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Institutionalizing The Results  
of the  
Independent Cost Analysis

by

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INSTITUTIONALIZING THE RESULTS  
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INDEPENDENT COST ANALYSIS

SUMMARY

Objective Three of the Comptroller of the Air Force Long Range Objective Plan and Strategies is to:

Assume a full range of quality cost, economic and financial analysis and management services is provided in support of the Air Force mission.

Strategy 3.a states;

Apply analysis capability and usefulness in the decision making process at all levels.

Potentially the most useful tool for impacting the analysis process in the area of cost is the Independent Cost Analysis (ICA). An independent test for reasonableness of a program office estimate, the ICA is an effective tool for program management.

While there are policies in effect at both the Department of Defense and Air Force level for treatment of ICA results, these policies do not lead to a consistent and thorough treatment of ICA results in program management and budgeting activities.

This paper suggests that a more standardized and regulated treatment of ICA results within the Air Staff would be of benefit to program financial management, and serve as an incentive to those who prepare the estimate.

INTRODUCTION

Definition. The Independent Cost Analysis (ICA) is an important step in the development and acquisition of weapon systems by the Department of Defense. As defined by Air Force Regulation 173-11, Independent Cost Analysis Program:

"The ICA is an independent test of the reasonableness of an official Program Office (PO) cost estimate of a major weapon system . . . will include as its major feature and independent estimate of the cost of the weapon system, and a detailed comparison of the independent cost estimate with the official program cost estimate including explanations of significant differences."



The services perform ICAs on all of their major system procurements at each of the major milestone decisions, known as Systems Acquisition Review Councils (SARC), which occur either at service or DOD level. The ICA gives decision-makers a current and objective evaluation of program cost. It aids in judging what the ultimate costs will be and if the Program Office estimates, which normally support the approved program budget, are reasonable. The ICA is an outside opinion; a professional, independent statement of weapon system expected cost.

Content. ICAs are tailored for the particular milestone or other event that led to their preparation. They may be estimates of development costs, procurement costs, or operating and support costs. The total program for all fiscal years is analyzed in such detail that all system components, from engines to support equipment, are individually priced. The work is done by a team of from half a dozen to twenty or more professionals, over a period of from several months to half a year or more. It normally represents the investment of from three thousand to ten thousand manhours, thousands of dollars in administrative costs, and the time and energies of many key service senior decision-makers. Done properly, it is perhaps the most valid, objective, and informative program management information that the Air Staff will ever receive on a program, especially in the area of cost.

#### DISCUSSION

In the Air Force, ICAs are primarily required to support either a System Acquisition Review Council or a Defense Resources Board. ICAs are necessary when a weapon system approaches a major decision point, for either a Defense System Acquisition Review Council (DSARC), or an Air Force Systems Acquisition Review Council (AFSARC). For DSARC decisions in response to requests from OSD Program Analysis and Evaluation (PA&E), the Air Force Comptroller directs the appropriate major command to conduct the ICA. PA&E is ultimately responsible, through its role in the OSD Cost Analysis Improvement Group (CAIG) for validation of weapon system cost analysis for the Secretary of Defense. This ICA input to OSD may be a major consideration in deciding the future of a system at the DSARC.

Validation ICA input is often a major consideration in deciding the future of a system at the DSARC.

ICAs are also used to support the Defense Resources Board (DRB) in updating the budget proposals for a weapon system. Even though no major decision is pending on the future direction for a program, the service or OSD may require an ICA to serve as an input for budget deliberations during a Program Objective Memorandum (POM) cycle. Major changes in program content, schedule perturbation, or cost problems are some of the things that may cause an ICA. An appropriate ICA provides the POM process and has the benefit of the latest and often most comprehensive information for estimates of future costs of programs.

Preparation. After receiving direction from the Air Force Comptroller, the procuring activity establishes the ICA team. The team chief, who will lead the effort and brief the results, develops a plan, sets in motion the administrative process, and guides the ICA team in its work. When the thousands of manhours have produced their results, he pulls together the cost information and prepares a briefing to tell the story. The first person to hear the story is the program manager and his own functional supervisors. The briefing to the program manager is a key point for the ICA and critical to what will go forward as the ICA recommendation. The ICA and the program manager's own cost estimate are very likely to be different, both in their sum and in their parts. The ICA team chief must determine the reasons for the differences and explain them in his briefing. It is one of his most important jobs. When the differences have been examined, and all adjustments made for errors of fact or calculation, the ICA may reach only one of two conclusions. First, that the difference between the ICA estimate and the program office estimate are relatively minor and therefore the ICA team supports the program office estimate as reasonable. Second, the ICA team concludes the differences between the estimates are significant and recommends that the program budgets be adjusted to reflect the ICA findings. If the second conclusion is reached the program manager, in turn, also has a decision to make. He can accept the ICA position; in effect acknowledging that his estimate is incorrect, or he may stand by his estimate and challenge the ICA results.

Review. The results of the ICA are then briefed to the procuring division commander, that is the program manager's boss, and cleared for presentation to the service major command (MAJCOM). If all differences between the program management office and the ICA team have not been reconciled, a decision is required. The MAJCOM commander must recommend a position to the Headquarters USAF Comptroller.

He must decide to support either the ICA or the Program Office and endorse one estimate as the MAJCOM. The MAJCOM ICA goes to the Air Staff where briefings to the Air Force CAIG, the Comptroller, Assistant Secretary for Financial Management are required. At each step the responsible individual receiving the briefing must either endorse the conclusion of the ICA as carried forward from MAJCOM, or make changes in program or cost areas which are carried back to the MAJCOM, usually informally, for coordination. Finally, the coordinated Air Force ICA is given to the DOD CAIG for validation and presentation to the Secretary of Defense.

Post Review. It should be noted that once the briefing cycle is completed, the program cost estimate developed by the ICA team plays no further specific role in the bureaucratic process of budget or program management. Yes, the OSD CAIG writes a report to their supervisors on the ICA results. And yes, this input may play a part in any Secretary of Defense decision. But at the DSARC briefing itself, which normally follows the presentation of the

ICA, the ICA may never be more than mentioned. The DSARC principals never see the ICA briefing. They may see a summary chart or two, but the program manager will present his own cost estimate to them, and the ICA may play a minor or even no role at all in the process. Let me emphasize this is not always the case, particularly when both the ICA team and the DOD CAIG feel that the program manager's estimate is incorrect, nor possibly even often the case. But the fact remains the administrative process of the DSARC does not mandate the use or consideration of the ICA in assessing the budget basis for the program. It's influence is limited to whatever credence the Secretary of Defense places in a summary recommendation on costs provided him by the PA&E office.

Shifting from OSD to the Air Force the same general conclusion must be reached. Once the briefing has been given, the ICA plays no further definitive role in the weapon system budget process. By definitive role I mean the Air Staff response to the ICA conclusions and recommendations is not mandated or institutionalized beyond the simple reception of the briefing. When an ICA is received and its conclusions show existing budgets or program plans do not appear reasonable, the responses of Air Staff agencies are on a completely ad hoc basis. The Air Force regulation governing the ICA process, AFR 173-11, relates the responsibilities of all Air Staff deputates and directorates. Not one of these responsibilities extends beyond the actual presentation of the ICA. Under paragraph 8, "Reviewing the ICA" the final act of the Air Force CAIG is "prepare a written evaluation of the ICA to be distributed to the Air Staff and Secretary of the Air Force offices." What happens next? What is done with the report? Are the ICA results to be implemented or applied in some standardized or consistent manner? Are budgets or other planning to be impacted?

Perceptions. The members of the ICA team, the people who built and briefed the estimate, have seen each reviewing level either nod in approval or order changes in the briefing for the next level reviewer. When the ICA comes to that last briefing, there is once again acceptance, or a recommendation that changes be made and the briefing be reaccomplished. Each briefing seems only to be a precursor to the next with none, even the last, representing the attainment of an effective outcome other than endorsement of the ICA staff. The briefing team has expectations of seeing their ICA conclusions and recommendations being acted upon. All too often the perception is that the whole subject just drops into a hole and disappears. They would like to believe that now the Air Staff will get to work implementing and incorporating their work into the program and budget planning. To foster this perception, to provide effective feedback to the individuals who contribute to the ICA process in the field would, in itself, be a worthwhile undertaking.

Air Staff and the ICA. The foregoing paragraph may overstate the case, but is nonetheless a common perception among those from field activities. There is an emphasis on bringing the product in, rather than on what is done with it once it arrives. It is certainly true that ICAs briefed at the Air Staff, either AFSARC, DSARC, or DRB, are seen by most of the key staff agencies and players in program management. They are free to consider the impact of the ICA results in their programming and budgeting activity. The Program Element Monitor (PEM) seeing the ICA may note a FY 87 shortfall, which is endorsed by the program manager. He hurries back to his office in HQ USAF/RD and, working with ACB budget officers who also saw the briefing, begins to work a Program Budget Decision (PBD) to make necessary budget changes. The Comptroller project officer from ACM prepares a report which will be circulated and may play a part in future deliberations.

These and other activities, however, are loosely structured and rely on the above stated or informal activity, especially if the ICA is non-controversial. There may not even be a Comptroller report, or it may not reach all of the pertinent offices. The actions, or non-action, of the PEM from RD, the representative from AL, the responsible budget officer from ACB, or the representative of the Assistant Secretary for Financial Management (SAF/FM), is voluntary and unstructured. I suspect that many who view the ICA take it as an informational briefing, to which they may or may not respond, and which imposes no mandated action upon them.

Short-lived Product. The ICA briefing and its conclusions have a very short "half-life" in the Air Staff and OSD scheme of things. Program instability, decried by nearly everyone, is such that the ICA estimate, related to a specific quantity, schedule, set of technical conditions and program planning, is soon obsolete. At each step of the Planning Programming Budgeting System (PPBS) cycle, change is the only constant, and a program estimate so discrete and specific in its content can only survive in that instant between changing program plans. Indeed, the ICA itself is an excellent catalyst for change, as it challenges assumptions, uncovers errors, or forces replanning to accommodate changing cost estimates. It is often the case that more program office effort takes place after the ICA briefings than while the estimate was being prepared.

Experienced Pentagon managers have stated the effective life of an ICA is from three weeks to several months, depending upon surrounding circumstances. It is an immediate, forceful motivator for change. Like a rock thrown into a pond, it makes a big splash causing ripples of activity all around it, but soon drops from sight and is forgotten in the ongoing existence of the acquisition program.



Immediate Capture of Benefits. Because of the short life an ICA can expect to enjoy, making use of its findings must be accomplished quickly, efficiently, and by an orderly process. I believe the present system does not do that in the most effective ways possible. Actions occur in response to the ICA, and rules do exist for using the product such as "budgeting to most likely cost". But the process to achieve such ends is not clear. A mandated, definitive process for treatment of ICA results would make best use of the fragile product within the time span available. It would also provide positive evidence to the subordinate activities that the time and money invested are being used in managing the program.

Air Staff Oriented. My suggestions for possibly improving the treatment of the ICA product are oriented towards the Air Staff, and more for DRB ICAs than the AFSARC and DSARC products. The budget and programming process takes place first at the service level, and here is where the ICA can operate effectively. ICAs rely on the use made of them by OSD PA&E. Normally, their approach is to prepare a short written report to their superiors on the ICA product. Experience with OSD in the ICA reviews gives one the impression that ICAs are equally useful for the cost data they provide, as well as the recommendations brought forward to aid in program decisions. This broader use of ICAs, perfectly valid for the PA&E mission, is less susceptible to strict guidance on the handling of the ICA product.

#### CONCLUSION

ICA is Valuable. The preparation of an ICA represents the investment of thousands of manhours, thousands of dollars, and considerable managerial expertise. In most cases it is a very professional product, and possibly, the very best piece of financial management information ever produced on a given program. It is most valid and germane, as well as short-lived, at the time of its delivery to the service's decision makers. As such, it deserves the very best treatment and effective participation in program management. Equally, the subordinate personnel responsible for the product deserve a positive response from the Air Staff to their recommendations.

More Structured Role. Because of constant program change the ICA has short effective life. Changes indicated by ICAs must be put into motion quickly, and consistent treatment of ICAs is necessary to insure all parties play their part in evaluating its information. The perception exists that use of ICA information is too a greater or lesser degree haphazard and unpredictable. It will improve both the actual treatment of the ICA product, as well as the perceptions of ICA participants if a more formalized process existed for making use of the ICA recommendations.

## RECOMMENDATION

The ICA should serve as an institutionalized data point used in a consistent manner by all pertinent Air Staff agencies for program financial management. The conclusions and recommendations of the ICA, as endorsed by the Assistant Secretary of the Air Force for Financial Management, should be prepared in a standard format by a staff analyst in the Cost and Management Analysis Directorate. A key element of this report would be a recommended fiscal year budget, supporting the conclusions of the ICA, as amended by management decision. Other program issues raised and resolved during the ICA cycle would be included if appropriate. This staff report would be coordinated through all relevant AC directorates and divisions. Then, in the form of an AC recommendation to SAF/FM, it would be sent out for coordination by other Air Staff DCSs. The intent is not that the ICA outcome be the sole valid position on budget or other program issues. The PEM, for example, in cases where the program office disagrees with the ICA findings, might not coordinate or be willing to take action consistent with the ICA. But he must acknowledge the report, counter its findings, and go on record formally with his own position. What actually happened to program budgets would be determined by the give and take between DCSs. The interactions now carried out informally and inconsistently would be documented and consistent. The report would provide a vehicle for dialogue on issues such as initial spares funding, annual procurement quantities, and other program issues. Following staff coordination, the final report would be transmitted to SAF/FM and possibly by him to the Secretary of the Air Force as the Air Staff position on the ICA. The requirements for this staffing action should be incorporated into pertinent Air Force regulations, such as AFR 173-11. This is only a suggested treatment, and some other paper flow might prove more appropriate or effective.

Adopting this formal approach to treatment of ICAs would achieve two positive results. The cost analysis community outside the Air Staff, those who contributed to the ICA preparation, would see a tangible product, a process of application in which the work they brought to the decision-makers is used to improve the procurement process. More important, necessary program management actions resulting from the ICA will take place in an orderly, predictable and effective way. The less structured and less controlled practices now in being will give way to a more coherent treatment of a valuable management tool.

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