)
F94602-16-C-0429

II. DOLLAR VALUE OF PRIME OR SUBCONTRACT
$303,944

III. ESTIMATED DOLLAR VALUE OF COMMITMENTS AS IN PLAN
$53,959

IV. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$305,944

V. TOTAL INDIRECT COMMITMENTS
$16,229

VI. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$322,173

VII. TOTAL INDIRECT COMMITMENTS
$13,659

VIII. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$338,802

IX. TOTAL INDIRECT COMMITMENTS
$15,318

X. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$354,191

XI. TOTAL INDIRECT COMMITMENTS
$17,077

XII. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$370,620

XIII. TOTAL INDIRECT COMMITMENTS
$18,846

XIV. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$385,459

XV. TOTAL INDIRECT COMMITMENTS
$20,624

XVI. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$401,084

XVII. TOTAL INDIRECT COMMITMENTS
$22,392

XVIII. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$416,756

XIX. TOTAL INDIRECT COMMITMENTS
$24,151

XX. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$432,408

XXI. TOTAL INDIRECT COMMITMENTS
$25,910

XXII. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$448,060

XXIII. TOTAL INDIRECT COMMITMENTS
$27,669

XXIV. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$463,719

XXV. TOTAL INDIRECT COMMITMENTS
$29,428

XXVI. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$479,378

XXVII. TOTAL INDIRECT COMMITMENTS
$31,187

XXVIII. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$495,037

XXIX. TOTAL INDIRECT COMMITMENTS
$33,946

XXX. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$510,706

XXXI. TOTAL INDIRECT COMMITMENTS
$36,705

XXXII. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$526,374

XXXIII. TOTAL INDIRECT COMMITMENTS
$39,464

XXXIV. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$542,043

XXXV. TOTAL INDIRECT COMMITMENTS
$42,223

XXXVI. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$557,712

XXXVII. TOTAL INDIRECT COMMITMENTS
$45,982

XXXVIII. TOTAL DIRECT SUBCONTRACT COMMITMENTS
$573,381

XXXIX. TOTAL INDIRECT COMMITMENTS
$48,741

APPENDIX A - GEC 2 Cont.
## Subcontracting Report for Individual Contracts

### General Information

**Prime Contractor:** Lockheed Corporation  
**Address:** Aeronautical Systems Company  
**P.O. Box 33**  
**Ontario, California 91761-0033**

**Subcontractor:** GEC Avionics Inc.  
**Address:** P.O. Box 81999  
**Atlanta, Georgia 30366**

### Reporting Period

- **From:** 1 October 1988  
- **To:** 31 March 1989

### Type of Contract

- **Prime Contract**
- **Subcontract**

### Date Submitted

- **7 April 1989**

### Dollars Value of Prime or Subcontract

- **303,964**
- **53,939**

### Subcontract and Purchase Commitments

<table>
<thead>
<tr>
<th>18. Total Direct Subcontract Commitments (Sum of c &amp; d)</th>
<th>This Reporting Period</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DOLLARS</td>
<td>PERCENT</td>
</tr>
<tr>
<td><strong>Small Business Concerns</strong></td>
<td><strong>LARGE BUSINESS CONCERNS</strong></td>
<td></td>
</tr>
<tr>
<td>1. <strong>TOTAL SMALL BUSINESS CONCERNS</strong></td>
<td>11,671</td>
<td>100</td>
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<tr>
<td>(1) Small Disadvantaged Business Concerns (%)</td>
<td>3,562</td>
<td>5.7</td>
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<tr>
<td>(2) Other Small Business Concerns (%)</td>
<td>619</td>
<td>5.3</td>
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<tr>
<td>2. <strong>TOTAL LARGE BUSINESS CONCERNS</strong></td>
<td>2.943</td>
<td>25.2</td>
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<tr>
<td>(1) Large Disadvantaged Business Concerns (%)</td>
<td>8,109</td>
<td>69.5</td>
</tr>
<tr>
<td>(2) Other Large Business Concerns (%)</td>
<td>65,096</td>
<td>100</td>
</tr>
<tr>
<td>3. <strong>TOTAL INDIRECT COMMITMENTS (Sum of c &amp; d)</strong></td>
<td>42,113</td>
<td>100</td>
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<tr>
<td>(1) Small Disadvantaged Business Concerns (%)</td>
<td>1,136</td>
<td>2.7</td>
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<tr>
<td>(2) Other Small Business Concerns (%)</td>
<td>12,126</td>
<td>28.8</td>
</tr>
<tr>
<td>4. <strong>TOTAL LARGE BUSINESS CONCERNS</strong></td>
<td>28,851</td>
<td>68.5</td>
</tr>
</tbody>
</table>

### Remarks

- **Samantha C. Price,**  
  Small Business Liaison Officer

### Signature

- **William M. Broyles,**  
  President

### Telephone Number

- **(404) 444-3547**

### Appendix A - GEC 2 Cont.
SUBCONTRACTING REPORT FOR INDIVIDUAL CONTRACTS
(Report to be submitted semi-annually. See back of form for instructions)

<table>
<thead>
<tr>
<th>1. REPORTING PERIOD</th>
<th>2. REPORT NO.</th>
<th>3. TYPE OF CONTRACT</th>
<th>4. DATE SUBM.</th>
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<tbody>
<tr>
<td>FROM (Date)</td>
<td>TO (Date)</td>
<td></td>
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</tr>
<tr>
<td>07/01/97 - 06/30/97</td>
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5. AGENCY/CONTRACTOR AWARDED CONTRACT (Name & Address)
Lockheed C. (Fort Worth)
Aerostatic Systems Division
P.O. Box 20
Ontario, CA 91761-0023

6. PRIME CONTRACT NO. (And Subcontract No., if applicable)
FD9602-86-C-0429

7. REPORTING CONTRACTOR (Name and Address)
P.O. Box 21999
Atlanta, Georgia 30324

8. BUSINESS CLASS. CODE
L.A.

9. DUNS NO. (if applicable) 04. 969. 280.3

10. ADMINISTERING AGENCY
DLA - LCAS - ATLANTA

11. DATE OF LAST GOVERNMENT REVIEW
5 June 1997

12. REVIEWING AGENCY
D/L A - LCAS - ATLANTA

13. DOLLAR VALUE OF PRIME OR SUBCONTRACT.
$303,964

14. ESTIMATED DOLLAR VALUE OF COMMITMENTS AS IN PLAN.
$53,929

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<tr>
<th>15. GOALS</th>
<th>CUMULATIVE</th>
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</thead>
<tbody>
<tr>
<td>SMALL BUSINESS CONCERNS</td>
<td>DOLLARS</td>
<td>PERCENT</td>
</tr>
<tr>
<td>SMALL DISADVANTAGED BUSINESS</td>
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<td>17</td>
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<tr>
<td>CONCERNS</td>
<td></td>
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<tr>
<td>OTHER SMALL BUSINESS CONCERNS</td>
<td>8,859</td>
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<tr>
<td>LARGE BUSINESS CONCERNS</td>
<td></td>
<td></td>
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15. TOTAL DIRECT SUBCONTRACT COMMITMENTS (Sum of a & b)

<table>
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<th>16. TOTAL DIRECT SUBCONTRACT COMMITMENTS (Sum of a &amp; b)</th>
<th>THIS REPORTING PERIOD</th>
<th>CUMULATIVE</th>
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<td>TOTAL SMALL BUSINESS CONCERNS</td>
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<tr>
<td>SMALL DISADVANTAGED BUSINESS CONCERNS</td>
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<td>LARGE BUSINESS CONCERNS</td>
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17. TOTAL INDIRECT COMMITMENTS (Sum of a & b)

18. TOTAL SMALL BUSINESS CONCERNS

19. TOTAL SMALL BUSINESS CONCERNS

20. TOTAL SMALL BUSINESS CONCERNS

21. TOTAL SMALL BUSINESS CONCERNS

22. TOTAL SMALL BUSINESS CONCERNS

23. TOTAL SMALL BUSINESS CONCERNS

24. TOTAL SMALL BUSINESS CONCERNS

25. TOTAL SMALL BUSINESS CONCERNS

26. TOTAL SMALL BUSINESS CONCERNS

27. TOTAL SMALL BUSINESS CONCERNS

28. TOTAL SMALL BUSINESS CONCERNS

29. TOTAL SMALL BUSINESS CONCERNS

30. TOTAL SMALL BUSINESS CONCERNS

31. TOTAL SMALL BUSINESS CONCERNS

32. TOTAL SMALL BUSINESS CONCERNS

33. TOTAL SMALL BUSINESS CONCERNS

34. TOTAL SMALL BUSINESS CONCERNS

35. TOTAL SMALL BUSINESS CONCERNS

36. TOTAL SMALL BUSINESS CONCERNS

37. TOTAL SMALL BUSINESS CONCERNS

38. TOTAL SMALL BUSINESS CONCERNS

39. TOTAL SMALL BUSINESS CONCERNS

40. TOTAL SMALL BUSINESS CONCERNS

41. TOTAL SMALL BUSINESS CONCERNS

42. TOTAL SMALL BUSINESS CONCERNS

43. TOTAL SMALL BUSINESS CONCERNS

44. TOTAL SMALL BUSINESS CONCERNS

45. TOTAL SMALL BUSINESS CONCERNS

46. TOTAL SMALL BUSINESS CONCERNS

47. TOTAL SMALL BUSINESS CONCERNS

48. TOTAL SMALL BUSINESS CONCERNS

49. TOTAL SMALL BUSINESS CONCERNS

50. TOTAL SMALL BUSINESS CONCERNS

51. TOTAL SMALL BUSINESS CONCERNS

52. TOTAL SMALL BUSINESS CONCERNS

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79. TOTAL SMALL BUSINESS CONCERNS

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81. TOTAL SMALL BUSINESS CONCERNS

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83. TOTAL SMALL BUSINESS CONCERNS

84. TOTAL SMALL BUSINESS CONCERNS

85. TOTAL SMALL BUSINESS CONCERNS

86. TOTAL SMALL BUSINESS CONCERNS

87. TOTAL SMALL BUSINESS CONCERNS

88. TOTAL SMALL BUSINESS CONCERNS

89. TOTAL SMALL BUSINESS CONCERNS

90. TOTAL SMALL BUSINESS CONCERNS

91. TOTAL SMALL BUSINESS CONCERNS

92. TOTAL SMALL BUSINESS CONCERNS

93. TOTAL SMALL BUSINESS CONCERNS

94. TOTAL SMALL BUSINESS CONCERNS

95. TOTAL SMALL BUSINESS CONCERNS

96. TOTAL SMALL BUSINESS CONCERNS

97. TOTAL SMALL BUSINESS CONCERNS

98. TOTAL SMALL BUSINESS CONCERNS

99. TOTAL SMALL BUSINESS CONCERNS

100. TOTAL SMALL BUSINESS CONCERNS
**Subcontracting Report for Individual Contracts**

*Report to be submitted semi-annually. See back of form for instructions.*

**From:** 1 October 1988

**To:** 30 Sept. 1989

**Report No.:** 5

**Type of Contract:** Subcontract

**Date Submitted:** 9 October 1989

---

### General Information

**Lockheed Corporation**

Aeronautical Systems Company

P.O. Box 33

Ontario, California 91761-0033

**GEC Avionics Inc.**

P.O. Box 81999

Atlanta, Georgia 30366

**Prime Contract No. and Subcontract No. (if applicable):** F09603-86-C-0429

**Administrating Agency:** DLA - DCASR - Atlanta

**Department of Defense Contract Number:** F09603-86-C-0429

**DUNS No. (if applicable):** 04-969-3393

---

### Contract Information

**Reporting Period:**

- **October 1988**
- **December 1988**
- **October 1989**

**Estimated Dollar Value of Prime or Subcontract Commitments:**

- **$303,964**
- **$53,939**

### Subcontract and Purchase Commitments

#### Total Direct Subcontract Commitments

- **Small Business Concerns:** $53,080 (17%)
- **Disadvantaged Business Concerns:** $859 (2.8%)

#### Total Indirect Commitments

- **Small Business Concerns:** $8,832 (100%)
- **Disadvantaged Business Concerns:** $4,983 (44%)

### Goals

- **Small Business Concerns:** $53,080 (17%)
- **Disadvantaged Business Concerns:** $859 (2.8%)

### Commitments Table

<table>
<thead>
<tr>
<th>Commitments</th>
<th>Dollars</th>
<th>Percent</th>
<th>Cumulative Dollars</th>
<th>Percent</th>
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<td>$262,406</td>
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<tr>
<td>(2) Other Small Business Concerns</td>
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<tr>
<td>b. Large Business Concerns</td>
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<td>51.5</td>
</tr>
<tr>
<td>(1) Small Disadvantaged Business Concerns (17%)</td>
<td>$48</td>
<td>0.2</td>
<td>$4,983</td>
<td>3.1</td>
</tr>
<tr>
<td>(2) Other Small Business Concerns</td>
<td>$8,784</td>
<td>28.5</td>
<td>$57,658</td>
<td>44.5</td>
</tr>
<tr>
<td>b. Large Business Concerns</td>
<td>$22,002</td>
<td>71.3</td>
<td>$66,987</td>
<td>51.5</td>
</tr>
</tbody>
</table>

### Remarks:

**Samantha C. Price**

Small Business Liaison Officer

**William M. Exoyle**

President and CEO

---

Appendix A - GEC 2 Cont. -
SUBCONTRACTING REPORT FOR INDIVIDUAL CONTRACTS
(Report to be submitted semi-annually. See back of form for instructions)

1. REPORTING PERIOD
   FROM (Date): 1 October 1989
   TO (Date): 31 December 1989
   REPORT NO.: 6
   SUBCONTRACT: X

2. TYPE OF CONTRACT
   PRIME CONTRACT: ☐
   SUBCONTRACT: X

3. DATE SUBMITTED: 12 January 1990

GENERAL INFORMATION
5. AGENCY/CONTRACTOR AWARDED CONTRACT (Name & Address)
   Northrop Corporation
   1 Parc. 23
   Palmdale, California 9761-401

6. PRIME CONTRACT NO. (And Subcontract NO. if applicable)
   59G8074-86-C-58429

7. REPORTING CONTRACTOR (Name and Address)
   ABC Corporation
   PO Box 8999
   Atlanta, Georgia 30346

8. BUSINESS CLASS. CODE
   X

9. DUNS NO. (If applicable)
   046-949-3392

10. ADMINISTERING AGENCY
    USA - SCAD - Atlanta

11. DATE OF LAST GOVERNMENT REVIEW
    5 June 1989

12. REVIEWING AGENCY
    USA - SCAD - Atlanta

13. DOLLAR VALUE OF PRIME
    OR SUBCONTRACT
    $3,039,964

14. ESTIMATED DOLLAR VALUE
    OF COMMITMENTS AS IN PLAN
    $53,939

18. GOALS
    DOLLARS PERCENT
    SMALL BUSINESS CONCERNS
    53,080  17
    SMALL DISADV. BUSINESS CONCERNS
    55,9  2.7

SUBCONTRACT AND PURCHASE COMMITMENTS

<table>
<thead>
<tr>
<th>COMMITMENTS</th>
<th>DOLLARS</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL DIRECT SUBCONTRACT COMMITMENTS</td>
<td>124,689</td>
<td>100</td>
</tr>
<tr>
<td>1. TOTAL SMALL BUSINESS CONCERNS</td>
<td>31,829</td>
<td>25.3</td>
</tr>
<tr>
<td>(1) SMALL DISADVANTAGED BUSINESS CONCERNS</td>
<td>5,656</td>
<td>14.7</td>
</tr>
<tr>
<td>(2) OTHER SMALL BUSINESS CONCERNS</td>
<td>2,045</td>
<td>1.7</td>
</tr>
<tr>
<td>2. LARGE BUSINESS CONCERNS</td>
<td>24,914</td>
<td>19</td>
</tr>
<tr>
<td>TOTAL INDIRECT COMMITMENTS</td>
<td>53,939</td>
<td>100</td>
</tr>
<tr>
<td>1. TOTAL SMALL BUSINESS CONCERNS</td>
<td>55,9</td>
<td>2.7</td>
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<tr>
<td>(1) SMALL DISADVANTAGED BUSINESS CONCERNS</td>
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<tr>
<td>(2) OTHER SMALL BUSINESS CONCERNS</td>
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<td>0.1</td>
</tr>
<tr>
<td>2. LARGE BUSINESS CONCERNS</td>
<td>55</td>
<td>2.7</td>
</tr>
</tbody>
</table>

19. TYPE THE NAME AND TITLE OF THE INDIVIDUAL
    ADMINISTERING CONTRACT
    SIGNATURE

20. TYPE THE NAME AND TITLE OF THE APPROVING
    OFFICER
    SIGNATURE

Appendix A - GEC 2 Cont.
# Subcontracting Report for Individual Contracts

**General Information**

- **Reporting Period:** From 1 October 1989 to 31 March 1990
- **Prime Contract:** No
- **Subcontract:** Yes
- **Date Submitted:** 12 April 1990

| AGENCY/CONTRACTOR AWARDING CONTRACT (Name & Address) | GEC Avionics, Inc.  
| Aeronautical Systems Company | P.O. Box 81999  
| Ontario, California 91761-0033 | Atlanta, Georgia 30366-1999 |

**Reporting Contractor (Name and Address):**

- **Business Class Code:** C3
- **DUNS No.:** 04-969-3393
- ** GOALS:**
  - Small Business Concerns: $53,080, 17.0%
  - Small Disadvantaged Business Concerns: $859, 2.8%
- **Estimated Dollar Value of Commitments As In Plan:**
  - Prime Contract: $303,964  
  - Subcontract: $53,939

**Commitments**

<table>
<thead>
<tr>
<th>Description</th>
<th>This Reporting Period</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dollars</td>
<td>Percent</td>
</tr>
<tr>
<td>Total Direct Subcontract Commitments (Sum of a &amp; b)</td>
<td>4,056</td>
<td>100</td>
</tr>
<tr>
<td>a. Total Small Business Concerns</td>
<td>4,056</td>
<td>99.9</td>
</tr>
<tr>
<td>(1) Small Disadvantaged Business Concerns (% of 10)</td>
<td>4,053</td>
<td>99.9</td>
</tr>
<tr>
<td>(2) Other Small Business Concerns (% of 10)</td>
<td>3</td>
<td>0.1</td>
</tr>
<tr>
<td>b. Total Large Business Concerns</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total Indirect Commitments (Sum of c &amp; d)</td>
<td>22,547</td>
<td>100.0</td>
</tr>
<tr>
<td>c. Total Small Business Concerns</td>
<td>10,612</td>
<td>47.0</td>
</tr>
<tr>
<td>(1) Small Disadvantaged Business Concerns (% of 17)</td>
<td>10,608</td>
<td>47.0</td>
</tr>
<tr>
<td>(2) Other Small Business Concerns (% of 17)</td>
<td>4</td>
<td>0.1</td>
</tr>
<tr>
<td>d. Total Large Business Concerns</td>
<td>11,935</td>
<td>53.9</td>
</tr>
</tbody>
</table>

**Remarks:**

- Type the name and title of the individual administering the contract: Samantha C. Price, Small Business Liaison Officer
- Signature: [Signature]

- Type the name and title of the approving officer: William M. Broyles, President and Chief Executive Officer
- Signature: [Signature]
SUBCONTRACTING REPORT FOR INDIVIDUAL CONTRACTS

(Report to be submitted semi-annually. See back of form for instructions)

1. REPORTING PERIOD
   FROM (Date)             TO (Date)
   October 1989            30 June 1990

2. REPORT NO.
   8

3. TYPE OF CONTRACT
   ☑ SUBCONTRACT
   ☐ PRIME CONTRACT

4. DATE SUBMITTED
   18 July 1990

B. AGENCY/CONTRACTOR AWARDED CONTRACT (Name & Address)
   Lockheed Company
   Aeronautical Systems Company
   PO Box 33
   Ontario, California 91761-0033

5. PRIME CONTRACT NO. (and subcontract No. if applicable)
   F09602-86-C-0429

6. BUSINESS CLASS. CODE
   LB

7. BUNNO NO. (if applicable)
   04-9602-31-9221

8. ADMINISTERING AGENCY
   DLA - DCMA Atlanta

9. DOLLAR VALUE OF PRIME
   OR SUBCONTRACT
   $203,964

10. ESTIMATED DOLLAR VALUE OF
    COMMITMENTS AS IN PLAN
    853,939

11. DATE OF LAST GOVERNMENT
    REVIEW
    5 June 1989

12. REVIEWING AGENCY
    DCMA Atlanta

13. GOALS
    5. SMALL BUSINESS CONCERNS
       $53,080
       17%

    6. SMALL DISADVANTAGED BUSINESS CONCERNS
       $59
       2%

14. ESTIMATED DOLLAR VALUE OF
    COMMITMENTS AS IN PLAN
    SUMCOMMITMENTS = $853,939

15. TOTAL DIRECT COMMITMENTS (Sum of a & b)

16. TOTAL INDIRECT COMMITMENTS (Sum of a & b)

17. REMARKS:

18. SIGNATURE
   SAMANTHA C. PRICE
   SMALL BUSINESS LIASON OFFICER

19. TYPE THE NAME AND TITLE OF THE INDIVIDUAL
    ADMINISTERING CONTRACT
   WILFRED B. BROXLES
   PRESIDENT AND CHIEF EXECUTIVE OFFICER

20. SIGNATURE
   WILLIAM M. BROXLES
   SMALL BUSINESS LIASON OFFICER

21. TELEPHONE NO. (and Area Code)
   404

22. STAND ALONE FORM 284 (REV. 5/85)
   PRESERVED BY GSA
   F/A (48 CFR) 55.219(1)

23. PREVIOUS EDITION USABLE

---

Appendix A - GEC 2 Cont.
## SUBCONTRACTING REPORT FOR INDIVIDUAL CONTRACTS

(Report to be submitted semi-annually. See back of form for instructions)

<table>
<thead>
<tr>
<th>FROM (Date)</th>
<th>TO (Date)</th>
<th>REPORT NO.</th>
<th>TYPE OF CONTRACT</th>
<th>DATE SUBMITTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 October 1987</td>
<td>30 Sept. 1988</td>
<td>2</td>
<td>PRIME CONTRACT</td>
<td>5 October 1988</td>
</tr>
</tbody>
</table>

### GENERAL INFORMATION

- **Agency/Contractor Awarding Contract**: Ogden Air Logistics Center, Hill Air Force Base, Utah, 85056
- **Prime Contract No. (And Subcontract No. if applicable)**: F09603-84-G-1438, QP41
- **Administering Agency**: DLA - DCASR - Atlanta

### ESTIMATED DOLLAR VALUE OF COMMITMENTS AS IN PLAN

<table>
<thead>
<tr>
<th></th>
<th>THIS REPORTING PERIOD</th>
<th>CUMULATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DOLLARS</td>
<td>PERCENT</td>
</tr>
<tr>
<td><strong>Total Direct Subcontract Commitments (Sum of a &amp; b)</strong></td>
<td>47,1688</td>
<td>100</td>
</tr>
<tr>
<td>1. Total Small Business Concerns</td>
<td>97,047</td>
<td></td>
</tr>
<tr>
<td>(1) Small Disadvantaged Business Concerns (a)</td>
<td>31,638</td>
<td>6.7</td>
</tr>
<tr>
<td>(2) Other Small Business Concerns (b)</td>
<td>65,409</td>
<td>13.9</td>
</tr>
<tr>
<td><strong>Total Indirect Commitments (Sum of a &amp; b)</strong></td>
<td>59,915</td>
<td></td>
</tr>
<tr>
<td>2. Total Small Business Concerns</td>
<td>44,734</td>
<td></td>
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<tr>
<td>(1) Small Disadvantaged Business Concerns (a)</td>
<td>46,081</td>
<td>7.7</td>
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<tr>
<td>(2) Other Small Business Concerns (b)</td>
<td>40,1253</td>
<td>66.9</td>
</tr>
<tr>
<td>3. Large Business Concerns (c)</td>
<td>152,481</td>
<td>25.4</td>
</tr>
</tbody>
</table>

### SUBCONTRACT AND PURCHASE COMMITMENTS

- **Total Small Disadvantaged Business Concerns**
  - October 1987 to March 1990
  - Prime Contract Number F09603-84-G-1438, QP41, Numbers 2, 4, 6, 8.
  - Consecutive SF 294s were provided by DCASR in Atlanta.

### SIGNATURES

- **President**: William M. Broyles
- **Small Business Liaison Officer**: Samantha C. Price

---

Appendix A - GEC 3) SF 294 October 1987 through March 1990. Prime Contract Number F09603-84-G1438. QP41, Numbers 2, 4, 6, 8. These Consecutive SF 294s were provided by DCASR in Atlanta.
## Subcontracting Report for Individual Contracts

### General Information

**Agency/Contractor Awarding Contract**
Ogden Air Logistics Center  
Hill Air Force Base, Utah 85056

**Prime Contract No.**
F09603-84-C-1438, QP41

**Administering Agency**
DLA – CASR – Atlanta

**Dollar Value of Prime or Subcontract.**
14,935,224

**Estimated Dollar Value of Commitments as in Plan.**
2,814,978

### Subcontract and Purchase Commitments

<table>
<thead>
<tr>
<th>Description</th>
<th>Dollars</th>
<th>Percent</th>
<th>Dollars</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Direct Subcontract Commitments</strong></td>
<td>13,911</td>
<td>100</td>
<td>2,590,790</td>
<td>100</td>
</tr>
<tr>
<td>a. Total Small Business Concerns</td>
<td>5,802</td>
<td>42.4</td>
<td>626,229</td>
<td>24.2</td>
</tr>
<tr>
<td>(1) Small Disadvantaged Business Concerns</td>
<td>619</td>
<td>4.4</td>
<td>141,103</td>
<td>5.5</td>
</tr>
<tr>
<td>(2) Other Small Business Concerns</td>
<td>5,183</td>
<td>37.3</td>
<td>485,126</td>
<td>18.7</td>
</tr>
<tr>
<td>b. Large Business Concerns</td>
<td>8,109</td>
<td>58.3</td>
<td>1,964,561</td>
<td>75.3</td>
</tr>
<tr>
<td><strong>Total Indirect Commitments</strong></td>
<td>42,113</td>
<td>100</td>
<td>65,096</td>
<td>100</td>
</tr>
<tr>
<td>a. Total Small Business Concerns</td>
<td>13,262</td>
<td>31.5</td>
<td>27,918</td>
<td>42.9</td>
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<tr>
<td>(1) Small Disadvantaged Business Concerns</td>
<td>1,136</td>
<td>2.7</td>
<td>3,408</td>
<td>5.2</td>
</tr>
<tr>
<td>(2) Other Small Business Concerns</td>
<td>12,126</td>
<td>28.8</td>
<td>24,510</td>
<td>37.7</td>
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<tr>
<td>b. Large Business Concerns</td>
<td>28,851</td>
<td>68.5</td>
<td>37,178</td>
<td>57.1</td>
</tr>
</tbody>
</table>

### Remarks

19. Type the name and title of the individual administering contract:

Samantha C. Price,  
Small Business Liaison Officer

20. Type the name and title of the approving officer:

William M. Boyles,  
President

---

Appendix A - GEC 3 Cont.
SUBCONTRACTING REPORT FOR INDIVIDUAL CONTRACTS

(Report to be submitted semi-annually. See back of form for instructions)

<table>
<thead>
<tr>
<th>REPORTING PERIOD</th>
<th>REPORT NO.</th>
<th>TYPE OF CONTRACT</th>
<th>DATE SUBMITTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 October 1988</td>
<td>6</td>
<td>Amended</td>
<td>12 January 1989</td>
</tr>
</tbody>
</table>

GENERAL INFORMATION

5. AGENCY/CONTRACTOR AWARDING CONTRACT (Name & Address)
   Ogden Air Logistics Center
   Hill Air Force Base, Utah 85056

6. PRIME CONTRACT NO. (And Subcontract No., if applicable)
   F09603-84-C-1438, Q41

7. REPORTING CONTRACTOR (Name and Address)
   GEC Avionics Inc.
   P.O. Box 8199
   Atlanta, Georgia 30366-1999

8. BUSINESS CLASS. CODE
   LB

9. DUNS NO. (If applicable)
   04-969-3393

10. ADMINISTERING AGENCY
    DLA-DCASR Atlanta

11. DATE OF LAST GOVERNMENT REVIEW
    5 June 1989

12. REVIEWING AGENCY
    DCASR Atlanta

13. DOLLAR VALUE OF PRIME OR SUBCONTRACT
    $14,935,224

14. ESTIMATED DOLLAR VALUE OF COMMITMENTS AS IN PLAN.
    $2,814,978

SUBCONTRACT AND PURCHASE COMMITMENTS

<table>
<thead>
<tr>
<th>COMMITMENTS</th>
<th>REPORTING PERIOD</th>
<th>CUMULATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL DIRECT SUBCONTRACT COMMITMENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) SMALL BUSINESS CONCERNS</td>
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<td>$2,625,449</td>
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<tr>
<td></td>
<td>100%</td>
<td>100%</td>
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<tr>
<td>(1) SMALL DISADVANTAGED BUSINESS CONCERNS</td>
<td>$1,376</td>
<td>$628,737</td>
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<tr>
<td></td>
<td>5.3%</td>
<td>5.3%</td>
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<tr>
<td>(2) OTHER SMALL BUSINESS CONCERNS</td>
<td>$1,376</td>
<td>$1,996,712</td>
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<tr>
<td></td>
<td>5.4%</td>
<td>76.1%</td>
</tr>
<tr>
<td>LARGE BUSINESS CONCERNS</td>
<td>$23,971</td>
<td>$1,996,712</td>
</tr>
<tr>
<td></td>
<td>94.6%</td>
<td>76.1%</td>
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<tr>
<td>TOTAL INDIRECT COMMITMENTS (Sum of a &amp; b)</td>
<td>$30,834</td>
<td>$1,996,712</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
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<tr>
<td>SMALL BUSINESS CONCERNS</td>
<td>$8,832</td>
<td>$62,641</td>
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<tr>
<td></td>
<td></td>
<td>51.7%</td>
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</tr>
<tr>
<td>TOTAL SMALL BUSINESS CONCERNS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) SMALL DISADVANTAGED BUSINESS CONCERNS</td>
<td>$48</td>
<td>$4,983</td>
</tr>
<tr>
<td></td>
<td>0.2%</td>
<td>3.8%</td>
</tr>
<tr>
<td>(2) OTHER SMALL BUSINESS CONCERNS</td>
<td>$8,784</td>
<td>$57,658</td>
</tr>
<tr>
<td></td>
<td>28.5%</td>
<td>44.5%</td>
</tr>
<tr>
<td>LARGE BUSINESS CONCERNS</td>
<td>$22,002</td>
<td>$66,987</td>
</tr>
<tr>
<td></td>
<td>71.3%</td>
<td>51.7%</td>
</tr>
</tbody>
</table>


Changes reflected in Cumulative 16B, 16, 16Al and 16A2.

From: 16B $816,712 56.5% $1,996,712 76.1%
       16 $1,445,449 100% $2,625,449 100%
       16Al 9.8% $161,449 5.3%
       16A2 33.7% $489,712 18.6%

Appendix A - GEC 3 Cont.

Samantha C. Price
Small Business Liaison Officer

William M. Broyles
President and Chief Executive Officer
## Subcontracting Report for Individual Contracts

### General Information

- **Agency/Contractor Awarding Contract (Name & Address):** Ogden Air Logistics Center, Hill Air Force Base, Utah 85056
- **Reporting Contractor (Name & Address):** GEC Avionics, Inc., P.O. Box 81999, Atlanta, Georgia 30366-1999
- **Prime Contract No. (And Subcontract No., if applicable):** F09603-84-G-1438, QP41
- **Administrating Agency:** DLA - DCASR Atlanta
- **Due Date of Last Government Review:** 5 June 1989
- **Reviewing Agency:** DCASR Atlanta

### Subcontract and Purchase Commitments

<table>
<thead>
<tr>
<th>Commitments</th>
<th>This Reporting Period</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL DIRECT SUBCONTRACT COMMITMENTS</td>
<td>$46,933</td>
<td>$2,674,273</td>
</tr>
<tr>
<td>a. TOTAL SMALL BUSINESS CONCERNS</td>
<td>$8,311</td>
<td>$638,550</td>
</tr>
<tr>
<td>(1) SMALL DISADVANTAGED BUSINESS CONCERNS (%)</td>
<td>8,308</td>
<td>149,875</td>
</tr>
<tr>
<td>(2) OTHER SMALL BUSINESS CONCERNS (%)</td>
<td>3</td>
<td>488,675</td>
</tr>
<tr>
<td>b. LARGE BUSINESS CONCERNS (%)</td>
<td>38,622</td>
<td>2,035,723</td>
</tr>
<tr>
<td>TOTAL INDIRECT COMMITMENTS</td>
<td>$22,547</td>
<td>$39,742</td>
</tr>
<tr>
<td>a. TOTAL SMALL BUSINESS CONCERNS</td>
<td>$10,612</td>
<td>$22,470</td>
</tr>
<tr>
<td>(1) SMALL DISADVANTAGED BUSINESS CONCERNS (%)</td>
<td>10,608</td>
<td>22,322</td>
</tr>
<tr>
<td>(2) OTHER SMALL BUSINESS CONCERNS (%)</td>
<td>52,2</td>
<td></td>
</tr>
<tr>
<td>b. LARGE BUSINESS CONCERNS (%)</td>
<td>11,935</td>
<td>17,272</td>
</tr>
</tbody>
</table>

### Remarks:

- **Type the Name and Title of the Individual Administering Contract:** Samantha C. Price, Small Business Liaison Officer
- **Type the Name and Title of the Approving Officer:** William M. Broyles, President and Chief Executive Officer

Appendix A - GEC 3 Cont.
### SUBCONTRACTING REPORT FOR INDIVIDUAL CONTRACTS

(Report to be submitted semi-annually. See back of form for instructions)

<table>
<thead>
<tr>
<th>1. REPORTING PERIOD</th>
<th>2. REPORT NO.</th>
<th>3. TYPE OF CONTRACT</th>
<th>4. DATE SUBMITTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>FROM (Date)</td>
<td>TO (Date)</td>
<td></td>
<td>12 January 1999</td>
</tr>
</tbody>
</table>

**GENERAL INFORMATION**

5. AGENCY/CONTRACTOR AWARDED CONTRACT (Name & Address)

- Federal Air Regulations Center
- 600 H St., N.W.
- 11-00

6. PRIME CONTRACT NO. (And Subcontract No., if applicable)

- F09603-84-G-1438, QP41

7. REPORTING CONTRACTOR (Name and Address)

- ABC Air Services, Inc.
- PO Box 81999
- Atlanta, Georgia 30326-1999

10. ADMINISTERING AGENCY

- USA - SCASH (Atlanta)

14. ESTIMATED DOLLAR VALUE OF COMMITMENTS AS IN PLAN.

- 14,935,224
- 1814,978

### SUBCONTRACT AND PURCHASE COMMITMENTS

<table>
<thead>
<tr>
<th>COMMITMENTS</th>
<th>THIS REPORTING PERIOD</th>
<th>CUMULATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DOLLARS</td>
<td>PERCENT</td>
</tr>
<tr>
<td>16. TOTAL DIRECT SUBCONTRACT COMMITMENTS (Sum of a &amp; b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. TOTAL SMALL BUSINESS CONCERNS</td>
<td>8,146,720</td>
<td>100</td>
</tr>
</tbody>
</table>
| (1) SMALL DISADVANTAGED BUSINESS CONCERNS (% of 16) | 118,469 | 5 | 118,469,326 | 5%
| (2) OTHER SMALL BUSINESS CONCERNS (% of 16) | 120,494 | 12 | 417,464,918 | 12.0 |
| b. LARGE BUSINESS CONCERNS (% of 16) | 134,809 | 9 | 1,446,848 | 9.0 |
| 17. TOTAL INDIRECT COMMITMENTS (Sum of a & b) | |
| a. TOTAL SMALL BUSINESS CONCERNS | |
| (1) SMALL DISADVANTAGED BUSINESS CONCERNS (% of 17) | |
| (2) OTHER SMALL BUSINESS CONCERNS (% of 17) | |
| b. LARGE BUSINESS CONCERNS (% of 17) | |

18. REMARKS:

- 11/11/95
- 9522
- 12/06/97

19. TYPE THE NAME AND TITLE OF THE INDIVIDUAL ADMINISTERING CONTRACT

- Signature

20. TYPE THE NAME AND TITLE OF THE APPROVING OFFICER

- Signature

NSN 7540-01-152-8078
PREVIOUS EDITION USABLE

294-102

GEC AVIONICS, INC.
SUBCONTRACTING PLAN FOR SMALL BUSINESS
AND
SMALL DISADVANTAGED BUSINESS FIRMS

This Program is utilized by GEC Avionics, Inc. to structure our traditional and continuing commitment and effort on behalf of Small Business and Small Disadvantaged Business to the requirement and intent of Public Law 95-507.

Samantha C. Price
SMALL AND DISADVANTAGED BUSINESS LIAISON OFFICER
GEC AVIONICS INC.

George E. Artman
DIRECTOR OF MATERIEL
GEC AVIONICS INC.
SUBCONTRACTING PLAN FOR SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS CONCERNS

DATE: 

SOLICITATION/CONTRACT: 

SUBJECT: 

I. SUBCONTRACTING

A. TOTAL PLANNED SUBCONTRACTING $ 

B. PLANNED SMALL BUSINESS SUBCONTRACTING $ 

C. PLANNED SMALL DISADVANTAGED BUSINESS SUBCONTRACTING (INCLUDED IN S/B GOAL) $ 

THE PARTIES FURTHER AGREE that modifications to this contract involving amounts under $500,000.00 shall, upon the mutual agreement of both parties, result in an equitable adjustment to the three subcontracting plan goal dollar amounts. Also, the percentage number/goals will be automatically adjusted by recalculation to determine revised percentage goals.

II. DESCRIPTION OF PRINCIPAL PRODUCT AND SERVICE AREAS TO BE SUBCONTRACTED and identification of those areas where it is planned to use (1) SMALL BUSINESS (See Addendum "A") and (2) SMALL DISADVANTAGED BUSINESS (See Addendum "D").

III. METHOD USED IN DEVELOPING PROPOSED SUBCONTRACTING GOALS FOR SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS (See Addendum "D").

IV. ADMINISTRATION

This Subcontracting Plan will be administered by Samantha Price (404-448-1947), whose duties include:

1. Maintain a program designed to locate capable Small Business, Small Disadvantaged Business and Labor Surplus Area Business sources for current and future acquisitions, through SBA or other methods; coordinate inquiries and requests for advice from Small Business, Small Disadvantaged Business and Labor Surplus Area Business concerns on acquisition matters.

2. When Small Business concerns cannot be given an opportunity to compete because adequate specifications or drawings are not available, unless there are sufficient and valid reasons to the contrary, initiate action, in writing, with appropriate technical and contracting personnel to ensure that necessary specification or drawing for the current or future acquisitions, as appropriate, are available.

Appendix A - GEC 5 Cont.
3. Review acquisition programs for possible breakout of items suitable for acquisition from Small Business concerns.


5. Assure that participation of Small Business concerns is accurately reported. Bring to the attention of the Materiel Director possible contracting opportunities in Labor Surplus area.

6. Make available to SBA copies of solicitations when so requested. When a bid from a Small Business, Small Disadvantaged Business or Labor Surplus Area firm has been rejected for nonresponsiveness or nonresponsibility, upon request, aid, counsel, and assist that firm in understanding requirements for responsiveness and responsibility so that the firm may be able to qualify for future awards.

7. Advise potential suppliers how they can obtain information about business opportunities at GEC Avionics and brief the Director of Materiels, at least once quarterly, concerning the status of the Small Business, Small Disadvantaged Business utilization and Labor Surplus Area programs in relation to goals and objectives established.

8. Assist Program Managers as early as possible in the development cycle of major system acquisitions and system programs, as pertains to the Small Business programs.

9. Assist Contracting Officers in establishing criteria for, and determining acceptability of, Small Business and Small Disadvantaged Business concerns subcontracting plans submitted by subcontractors.


11. Advise and assist Purchasing and Contracting Officers in discharging their responsibilities by: Monitoring and reviewing proposals to determine compliance with Small and Disadvantaged Small Business subcontracting plans.

12. Developing and maintaining records and reports as recited in paragraphs VII reports and VIII records.

Appendix A - GEC 5 Cont.
V. POSITIVE EFFORTS TO ASSURE SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS AN EQUITABLE OPPORTUNITY TO COMPETE FOR SUBCONTRACTS

A. A system is employed to continually update opportunities to purchase from Small Business and Small Disadvantaged Business in our procurement system through:

1. Personal contact with such sources.
2. Correspondence with such sources (from inquiries).
3. Procurement conferences.
4. Various publications (Government and various organizations).

B. All known Small Business and Small Disadvantaged Businesses are categorized and input to a comprehensive listing, which is provided to all purchasing and subcontracts personnel as the following:

1. A source list of Small Business and Small Disadvantaged Business enterprises.
2. Records of awards to Small Business and Small Disadvantaged Business enterprises.
3. Specific efforts to identify and award contracts to Small Business and Small Disadvantaged Business enterprises.

C. An adequate and timely consideration of the potentialities of known Small Business and Small Disadvantaged Business enterprises in all "make-or-buy" decisions will be utilized.

D. BUYER RESPONSIBILITY

1. Plans procurement, consistent with contract requirements, in a manner to facilitate participation by Small Business and Small Disadvantaged Business concerns.
   a. If no Small Business or Small Disadvantaged Business is solicited, Buyer must justify non-solicitation in the Procurement Package.
   b. Buyer must allow maximum lead-time for preparation of bids, consistent with Contract requirements, in order to encourage Small Business and Small Disadvantaged Business participation.
   c. If large required quantities preclude Small Business and Small Disadvantaged Business participation, action will be taken to split the procurement into segments on which Small Business and Small Disadvantaged Business can compete.

Appendix A - GEC 5 Cont.
d. Buyer will work with Engineering and Requisitioners to assure that specifications are clear, well written and not overly complex. Specifications should clearly define requirements, but not over-specify.

e. Delivery Schedules should be as long as possible, and consistent with Contract requirements, so that Small Business and Small Disadvantaged Business will be in a better position to compete. If schedules appear to be overly tight, Buyer will negotiate with Materiel Control for schedules more conducive to Small Business and Small Disadvantaged Business.

f. If Lists of potential Small Business and Small Disadvantaged Business suppliers for a particular procurement are excessively long, sources requested to bid will be rotated, so that all such Small Business and Small Disadvantaged Businesses are given an opportunity to compete over a period of time.

VI. FLOWDOWN

The Clause entitled "UTILIZATION OF SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS CONCERNS, (April 1984) FAR 52.219-8" will be included in all Subcontracts which offer further Subcontracting opportunities in the United States, and all Subcontractors (except Small Business concerns), who receive Subcontracts in excess of $500,000, or in the case of a Contract for the construction of any public facility, $1,000,000, will be required to adopt a plan in consonance with the clause entitled: "SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS SUBCONTRACTING PLAN (April 1984), FAR 52.219-9".

VII. REPORTS

GEC Avionics Inc. will submit periodic reports and cooperate in any studies or surveys as may be required by the Contracting Agency or the Small Business Administration, in order to determine the extent of compliance with this Subcontracting plan. GEC Avionics Inc. will submit Standard Form 294, Subcontracting Report for Individual Contracts and Standard Form 295, Summary Subcontract Report.

VIII. RECORDS

Records maintained in support of GEC Avionics' Small and Small Disadvantaged Business Program include: A source List of Small and Small Disadvantaged Suppliers, continuously updated and completely recertified bi-annually. Small and Small Disadvantaged Business file of potential supplier capabilities are obtained from Small and Small Disadvantaged Suppliers as a result of their selling efforts, at Trade Shows and through referrals from Government Agencies; and copies of required Government and Company Reports and Reviews.
VIII. RECORDS (CONTINUED)

We will maintain the following records:

(i) Source lists, guides, and other data that identify small and small disadvantaged business concerns.

(ii) Organizations contacted in an attempt to locate sources that are small or small disadvantaged business concerns.

(iii) Records on each subcontract solicitation resulting in an award of more than $100,000, indicating (A) whether small business concerns were solicited and if not, why not, (B) whether small disadvantaged business concerns were solicited and if not, why not, and (C) if applicable, the reason award was not made to a small business concern.

(iv) Records of any outreach efforts to contact (A) trade associations, (B) business development organizations, and (C) conferences and trade fairs to locate small and small disadvantaged business sources.

(v) Records of internal guidance and encouragement provided to buyers through (A) workshops, seminars, training, etc., and (B) monitoring performance to evaluate compliance with the program's requirements.

(vi) On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor.

IN ADDITION TO THE AFOREMENTIONED, GEC AVIONICS INC. MAINTAINS THE FOLLOWING RECORDS:

A. SB/SDB Liaison Officer maintains manual files of Contacts and Directories from small and small disadvantaged business trade associations including:

Atlanta Office of the Small Business Administration's Procurement Automated Source System (PASS)
Small Business Division of DCASR-Atlanta Region
National Minority Business Directory (TRY US)
Atlanta Regional - Minority Purchasing Council
New England Minority Purchasing Council
B. Records supporting other outreach efforts include:

1. When mutually beneficial, Management and Technical Assistance will be provided to Small and Small Disadvantaged Companies. The type of assistance offered may include, but not be limited to, Quality Control guidance, Technical, Manufacturing and Financial consultation. Assistance offered will be directed to those Small Companies where the need is greatest.

2. Specifications. Drawings and other pertinent data are made available to technically and financially competent Small and Small Disadvantaged Business so that they may intelligently prepare their bids.

3. Informing such individuals and firms concerning Subcontracting opportunities, including identification of other programs that might offer opportunity for participation.

C. RECORDS OF INTERNAL ACTIVITIES used in guiding and encouraging Buyers to support Small and Small Disadvantaged Business Concerns consists of:

GEC AVIONICS INC. CORPORATE DIRECTIVES

PROCUREMENT POLICY MANUAL

SEMINARS, and

TRAINING PROGRAMS

D. RECORDS TO SHOW THE EXTENT OF ACHIEVEMENT, relative to established goals, are now in place. These records will be maintained on-line in our new computerized Data System, on a Contract-to-Contract basis.

E. Records will be maintained to show whether each prospective Subcontractor is a Small Business, Small Disadvantaged Business, Large Business or other business.

For Subcontracts awarded in excess of $10,000, the following information will be recorded and retained.

1. Whether the award went to a Large, Small, or Small Disadvantaged Business.

2. Whether less than three or more than two, Small or Small Disadvantaged Business Concerns were solicited.
3. The reason for non-solicitation of Small or Small Disadvantaged Business, if such were the case.

4. The reason for Small Business and Small Disadvantaged failure to receive the award, if such were the case, when Small or Small Disadvantaged Business were solicited.

REPORTS TO MANAGEMENT

All subcontracting plans are reviewed on a contract-by-contract basis every quarter by the Small Business Administration and by the cognizant government agency. Their Reviews cover all facets of the Subcontracting Plans, including Performance against Goals, and the Materiel Director is briefed in detail on the results of Reviews. These briefings are in addition to the regular Quarterly Report to Management covering all Programs. The Materiel Director apprises other top Management of efforts and progress in our Small and Small Disadvantaged Business Subcontracting Programs.
## ADDENDUM "A"

### SMALL BUSINESS CONCERNS

- A. E. Petsche Company
- ACI Electronics
- Advance Engineering
- Alatec Products
- All American Semi
- Command Electronics
- Control Displays
- Cross Wire
- Daco Instruments
- Data Graphics
- Deanco
- ETA Industries
- Fastbolt
- G & Z Industries
- Glenair
- Hall-Mark Electronics
- Impala Electronics
- J. A. Reinhardt
- Marietta Instrument
- Marine Air Supply

### PRODUCTS

- Wire, Sleeving
- Transistors, Diodes
- Machine Fabrication
- Nuts, Bolts, Hardware
- Transistors, Diodes
- Resistors
- Indicator Panels
- Wire
- Meters, Desiccators
- Labels
- Wire, Cable
- Nuts, Bolts, Hardware
- Metal Parts
- Machined Parts
- Backshells
- Electronic Components
- Resistors, Networks
- Fabricated Metal Parts
- Machine Fabrication
- Switches
(continued)

**ADDENDUM "A"**

"POTENTIAL"  
**SMALL BUSINESS CONCERNS**

- Metuchen Capacitors
- Milgray Electronics
- O'Hare Metal Products
- Otto Controls
- Polo Metal Fabricating
- Positive Components
- Powell Electronics
- Q-Tech Corporation
- Reid Packaging
- Sea Wire and Cable
- Semicoa
- Shelley-Ragon
- Spectrum Technology
- Tampa Bay Machining
- Tecknit
- United Detector Technology
- Zeus

**PRODUCTS**

- Capacitors
- Electronic Components
- Machined Fabrication
- Switch
- Machined Fabrication
- Nuts, Bolts, Hardware
- Connectors
- Oscillators
- Boxes, Crates
- Wire, Cable
- Transistors
- Resistors, Capacitors
- Oscillators
- Machine Fabrication
- Gaskets
- Opto Electronics
- Electronic Components

*Appendix A - GEC 5 Cont.*
"POTENTIAL"
SMALL DISADVANTAGED CONCERNS

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<th>PRODUCTS</th>
<th>ADDENDUM &quot;B&quot;</th>
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<tr>
<td>A.G.E. INDUSTRIES, INC.</td>
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<tr>
<td>2501 PARK CENTRAL BLVD.</td>
<td>FABRICATED METAL</td>
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<tr>
<td>DECATUR, GA 30035</td>
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<tr>
<td>AZTECH ELECTRONICS, INC.</td>
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<tr>
<td>8940-E ROUTE 108</td>
<td>CAPACITORS</td>
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<tr>
<td>COLUMBIA, MD 21045</td>
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<td>BYNES ELECTRONICS, CORP.</td>
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<td>EXECUTIVE PARK</td>
<td>SWITCHES</td>
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<tr>
<td>1052 CLAUSSEN ROAD</td>
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<tr>
<td>SUITE 325</td>
<td></td>
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<tr>
<td>AUGUSTA, GA 30907</td>
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<tr>
<td>CAMEO ELECTRONICS COMPANY</td>
<td>SEMICONDUCTORS, RELAYS</td>
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<tr>
<td>332 AMITYVILLE STREET</td>
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<td>ISLIP TERRACE, NY 11752</td>
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<td>CUTRONICS</td>
<td>PRINTED CIRCUIT BOARDS</td>
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<tr>
<td>5824-A PEACHTREE CORNERS, EAST</td>
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<td>NORCROSS, GA 30092</td>
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<td>ELECTRONIC PARTS INVENTORY CORP.</td>
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<td>SUITE 605</td>
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<td>E.O.I.</td>
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<td>560 BROADHOLLOW RD. STE 302</td>
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<td>MELVILLE, N.Y. 11747</td>
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<td>EXTON METAL PRODUCTS, INC.</td>
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<td>160 N. LIVELY BLVD.</td>
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<td>ELK GROVE VILLAGE, IL 60007</td>
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<td>FALCON ELECTRONICS INC.</td>
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<td>5 HIGGINS DR.</td>
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<td>MILFORD, CT 06460</td>
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<td>4004-D SPRING GARDEN STREET</td>
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<tr>
<td>HUSTLE SCREW COMPANY</td>
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<td>42-26 28TH STREET</td>
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<tr>
<td>LONG ISLAND CITY, NY 11101</td>
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Appendix A - GEC 5 Cont.
ADDENDUM ""

SMALL DISADVANTAGED CONCERNS

PRODUCTS
ADDENDUM ""

SMALL DISADVANTAGED BUSINESS CONCERNS  PRODUCT

Appendix A - GEC 5 Cont.
<table>
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<th>VALUE</th>
<th>% OF SUBCONTRACT</th>
<th>REASON</th>
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Appendix A - GEC 5 Cont.
ADDENDUM "D"

METHOD USED IN DEVELOPING PROPOSED SUBCONTRACTING GOALS FOR SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS

In developing Goals for Small and Small Disadvantaged Business, GEC Avionics obtains, when possible, competitive quotes in accordance with FAR. Also when possible, Small and Small Disadvantaged Business concerns are included in this process. In the event time does not permit obtaining current quotes, purchase history and/or estimating history for like or similar items is utilized.

Records utilized to assure maximum potential for Small and Small Disadvantaged Business include but are not limited to: Procurement Automated Source System - PASS, DCAR - Atlanta Regional Directory of Small and Small Disadvantaged Business, Atlanta Regional Minority Purchasing Council Directory, National Business Directory, Directories from other Aerospace Industries including various surveys conducted by GEC Avionics.

The goals in this plan may appear low because some of the high value items may be sourced U.K., Canada or Large Business.

179 line items were solicited to Small Disadvantaged Business Concerns, in accordance with the FAR guidelines. Of the pricing offered, none were found to be competitive. GEC Avionics is continuing to pursue additional competent and qualified disadvantaged suppliers to support our efforts in raising the Small Disadvantaged Business goals.

The high technology used in GEC Avionics systems is very volatile for competition and vendor mortality: The expanse of time from quote and receipt of contract averages six (6) months, causing the validity of the quotes used for estimating to expire. GEC’s experience shows that requotes will generally allow less than the original plan by 25% for Small Business and 15% for Small Disadvantaged Business. Therefore to ensure the projection of realistic goals, the total dollars for each are adjusted accordingly. Using this formula, Small Business Goal x .75 and Small Disadvantaged Goal x .85; the net projections are as follows:

1. ___% of the total planned subcontract in the amount of $ ____________ to Small Business Concerns.

2. ___% of the total planned subcontract in the amount of $ ____________ to Small Disadvantaged Business Concerns.

Included in this plan are indirect material purchases our Service Contract’s as applied to total company overhead consists 3.57% of our budget. This % is then applied to Small Disadvantaged awards made as a part of overhead to derive a dollar value.
ADDENDUM "D"

A. Dollars allocated toward Test Equipment reflect a portion of the low percentage of Small and Small Disadvantaged Business due to our effort in reducing overall costs, i.e., qualification, set-up tooling by using off-the-shelf items. Concurrent to this theory in relation to prime hardware, this progress refines technology in operation pioneered solely by Large Business.

B. Due to the product mix required in the Request For Proposal, and the application exists, every effort will be made to solicit and support Small and Small Disadvantaged Business goals.
** CUMULATIVE COMMITMENTS TO DATE BY QUARTER AND TOTAL WITH SB PLAN **

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<th>QUARTER</th>
<th>TOTAL FOR SB</th>
<th>TOTAL FOR DB</th>
<th>TOTAL FOR LB</th>
<th>TOTAL FOR OB</th>
<th>TOTAL FOR LS</th>
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<td>2,785.73</td>
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**END OF REPORT**

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Appendix A - GEC 6) Copy of GEC Printout of Financial Information to support 295 and 294 forms.
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<th>TOTAL FOR QUARTER</th>
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<td>TOTAL FOR SB</td>
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<td>TOTAL FOR LS</td>
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Appendix B - FN

1) SF 295 from FN for October, 1989 through March, 1990. The 294s on all contracts follow as items 2 through 10.


10) SF 294 from FN for April, 1988 through March, 1990, Contract DAAA09-85-G-0003-0007, Reports 1, 2, 3 Final. All of the 294s filed on one contract.

11) Preliminary Estimate from vendors on Part Number 8448502 Pin Cam.

12) Final Estimate for Part Number 8448502 Pin Cam.

13) Computer Printout of Parts List for M-16 from FN.

14) Indentured Breakdown of Parts for M249 from FN.

15) Example of Vendor Survey Form from FN.
## SUMMARY SUBCONTRACT REPORT

(Report to be submitted quarterly. See instructions on reverse) (Type or Print)

### 1. CONTRACTING AGENCY

DEPARTMENT OF DEFENSE

### 2. ADMINISTERING AGENCY

DCA-DCASR-ATL

### 3. DATE OF LAST GOVERNMENT REVIEW

20 JUNE 89

### 4. REVIEWING AGENCY

DCASR-ATLANTA

### 5. DUNS NO.

09-840-1086

### 6. REPORT SUBMITTED AS:

☑ PRIME CONTRACTOR ☐ SUBCONTRACTOR ☐ BOTH

### 7. CORPORATION, COMPANY, OR SUBDIVISION COVERED

FN MANUFACTURING INC.
P.O. BOX 24257
COLUMBIA, SC 29224

### CUMULATIVE COMMITMENTS

Subcontract and Purchase Commitments for the Period October 1, 1989 through March 31, 1990

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<th>COMMITMENTS</th>
<th>CURRENT FISCAL YEAR (To date)</th>
<th>SAME PERIOD LAST YEAR</th>
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<td>DOLLARS</td>
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<td>9. TOTAL (Sum of 2 and 3)</td>
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<td>2. SMALL BUSINESS CONCERNS</td>
<td>4,199,110</td>
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<td>3. LARGE BUSINESS CONCERNS</td>
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<td>10. SMALL DISADVANTAGED BUSINESS CONCERNS</td>
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### SUBCONTRACT GOAL ACHIEVEMENT

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<th>$ VALUE OF SUBCONTRACT GOALS</th>
<th>ACTUAL GOAL ACHIEVEMENT</th>
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<td>12. CONTRACTS WITH SMALL BUSINESS SUBCONTRACT GOALS</td>
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<td>74,954,514</td>
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<td>b. CONTRACTS COMPLETED THIS QUARTER WHICH MET GOALS</td>
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<td>4,293,667</td>
<td>751,048</td>
<td>730,635</td>
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<td>c. CONTRACTS COMPLETED THIS QUARTER NOT MEETING GOALS</td>
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<td></td>
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<td>a. ACTIVE CONTRACTS</td>
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<td>74,954,514</td>
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<tr>
<td>b. CONTRACTS COMPLETED THIS QUARTER WHICH MET GOALS</td>
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</table>

### REMARKS

(Enter a short narrative explanation if: (a) Zero is entered in Blocks 9a or 10 for current fiscal year, (b) the percent entry in Block 9a or current fiscal year is more than 3 percentage points below the percent reported for same period last year, or (c) the percent entry in Block 10 for current fiscal year or lower than the percent reported for same period last year.)

### 15. NAME AND TITLE OF LIASON OFFICER

SALLYE BATES
PROCUREMENT MGR./SBLO

### SIGNATURE

[Signature]

### DATE

4/1/90

### TELEPHONE NO. (and Area Code)

803-736-0522

### 16. NAME AND TITLE OF APPROVING OFFICIAL

JULIEN LABEYE
PRESIDENT/CEO

### SIGNATURE

[Signature]

Appendix B - FN 1) SF 295 from FN for October, 1989 through March, 1990. The 294s on all contracts follow as items 2 through 10.
# Subcontracting Report for Individual Contracts

**Report to be submitted semi-annually. See back of form for instructions.**

<table>
<thead>
<tr>
<th>1. Reporting Period</th>
<th>2. Report No.</th>
<th>3. Type of Contract</th>
<th>4. Date Submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>FROM (Date)</td>
<td>TO (Date)</td>
<td></td>
<td>4-23-90</td>
</tr>
<tr>
<td>OCT 1 89</td>
<td>MAR 31 90</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

## General Information

**Agency/Contractor Awarding Contract**
HQ AMCOM  
AM SMC-PCS-WC  
LINDA STONE  
ROCK ISLAND, IL 61299-6000

**Reporting Contractor**
FN MANUFACTURING INC.  
P.O. BOX 24257  
COLUMBIA, SC 29224

**Prime Contract No.**
DAAA09-88-C-1056

**Business Class Code**
LB

## Subcontract and Purchase Commitments

<table>
<thead>
<tr>
<th>Commitments</th>
<th>This Reporting Period</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dollars</td>
<td>Percent</td>
</tr>
<tr>
<td><strong>16. Total Direct Subcontract Commitments</strong> (Sum of a &amp; b)</td>
<td>4,573,024</td>
<td>100</td>
</tr>
<tr>
<td>1. Total Small Business Concerns</td>
<td>2,779,024</td>
<td>60.4</td>
</tr>
<tr>
<td>(1) Small Disadvantaged Business Concerns</td>
<td>352,500</td>
<td>7.7</td>
</tr>
<tr>
<td>(2) Other Small Business Concerns</td>
<td>2,426,524</td>
<td>53.1</td>
</tr>
<tr>
<td>2. Large Business Concerns</td>
<td>1,794,000</td>
<td>39.2</td>
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<tr>
<td><strong>17. Total Indirect Commitments</strong> (Sum of a &amp; b)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1. Total Small Business Concerns</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(1) Small Disadvantaged Business Concerns</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(2) Other Small Business Concerns</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2. Large Business Concerns</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

## Remarks:

- Entry was not entered or entered off line.
- Entry was not entered or entered off line.

## Certification

**Signature**
SALLYE BATES  
PROCUREMENT MGR./SBLO

**Telephone No.**
803-736-0522

**Signature**
JULIEN LABEYE  
PRESIDENT/CEO

**SUBCONTRACTING REPORT FOR INDIVIDUAL CONTRACTS**  
(Report to be submitted semi-annually. See back of form for instructions)

<table>
<thead>
<tr>
<th>1. REPORTING PERIOD</th>
<th>2. REPORT NO.</th>
<th>3. TYPE OF CONTRACT</th>
<th>4. DATE SUBMITTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>FROM (Start)</td>
<td>TO (End)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCT. 1, 1989</td>
<td>MAR. 31, 1990</td>
<td>8 FINAL</td>
<td>4-23-90</td>
</tr>
</tbody>
</table>

**GENERAL INFORMATION**

6. PRIME CONTRACT NO. (And subcontract No., if applicable)

DAAA09-86-C-0545

10. ADMINISTERING AGENCY

DLA-DCASR-ATLANTA

13. DOLLAR VALUE OF PRIME OR SUBCONTRACT:

1,359,000

378,833

14. ESTIMATED DOLLAR VALUE OF COMMITMENTS AS IN PLAN:

15. GOALS:

- SMALL BUSINESS CONCERNS: 1293,000 (47%)
- SMALL DISADVANTAGED BUSINESS CONCERNS: 6,153 (4%)
- LARGE BUSINESS CONCERNS: 15,153 (6%)

**SUBCONTRACT AND PURCHASE COMMITMENTS**

<table>
<thead>
<tr>
<th>COMMITMENTS</th>
<th>THIS REPORTING PERIOD</th>
<th>CUMULATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DOLLARS</td>
<td>PERCENT</td>
</tr>
<tr>
<td>16. TOTAL DIRECT SUBCONTRACT COMMITMENTS (Sum of a &amp; b)</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>a. TOTAL SMALL BUSINESS CONCERNS</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(1) SMALL DISADVANTAGED BUSINESS CONCERNS (% of 16)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(2) OTHER SMALL BUSINESS CONCERNS (% of 16)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b. LARGE BUSINESS CONCERNS (% of 16)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17. TOTAL INDIRECT COMMITMENTS (Sum of a &amp; b)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>a. TOTAL SMALL BUSINESS CONCERNS</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(1) SMALL DISADVANTAGED BUSINESS CONCERNS (% of 17)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(2) OTHER SMALL BUSINESS CONCERNS (% of 17)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b. LARGE BUSINESS CONCERNS (% of 17)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

18. REMARKS:

- This report is for the period from October 1, 1989, to March 31, 1990.
- The total direct subcontract commitments are reported as $729,719.
- The dollar value of the prime contract is $1,359,000.

**SIGNATURES**

19. TYPE THE NAME AND TITLE OF THE INDIVIDUAL ADMINISTERING CONTRACT

SALLYE BATES  
PROCUREMENT MGR./SBLO

20. TYPE THE NAME AND TITLE OF THE APPROVING OFFICER

JULIEN LABEYE  
PRESIDENT/CEO

**TELEPHONE NO.**

803-736-0736

SUBCONTRACTING REPORT FOR INDIVIDUAL CONTRACTS
(Report to be submitted semi-annually. See back of form for instructions)

<table>
<thead>
<tr>
<th>1. REPORTING PERIOD</th>
<th>2. REPORT NO.</th>
<th>3. TYPE OF CONTRACT</th>
<th>4. DATE SUBMITTED</th>
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</thead>
<tbody>
<tr>
<td>OCT 1 89</td>
<td>MARC 31 90</td>
<td><strong>X</strong> PRIME CONTRACT</td>
<td>4-23-90</td>
</tr>
</tbody>
</table>

GENERAL INFORMATION

5. AGENCY/CONTRACTOR AWARDING CONTRACT (Name & Address)
HQ AMCCOM
AMSMC-PCS-WB
CAROLE COLLINS
ROCK ISLAND, IL 61299-6000

7. REPORTING CONTRACTOR (Name and Address)
FN MANUFACTURING INC.
P.O. BOX 24257
COLUMBIA, SC 29224

6. PRIME CONTRACT NO. (Aka Subcontract No., if applicable)
DAAA09-85-G-0003-0014

8. BUSINESS CLASS. CODE
LB

9. DUNS NO. (If applicable)
09-840-1086

10. ADMINISTERING AGENCY
DCASMA-ATLANTA

11. DATE OF LAST GOVERNMENT REVIEW
20 JUN 89

12. REVIEWING AGENCY
DCAS-ATL

13. DOLLAR VALUE OF PRIME OR SUBCONTRACT.
539,086

14. ESTIMATED DOLLAR VALUE OF COMMITMENTS AS IN PLAN.
247,509

SUBCONTRACT AND PURCHASE COMMITMENTS

<table>
<thead>
<tr>
<th>COMMITMENTS</th>
<th>THIS REPORTING PERIOD</th>
<th>CUMULATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DOLLARS</td>
<td>PERCENT</td>
</tr>
<tr>
<td>16. TOTAL DIRECT SUBCONTRACT COMMITMENTS (Sum of a &amp; b)</td>
<td>375,073</td>
<td>100</td>
</tr>
<tr>
<td>a. TOTAL SMALL BUSINESS CONCERNS</td>
<td>375,073</td>
<td>100</td>
</tr>
<tr>
<td>(1) SMALL DISADVANTAGED BUSINESS CONCERNS (% of 16)</td>
<td>105,278</td>
<td>28</td>
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<tr>
<td>(2) OTHER SMALL BUSINESS CONCERNS (% of 16)</td>
<td>269,795</td>
<td>72</td>
</tr>
<tr>
<td>b. LARGE BUSINESS CONCERNS (% of 16)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17. TOTAL INDIRECT COMMITMENTS (Sum of a &amp; b)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>a. TOTAL SMALL BUSINESS CONCERNS</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(1) SMALL DISADVANTAGED BUSINESS CONCERNS (% of 17)</td>
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<td>0</td>
</tr>
<tr>
<td>(2) OTHER SMALL BUSINESS CONCERNS (% of 17)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b. LARGE BUSINESS CONCERNS (% of 17)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

18. REMARKS:

19. TYPE THE NAME AND TITLE OF THE INDIVIDUAL ADMINISTERING CONTRACT
SALLYE BATES
PROCUREMENT MGR./SBLO

20. TYPE THE NAME AND TITLE OF THE APPROVING OFFICER
JULIEN LABEYE
PRESIDENT/CEO

SIGNATURE

TELEPHONE NO. (and Area Code)
803-736-0522

### SUBCONTRACTING REPORT FOR INDIVIDUAL CONTRACTS

**General Information**

- **Name and Address of Prime Contractor:** Naval Avionics  
  6000 East 21st St.  
  Indianapolis, Ind 46219-2189
- **Name and Address of Contractor Aiding:** FN Manufacturing Inc.  
  P.O. Box 24257  
  Columbia, SC 29224

**Prime Contract No. and Subcontract No. (If applicable):**  
N00163-86-C-0421

**Business Class, Code:**  
9-840-1086

**Date of Last Government Review:** 20 Jun 89

**Dollar Value of Prime or Subcontract:** 1,714,025

**Estimated Dollar Value of Commitments as in Plan:** 861,300

### Subcontract and Purchase Commitments

<table>
<thead>
<tr>
<th>Commitments</th>
<th>This Reporting Period</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Direct Subcontract Commitments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Total Small Business Concerns</td>
<td>242,420</td>
<td>1,258,065</td>
</tr>
<tr>
<td>(1) Small Disadvantaged Business Concerns</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(2) Other Small Business Concerns</td>
<td>242,420</td>
<td>1,258,065</td>
</tr>
<tr>
<td>b. Large Business Concerns</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total Indirect Commitments</strong></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>a. Total Small Business Concerns</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(1) Small Disadvantaged Business Concerns</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(2) Other Small Business Concerns</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b. Large Business Concerns</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Remarks:**

- This reporting period: 242,420; 100
- Cumulative: 1,258,065; 100

### Signature and Telephone Number

- **Sallye Bates,** Procurement Mgr./SBLO  
  Signature: [Signature]
  Telephone No. (and Area Code): 803-736-0515

- **Julien Labeye,** President/CEO  
  Signature: [Signature]
  Telephone No. (and Area Code): 803-736-0411

SUBCONTRACTING REPORT FOR INDIVIDUAL CONTRACTS
(Report to be submitted semi-annually. See back of form for instructions)

<table>
<thead>
<tr>
<th>1. REPORTING PERIOD</th>
<th>2. REPORT NO.</th>
<th>3. TYPE OF CONTRACT</th>
<th>4. DATE SUBMITTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>FROM (Date)</td>
<td>TO (Date)</td>
<td></td>
<td>4-23-90</td>
</tr>
<tr>
<td>OCT 1 89</td>
<td>MAR 31 90</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

GENERAL INFORMATION

5. AGENCY/CONTRACTOR AWARDING CONTRACT (Name & Address)
HQ AMCOM
AM-SMC-PCS-WB
SUSAN SUMSTINE
ROCK ISLAND, IL 61299-6000

7. REPORTING CONTRACTOR (Name and Address)
FN MANUFACTURING INC.
P.O. BOX 24257
COLUMBIA, SC 29224

8. BUSINESS CLASS. CODE
LB

9. DUNS NO. (If applicable)
09-840-1086

10. ADMINISTERING AGENCY
DCASMA/ATLANTA

11. DATE OF LAST GOVERNMENT REVIEW
20 JUN 89

12. REVIEWING AGENCY
DCASR-ATL-DV

13. DOLLAR VALUE OF PRIME OR SUBCONTRACT.
23,378,040

14. ESTIMATED DOLLAR VALUE OF COMMITMENTS AS IN PLAN.
16,705,435

15. GOALS DOLLARS PERCENT
a. SMALL BUSINESS CONCERNS
13,816,287 89
b. SMALL DISADVANTAGED BUSINESS CONCERNS
776,196 5

SUBCONTRACT AND PURCHASE COMMITMENTS

<table>
<thead>
<tr>
<th>COMMITMENTS</th>
<th>THIS REPORTING PERIOD</th>
<th>CUMULATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL DIRECT SUBCONTRACT COMMITMENTS (Sum of a &amp; b)</td>
<td>28,958 100</td>
<td>28,958 100</td>
</tr>
<tr>
<td>a. TOTAL SMALL BUSINESS CONCERNS</td>
<td>28,958</td>
<td>28,958</td>
</tr>
<tr>
<td>(1) SMALL DISADVANTAGED BUSINESS CONCERNS (% of 16)</td>
<td>0 0</td>
<td>0 0</td>
</tr>
<tr>
<td>(2) OTHER SMALL BUSINESS CONCERNS (% of 16)</td>
<td>28,958 100</td>
<td>28,958 100</td>
</tr>
<tr>
<td>b. LARGE BUSINESS CONCERNS (% of 16)</td>
<td>0 0</td>
<td>0 0</td>
</tr>
<tr>
<td>TOTAL INDIRECT COMMITMENTS (Sum of c &amp; d)</td>
<td>0 0</td>
<td>0 0</td>
</tr>
<tr>
<td>c. TOTAL SMALL BUSINESS CONCERNS</td>
<td>0 0</td>
<td>0 0</td>
</tr>
<tr>
<td>(1) SMALL DISADVANTAGED BUSINESS CONCERNS (% of 17)</td>
<td>0 0</td>
<td>0 0</td>
</tr>
<tr>
<td>(2) OTHER SMALL BUSINESS CONCERNS (% of 17)</td>
<td>0 0</td>
<td>0 0</td>
</tr>
<tr>
<td>LARGE BUSINESS CONCERNS (% of 17)</td>
<td>0 0</td>
<td>0 0</td>
</tr>
<tr>
<td>REMARKS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

19. TYPE THE NAME AND TITLE OF THE INDIVIDUAL ADMINISTERING CONTRACT
SALLYE BATES
PROCUREMENT MGR./SBLO

20. TYPE THE NAME AND TITLE OF THE APPROVING OFFICER
JULIEN LABEYE
PRESIDENT/CEO

### SUBCONTRACTING REPORT FOR INDIVIDUAL CONTRACTS

*Report to be submitted semi-annually. See back of form for instructions*

#### GENERAL INFORMATION

5. **AGENCY/CONTRACTOR AWARDING CONTRACT (Name & Address)**
   - HQ AMCOM
   - AMSMC-PCS-WC
   - NANCY MILES
   - ROCK ISLAND, IL 61299-6000

6. **PRIME CONTRACT NO. (And Subcontract No., if applicable)**
   - DAAA09-89-C-0781

7. **REPORTING CONTRACTOR (Name and Address)**
   - FN MANUFACTURING INC.
   - P.O. BOX 24257
   - COLUMBIA, SC 29224

#### SUBCONTRACT AND PURCHASE COMMITMENTS

<table>
<thead>
<tr>
<th>15. GOALS</th>
<th>DOLLARS</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMALL BUSINESS CONCERNS</td>
<td>1,372,469</td>
<td>80</td>
</tr>
<tr>
<td>SMALL DISADV. BUSINESS CONCERNS</td>
<td>85,779</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMMITMENTS</th>
<th>THIS REPORTING PERIOD</th>
<th>CUMULATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. TOTAL DIRECT SUBCONTRACT COMMITMENTS (Sum of a &amp; b)</td>
<td>773,635</td>
<td>773,635</td>
</tr>
<tr>
<td>a. TOTAL SMALL BUSINESS CONCERNS</td>
<td>773,635</td>
<td>773,635</td>
</tr>
<tr>
<td>(1) SMALL DISADVANTAGED BUSINESS CONCERNS</td>
<td>23,952</td>
<td>3.1</td>
</tr>
<tr>
<td>(2) OTHER SMALL BUSINESS CONCERNS</td>
<td>749,683</td>
<td>96.9</td>
</tr>
<tr>
<td>b. LARGE BUSINESS CONCERNS</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17. TOTAL INDIRECT COMMITMENTS (Sum of a &amp; b)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>a. TOTAL SMALL BUSINESS CONCERNS</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(1) SMALL DISADVANTAGED BUSINESS CONCERNS</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(2) OTHER SMALL BUSINESS CONCERNS</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b. LARGE BUSINESS CONCERNS</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

#### REMARKS:

*Placed purchase order for item.*

### ADMINISTERING CONTRACT

19. **TYPE THE NAME AND TITLE OF THE INDIVIDUAL ADMINISTERING CONTRACT**
   - SALLYE BATES
   - PROCUREMENT MGR./SBLO

20. **TYPE THE NAME AND TITLE OF THE APPROVING OFFICER**
   - JULIEN LABEYE
   - PRESIDENT/CEO

**TELEPHONE NO.**
- 803-736-0522

**SIGNATURE**
- Sallye Bates

---

### SUBCONTRACTING REPORT FOR INDIVIDUAL CONTRACTS

(Report to be submitted semi-annually. See back of form for instructions)

<table>
<thead>
<tr>
<th>1. REPORTING PERIOD</th>
<th>2. REPORT NO.</th>
<th>3. TYPE OF CONTRACT</th>
<th>4. DATE SUBMITTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCT 1, 1989</td>
<td>MAR 31, 1990</td>
<td>8 FINAL</td>
<td>4-23-90</td>
</tr>
</tbody>
</table>

#### GENERAL INFORMATION

- **Agency/Contractor Awarding Contract (Name & Address):**
  - COMMANDER HQ US ARMY ARRCOM
  - DR SMC-PCS-S
  - PROCUREMENT DIRECTORATE
  - ROCK ISLAND, IL 61299

- **Reporting Contractor (Name and Address):**
  - FN MANUFACTURING INC.
  - P.O. BOX 24257
  - COLUMBIA, SC 29224

- **Prime Contract No.:**
  - DAAA09-86-C-0668

- **Business Class Code:**
  - LB

- **DUNS No.:**
  - 09-840-1086

- **ADMINISTERING AGENCY:**
  - DLA-DCASR-ATLANTA

- **Date of Last Government Review:**
  - 29 JUN 89

- **Reviewing Agency:**
  - DCA SR-ATLANTA

#### Dollar Value of Prime or Subcontract:

- **Prime Contract:**
  - 3,158,400

- **Subcontract:**
  - 926,369

#### Subcontract and Purchase Commitments

<table>
<thead>
<tr>
<th>Commitments</th>
<th>This Reporting Period</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Total Direct Subcontract Commitments (Sum of a &amp; b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Total Small Business Concerns</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>(1) Small Disadvantaged Business Concerns (% of 16)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(2) Other Small Business Concerns (% of 16)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b. Large Business Concerns (% of 16)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17. Total Indirect Commitments (Sum of a &amp; b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Total Small Business Concerns</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(1) Small Disadvantaged Business Concerns (% of 17)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(2) Other Small Business Concerns (% of 17)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b. Large Business Concerns (% of 17)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Goals

- Small Business Concerns: 637,099 (69)%
- Small Disadvantaged Business Concerns: 98,700 (11)

#### Remarks:

19. **Type the Name and Title of the Individual Administering Contract**

   SALLY BATES
   PROCUREMENT MGR./SBLO

20. **Type the Name and Title of the Approving Officer**

   JULIEN LABEYE
   PRESIDENT/CEO

---

<table>
<thead>
<tr>
<th><strong>SUBCONTRACTING REPORT FOR INDIVIDUAL CONTRACTS</strong></th>
<th><strong>FORM APPROVED OMB NO.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REPORTING PERIOD</strong></td>
<td><strong>SUBCONTRACT REPORT FOR INDIVIDUAL CONTRACTS</strong></td>
</tr>
<tr>
<td><strong>FROM (Date)</strong></td>
<td><strong>TO (Date)</strong></td>
</tr>
<tr>
<td>OCT 1 89</td>
<td>MAR 31 90</td>
</tr>
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</table>

**GENERAL INFORMATION**

5. **AGENCY/CONTRACTOR AWARDS CONTRACT** (Name & Address)

COMMANDER HQ US ARMY ARRCOM
DR SMC-PCS-S
PROCUREMENT DIRECTORATE
ROCK ISLAND, IL 61299

6. **PRIME CONTRACT NO.** (And Subcontract No., if applicable)

DAAA09-87-C-0531

7. **REPORTING CONTRACTOR** (Name and Address)

FN MANUFACTURING INC.
P.O. BOX 24257
COLUMBIA, SC 29224

8. **BUSINESS CLASS. CODE**

LB

9. **GUNS NO.** (If applicable)

09-840-1086

10. **ADMINISTERING AGENCY**

DCASR-ATLANTA

11. **DATE OF LAST GOVERNMENT REVIEW**

20 JUN 89

12. **REVIEWING AGENCY**

DCASR-ATLANTA

13. **DOLLAR VALUE OF PRIME OR SUBCONTRACT.**

1,425,000

14. **ESTIMATED DOLLAR VALUE OF COMMITMENTS AS IN PLAN.**

339,300

15. **GOALS**

<table>
<thead>
<tr>
<th>SMALL BUSINESS CONCERNS</th>
<th>DOLLARS</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>223,938</td>
<td>66</td>
<td></td>
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**SUBCONTRACT AND PURCHASE COMMITMENTS**

16. TOTAL DIRECT SUBCONTRACT COMMITMENTS (Sum of 16 a & b)

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<tr>
<th></th>
<th>DOLLARS</th>
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<tbody>
<tr>
<td>0</td>
<td>100</td>
<td>517,820</td>
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17. TOTAL INDIRECT COMMITMENTS (Sum of c d & e)

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</tbody>
</table>

**REMARKS:**

SALLYE BATES
PROCUREMENT MGR./SBLO

JULIEN LABEYE
PRESIDENT/CEO
**CONTRACTING REPORT FOR INDIVIDUAL CONTRACTS**
(Report to be submitted semi-annually. See back of form for instructions)

<table>
<thead>
<tr>
<th>REPORTING PERIOD</th>
<th>REPORT NO.</th>
<th>TYPE OF CONTRACT</th>
<th>DATE SUBMITTED</th>
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<tbody>
<tr>
<td>FROM (Date)</td>
<td>TO (Date)</td>
<td></td>
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<tr>
<td>1 April 1988</td>
<td>30 Sept 1988</td>
<td></td>
<td>11-7-88</td>
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### GENERAL INFORMATION

5. AGENCY/CONTRACTOR AWARDS CONTRACT (Name & Address)
   - Commander HQ US Army ARRCOM
   - DRSMC - PCS - S
   - Procurement Directorate
   - Rock Island, IL 61299

7. REPORTING CONTRACTOR (Name and Address)
   - FN Manufacturing Inc.
   - US Highway 1 North
   - Northeast Industrial Park
   - Columbia, SC 29223

### PRIME CONTRACT NO. (And Subcontract No., if applicable)
   - DAAA09-85-G-0003-0007

### DOLLAR VALUE OF PRIME
   - 4,293,667

### ESTIMATED DOLLAR VALUE OF
   - 751,048

### TOTAL DIRECT SUBCONTRACT COMMITMENTS
   - 713,701

### TOTAL SMALL BUSINESS CONCERNS
   - 699,059

### TOTAL INDIRECT COMMITMENTS
   - N/A

### SMALL BUSINESS CONCERNS
   - 15. GOALS
     - 1. SMALL BUSINESS CONCERNS: 450,629
     - 2. SMALL DISADV. BUSINESS CONCERNS: 11,256

### LARGE BUSINESS CONCERNS
     - 3. LARGE BUSINESS CONCERNS: 642

### REMARKS:
   - [Handwritten notes]

### SIGNATURE
   - Willy Dumounier
     - Vice President, Government Contracts

### TELEPHONE NO. (and Area Code)
   - 803-736-0522

---

Appendix B - FN 10) SF 294 from FN for April, 1988 through March, 1990. Contract DAAA09-85-G-0003-0007, Reports 1, 2, 3 Final. All of the 294s filed on one contract.
SUBCONTRACTING REPORT FOR INDIVIDUAL CONTRACTS

REPORING PERIOD:
FROM (Date): 10-1-88
TO (Date): 31-31-89

REPORT NO.: 3

TYPE OF CONTRACT:
PRIME CONTRACT
SUBCONTRACT

DATE SUBMITTED:
4-21-89

GENERAL INFORMATION

5. AGENCY/CONTRACTOR AWARDING CONTRACT (Name & Address):
COMMANDER HQ-US ARMY ARRCOM
DRSMC-PCS-S
PROCUREMENT DIRECTORATE
ROCK ISLAND, ILL 61299

6. PRIME CONTRACT NO. (And Subcontract No. if applicable):
DAA09-85-G-0003-0007

7. REPORTING CONTRACTOR (Name and Address):
FN MFG. INC.
P.O. BOX 24257
COLUMBIA, S.C. 29224

8. BUSINESS CLASS. CODE:
LB

9. DUNS NO. (If applicable):
09-840-1086

10. ADMINISTERING AGENCY:
DLA-DCA SR-ATLANTA

11. DATE OF LAST GOVERNMENT REVIEW:
29 NOV 88

12. REVIEWING AGENCY:
DCASR ATL - DU

13. DOLLAR VALUE OF PRIME OR SUBCONTRACT:
4,293,667

14. ESTIMATED DOLLAR VALUE OF COMMITMENTS AS IN PLAN:
751,048

15. GOALS:

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<th>GOALS</th>
<th>DOLLARS</th>
<th>PERCENT</th>
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</thead>
<tbody>
<tr>
<td>SMALL BUSINESS CONCERNS</td>
<td>450,629</td>
<td>60</td>
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<tr>
<td>SMALL DISADVANTAGED BUSINESS CONCERNS</td>
<td>11,266</td>
<td>1.5</td>
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16. TOTAL DIRECT SUBCONTRACT COMMITMENTS (Sum of a & b):
10,934

17. TOTAL INDIRECT COMMITMENTS (Sum of c & d):
0

18. REMARKS:

19. TYPE THE NAME AND TITLE OF THE INDIVIDUAL ADMINISTERING CONTRACT:
SALLYE BATES
PROCUREMENT MGR./SBLO

20. TYPE THE NAME AND TITLE OF THE APPROVING OFFICER:
JULIEN LABEYE
PRESIDENT/CEO

APPENDIX B - FN 10 Cont.
## Subcontracting Report for Individual Contracts

### General Information
- **Reporting Period:** Oct 1 89 to Mar 31 90
- **Report No.:** 3 Final
- **Type of Contract:** Prime Contract
- **Date Submitted:** 4-23-90

### Agency/Contractor Awarding Contract
- **Name & Address:** Commander HQ US Army ARRCOM
- **Address:** DRSMC-PCS-S
- **Procurement Directorate:** Rock Island, IL 61299

### Reporting Contractor
- **Name & Address:** FN Manufacturing Inc.
- **Address:** P.O. Box 24257
- **City:** Columbia, SC 29224

### Prime Contract No. (And Subcontract No., if applicable)
- **Contract No.:** DAAA09-85-G-0003-0007

### Administering Agency
- **Name:** DLA-DCA-SR
- **Location:** Atlanta

### Business Class Code
- **Code:** LB

### Goals
- **Small Business Concerns:** 450,629 (60%)
- **Small Disadvantaged Business Concerns:** 11,266 (1.5%)
- **Other Small Business Concerns:** 751,048 (93.4%)

### Total Direct Subcontract Commitments
- **Sum of a & b:** $4,293,667
- **Percent:** 100%
- **Cumulative:** $730,635 (100%)

#### a. Total Small Business Concerns
- **Sum of (1) & (2):** $709,993 (3.8%)

#### b. Total Large Business Concerns
- **Sum of (1) & (2):** $682,529 (93.4%)

### Total Indirect Commitments
- **Sum of a & b:** $20,642 (2.8%)

#### a. Total Small Business Concerns
- **Sum of (1) & (2):** 0

#### b. Total Large Business Concerns
- **Sum of (1) & (2):** 0

### Remarks:

## Administration

### Administration
- **Name & Title:** Sallye Bates
- **Title:** Procurement Mgr./SBLO
- **Signature:**

### Approval
- **Name & Title:** Julien Labeye
- **Title:** President/CEO
- **Signature:**

---

Appendix B - FN 10 Cont.
<table>
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<th>RFQ NO.</th>
<th>QUOTED</th>
<th>NO QUOTE</th>
<th>PREVIOUS MFR'D.</th>
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<td>428-1</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>D</td>
<td>GAP 8448502</td>
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<tr>
<td>Conn Tech</td>
<td>1251</td>
<td>X</td>
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<td></td>
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<tr>
<td>Concept</td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>National Nonparel</td>
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<tr>
<td>Seaboard</td>
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</table>

Appendix B - FN 11 Preliminary Estimate from vendors on Part Number 8448502 Pin Cam.
This is a request for quotation and not an order.

Please submit your price, delivery and terms of payment on material or services listed below.

Charges for Special Tooling (including drawings) and maintenance by supplier during the duration of contract must be made separately based on full ownership by FN Mfg., Inc.

Please insert unit price and delivery opposite each item and mail copy properly signed to this company retaining bidder's copy for your reference.

Appendix B - FN 11 Cont.

TO BE VALID, YOUR QUOTATION MUST BE SIGNED BY AN AUTHORIZED REPRESENTATIVE OF YOUR COMPANY:

(name) .......................... .......................... .......................... ..........................
WHEN CORRESPONDING, PLEASE REFER TO INQUIRY NO. A1XX XL #428-1 4-19-88

BIDS REQUESTED FROM

1

2

3

Please submit your price, delivery and terms of payment on material or services listed below.

Charges for Special Tooling (including drawings) and maintenance by supplier during the duration of contract must be made separately based on full ownership by FN Mfg., Inc.

Please insert unit price and delivery opposite each item and mail copy properly signed to this company retaining bidder's copy for your reference.

PURCHASING DEPT.

BY:

SALLYE BATES, SR.BUYER

This Request For Quotation consists of this page, any continuation pages, Provisions of Purchase Order (Form P-200) and the following Purchase Order Quality Assurance Provision No. , if checked YES, The following is also applicable: This Purchase Order is issued to support a defense contract. As per Defense Priorities System (DPS) Regulation 1 and Defense Materials System (DMS) Regulation 1, as revised July 1, 1974 (incl. 1 & 2), this contract has been assigned the following rating and program identification number: It is mandatory that your subcontractor (first, second or subsequent tier) use the above rating and program identification number when placing Purchase Orders for production materials to be used for this order. MISUSE OF THIS NUMBER IS PROHIBITED.

PAYMENT TERMS | PRICES QUOTED ARE F.O.B. | SHIPPING POINT IS | CONTACT PERSON(S) | THIS QUOTATION SHOULD BE IN OUR OFFICE NO LATER THAN

5-12-88

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
<th>UNIT PRICE</th>
<th>TOOLS &amp; GAGES</th>
<th>ENC. &amp; DRAWINGS</th>
<th>DELIVERY</th>
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<tbody>
<tr>
<td>335,000</td>
<td>8448502</td>
<td>PIN, CAM PER DWG. REV.D &amp; SQAP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. SUPPLEMENTAL PROVISIONS & FORM VEST ATTACHED APPLY.

2. QUOTE PRICES FOR DELIVERY THROUGH 1993.

TO BE VALID, YOUR QUOTATION MUST BE SIGNED BY AN AUTHORIZED REPRESENTATIVE OF YOUR COMPANY:

(NAME)

(UATE)

APPENDIX B - FN 11 Cont.
THIS IS A REQUEST FOR QUOTATION AND NOT AN ORDER

Please submit your price, delivery and terms of payment on material or services listed below.

Charges for Special Tooling (including drawings) and maintenance by supplier during the duration of contract must be made separately based on full ownership by FN Mfg., Inc.

Please insert unit price and delivery opposite each item and mail copy properly signed to this company retaining bidder's copy for your reference.

Purchasing Dept.

By:

Request for Quotation consists of this page, any continuation page(s), Provisions of Purchase Order (Form P-2014) and the following Purchase Order Quality Assurance Provisions No.

If checked ________ YES. The following is also applicable. This Purchase Order is issued to support a defense contract. As per Defense Prime System (DPS) Section 1 and Defense Materials System (DMS) Regulation 1, as revised July 1, 1974 (Rev. 1 & 2), this contract has been assigned the following rating and program identification number:

Government Contract Number: ____________________________

It is mandatory that your subcontractors (second or subsequent tier) use the above rating and program identification number when placing Purchase Orders for production materials to be used for this order. MISUSE OF THIS NUMBER IS PROHIBITED.

<table>
<thead>
<tr>
<th>Item</th>
<th>Price Quoted</th>
<th>Shipping Point</th>
<th>Contact Person</th>
<th>This Quotation Should Be In Our Office No Later Than</th>
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</table>

<table>
<thead>
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<th>Quantity</th>
<th>Part Number</th>
<th>Description</th>
<th>Unit Price</th>
<th>Tools &amp; Sages</th>
<th>Eng. &amp; Drawings</th>
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Appendix B - FN 11 Cont.
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<tr>
<th>VENDOR NAME</th>
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<th>YR.1</th>
<th>YR.2</th>
<th>YR.3</th>
<th>YR.4</th>
<th>YR.5</th>
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<th>REMARKS</th>
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**NOTES:**
- 5% annual increase.
- Tooling cost: 2600$ per maximum.

---

**PART NUMBER:** 8448501
**PART NAME:** Pin, Conn
**REV. LEVEL:** M1
**GUN:** 1
**QTY:** 120
**TARGET PRICE:**

**TARGET PRICE BREAKDOWN:**
- Tooling: 2600$ (per maximum)
- Annual increase: 5%

**TOOLING $:** 0

**PHOSPHATE:** ✔

---

**Final Estimate:** 8448502 Pin Cam.

**Appendix B - Pg 12:** Final Estimate from vendors on Part Number.
Please submit your price, delivery and terms of payment on material or services listed below.

Charges for Special Tooling (including drawings) and maintenance by supplier during the duration of contract must be made separately based on full ownership by FN Mfg., Inc.

Please insert unit price and delivery opposite each item and mail copy properly signed to this company retaining bidder's copy for your reference.

PURCHASING DEPT.
BY: SALLYE BATES, PROCUREMENT MGR.

This Request For Quotation consists of this page, any continuation pages, Provisions of Purchase Order (Form P-200) and the following Purchase Order Quality Assurance Provision N.

If checked YES, The following is also applicable: This Purchase Order is issued to support a defense contract. As per Defense Priorities System (DPS) Regulation 1 and Defense Materials System (DMS) Regulation 1, as revised July 1, 1974 (incl. 1 & 2), this contract has been assigned the following rating and program identification number: GOVERNMENT CONTRACT NUMBER. It is mandatory that your subcontractor: (first, second or subsequent tier) use the above rating and program identification number when placing Purchase Orders for production materials to be used for this order. MISUSE OF THIS NUMBER IS PROHIBITED.

**PAYMENT TERMS**

**QUANTITY**

**PRICES QUOTED**

**SHIPPING POINT IS**

**CONTACT PERSON(S)**

<table>
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<th>QUANTITY</th>
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<th>DESCRIPTION</th>
<th>UNIT PRICE</th>
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<td>1. GAGE DRAWINGS 8443958 REV FN1, 8443977 REV C, 8443810 REV A ARE ATTACHED FOR REFERENCE. FN WILL NOT FURNISH ANY GAGING. 2. GENERAL SUPPLEMENTAL PROVISIONS &amp; SPECIAL BIDDERS INSTRUCTIONS ATTACHED WILL APPLY TO THIS QUOTE AND ANY RESULTANT ORDER. 3. STRICT ADHERENCE TO THE ATTACHED PHOSPHATE PROCEDURES WILL BE REQUIRED. CERTIFICATION OF PHOSPHATE VENDOR BY FN &amp; US GOVT. MUST BE ACCOMPLISHED PRIOR TO UTILIZATION. 4. DELIVERY 100EA FIRST ARTICLE SEPT., 1989; PRODUCTION 6000 PER MONTH BEGINNING 30 DAYS AFTER F.A. APPROVAL. Appendix B - FN 12 Cont.</td>
<td></td>
<td></td>
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</table>

**TO BE VALID, YOUR QUOTATION MUST BE SIGNED BY AN AUTHORIZED REPRESENTATIVE OF YOUR COMPANY:**

(NAME)  

DATE:  

FORM PR-120 4/84
1. Product
2. Corp. Tech.
3. Concept
4. National Aerospace
5. Seabrook
6. 
7. United Technologies
8. Grand Haven Steel Products
9. J W Armer
10. 
11. Automatic Products
12. Davis & Memphis
13. Paladin
14. H & H Screw Products
15. Dale Screw Products
16.
17.
18.
19.
20.
21.
22.
23.
24.
25.
THIS IS A REQUEST FOR QUOTATION
AND NOT AN ORDER

BIDS REQUESTED FROM

1.

2.

3.

4.

5.

6.

7.

8.

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<th>QTY</th>
<th>PART NO. + DESCRIPTION</th>
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<td>267,000</td>
<td>8448502 Cam clip bar loo. RV: Fl1 + TIP:8448502</td>
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<tr>
<td></td>
<td>RV: Fl1 (200)</td>
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1. Please draw revise to 8443978 RV: Fl1 8443977 Rev 3
2. 8443978 RV: Fl are attached for reference. Fl will not furnish any drawn
3. General Instructional Provisions & Specific Fitting Instructions attached will apply to this quote and any resultant order
4. Strict adherence to the attached purchase procedures will be required. Certification of the state vendor by Fl & US Gov will be acceptable
5. Time to utilization
6. Entire issue quick article due to part
7. End per our purchase order date after PA approval
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<th>PRON</th>
<th>Nomenclature</th>
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<td>1005-01-254-9800</td>
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Appendix B - FN 14 Cont.
## Appendix B - FN 14) Indentured Breakdown of Parts for M249 Machine Gun for FN.

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*Note: The table represents the breakdown of parts for the M249 machine gun for FN, identifying specific components, their part numbers, and their descriptions. The notes column provides additional details such as position on gap or specific part details.*
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<td></td>
</tr>
</tbody>
</table>
| 2    | B    | 12556943    | X0   | PIN, BUFFER SPACER | B:
|      |      | 12540416    | F    | POSITION ON GAP 12540416 | B:
| 1    | F    | 12540419    | X0   | BUSHING, SPACER | B:
|      |      | 12540414    | C    | POSITION ON GAP 12540416 | B:
| 1    | C    | 12540421    | X0   | PIN, ROD, RETURN SPRING | B:
|      |      | 12540414    | E    | POSITION ON GAP 12540416 | B:
| 1    | C    | 12540420    | X0   | PLUNGER, BUFFER | B:
|      |      | 12540416    | D    | POSITION ON GAP 12540416 | B:
| 1    | G    | 12923138    | 0    | GAGE        |         |
| 1    | G    | 12923139    | 0    | GAGE        |         |
| 1    | C    | 12557010    | X0   | PIN, PLUNGER, BUFFER | B:
|      |      | 12540416    | G    | POSITION ON GAP 12540416 | B:
| 1    | C    | 9348452     | X0   | SPRING, HELICAL, COMPRESSION | B:
| 1    | X    | 9348456     | X0   | HANDGUARD ASSEMBLY | B:
| 1    | Q    | 9348456     | X0   | BODY HANDGUARD | -- |
| 1    | Q    | 9348457     | X0   | PIN, GROUNDED HEADLESS | -- |
| 1    | Q    | 9348458     | X0   | PIN, GROUNDED HEADLESS | -- |
| 1    | Q    | 9348459     | X0   | CLIP, RETAINING PIN | -- |
| 1    | C    | 9348514     | X0   | CLIP, RETAINING PIN | -- |
| 2    | D    | 9348460     | X0   | CLIP, RETAINING PIN | -- |
| 2    | Q    | 9348461     | X0   | PIN, SPRING | -- |
| 2    | B    | 9348461     | X0   | BUFFER & BACKPLATE ASSY | A:
| 1    | Q    | 12556951    | X0   | BACK PLATE | B:
| 1    | Q    | 12556951    | X0   | BACK PLATE | B:
| 1    | F    | 12556937    | X0   | BACK PLATE | #B |
| 1    | F    | 12556937    | X0   | BACK PLATE | #B |
| IN/FL| D    | 125569378   | FM1  | (261.815.502B) BACK PLATE (EXTENS) | -- |
| 1    | G    | 12923158    | 0    | GAGE        |         |
| 1    | G    | 12923159    | 0    | GAGE        |         |
| 1    | X    | 12556942    | X0   | HYDRAULIC BUFFER ASSEMBLY | B:
| 1    | Q    | 12556942    | X0   | HYDRAULIC BUFFER ASSEMBLY | B:
| 1    | S    | 12556944    | X0   | 361.330.52 | -- |

Appendix B - FN 14 Cont.
### Indented Breakdown M249

**U.S. Army Spare Parts**

**RBI #: 800-9405.82**

**Contract #: DARPA-90-R-0199**

**Date: 04-26-90**

<table>
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<tr>
<th>Position</th>
<th>Part Number</th>
<th>Shelf</th>
<th>Part Number</th>
<th>Shelf</th>
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<td></td>
<td>0736172338</td>
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<td>Gage</td>
<td></td>
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</table>

**Check Gage**

- 12556942
- 12556943
- 12556944
- 12556945
- 12556946

**Position on QAP 12556942**

- 12556942
- 12556943
- 12556944
- 12556945
- 12556946

**Bushing, Front Sling Swivel**

- 12556993: 361.227.001
- 12556999: 361.227.001

**Washer, Front Sling Swivel**

- 12556994: 361.227.001
- 12556995: 361.227.001

**Pistol Grip**

- 12556995: 361.582.102
- 12556996: 361.582.102

**Pin, Retain, Back Plate, Upper**

- 12557020: 361.291.051
- 12557009: 361.291.051

**Spring, Helical, Torsion**

- 12557002: 361.177.051
- 12557002: 361.178.051

**Appendix B - FN 14 Cont.**
Vendor Survey Form

COMPANY NAME: __________________________ PHONE NO: __________________________
DIVN. OF: __________________________ TELEFAX NO: __________________________
MAILING ADDRESS: __________________________ SHIPPING ADDRESS: __________________________

__________________________  __________________________
__________________________  __________________________
__________________________  __________________________

PRESIDENT/OWNER: __________________________
CHIEF FINANCIAL OFFICER: __________________________
PRODUCTION/GENERAL MANAGER: __________________________
SALES CONTACT: __________________________
QUALITY MANAGER: __________________________

TOTAL NO. OF EMPLOYEES ___ NO. ADMINISTRATIVE ___ NO. PRODUCTION ___
ANNUAL DOLLAR VOLUME SALES_________________________ D&B NO. __________________________

BUSINESS PROFILE (PLEASE CHECK THOSE WHICH APPLY):

LARGE BUSINESS ___ WOMAN OWNED BUSINESS ___

* SMALL BUSINESS ___ SMALL DISADVANTAGED ___

DISTRESSED LABOR SURPLUS AREA ___

*Small Business means any concern that
(a) qualifies as a small business under 13 CFR 121 when bidding on a sub-
contract that will exceed $10,000.;
(b) employs, with its affiliates, not more than 500 people, when bidding
on a subcontract for $10,000 or less; or
(c) is a non-manufacturer and employs not more than 500 people.

SUBMITTED BY: __________________________ TITLE: __________________________
SIGNATURE: ____________________________

Appendix B - FN 15 Example of Vendor Survey Form from FN.
FN MANUFACTURING, INC.  
VENDOR QUALITY CONTROL  
SURVEY QUESTIONNAIRE

ORGANIZATION

COMPANY NAME: ________________________  DIVISION OR PARENT COMPANY: ________________________

ADDRESS: ________________________________

CITY/STATE: ________________________________

TELEPHONE NO. ( ) ________________________

TELEFAX NO. ( ) ________________________  MFG. CODE: ________________________

1. Ratio of Present Work:
   A. Commercial _________%  B. Military _________%

2. Employees:  Total Production _________  Quality _________

3. List current Military Specifications, Quality Assurance Requirements in use:
   A. MIL-Q-9858A (YES) (NO)
      MIL-I-45208 (YES) (NO)
      MIL-STD-105 (YES) (NO)
      MIL-STD-45662 (YES) (NO)

4. Is your facility serviced by Government inspection: (YES) (NO)
   If yes, what type? (Resident) (Itinerant) (Branch)
   What Branch: ________________________________

5. Have you participated in Government Contracts: (YES) (NO)
   Prime Contractor? ( )  As Subcontractor? ( )

6. Type of Product Designed, Produced or Sold:
   ________________________________

Form No. QA-132 (10/88)

Appendix B - FN 15 Cont.
A. QUALITY CONTROL PROGRAM

Quality Control System:

1. Do you have a formal Quality Control System based on Government Specification? 
   YES ( ) NO ( )

2. If yes, what Specification: ________________________________

3. Is there a Quality Control Manual covering your System? YES ( ) NO ( )
   If yes, check the following areas pertaining to your manual:
   - Quality Control Organization ( )
   - Purchase Order Surveillance ( )
   - Source Inspection ( )
   - Receiving Inspection ( )
   - In-Process Inspection ( )
   - Final Acceptance & Test ( )
   - Packaging & Shipping Inspection ( )
   - Material Review Procedures ( )
   - Corrective Action Procedures ( )
   - Certification of Processes ( )
   - Inspection Record Control ( )
   - Sampling Procedures ( )
   - Inspection Stamps ( )
   - Drawing & Change Control ( )
   - Calibration ( )
   - Tool Control ( )
   - Test Equipment Maintenance & Calibration ( )
   - Training ( )

4. Who makes final decisions to accept or reject material? ________________________________

5. Is there a system for analysis of Inspection & Rejection Records to effect Corrective Actions? YES ( ) NO ( )

B. DRAWING AND CHANGE CONTROL

1. Is there a file system for drawings and change control and are records of changes maintained? YES ( ) NO ( )

2. Are obsolete prints removed from use? YES ( ) NO ( )

C. MATERIAL REVIEW

1. Does your facility use a Material Review Board? YES ( ) NO ( )
   NOTE: FNMI does not delegate MRB authority except in special instances where procedures and staffing warrant consideration.

D. INSPECTION AND TEST EQUIPMENT CONTROL

1. Are there sufficient tools, gages and test equipment available? YES ( ) NO ( )

2. Is a schedule maintained for periodic calibration of equipment? YES ( ) NO ( )

3. Are there written instructions for calibration and maintenance procedures? 
   YES ( ) NO ( )

Appendix B - FN 15 Cont.
4. Are calibration dates indicated on the equipment? YES ( ) NO ( )

5. Are gage masters or primary standards calibrated at established intervals and traceable to National Bureau of Standards? YES ( ) NO ( )

E. PURCHASING

1. Are Purchase Orders reviewed by QC for inclusion of Quality Requirements? YES ( ) NO ( )

2. Are suppliers evaluated and records maintained of suppliers Quality conformance? YES ( ) NO ( )

F. Incoming Inspection

1. Is incoming material physically inspected? YES ( ) NO ( )

2. Is the Purchase Order used by inspection to check requirements of incoming material? YES ( ) NO ( )

3. Is sampling used, and if so, do the sampling procedures afford reliable assurance of the maintenance of acceptable quality levels? YES ( ) NO ( )

4. Are planning sheets and test procedures used? YES ( ) NO ( )

5. Are inspected material and records identified? YES ( ) NO ( )

6. Are certification and inspection records kept on file? YES ( ) NO ( )

7. Are vendor history records maintained? YES ( ) NO ( )

G. Material Storage

1. Is first-in first-out system followed? YES ( ) NO ( )

2. Is a perpetual inventory system in effect? YES ( ) NO ( )

3. Is material storage area restricted to authorized personnel? YES ( ) NO ( )

H. In-Process Inspection

1. Is inspection planning performed? YES ( ) NO ( )

2. Do production personnel perform inspection operations? YES ( ) NO ( )


Form No. QA-132 (10/88)
4. Is sampling used? YES ( ) NO ( )

5. Are inspected material and records available? YES ( ) NO ( )

6. Are inspection records available? YES ( ) NO ( )

7. Are defects analyzed and information fed back to responsible groups? YES ( ) NO ( )

I. SPECIAL PROCESSES

1. Are special processes (welding, heat treat, casting inspection, etc.) performed at your facility? YES ( ) NO ( )
   If yes, are your special process operators certified? YES ( ) NO ( )

2. List the special processes accomplished at your facility and military or industrial standards applicable.

3. Are special process controlled by the QC group? YES ( ) NO ( )

J. FINAL INSPECTION AND TEST

1. Are formal test procedures and/or inspection planning used? YES ( ) NO ( )

2. Are test methods documented? YES ( ) NO ( )

3. Is sampling used? YES ( ) NO ( )

4. Do production personnel perform tests? YES ( ) NO ( )

5. Are test procedures, specifications, etc., readily available to inspection personnel? YES ( ) NO ( )

6. Are inspected material and records identified? YES ( ) NO ( )

7. Are records maintained of final inspection test data? YES ( ) NO ( )

8. Are inspection and test stations separated from production? YES ( ) NO ( )

9. Are defects analyzed? YES ( ) NO ( )

K. PACKAGING AND SHIPPING

1. Does shipping department use Government Specification or other references for packaging? YES ( ) NO ( )

Form No. QA-132 (10/88)
2. Is equipment available for packaging to Government Specifications? YES ( ) NO ( )

3. Is there adequate inspection of the packaging or products being shipped? YES ( ) NO ( )

L. STATISTICAL PROCESS CONTROL
1. Does your facility have a written statistical process control procedure? YES ( ) NO ( )
2. Who in the organization is responsible for analyzing data collected?
   ___________________________________________________________ Title:________________

3. Is the SPC function audited? YES ( ) NO ( )
4. What percentage of production is monitored by SPC? __________

I certify, that to the best of my knowledge, all answers given on this questionnaire are true and correct.

SIGNATURE:______________________________________________

TITLE:____________________________________________________

DATE:_____________________________________________________

FOR FMNI USE ONLY:
RATING:__________________________________________________
DATE:_____________________________________________________
REVIEWED BY:___________________________________________

Appendix B - FN 15 Cont.
Appendix C - LAC


4) SF 295 from LAC for October, 1989 through December, 1989.


9) Example of Calculations for Assigning indirect Costs to Contracts.
OCT 89 thru Dec 89

CONTRACT F34601-88-D-0144

A/C C-22

FACE VALUE 5,427,486.00

CHARGE CODES 520252 - 0001
- 0002
- 0003

COMMITTED DOLLARS

SMALL BS 47,716.00 41%

LARGE BS 67,425.00 59%

SMALL DISC. BS

LABOR SURPLUS 3708.00

OTHER LKD DIVISIONS

NO. OF ORDERS W/ LARGE BS. 46

NO. OF ORDERS W/ SMALL BS. 32

<table>
<thead>
<tr>
<th>Contract</th>
<th>F09603-89-G-0073</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/C - Program</td>
<td>C-130 BOA</td>
</tr>
<tr>
<td>Face Value</td>
<td>623,705.00</td>
</tr>
<tr>
<td>Charge Codes</td>
<td>114200 114600</td>
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<td></td>
<td>114300</td>
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<td>114500 114900</td>
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<td>Committed Dollars</td>
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<td>Small BS.</td>
<td>6,500.00</td>
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<td>3,770.00</td>
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<td>Small Div BS.</td>
<td>1,372.00</td>
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<td>Labor Surplus</td>
<td>2,340.00</td>
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<td>Other LKD Divisions</td>
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</table>

Appendix C - LAC 2) Worksheet for SF 294 from LAC for October, 1989 through December, 1989 for Contract for C-130.
Appendix C - LAC 2 Cont.

CONTRACT - F09603-89-G-0073

FACE VALUE - 623,705.00

Total to be Subcontracted - (10%) = 62,371.00

Total to Small Business - (55%) = 34,304.00

Total to Small Disv. BS - (2%) = 1,247.00

OCT 89 thru Dec 89
<table>
<thead>
<tr>
<th>No. of Orders</th>
<th>L/D</th>
<th>Divisions</th>
<th>Labor Surplus</th>
<th>Small BS.</th>
<th>Large BS.</th>
<th>Committed Dollars</th>
<th>Charge Codes</th>
<th>Face Value</th>
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</thead>
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<td>3/2</td>
<td>LARGE BS.</td>
<td>33,364.00</td>
<td>4,442.00</td>
<td>1,411.00</td>
<td>50,833.00</td>
<td>114,700</td>
<td>1,812,760.00</td>
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</tbody>
</table>

**A/C - Program**

**TUNISIA**

**F09603-89-C-322-2**

**Contract** - F09603-89-C-3222

**Face Value** - 1,812,760

Total to be subcontracted - (75%) = 1,359,570

Total to Small Business - (55%) = 747,764

Total to Small Disv. BS - (2%) = 27,191

Oct 89 thru Dec 89

Appendix C - LAC 3 Cont.
SUMMARY SUBCONTRACT REPORT
(Report to be submitted quarterly. See Instructions on reverse) (Type or Print)

1. CONTRACTING AGENCY
   DEPARTMENT OF DEFENSE

2. ADMINISTERING AGENCY
   DLA DCASR ATLANTA

3. DATE OF LAST GOVERNMENT REVIEW
   APRIL 1989

4. REVIEWING AGENCY
   DCASR - ATLANTA

5. DUNS NO.
   11-197-3318

6. REPORT SUBMITTED AS:
   Prime Contractor

7. CORPORATION, COMPANY, OR SUBDIVISION COVERED
   LOCKHEED AEROMOD CENTER, INC.
   1044 TERMINAL ROAD
   GREENVILLE S.C. 29605

8. MAJOR PRODUCTS OR SERVICE LINES:
   a. AIRCRAFT MAINTENANCE HEAVY PDM
   b. c.

CUMULATIVE COMMITMENTS
Subcontract and Purchase Commitments for the Period October 1, 1989 through December 31, 1989

<table>
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<th>COMMITMENTS</th>
<th>CURRENT FISCAL YEAR (to date)</th>
<th>SAME PERIOD LAST YEAR</th>
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<td>DOLLARS</td>
<td>PERCENT</td>
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<td>9. TOTAL</td>
<td>183,069</td>
<td>100</td>
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<tr>
<td>a. SMALL BUSINESS CONCERNS</td>
<td>110,863</td>
<td>61</td>
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<td>b. LARGE BUSINESS CONCERNS</td>
<td>72,206</td>
<td>39</td>
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<td>10. SMALL DISADVANTAGED BUSINESS CONCERNS (± 4% of 9)</td>
<td>5,814</td>
<td>±4</td>
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<td>11. LABOR SURPLUS AREA CONCERNS (± 4% of 9)</td>
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<td>±4</td>
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SUBCONTRACT GOAL ACHIEVEMENT

<table>
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<th>NO. OF CONTRACTS</th>
<th>$ VALUE OF SUBCONTRACTS (000)</th>
<th>$ VALUE OF SUBCONTRACT GOALS (000)</th>
<th>ACTUAL GOAL ACHIEVEMENT</th>
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<td>DOLLARS</td>
<td>DOLLARS</td>
<td>DOLLARS</td>
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<td>12. CONTRACTS WITH SMALL BUSINESS SUBCONTRACT GOALS</td>
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<td>a. ACTIVE CONTRACTS</td>
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<td>1,270,542</td>
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<td>N/A</td>
<td>N/A</td>
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<td>N/A</td>
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<td>N/A</td>
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<td>13. CONTRACTS WITH SMALL DISADVANT. BUS. SUBCONTRACT GOALS</td>
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<td></td>
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<tr>
<td>a. ACTIVE CONTRACTS</td>
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<td>183,069</td>
<td>50,148</td>
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<tr>
<td>b. CONTRACTS COMPLETED THIS QUARTER WHICH MET GOALS</td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>c. CONTRACTS COMPLETED THIS QUARTER NOT MEETING GOALS</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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</table>

14. REMARKS
(Enter a short narrative explanation if: (a) Zero is entered in Blocks 9a or 10 for current fiscal year, (b) the percent entry in Block 9a for current fiscal year is more than 3 percentage points below the percent reported for same period last year, or (c) the percent entry in Block 10 for current fiscal year is lower than the percent reported for same period last year.)

NOTE: THE CONTRACTS REPORTED THIS REPORT ARE NEW CONTRACTS. THIS IS THE FIRST TIME FIGURES HAVE BEEN REPORTED FOR THESE CONTRACTS. NEXT REPORT PERIOD, (SF294), LACI WILL BEGIN TO INCLUDE INDIRECT COST IN OUR REPORTS.

15. NAME AND TITLE OF LIAISON OFFICER
    MIKE MURPHY
    PURCHASING MANAGER

16. NAME AND TITLE OF APPROVING OFFICIAL
    DAN LANGE
    VICE PRESIDENT

STANDARD FORM 295 (4-81)
Prescribed by GSA (FPR Temporary Regulation 59)
SF - 294

Reports / Work Sheets for

<table>
<thead>
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<th>Total Contracting</th>
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<td>OCT-1, 1989</td>
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<td>7,863,951.00</td>
<td>45,136,049.00</td>
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<tr>
<td></td>
<td>= 15%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C-22: 5,727,486.00 \( \div \) 7,863,951.00 = 69%
C-130 OA: 623,170.00 \( \div \) 7,863,951.00 = 8%
CVN52: 1,812,760.00 \( \div \) 7,863,951.00 = 23%

Total: 7,863,951.00

Indirect Cost (II)

<table>
<thead>
<tr>
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<th>Total</th>
<th>15%</th>
<th>Amount</th>
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<tbody>
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<td>348,013.70</td>
<td>522,056.00</td>
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<tr>
<td>Large Bo. IC</td>
<td>1,933,563.00</td>
<td>290,034.45</td>
<td>275,034.00</td>
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<tr>
<td>Total</td>
<td></td>
<td></td>
<td>112,596.00</td>
</tr>
</tbody>
</table>

Labor Surplus: 801,664.00 \( \times \) 0.15 = 120,250.00

Appendix C - LAC 5 Cont.
C-130 BOA

Cont (IC) for period X Contract % = IC for C-130 contract

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
<th>%</th>
<th>Result</th>
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</thead>
<tbody>
<tr>
<td>SB</td>
<td>522,056</td>
<td>8%</td>
<td>41,764.00</td>
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<tr>
<td>Lq Bs</td>
<td>275,034</td>
<td>8%</td>
<td>22,003.00</td>
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<tr>
<td>SDB</td>
<td>112,596</td>
<td>8%</td>
<td>9,008.00</td>
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<td>LSA</td>
<td>120,250</td>
<td>8%</td>
<td>9,620.00</td>
</tr>
</tbody>
</table>


Appendix C - LAC 5 Cont.
TUNISIA

Cost (IC) for period x Contract % = IC for Tunisia Contract

SB - 522,056 x 23% = 120,073

Lq B - 205,034 x 23% = 63,258

SDB - 112,590 x 23% = 25,897

LSA - 120,250 x 23% = 27,658

Govt Direct Cost for period Oct 1, 1989 - Mar 31, 1990

LSA

Appendix C - LAC 5 Cont.
<table>
<thead>
<tr>
<th></th>
<th>Gov't IC on Period</th>
<th>X</th>
<th>Contract %</th>
<th>=</th>
<th>IC for C22 contract</th>
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<tbody>
<tr>
<td>SB</td>
<td>522,054</td>
<td>x</td>
<td>69%</td>
<td>=</td>
<td>360,219.00</td>
</tr>
<tr>
<td>LG.Bs</td>
<td>275,034</td>
<td>x</td>
<td>69%</td>
<td>=</td>
<td>189,773.00</td>
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<tr>
<td>SDB</td>
<td>112,596</td>
<td>x</td>
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<td>=</td>
<td>77,691.00</td>
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<tr>
<td>L$A</td>
<td>120,250</td>
<td>x</td>
<td>69%</td>
<td>=</td>
<td>82,973.00</td>
</tr>
</tbody>
</table>


Appendix C - LAC 5 Cont.
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contract</strong></td>
<td>F09603-89-C-3222</td>
</tr>
<tr>
<td><strong>A/C - Program</strong></td>
<td>TUNISA</td>
</tr>
<tr>
<td><strong>Face Value</strong></td>
<td>$812,760.00</td>
</tr>
<tr>
<td><strong>Charge Codes</strong></td>
<td>114700</td>
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<tr>
<td></td>
<td>525800</td>
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<tr>
<td></td>
<td>1164900</td>
</tr>
<tr>
<td><strong>Committed Dollars</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Small BS.</strong></td>
<td>78,556.53</td>
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<tr>
<td><strong>Large BS.</strong></td>
<td>209,537.00</td>
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<td><strong>Small DISU BS.</strong></td>
<td>198.00</td>
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<td><strong>Labor Surplus</strong></td>
<td>18,488.50</td>
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<td><strong>Other LKD Divisions</strong></td>
<td>12,937.22</td>
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<tr>
<td><strong>No. of Orders w/ Large BS.</strong></td>
<td>159</td>
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<td><strong>No. of Orders w/ Small BS.</strong></td>
<td>59</td>
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<tr>
<td><strong>No. of Orders w/ SDB</strong></td>
<td>2</td>
</tr>
</tbody>
</table>

Appendix C - LAC 5 Cont.
Appendix C - LAC 5 Cont.

**JAN 1, 1990** - **THRU** March 31, 1990

**Contract**  
E34601-88-D-0144

**A/C - Program**  
C-22

**Face Value**  
5,427,486

**Charge Codes**  
520252 - 0001
  - 0002
  - 0003
  - 0012
  - 0013

**Committed Dollars**

**Small BS.**  
329,377.02

**Large BS.**  
555,781.00

**Small DISU BS.**  
28,442.23

**Labor Surplus**  
4,455.65

**Other LKD Divisions**  
0

**No. of Orders w/ Large BS.**  
477

**No. of Orders w/ Small BS.**  
403

**No. of Orders w/ SoB**  
23
<table>
<thead>
<tr>
<th><strong>Contract</strong></th>
<th>F09603-89-G-0073</th>
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</thead>
<tbody>
<tr>
<td><strong>A/C - Program</strong></td>
<td>C-130 BOA</td>
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<tr>
<td><strong>Face Value</strong></td>
<td>1623,705</td>
</tr>
<tr>
<td><strong>Charge Codes</strong></td>
<td></td>
</tr>
<tr>
<td>114200</td>
<td>114600</td>
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<tr>
<td>114300</td>
<td>114800</td>
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<td>114400</td>
<td>114900</td>
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<td><strong>Committed Dollars</strong></td>
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<tr>
<td>Small BS.</td>
<td>3246.17</td>
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<td>26,757.34</td>
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<td>1480.0%</td>
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Appendix C - LAC 5 Cont.
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<th>INDIRECT Cost</th>
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<td></td>
<td></td>
<td>610, 391, 52</td>
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<tr>
<td></td>
<td></td>
<td>2, 869, 978, 78</td>
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<tr>
<td></td>
<td></td>
<td>3, 480, 370, 30</td>
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<tr>
<td></td>
<td></td>
<td>X2</td>
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<tr>
<td></td>
<td></td>
<td>6,960,740</td>
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<tr>
<td>LARGE</td>
<td></td>
<td>186, 168, 79</td>
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<td>1,647,397, 72</td>
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<td>10, 886, 70</td>
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<td>739, 752, 39</td>
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<td>750, 639, 09</td>
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<tr>
<td>Labor</td>
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<td>159, 461, 0</td>
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<td>64,3203, 14</td>
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<td></td>
<td></td>
<td>801, 664, 14</td>
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</table>

* Indirect Total For

OCT-89 thru March 31, 1990

Appendix C - LAC 5 Cont.
<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract</td>
<td>FO9603-89-G-0073</td>
</tr>
<tr>
<td>A/C - Program</td>
<td>C-130 BOA</td>
</tr>
<tr>
<td>Face Value</td>
<td>623,705.00</td>
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<tr>
<td>Charge Codes</td>
<td>114200 114600 114300 114400 114800 114500 114900</td>
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<tr>
<td>Committed Dollars</td>
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<tr>
<td>SMALL BS.</td>
<td>6,500.00</td>
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<tr>
<td>LARGE BS.</td>
<td>3,770.00</td>
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<tr>
<td>SMALL DISU BS.</td>
<td>1,372.00</td>
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<tr>
<td>LABOR SURPLUS</td>
<td>2,340.00</td>
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<td>OTHER LKD DIVISIONS</td>
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<td>NO. OF ORDERS w/ LARGE BS.</td>
<td>6</td>
</tr>
<tr>
<td>NO. OF ORDERS w/ SMALL BS.</td>
<td>8</td>
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</table>

Appendix C - LAC 5 Cont.
<table>
<thead>
<tr>
<th>Contract</th>
<th>F09603-89-C-3222</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/C - Program</td>
<td>Tunisia</td>
</tr>
<tr>
<td>Face Value</td>
<td>1,812,760.00</td>
</tr>
<tr>
<td>Charge Codes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>114,700</td>
</tr>
<tr>
<td></td>
<td>52,5800 - KITS</td>
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<td></td>
<td>116,400</td>
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<tr>
<td>Committed Dollars</td>
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</tr>
<tr>
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<td>50,833.00</td>
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<tr>
<td>Large BS.</td>
<td>1,011.00</td>
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<tr>
<td>Small Disu BS.</td>
<td>4,442.00</td>
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<td>Labor Surplus</td>
<td>33,364.00</td>
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<td>Other LKD Divisions</td>
<td></td>
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<tr>
<td>No. of Orders w/ Large BS.</td>
<td>7</td>
</tr>
<tr>
<td>No. of Orders w/ Small BS.</td>
<td>41</td>
</tr>
<tr>
<td>w/ SDB</td>
<td>1</td>
</tr>
</tbody>
</table>

Appendix C - LAC 5 Cont.
OCT 89 thru DEC 89

**Contract**: F34601-88-D-0144

**A/C**: C-22

**Face Value**: $5,427,486.00

**Charge Codes**: 520252 - 0001

<table>
<thead>
<tr>
<th>Code</th>
<th>0002</th>
<th>00B2</th>
<th>00C2</th>
<th>00C3</th>
</tr>
</thead>
</table>

**Committed Dollars**

**Small BS**: 47,716.00 - 41%

**Large BS**: 67,425.00 - 59%

**Small Div. BS**

**Labor Surplus**: 3708.00

**Other LKD Divisions**

**No. of Orders w/ Large BS**: 46

**No. of Orders w/ Small BS**: 32

Appendix C - LAC 5 Cont.
CONTRACT - F34601-88-D-0144

FACE VALUE - 5,427,486.

Total to be subcontracted - (20%) = 1,085,497

Total to Small Business - (45%) = 488,474

Total to Small Disv. Bs - (2%) = 21,710.

Oct 89 thru Dec 89

Appendix C - LAC 5 Cont.
SUBCONTRACTING REPORT FOR INDIVIDUAL CONTRACTS

(Report to be submitted semi-annually. See back of form for instructions)

<table>
<thead>
<tr>
<th>FROM (Date)</th>
<th>TO (Date)</th>
<th>REPORT NO.</th>
<th>TYPE OF CONTRACT</th>
<th>DATE SUBMITTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCTOBER 1, 1989</td>
<td>MARCH 31, 1990</td>
<td>1</td>
<td>PRIME CONTRACT</td>
<td></td>
</tr>
</tbody>
</table>

GENERAL INFORMATION

2. AGENCY/CONTRACTOR AWARDED CONTRACT (Name & Address)
   DEPARTMENT OF AIR FORCE
   DIRECTORATE OF CONTRACTING & MANUFACTURING
   WARNER ROBBINS ALC
   ROBBINS AFB, GA 31098-5320

7. REPORTING CONTRACTOR (Name and Address)
   LOCKHEED AEROSPACE CENTER, INC.
   1044 TERMINAL ROAD
   GREENVILLE, SC 29605

8. BUSINESS CLASS. CODE
   LB

11. DATE OF LAST GOVERNMENT REVIEW
   APRIL 1989

12. REVIEWING AGENCY
   DCAFS-ATLANTA

CUMULATIVE

13. DOLLAR VALUE OF PRIME OR SUBCONTRACT. $5,427,486.00
14. ESTIMATED DOLLAR VALUE OF COMMITMENTS AS IN PLAN. $1,085,497.00

SUBCONTRACT AND PURCHASE COMMITMENTS

<table>
<thead>
<tr>
<th>15. GOALS</th>
<th>DOLLARS</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMALL BUSINESS CONCERNS</td>
<td>$488,474.00</td>
<td>45</td>
</tr>
<tr>
<td>SMALL DISADVANTAGED BUSINESS CONCERNS</td>
<td>$21,710.00</td>
<td>2</td>
</tr>
</tbody>
</table>

REVISED "SUBCONTRACTING GOALS" WHICH WILL INCLUDE INDIRECT COMMITMENTS WILL BE FORWARDED TO YOUR ACTIVITY NO LATER THAN MAY 4, 1990.

FUTURE REPORTS WILL REFLECT SUBCONTRACTING GOAL CHANGES.

APPENDIX C - LAC 6) SF 294 FROM LAC FOR OCTOBER, 1989 THROUGH MARCH, 1990. CONTRACT F34601-88-D-0144. REPORT.
**SUBCONTRACTING REPORT FOR INDIVIDUAL CONTRACTS**

**Report to be submitted semi-annually. See back of form for instructions.**

<table>
<thead>
<tr>
<th>1. REPORTING PERIOD</th>
<th>2. REPORT NO.</th>
<th>3. TYPE OF CONTRACT</th>
<th>4. DATE SUBMITT</th>
</tr>
</thead>
<tbody>
<tr>
<td>FROM (Date)</td>
<td>TO (Date)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCTOBER 1, 1989</td>
<td>MARCH 31, 1990</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**GENERAL INFORMATION**

5. AGENCY/CONTRACTOR AWARDING CONTRACT (Name & Address)

DEPARTMENT OF AIR FORCE
DIRECTORATE OF CONTRACTING & MANUFACTURING
WARNER ROBBINS ALC
ROBBINS APF, GA 31098-5320

7. REPORTING CONTRACTOR (Name and Address)

LOCKHEED AEROSPACE CENTER, INC.
1044 TERMINAL ROAD
GREENVILLE, SC 29605

6. PRIME CONTRACT NO. (And Subcontract No., if applicable)

F09603-89-C-3222

8. BUSINESS CLASS, CODE

9. DUNS NO. (If applicable)

10. ADMINISTERING AGENCY

OLA-DCASR-ATLANTA

11. DATE OF LAST GOVERNMENT REVIEW

APRIL 1989

12. REVIEWING AGENCY

DCASR-ATLANTA

13. DOLLAR VALUE OF PRIME CONTRACT

$1,812,760.00

14. ESTIMATED DOLLAR VALUE OF COMMITMENTS AS IN PLAN.

$1,359,570.00

15. GOALS

<table>
<thead>
<tr>
<th>SMALL BUSINESS CONCERNS</th>
<th>DOLLARS</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SMALL BUSINESS CONCERNS</td>
<td>$747,764.00</td>
<td>55.00</td>
</tr>
<tr>
<td>2. SMALL DISADVANTAGE BUSINESS CONCERNS</td>
<td>$27,191.00</td>
<td>2.00</td>
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</table>

**SUBCONTRACT AND PURCHASE COMMITMENTS**

<table>
<thead>
<tr>
<th>COMMITMENTS</th>
<th>THIS REPORTING PERIOD</th>
<th>CUMULATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DOLLARS</td>
<td>PERCENT</td>
</tr>
<tr>
<td>16. TOTAL DIRECT SUBCONTRACT COMMITMENTS (Sum of a 4 &amp; b)</td>
<td>$344,578.00</td>
<td>100.00</td>
</tr>
<tr>
<td>17. TOTAL INDIRECT COMMITMENTS (Sum of a 4 &amp; b)</td>
<td>$209,228.00</td>
<td>100.00</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>DOLLARS</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. REMARKS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

REVISED "SUBCONTRACTING GOALS" WHICH WILL INCLUDE INDIRECT COMMITMENTS WILL BE FORWARDED TO YOUR ACTIVITY NO LATER THAN MAY 4, 1990.

FUTURE REPORTS WILL REFLECT SUBCONTRACTING GOAL CHANGES.

TIM CARNER
DIRECTOR OF MATERIEL

DAN LANGE
EXECUTIVE VICE PRESIDENT

**PREVIOUS EDITION USABLE**

STANDARD FORM 294 REV **A**
INDIVIDUAL SUBCONTRACTING PLAN GOALS

LOCKHEED AEROMOD CENTER, INC.
1044 TERMINAL ROAD
GREENVILLE, SC 29605

PROPOSAL NUMBER: ________________________________

CONTRACT NUMBER: P34601-88-D-0144

NOTE: THIS PLAN IS TO BE USED IN CONJUNCTION WITH MASTER SUBCONTRACTING PLAN DATED 5 DECEMBER 1989.

1. SEPARATE PERCENTAGE GOALS AND DOLLAR GOALS:

<table>
<thead>
<tr>
<th></th>
<th>DOLLARS</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL PLANNED TO BE</td>
<td>1,085,497</td>
<td>20 %</td>
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<tr>
<td>SUBCONTRACTED:</td>
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<tr>
<td>TOTAL PLANNED TO SMALL</td>
<td>488,474</td>
<td>45 %</td>
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<tr>
<td>BUSINESS:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL PLANNED TO SMALL</td>
<td>21,710</td>
<td>2 %</td>
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<tr>
<td>DISADVANTAGED BUSINESS:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL PLANNED TO HBCU/MI:</td>
<td>-0-</td>
<td>-0-</td>
</tr>
</tbody>
</table>

2. DESCRIPTION OF SUPPLY/SERVICE AREAS TO BE SUBCONTRACTED:

EXHIBIT 1 indicates:

(1) The principal areas to be subcontracted.
(2) Those areas it is planned to use Small Businesses.
(3) Those areas it is planned to use Small Disadvantaged Businesses.
(4) Those areas it is planned to use HBCU/MI.

3. STATEMENT OF METHOD USED IN DEVELOPING SUBCONTRACTING GOALS:

Lockheed Aeromod Center, Inc., will establish goals based on a thorough analysis of all planned subcontracting and material requirements of the individual Program/RFP/RPR and an evaluation of Small Business, Small Disadvantaged Business and HBCU/MI potentials. The goals are validated by comparison with historically achieved award ratios.

4. INDIRECT COSTS ARE NOT INCLUDED IN THE GOALS

(If indirect costs are included, then the method of determining the proportionate share of indirect and overhead costs shall be explained).

INDIRECT COST WILL BE INCLUDED BY: DETERMINING THE PERCENTAGE OF GOVERNMENT CONTRACTS TO TOTAL SALES, AND MULTIPLYING THAT PERCENTAGE TO THE INDIVIDUAL OVERHEAD COST TOTALS OF LARGE, SMALL AND SMALL DISADVANTAGED BUSINESSES.
PRINCIPAL AREAS PROPOSED TO BE:

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcontracted</th>
<th>Small</th>
<th>Disadvantaged</th>
<th>HBCU/MI</th>
</tr>
</thead>
<tbody>
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<td>RAW MATERIALS:</td>
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<td>X</td>
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<td>Metals, Fabrics, Plastics, Etc.</td>
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<tr>
<td>PURCHASED PARTS &amp; EQUIPMENT:</td>
<td>X</td>
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<tr>
<td>Aircraft Components, Assemblies,</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Ground Support Equip., Etc.</td>
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<td></td>
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<tr>
<td>SUBCONTRACTUAL EQUIPMENT:</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGINEERING/MANUFACTURING SERVICES:</td>
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<td>X</td>
<td>X</td>
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<td>Design Services, Temp. Labor, Etc.</td>
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<tr>
<td>ELECTRONIC EQUIPMENT:</td>
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<td></td>
</tr>
<tr>
<td>Aircraft Systems, Test Equip., Etc</td>
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<td></td>
</tr>
<tr>
<td>MILITARY AIRBORNE RADAR:</td>
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<td></td>
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<tr>
<td>Antennas, Components, Etc.</td>
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<tr>
<td>ELECTRONIC COUNTERMEASURES:</td>
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<tr>
<td>AIRCRAFT RADIO EQUIPMENT:</td>
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</tr>
<tr>
<td>FABRICATED PARTS:</td>
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<td></td>
</tr>
<tr>
<td>Machined Parts, Formed Parts, Metal Cutting, Etc.</td>
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<tr>
<td>PROCESSING:</td>
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<tr>
<td>Plating and Coatings, Heat Treat, Etc.</td>
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<tr>
<td>MAJOR PURCHASED EQUIPMENT:</td>
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</tr>
<tr>
<td>Vehicles, Office Equip., Etc.</td>
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</tr>
<tr>
<td>CASTING and FORGINGS:</td>
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<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>OTHER SUPPLIES/SERVICES:</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

EXHIBIT I
Previous Year:  
Total Contracting  $15,000,000  
Govt. Contracting  $6,000,000  

$6,000,000 ÷ $15,000,000 = .40 or 40% Govt. Contracting  

Current:  
Total Contracting  $9,600,000  
Govt. Contracting  $3,660,000  

$3,660,000 ÷ $9,600,000 = .381 or 38% Govt. Contracting  

Govt. Contract A  $700,000 ÷ $3,660,000 = 19.1%  
Govt. Contract B  900,000 ÷ 3,660,000 = 24.6%  
Govt. Contract C  1,000,000 ÷ 3,660,000 = 27.3%  
Govt. Contract D  1,000,000 ÷ 3,660,000 = 27.3%  
Govt. Contract E  60,000 ÷ 3,660,000 = 1.6%  

$3,660,000  

99.9%  


SB OH  # 54,975  
LB OH  # 144,923  
Tot. OH  $219,898  

x 40% = $21,990  SB OH Govt. Contracts  
x 40% = $65,969  LB OH Govt. Contracts  

SDB OH  # 3,773  
LSA OH  # 62,095  

x 40% = $1,309  SDB Govt. Contracts  
x 40% = $24,838  LSA Govt. Contracts  

Appendix C - LAC 9) Example of Calculations for Assigning indirect Cost to Contracts.
**Contract A**

Govt. OH $ for period x Contract % = OH $ for Contract A

- **SB** $21,990 x 19.1% = $4,200
- **SDB** 1,309 x 19.1% = 250
- **LB** 65,969 x 19.1% = 12,600
- **LSA** 24,838 x 19.1% = 4,744


- **SB** $45,800
- **SDB** 1,750
- **LB** 37,400
- **LSA** 45,256
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