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A Cost and Price Methodology

1 Proposal Analysis Revised 3/2016

a. Certified Cost or Pricing Data and Information Other Than Certified Cost or Pricing Data.

(1) Definitions.

(a) *Certified Cost or Pricing Data.* This is cost or pricing data where the offeror certifies as to the accuracy, completeness and currency of the data as of a specific date before execution of the contract action. This includes all facts that prudent buyers and sellers would reasonably expect to affect price negotiations significantly. Cost or pricing data are factual, not judgmental; and are verifiable. Certified cost or pricing data found to be inaccurate, incomplete, or noncurrent as of the date of the action allow the Contracting Officer (CO) to adjust the contract price related to the defective data.

(b) *Information other than certified cost or pricing data.* This is pricing data, cost data, and judgmental information necessary for the CO to determine a fair and reasonable price and/or to determine realism. Such data may include the identical types of data as certified cost or pricing data, but without the certification. The data may also include any information reasonably required to explain the offeror's estimating process, including, but not limited to-

(i) The judgmental factors applied and the mathematical or other methods used in the estimate, including those used in projecting from known data; and

(ii) The nature and amount of contingencies included in the proposed price.

(2) *Types of Information and Evaluation Method.* The CO may require information to support proposal analysis in any of the following degrees of detail:

(a) No cost data, in which case a price analysis is conducted;

(b) Information other than certified cost or pricing data, in which a price analysis and cost analysis appropriate to the data and information submitted are conducted; or

(c) Certified cost or pricing data, where the offeror certifies to the accuracy, completeness and currency of the data and both price and cost analyses are conducted.

(3) *Decision to Require Data.* A Contracting Officer (CO) has the discretion to determine the level of cost or pricing data required to ensure prices are fair and reasonable. Cost and pricing data should be requested *only* when the CO does not

have reasonable assurance that costs or prices are fair and reasonable based on price analysis. When deciding the extent to which cost and pricing data may be required, the CO should consider the cost and schedule burden on the contractor to provide the information.

(a) When the CO determines adequate price competition exists, certified cost or pricing data must not be requested in accordance with Policy 3.2.3.2.

(b) Adequate price competition may exist when:

(i) Two or more responsible offerors competing independently submit priced offers responsive to FAA's expressed requirement;

(ii) There was a reasonable expectation, based on market research or other assessment, that two or more responsible offerors competing independently would submit priced offers responsive to the screening information request's expressed requirement, although only one offer is received from a responsible responsive offeror; or

(iii) Price analysis clearly demonstrates that the proposed price is reasonable compared to current or recent prices for the same or similar items purchased in comparable quantities, and under comparable terms and conditions under contracts that resulted from adequate price competition.

(c) If the CO determines that the level of competition does not support the determination of price reasonableness, or the offeror's price cannot be determined to be reasonable from price analysis according to T3.2.3.A.1.c. below, then the CO must require certified cost or pricing data or information other than certified cost or pricing data to the extent necessary to support a determination of a fair and reasonable price (Policy 3.2.3.2). The CO within his or her discretion may, based on price analysis alone, determine that an offeror's price is not fair and reasonable without requesting additional cost data.

(d) In situations where adequate price competition does not exist, the decision to require certified or information other than certified cost or pricing data and the level of data required should be based on the specific circumstances of the procurement taking into account the factors described in subparagraph (4) "Factors to Consider" below.

(4) *Factors To Consider.*

(a) The CO has the flexibility to determine:

(i) Whether or not to require cost or pricing data;

(ii) To what degree or level of detail data should be requested; and

(iii) Whether or not the data should be certified, except for situations

where adequate price competition exists (and the CO must not require certified cost or pricing data).

(b) The CO may consider the following factors to determine the appropriate data requirement:

(i) *Recent Pricing Data.* Availability of information on prices for the same or similar goods or services procured on a competitive basis.

(ii) *Degree of Competition Attained.* Level to which competitive market forces can be expected to influence submission of reasonable prices.

(iii) *Uncertainty of the Market Place.* How volatile market prices or technological changes may impact vendor prices or costs.

(iv) *Availability of Independent Cost Estimate/Data.* The degree of confidence the CO has in the internal estimate or other data which would provide an effective means to objectively evaluate proposed costs or prices.

(v) *Technical Complexity of Procurement.* The degree to which developmental effort or technical complexity is inherent in the requirement.

(vi) *Contract Type.* The degree to which the decision of contract type mitigates the risk to the agency.

(5) *Requirement for Certified Cost or Pricing Data.* When certified cost or pricing data are necessary, AMS Clauses 3.2.2.3-38, Requirements for Certified Cost or Pricing Data or Other Information, and 3.2.2.3-39, Requirements for Certified Cost or Pricing Data or Other Information – Modifications, must be inserted in the SIR. The clauses require the contractor to submit the information contained in the Appendix "Instructions for Submitting Cost/Price Proposals When Certified Cost or Pricing Data are Required."

(6) *Requesting Information.* When requesting information other than certified cost or pricing data, the information should be limited to the extent necessary to determine price reasonableness and/or cost realism. The level of detail and format of the data requested will be determined by the CO. Generally this will be a modified version of information requested in subparagraph (5), "Requirement for Certified Cost or Pricing Data" above.

(7) *Subcontracts.* Contractors are required to submit certified or information other than cost or pricing data for proposed subcontracts or subcontract modifications only when necessary to determine the reasonableness of the proposed contract or subcontract price, including negotiated final pricing actions. The contractor is responsible for performing cost or price analysis when determining price reasonableness on subcontract proposals and for submitting the subcontract cost or pricing data if requested by the CO.

b. *Proposal Analysis*. The procurement team is responsible for evaluating proposals using the methods of price and cost analysis appropriate to the procurement. Price and cost analysis are used to determine if prices or costs are allowable, reasonable and realistic. The CO is responsible for determining whether contract prices are fair and reasonable. The data used to perform cost or price analysis should be the most current available. Use of non-current data should be (i) documented as to why more current data was not used or available, and (ii) adjusted if applicable to reflect the purchasing power of the dollar over time. At a minimum, if the data is two or more years old, explain why the older data (escalated to the current year) is adequate for use in determining fair and reasonable pricing.

c. *Price Analysis*. Price analysis is a process of examining and analyzing a proposed price without evaluating separate cost elements and proposed profit/fee. Price analysis is the most commonly used method of proposal analysis and must be performed on all contractor proposals (Policy 3.2.3.2). Even when cost analysis is performed to evaluate individual cost elements of a contractor's proposal, some form of price analysis is needed to ensure that the proposed price is fair and reasonable. There are several techniques that may be used in performing price analysis:

- (1) Comparison of proposed prices received in response to the screening information request;
- (2) Comparison of prior proposed prices and contract prices with current proposed prices for the same or similar end items and services in comparable quantities;
- (3) Application of rough yardsticks (such as dollars per pound or per horsepower, or other units) to highlight significant inconsistencies that warrant additional pricing inquiry;
- (4) Comparison with competitive published catalogs or lists, published market prices or commodities, similar indexes, and discount or rebate arrangements;
- (5) Comparison of proposed prices with independent cost estimates; and
- (6) Ascertaining that the price is set by law or regulation.

d. *Cost Analysis*.

(1) Cost analysis is the review and evaluation of the separate cost elements and proposed profit/fee of an offeror's proposal. The CO will determine whether cost analysis is appropriate. Cost analysis is not required to evaluate established catalog or market prices, prices set by law or regulation, and commercial items. If there are significant disparities in proposed prices, a limited form of cost analysis may be used to investigate the cause of the disparities. Cost analysis involves examining data submitted by the contractor and the judgmental factors applied in projecting estimated costs. Cost analysis also includes:

- (a) Verification that the contractor's cost submissions are according to disclosed cost accounting procedures;

(b) Comparisons with previous costs; and

(c) Forecasts of future costs based on historical cost experience.

(2) Cost analysis is used to determine cost reasonableness when a fair and reasonable price cannot be determined through price analysis alone, and/or the agency needs an understanding of the cost buildup of the proposal to verify cost realism. The data required to perform the cost analysis should be limited to those cost elements that are necessary to ensure a fair and reasonable, and if necessary, a realistic price determination.

(3) Cost analysis involves the following techniques and procedures:

(a) Verification of cost or pricing data and evaluation of cost elements;

(b) Evaluating the effect of the offeror's current practices on future costs;

(c) Comparison of the costs proposed by the offeror with historical and actual costs, and previous cost estimates for the same or similar items;

(d) Analysis of the contractor's evaluation in determining the reasonableness of the subcontract costs;

(e) Verification of the offeror's proposed cost to ensure that it reflects cost realism and reasonableness; and

(f) Review to determine whether any cost or pricing data that is necessary to make the contractor's proposal accurate, complete, and current has been submitted or identified in writing.

e. Field Pricing Support.

Field pricing support is independent support intended to give the CO a detailed analysis and report of the contractor's cost proposal or other areas related to contract pricing. Field pricing support personnel include, but are not limited to, COs, auditors, price analysts, quality assurance personnel, and engineers. The CO may request field pricing support when necessary.

f. Pre- and Post-Award Audits.

(1) The CO must request pre-award and post-award audits on all cost reimbursement contracts estimated to exceed \$100 million (including all options or ceiling amounts). In addition, FAA must request audits on at least 15% of all cost reimbursement contracts under \$100 million (Policy 3.2.3.3). Headquarters Cost/Price Analysis Services (AAP-500) determines which contracts under \$100 million require an audit. At the discretion of the CO, audits may also be requested on other types of contracts.

(2) Program offices fund required pre- and post-award audits. Headquarters Cost/Price Analysis Services (AAP-500) tracks and manages requested and completed

audits. Although Defense Contract Audit Agency (DCAA) provides audit support for civilian agencies, FAA may also obtain support from other public or private audit organizations as necessary.

(3) The CO should appropriately scope audit requests considering the nature of the procurement, data to be reviewed, recent audits, and the contractor to be audited. Cost/Price Analysis Services (AAP-500) can advise the CO about scoping the request. Audits may cover one or more of the following:

Pre-award

- ☐ Pre-award survey (new contract)
- ☐ Proposal audit (full or selected portions)
- ☐ Forward pricing rates or billing rates
- ☐ Rate verification (direct and indirect)
- ☐ Cost Accounting Standards compliance review
- ☐ Cost accounting system adequacy (labor, indirect and other direct cost systems)
- ☐ Earned value management system audit
- ☐ Contractor purchasing system review
- ☐ Billing system review
- ☐ Estimating system review
- ☐ Information technology system review
- ☐ Material management and accounting system review
- ☐ Basis of estimate
- ☐ Bill of material and long lead items

Post-award

- ☐ Proposal for contract modification
- ☐ Defective pricing
- ☐ Incurred cost
- ☐ Invoice reviews for allowability or improper payment
- ☐ Claims and request for equitable adjustment
- ☐ Final price submission
- ☐ Termination
- ☐ Closeout

(4) The CO should use good business judgment consistent with applicable AMS guidance when deciding whether to obtain audits. If a CO decides not to obtain an audit, the file should be documented with a rational basis as to why the audit was not obtained. The cost of the audit compared to the expected payback should also be considered.

g. Defective Pricing.

(1) Defective certified cost or pricing data is data which was provided to FAA in support of a proposal and which was not current, accurate, or complete. It may only occur when certified cost or pricing data is provided. If, before agreement in price, the CO learns that any certified cost or pricing data the contractor provided are

inaccurate, incomplete, or not current, the contractor is notified immediately to determine if the defective data increase or decrease the contract price. The CO then negotiates using any new data submitted or making allowance for the incorrect data.

(2) If, after award, certified cost or pricing data are found to be inaccurate, incomplete, or noncurrent as of the date of agreement, the CO should give the contractor an opportunity to support the accuracy, completeness, and currency of the questioned data. In addition, the CO may obtain an audit to evaluate the accuracy, completeness, and currency of the data. The contractor should reimburse FAA for any payments issued based on defective cost or pricing data during the contract period. The reimbursement should include the amount identified by the CO including profit or fee and interest accrued from the date of the payment. If defective pricing is determined to exist, this fact should be noted in future past performance evaluations.

(3) If a contractor and subcontractor submitted certified cost or pricing data, the CO has the right, under the clause prescribed in the contract to reduce the contract price if it significantly increased due to contractor submitted defective data. This right applies whether the data supported subcontractor cost estimates or firm agreements between subcontractors and contractors. In order to afford an opportunity for corrective action, the CO should give the contractor reasonable advanced notice before determining to reduce the contract price when:

(a) A contractor includes defective subcontract data in arriving at the price but later awards the subcontract to a lower priced subcontractor (or does not subcontract for work). Any adjustment in the contract price due to defective subcontract data is limited to the difference, plus applicable indirect cost and profit/fee, between the subcontract price used for pricing the contract and either the actual subcontract or the actual cost to the contractor.

(b) Under cost-reimbursement contracts and fixed price incentive contracts, payments to subcontracts that are higher than they would be had there been no defective subcontractor cost or pricing data will be the basis for disallowance or non-recognition of costs.

h. Profit/Fee Analysis.

(1) When price analysis techniques are sufficient to ensure a fair and reasonable price, analysis of profit/fee is not appropriate.

(2) When cost analysis is required for price negotiation, profit/fee is analyzed.

(a) Profit/fee should be analyzed with the objective of rewarding contractors for:

(i) Financial and other risks they assume;

(ii) Resources they use; and

(iii) Organization, performance, and management capabilities they employ.

(b) Consideration should be given to the:

- (i) Ratio of indirect costs to direct costs;
- (ii) Extent of subcontracting;
- (iii) Complexity of materials requirements; and
- (iv) Commitment of capital investments to contract performance.

(3) For the purposes of establishing a negotiation position the CO may use some structured method (e.g. agency-mandated weighted guidelines) for determining the profit/fee appropriate for the work to be performed. The CO is encouraged to establish a structured mechanism under cost reimbursable contracts which relates performance to fee amounts earned.

i. Cost and Price Realism.

(1) The purpose of realism analysis is to ensure that proposed prices are not so low such that contract performance is put at risk from either a technical and/or cost perspective. It is separate from analyses performed to determine cost or price reasonableness. Realism analysis determines whether an offeror's proposed costs and/or prices:

- (a) Are realistic for the work to be performed;
- (b) Reflect a clear understanding of the requirements; and
- (c) Are consistent with the various elements of the offeror's technical proposal.

(2) Cost Realism.

(a) Cost realism analysis is an objective process of identifying the specific elements of a cost estimate or a proposed price and comparing those elements against reliable and independent means of cost measurement. This analysis judges whether or not the estimates under analysis are verifiable, complete, and accurate, and whether or not the offeror's estimating methodology is logical, appropriate, and adequately explained. This verifies that the cost or prices proposed fairly represent the costs likely to be incurred for the proposed services under the offeror's technical and management approach.

(b) Cost realism analysis is used for analysis of proposed costs on cost reimbursement contracts, competitive fixed-price incentive contracts, and may also be used on time and material contracts, and, if necessary, on competitive fixed price contracts.

(c) Cost realism analysis determines whether proposed costs may be overstated or understated with respect to performing SIR requirements using the contractor's unique and described methods in the cost and technical proposals. The offeror's Most Probable Cost (MPC) is determined by adjusting each offeror's proposed cost, and fee when appropriate, to reflect any additions or reductions in cost elements to realistic levels based on the results of the cost realism analysis.

(d) The MPC may differ from the proposed cost and should reflect the Government's best estimate of the cost of any contract that is most likely to result from the offeror's proposal. The MPC, not the proposed cost, is used for purposes of evaluation to determine the best value.

(e) Cost Realism Evaluation Steps:

(i) Obtain other than certified cost or pricing information from the offeror, including detailed proposal breakdown by cost element and the associated basis of estimates (BOEs) for work to be performed.

(ii) Obtain cost realism analysis support from designated member(s) of the acquisition team. The technical cost realism acquisition team member(s) review the SIR requirements, and each offeror's technical and cost proposal, to ensure the cost proposal reflects the costs required to accomplish the work through the unique methods and approaches identified in the offeror's technical proposal. The technical cost realism reviewer determines which direct labor hours and other direct costs should be adjusted up or down and by what amount. The reviewer provides a cost realism analysis to the cost evaluation team. NOTE: The technical cost realism reviewer must not be a member of the technical evaluation team unless the technical evaluation has been completed, reviewed, and signed. This is necessary to avoid any potential bias in the technical evaluation related to information in the cost proposal.

(iii) Obtain information from Government sources related to contractor direct and indirect rates, i.e. Forward Pricing Rate Agreements or Recommendations (FPRA/FPRRs). Revise the offeror's proposed rates to reflect the Government's expectation of final rates, as appropriate.

(iv) Determine each offeror's Most Probable Cost using the cost realism analysis and any indirect rate revisions to adjust the proposed costs. Include fee adjustments as appropriate for changes in estimated costs. The MPC represents the costs most likely to be incurred by the offeror in performance of the effort. Use the offeror's MPC for best value analysis.

(3) Price Realism.

(a) Price Realism analysis is an objective process that focuses on the proposed price and performance risks. Price realism is used when requirements may not be fully understood by the offeror, there are quality concerns, or past experience indicates that contractors' proposed prices have resulted in quality or service shortfalls.

(b) Price realism may be used for price proposal analysis on competitive fixed-price contracts.

(c) Unlike in cost realism analysis, the offeror's proposed price is not adjusted for the Most Probable Cost. The focus is on the price and the ability of the offeror to perform the contract requirements for the proposed price, not the individual cost elements.

(d) Results of the analysis may be used in performance risk assessments and responsibility determinations.

(e) Price Realism Evaluation Steps:

(i) Obtain price information from the offeror, but no cost data is provided.

(ii) Obtain information from Government or industry sources that can be used for price realism determination such as:

- Comparison to the IGCE;
- Published catalog prices;
- Previous contract prices for similar items in similar quantities procured on a competitive basis;
- Published fully burdened labor rates appropriate to proposed labor categories and geographic location;
- Published price indices such as Global Insight for escalation factors; and
- Other methods of price analysis as described in T.3.2.3.A.1.c.

(iii) Obtain analysis support from the acquisition team related to the offeror's understanding of technical requirements, past performance, and financial capability.

(iv) Document the price realism analysis and its conclusion. If the analysis indicates proposed prices may be unrealistic, the CO may determine that additional analysis, including cost realism, is required. Information other than certified cost and pricing data would be requested to support additional analysis. For either price realism or cost realism analyses for fixed-price contracts, do not adjust the offeror's proposed price.

(4) Realism Analysis and Risk. A practical example of the need for realism analysis is the tendency of some contractors to "buy-in" to a contract award. "Buying-in" refers to an offeror submitting an offer below anticipated contract costs. Contractors may "buy-in" for purely business reasons or may expect to recover losses through an increase of the contract price after award or through receiving follow-on contracts at artificially high prices. Buying-in may decrease competition or result in poor contract performance. The CO should minimize the opportunity for buying-in through the following appropriate actions:

- (a) Use cost analysis in evaluating proposals for follow-on contracts and change orders;
- (b) Price contract options for additional quantities together with the firm contract quantity, that equal program requirements;
- (c) Develop an estimate of the proper price level or value of the supplies or services to be purchased; and
- (d) Verify that contract type and price are consistent with the uncertainty and risk to FAA and contractor while at the same time providing the contractor with the greatest incentive for efficient and economical performance.

The foregoing does not mean that the CO should refuse to award a contract when a buy-in is apparent. The CO should evaluate the attendant risks of costs escalating out of control or the contractor not being able to successfully complete performance. For cost-reimbursable contracts, an award based on an unreasonably low cost would represent a significant risk to the agency because the final price paid by the Government is based on incurred costs. For fixed-price contracts, the cost risk is on the contractor, but an unrealistically low price could create performance risks resulting in poor performance or default. FAA reserves the right to make an informed judgment and decide whether to award or not based on downstream consequences emanating from potential change orders, etc.

(5) Evaluation Criteria and Realism Analysis. When using realism analysis in evaluating offers for contract award, the SIR should state that cost realism or price realism may be used as part of the evaluation process and define how the analysis will be considered. Fixed-price contracts may reserve the right to perform realism analysis only if the CO determines it is necessary based on proposed prices.

j. *Unbalanced Offer*. Offeror proposals should be analyzed to determine whether they are unbalanced with respect to prices or separately priced line items. This is particularly important when evaluating the prices for options in relationship to the prices for the basic requirements. An offer is mathematically unbalanced if it is based on prices which are significantly less than the cost of some contract line items and significantly overstated in relation to cost for others. An offer is materially unbalanced if it is mathematically unbalanced and if there is reasonable doubt that the offer would result in the lowest overall cost to FAA (even though it is the lowest evaluated offer); or the offer is so grossly unbalanced that its acceptance would be tantamount to allowing an advance payment. Offers that are materially unbalanced may be rejected. Depending on the nature of the procurement, price analysis or

cost analysis should be used in determining whether offers are materially unbalanced.

2 Independent Government Cost Estimate Revised 4/2016

a. Purpose of an IGCE

(1) An independent Government cost estimate (IGCE) is an internal Government estimate, supported by factual or reasoned data and documentation, describing how much FAA could reasonably expect to pay for needed supplies or services. It serves as:

- (a) The basis for reserving funds for the procurement action;
- (b) A method for comparing cost or price proposed by offerors;
- (c) An objective basis for determining price reasonableness when only one offer is received in response to a solicitation; and
- (d) A means of detecting offeror buy-ins and identifying unbalanced prices.

(2) The CO must ensure, through cost and/or price analysis, that the final price is fair and reasonable for all acquisitions (Policy 3.2.3). One of several techniques in performing price analysis is comparison of the proposed prices with an IGCE. Its primary objective is to provide the CO with an unbiased, realistic cost estimate for proposed supplies, services, and construction.

(3) A well supported IGCE is a valuable tool for price negotiations, especially in the case of a single source acquisition. Clearly defined and supported cost elements such as labor, overhead, and travel enable FAA to make informed negotiation decisions. A well-reasoned IGCE helps FAA to verify completeness of offeror or contractor's cost proposals.

b. Applicability. An IGCE is required for procurement actions over \$150,000 (or for any lower dollar value procurement action when the CO determines it necessary) (Policy 3.2.1.2.4), except for:

- (1) Modifications to exercise priced options;
- (2) Incremental funding modifications;
- (3) Delivery orders for priced supplies or services under indefinite delivery contracts;
- (4) Acquisition of real property (i.e., land, space, or interest therein); or
- (5) Supplies or services with prices set by law or regulation.

c. Responsibility for Preparation.

(1) The program office is responsible for the IGCE. Non-Government personnel (excluding any personnel of potential offerors) may support a program official in preparing the IGCE. Because the IGCE is procurement sensitive, access to it must be on a need to know basis. The IGCE must be signed and dated by the Government preparer.

(2) The IGCE must not be based on information furnished solely by a potential offer that may be considered for award, or based on an offeror's cost/price proposal after receipt of offers.

d. When to Submit. An IGCE should accompany the procurement request package. The IGCE becomes part of the official contract file documentation.

e. Proper Marking. Each IGCE must be designated and marked, "FOR OFFICIAL USE ONLY."

f. Commercial and Noncomplex Procurement Actions. Published price lists, catalog prices, historical prices, General Services Administration (GSA) schedule prices, or market survey prices may suffice for an IGCE involving standard commercial materials, supplies, equipment and noncomplex services readily available in the commercial market. Lump sum estimates for commercial and noncomplex supplies and services do not break down the estimate into various cost elements. An IGCE for commercial and noncomplex products and services may entail determining the market value of an item or service and using that as the basis for the IGCE, documenting the research, and then furnishing this information to the CO.

g. Differences Between Proposal Price and IGCE. When there are differences greater than 15% between the price of the offer proposed for award and the IGCE, the CO should notify the program official for appropriate remedial actions.

h. Detailed and Lump Sum Estimates and IGCE Structure. The complexity of an IGCE depends on the nature and dollar value of the requirement, and an IGCE could be a detailed cost estimate or a lump sum estimate. Detailed estimates encompass an analysis and estimation for individual cost elements (i.e., direct labor, material, overhead, other direct costs, general and administrative expense, and profit). In contrast, the lump sum estimate projects cost on a "bottom line" basis. Lump sum estimates may be useful when the price of an item or service can be determined without examining individual cost elements, such as when acquiring commercial items. The program official determines whether the IGCE should be developed as a lump sum estimate, detailed cost estimate, by contract line item number (CLIN), or by work breakdown structure (WBS). The structure used for the IGCE should track directly to the proposed CLIN structure used in the SIR to allow for valid comparisons in proposal cost and price analyses.

i. Cost Estimates by Work Breakdown Structure (WBS). Cost estimates by WBS provide detailed cost estimates for each activity in the WBS and may include vendor quotes or catalog prices for materials and engineering labor estimates.

j. Market Research and Analysis. Market research and analyses may be used to collect current cost information.

k. Cost Estimation.

(i) Cost estimation is a field of practice that can be simple to complex, depending on the requirement. Cost estimation methods for major system, facilities, and equipment acquisitions are complex and require defined requirements, extensive market research and expert assistance.

(ii) Different approaches are used to make cost estimates. The cost estimator decides the appropriate approach and it will vary depending on the requirement, amount of data that the estimator has about the item or service to be estimated and the time frame for completion of the estimate. There are five terms used within the cost analysis community to describe the usual methods of developing estimates: analogy, parametric, expert opinion, engineering and actual cost (extrapolation). There are many Government and private sector publications, models, and tools available on cost estimation. Listed below are several resources available for estimating costs:

DoD Contract Pricing Reference Guide Volume I: Chapter 6.1 and Chapter 1.1

NASA Parametric Cost Estimating Handbook

U.S. Army Cost Analysis Manual

NASA Cost Estimating Handbook

(iii) Detailed information on elements included in a Cost Estimate and a template for preparing an IGCE are available in the Appendix, Appendices 2 and 3.

3 Cost Accounting Standards Revised 3/2016

a. *Applicability.* Full or modified cost accounting standards (CAS) coverage, as appropriate, applies to all cost-type contracts and subcontracts. Categories of contracts and subcontracts exempt from all CAS requirements include:

- (1) Negotiated contracts and subcontracts not in excess of \$700,000. For purposes of this arrangement, an order issued by one segment to another must be treated as a subcontract (Policy 3.2.3.5);
- (2) Contracts and subcontracts with small businesses;
- (3) Contracts and subcontracts with foreign governments or their agents or instrumentalities or (insofar as the requirements of CAS other than 9904.401 and 9904.402 are concerned) any contract or subcontract awarded to a foreign concern;
- (4) Contracts and subcontracts in which the price is set by law or regulation;
- (5) Firm fixed price and fixed-price with economic price adjustment (provided

that the price adjustment is not based on actual costs incurred), time-and-materials, and labor-hour contracts and subcontracts for acquisition of commercial items;

(6) Contracts or subcontracts of less the \$7.5 million, provided that at the time of award the business unit of the contractor or subcontractor is not currently performing any CAS-covered contracts or subcontracts at \$7.5 million or greater;

(7) Contracts and subcontracts to be executed and performed outside the United States, its territories, and possessions; and

(8) Firm-fixed-price contracts or subcontracts awarded on the basis of adequate price competition without submission of cost or pricing data.

b. *Contract Requirements.* A CAS-covered contract may be subject to either full or modified CAS coverage.

(i) Modified CAS coverage applies to contractor business units that received less than \$50 million in net CAS-covered awards in the immediately preceding cost accounting period. Modified CAS coverage only requires that the business unit comply with the following standards:

- a. 401, Consistency in Estimating, Accumulating and Reporting Costs
- b. 402, Consistency in Allocating Costs Incurred for the Same Purpose
- c. 405, Accounting for Unallowable Costs
- d. 406, Cost Accounting Period

(ii) Full CAS coverage requires the business unit (as defined in CAS 410-30(a)(2)) comply with all of the CAS in effect on the contract award date, or if required to submit certified cost or pricing data, on the date of the certification, as well as any CAS (or modifications) which become applicable in the future. Full CAS coverage applies to contractor business units that:

- a. Received a single CAS-covered contract award, including option amounts, or \$50 million or more; or
- b. Received \$50 million or more in CAS-covered contract awards during the immediately preceding cost accounting period.

c. *CAS Administration.* The cognizant CO will perform CAS administration for all contracts in a business unit notwithstanding retention of other administration functions by another CO. Within 30 days after the award of any new contract or subcontract subject to CAS, the CO, contractor, or subcontractor making the award should request the cognizant CO to perform administration for CAS matters. This is one of the duties of the Financial Administrative Contracting Officers (FACO) for those contractors who are under the cognizance of the FAA.

d. *Waiver.* In some instances, contractors or subcontractors may refuse to accept all or part of the requirements of AMS Clauses 3.2.3-2, Cost Accounting Standards, and 3.2.3-3, Disclosure and Consistency of Cost Accounting Practices. If the CO determines that it is impractical to obtain the materials, supplies, or services from any other source, the CO should prepare a request for waiver.

e. *Responsibilities.*

(1) The CO is responsible for determining when a proposed contract may require CAS coverage and for including the appropriate notice in the screening information request. The CO ensures that the offeror has made the required certifications and that required Disclosure Statements are submitted.

(2) The CO should not award a CAS-covered contract until the FACO has made a written determination that a required Disclosure Statement is adequate unless, in order to protect FAA interest, the CO waives the requirement for an adequacy determination before award. In this event, a determination of adequacy should be required as soon as possible after the award.

(3) The cognizant auditor is responsible for conducting reviews of Disclosure Statements for adequacy and compliance.

(4) The cognizant FACO is responsible for determinations of adequacy and compliance of the Disclosure Statement.

f. *Determinations.*

(1) *Adequacy Determination.* The contract auditor will conduct an initial adequacy review of a Disclosure Statement to ascertain whether it is current, accurate, and complete and will report the results to the cognizant FACO. The FACO will determine whether or not it adequately describes the offeror's cost accounting practices, based on the recommendation of the auditor. If the FACO identifies any areas of inadequacy, the FACO should request a revised Disclosure Statement. If the Disclosure Statement is adequate, the FACO should notify the offeror in writing, with copies to the auditor and FACO. The notice of adequacy should state that a disclosed practice will not, by virtue of such disclosure, be considered an approved practice for pricing proposals or accumulating and reporting contract performance cost data. Generally, the FACO should furnish the contractor notification of adequacy within 30 days after the Disclosure Statement has been received by the FACO.

(2) *Compliance Determination.* After the notification of adequacy, the auditor must conduct a detailed compliance review to determine whether or not the disclosed practices comply with cost principles and the CAS and will advise the CO of the results. The CO should take action regarding noncompliance with CAS. The CO may require a revised Disclosure Statement and adjustment of the prime contract price or cost allowance. Noncompliance with cost principles should be processed separately, in accordance with normal administrative practices.

g. Subcontractor Disclosure Statements.

(1) When FAA requires determinations of adequacy, the FACO cognizant of the subcontractor will provide such determination to the FACO cognizant of the prime contractor or next higher tier subcontractor. FACO's cognizant of higher tier subcontractors or prime contractors should not reverse the determination of the FACO cognizant of the subcontractor.

(2) The agency head may determine that it is not practical to secure the Disclosure Statement, although submission is required, and authorize contract award without obtaining the Statement. The agency head must, within 30 days of having done so, submit a report to the Cost Accounting Standards Board setting forth all material facts. This authority may not be delegated.

h. Changes to Disclosed or Established Cost Accounting Practices. Adjustments to contracts and withholding amounts payable for CAS noncompliance, new standards, or voluntary changes are required only if the amounts involved are material. In determining whether amounts of cost are material, the following criteria will be considered by the CO where appropriate; no one criterion is necessarily determinative:

(1) *The absolute dollar amount involved.* The larger the dollar amount, the more likely that it will be material.

(2) *The amount of contract cost compared with the amount under consideration.* The larger the proportion of the amount under consideration to contract cost, the more likely it is to be material.

(3) *The relationship between a cost item and a cost objective.* Direct cost items, since the amounts are themselves part of a base for allocation of indirect costs, will normally have more impact than the same amount of indirect costs.

(4) *The impact of Government participation.* Changes in accounting treatment will have more impact if they influence the distribution of costs between Government and non-Government cost objectives than if all cost objectives are with the Government.

(5) *The cumulative impact of individually immaterial items.* It is appropriate to consider whether such impacts:

(a) Tend to offset one another; or

(b) Tend to be in the same direction and hence to accumulate into a material amount.

(6) The cost of administrative processing of the price adjustment modification should be considered. If the cost to process exceeds the amount to be recovered, it is less likely the amount will be material.

The FACO may forego action to require that a cost impact proposal be submitted or to adjust

contracts, if the FACO determines the amount involved is immaterial. However, in the case of noncompliance issues, the FACO should inform the contractor that:

- (1) FAA reserves the right to make appropriate contract adjustments if, in the future, the FACO determines that the cost impact has become material; and
- (2) The contractor is not excused from the obligation to comply with the applicable Standard or rules and regulations involved.

i. *Equitable Adjustments for New or Modified Standards.*

(1) *New or Modified Standards.*

- (a) AMS clause 3.2.3-1, Cost Accounting Standards Notices and Certification, requires offerors to state whether or not the award of the contemplated contract would require a change to established cost accounting practices affecting existing contracts and subcontracts. The FACO ensures that the contractor's response to the notice is made known to the CO.
- (b) Contracts and subcontracts containing AMS clause 3.2.3-2, Cost Accounting Standards, may require equitable adjustments to comply with new or modified CAS. Such adjustments are limited to contracts and subcontracts awarded subject to full CAS coverage before the effective date of each new or modified standard. A new or modified standard becomes applicable prospectively to these contracts and subcontracts when a new contract or subcontract containing AMS clause 3.2.3-2, Cost Accounting Standards, is awarded on or after the effective date of the new or modified standard.
- (c) COs should encourage contractors to submit any change in accounting practice in anticipation of complying with a new or modified standard as soon as practical after the new or modified Standard has been promulgated by the Cost Accounting Standards Board. Any changes should be provided to the FACO for adequacy and compliance determinations.

(2) *Accounting Changes.*

- (a) AMS clause 3.2.3-5, Administration of Cost Accounting Standards, requires the contractor to submit a description of any change in cost accounting practices required to comply with a new or modified CAS within 60 days (or other mutually agreed to date) after award of a contract requiring the change.
- (b) The FACO will request the cognizant auditor to review the proposed change concurrently for adequacy and compliance. If the change meets both tests, the FACO will notify the contractor and may request submission of a cost impact proposal or a report of general dollar magnitude. However, if the practice is not yet being performed, it may not be able to be tested for compliance.

(3) *Contract Price Adjustments.*

(a) The FACO should promptly analyze the cost impact proposal with the assistance of the auditor, determine the impact, and negotiate the contract price adjustment on behalf of all Government agencies. The FACO should invite COs from other agencies to participate in negotiations of adjustments when the price of any of their contracts may be increased or decreased by \$10,000 or more. At the conclusion of negotiations, the FACO will:

(i) Inform the COs of affected contracts so the COs may execute supplemental agreements to the contracts;

(ii) Prepare a negotiation memorandum and send copies to cognizant auditors and COs of other agencies having prime contracts affected by the negotiation (those agencies execute supplemental agreements in the amounts negotiated); and

(iii) Furnish copies of the memorandum indicating the effect on costs to the CO of the next higher tier subcontractor or prime contractor, as appropriate, if a subcontract is to be adjusted. This memorandum will serve as the basis for negotiation between the subcontractor and the next higher tier subcontractor or prime contractor and for execution of a supplemental agreement to the subcontract.

(b) If the parties fail to agree on the cost or price adjustment, the FACO may make a unilateral adjustment, subject to contractor appeal.

(4) Remedies for Contractor Failure to Make Required Submissions.

(a) If the contractor does not submit the accounting change description or the general dollar magnitude of the change or cost impact proposal (in the form and manner specified), the FACO, with the assistance of the auditor, estimates the general dollar magnitude of the cost impact on CAS-covered contracts and subcontracts. The FACO then informs the COs who may withhold an amount not to exceed 10 percent of each subsequent amount determined payable related to the contractor's CAS-covered prime contracts, up to the estimated general dollar magnitude of the cost impact, until the required submission is furnished by the contractor.

(b) If the contractor has not submitted the cost impact proposal before the total withheld amount reaches the estimated general dollar magnitude and the FACO determines that an adjustment is required, the FACO, with assistance from the CO, should request the contractor to agree to the cost or price adjustment. The contractor should also be advised that in the event no agreement on the cost or price adjustment is reached within 20 days, the FACO may have the COs make a unilateral adjustment, subject to contractor appeal.

j. Noncompliance with CAS Requirements.

(1) Determination of Noncompliance.

(a) Within 15 days of the receipt of a report of alleged noncompliance from the auditor, the FACO makes an initial finding of compliance or noncompliance and advise the auditor.

(b) If an initial finding of noncompliance is made, the FACO immediately notifies the contractor in writing of the exact nature of the noncompliance and allow the contractor 60 days within which to agree or to submit reasons why the existing practices are considered to be in compliance.

(c) If the contractor agrees with the initial finding of noncompliance, the FACO reviews the contractor submissions required by paragraph (a) of AMS clause 3.2.3-5, Administration of Cost Accounting Standards.

(d) If the contractor disagrees with the initial noncompliance finding, the FACO reviews the reasons why the contractor considers the existing practices to be in compliance and make a determination of compliance or noncompliance. If the FACO determines that the contractor's practices are in noncompliance, a written explanation is provided as to why the FACO disagrees with the contractor's rationale. The FACO notifies the contractor and the auditor in writing of the determination. If the FACO makes a determination of noncompliance, the procedures in (b) through (d), as appropriate, are followed.

(2) Accounting Changes.

(a) AMS Clause 3.2.3-5, Administration of Cost Accounting Standards, requires the contractor to submit a description of any cost accounting practice change needed to correct a noncompliance.

(b) The FACO reviews the proposed change concurrently for adequacy and compliance. If the description of the change meets both tests, the FACO notifies the contractor and request submission of a cost impact proposal.

(3) Contract Price Adjustments.

(a) The FACO requests that the contractor submit a cost impact proposal within the time specified in AMS Clause 3.2.3-5, Administration of Cost Accounting Standards.

(b) Upon receipt of the cost impact proposal, the FACO follows the procedures in subparagraph (3) (a) under above paragraph j. "Equitable Adjustments for New or Modified Standards". In accordance with the AMS Clause 3.2.3-2, Cost Accounting Standards, the FACO must include and separately identify, as part of the computation of the contract price adjustment(s), applicable interest on any increased costs paid to the contractor as a result of the noncompliance. Interest must be computed from the date of overpayment to the time the adjustment is affected. If the costs were incurred and paid evenly over the fiscal years during which the noncompliance occurred, then the midpoint of the period in which the noncompliance began may be considered the baseline for the computation of interest. An alternate equitable method should be used if

the costs were not incurred and paid evenly over the fiscal years during which the noncompliance occurred. Interest should be computed pursuant to AMS Clause 3.3.1-9, Interest.

(4) Remedies for Contractor Failure to Make Required Submissions.

(a) If the contractor does not submit the accounting change description or the general dollar magnitude of the change or cost impact proposal (in the form and manner specified), the FACO, with the assistance of the auditor, should estimate the general dollar magnitude of the cost impact on CAS-covered contracts and subcontracts. The FACO should inform the COs who may then withhold an amount not to exceed 10 percent of each subsequent amount determined payable related to the contractor's CAS- covered prime contracts, up to the estimated general dollar magnitude of the cost impact until the required submission is furnished by the contractor.

(b) If the contractor has not submitted the cost impact proposal before the total withheld amount reaches the estimated general dollar magnitude and the FACO determines that an adjustment is required, the FACO, with assistance from the CO, should request the contractor to agree to the cost or price adjustment. The contractor should also be advised that in the event no agreement on the cost or price adjustment is reached within 20 days, the FACO may have the COs make a unilateral adjustment, subject to contractor appeal.

(c) If the FACO determines that there is no material increase in costs as a result of the noncompliance, the FACO notifies the contractor in writing that the contractor is in noncompliance, that corrective action should be taken, and that if such noncompliance subsequently results in materially increased costs to the FAA, the provisions of AMS Clause 3.2.3-2, Cost Accounting Standards and/or AMS Clause 3.2.3-3, Disclosure and Consistency of Cost Accounting Practices, will be enforced.

k. Voluntary Changes.

(1) General.

(a) The contractor may voluntarily change its disclosed or established cost accounting practices.

(b) The contract price may be adjusted for voluntary changes. However, increased costs resulting from a voluntary change may be allowed only if the CO determines that the change is desirable and not detrimental to the interest of FAA.

(2) Accounting Changes.

(a) AMS Clause 3.2.3-5, Administration of Cost Accounting Standards, requires the contractor to notify the FACO and submit a description of any

voluntary cost accounting practice change not less than 60 days (or such other date as may be mutually agreed to) before implementation of the voluntary change.

(b) The FACO reviews the proposed change concurrently for adequacy and compliance. If the description of the change meets both tests, the FACO notifies the contractor and requests submission of a cost impact proposal.

(3) Contract Price Adjustments.

(a) With the assistance of the auditor, the FACO promptly analyzes the cost impact proposal to determine whether or not the proposed change will result in increased costs being paid by FAA. The FACO considers all of the contractor's affected CAS-covered contracts and subcontracts, but any cost changes to higher- tier subcontracts or contracts of other contractors over and above the cost of the subcontract adjustment are not considered.

(b) The FACO then follows the procedures in above subparagraph j, "Equitable Adjustments for New or Modified Standards."

(4) Remedies for Contractor Failure to Make Required Submissions.

(a) If the contractor does not submit the accounting change description or the general dollar magnitude of the change or cost impact proposal (in the form and manner specified), the FACO, with the assistance of the auditor, estimates the general dollar magnitude of the cost impact on CAS-covered contracts and subcontracts. The FACO may then withhold an amount not to exceed 10 percent of each subsequent amount determined payable related to the contractor's CAS- covered prime contracts up to the estimated general dollar magnitude of the cost impact, until the required submission is furnished by the contractor.

(b) If the contractor has not submitted the cost impact proposal before the total withheld amount reaches the estimated general dollar magnitude and the FACO determines that an adjustment is appropriate, the FACO, with assistance from the CO, should request the contractor to agree to the cost or price adjustment. The contractor should also be advised that in the event no agreement on the cost or price adjustment is reached within 20 days, the FACO may have the COs make a unilateral adjustment, subject to contractor appeal.

1. *Subcontract Administration.* When a negotiated CAS price adjustment or a determination of noncompliance is required at the subcontract level, the FACO cognizant of the subcontractor should make the determination and advise the FACO cognizant of the prime contractor or next higher tier subcontractor of his decision. FACOs cognizant of higher tier subcontractors or prime contractors should not reverse the determination of the FACO cognizant of the subcontractor.

4 Financial Administrative Contracting Officer (FACO) Added 4/2014

a. *Definition.* Financial Administrative Contracting Officers (FACO) are FAA employees who perform financial administration, including at a minimum system adequacy determination, forward pricing and year-end actual rate administration and negotiation, and cost allowability determination to companies whenever the FAA is the cognizant agency.

b. *Roles and Responsibilities.*

- (1) Establish billing rates, make forward pricing rate recommendations, negotiate forward pricing rate agreements, and negotiate final indirect rates for cost-reimbursement contracts with companies over whom FAA has cognizance;
- (2) Make final determinations on adequacy of contractor accounting systems;
- (3) Determine the contractor's compliance with Cost Accounting Standards (CAS) as applicable;
- (4) Determine the allowability of cost suspended or disapproved, direct suspension or disapproval of costs when there is reason to believe they should be suspended or disapproved;
- (5) Issue Notices of Intent to disallow or not recognize costs;
- (6) Negotiate advance agreements applicable to treatment of certain costs;
- (7) Send letter(s) to contractor, contracting officers and affected external agencies notifying them of FACO actions, recommendations, negotiations as appropriate.

B Clauses

[view contract clauses](#)

C Forms

[view procurement forms](#)

D Appendix Revised 10/2007

1 Appendix - Instructions for Submitting Certified Cost/Price Proposals Revised 3/2016

INSTRUCTION FOR SUBMITTING COST/PRICE PROPOSALS WHEN CERTIFIED COST OR PRICING DATA ARE REQUIRED

Note 1. There is a clear distinction between submitting certified cost or pricing data and merely making available books, records, and other documents without identification. The

requirement for submission of certified cost or pricing data is met when all accurate cost or pricing data reasonably available to the offeror have been submitted, either actually or by specific identification, to the Contracting Officer (CO) or an authorized representative. As later information comes into the offeror's possession, it should be submitted promptly to the CO in a manner that clearly shows how the information relates to the offeror's price proposal. The requirement for submission of certified cost or pricing data continues up to the time of agreement on price, or an earlier date agreed upon between the parties if applicable.

Note 2. By submitting the offeror's proposal, the offeror grants the CO or an authorized representative the right to examine records that formed the basis for the pricing proposal. That examination can take place at any time before award. It may include those books, records, documents, and other types of factual information (regardless of form or whether the information is specifically referenced or included in the proposal as the basis for pricing) that will permit an adequate evaluation of the proposed price.

I. GENERAL INSTRUCTIONS

A. The offeror must provide the following information on the first page of the offeror's pricing proposal:

- (1) Solicitation, contract, and/or modification number;
- (2) Name and address of offeror;
- (3) Name and telephone number of point of contact;
- (4) Name of contract administration office (if available);
- (5) Type of contract action (that is, new contract, change order, price revision/redetermination, letter contract, unpriced order, or other);
- (6) Proposed cost; profit or fee; and total;
- (7) Whether the offeror will require the use of Government property in the performance of the contract, and, if so, what property;
- (8) Whether the offeror's organization is subject to cost accounting standards; whether the offeror's organization has submitted a CASB Disclosure Statement, and if it has been determined adequate; whether the offeror have been notified that the offeror are or may be in noncompliance with the offeror's Disclosure Statement or CAS, and, if yes, an explanation; whether any aspect of this proposal is inconsistent with the offeror's disclosed practices or applicable CAS, and, if so, an explanation; and whether the proposal is consistent with the offeror's established estimating and accounting principles and procedures and FAA Cost Principles, and, if not, an explanation;
- (9) The following statement:

"This proposal reflects our estimates and/or actual costs as of this date and conforms to the instructions contained in the Appendix to Toolbox Section 3.2.3, 'Cost and

Price Methodology." By submitting this proposal, we grant the CO and authorized representative(s) the right to examine, at any time before award, those records, which include books, documents, accounting procedures and practices, and other data, regardless of type and form or whether such supporting information is specifically referenced or included in the proposal as the basis for pricing, that will permit an adequate evaluation of the proposed price."

(10) Date of submission; and

(11) Name, title and signature of authorized representative.

B. In submitting the offeror's proposal, the offeror must include an index, appropriately referenced, of all the cost or pricing data and information accompanying or identified in the proposal. In addition, the offeror must annotate any future additions and/or revisions, up to the date of agreement on price, or an earlier date agreed upon by the parties, on a supplemental index.

C. As part of the specific information required, the offeror must submit, with the offeror's proposal, certified cost or pricing data (that is, data that are verifiable and factual and otherwise as defined in FAA AMS Appendix C. The offeror must clearly identify on the offeror's cover sheet that certified cost or pricing data are included as part of the proposal. In addition, the offeror must submit with the offeror's proposal any information reasonably required to explain the offeror's estimating process, including

(1) The judgmental factors applied and the mathematical or other methods used in the estimate, including those used in projecting from known data; and

(2) The nature and amount of any contingencies included in the proposed price.

D. The offeror must show the relationship between contract line item prices and the total contract price. The offeror must attach cost-element breakdowns for each proposed line item, using the appropriate format prescribed in the "Formats for Submission of Line Item Summaries" section of this table. The offeror must furnish supporting breakdowns for each cost element, consistent with the offeror's cost accounting system.

E. When more than one contract line item is proposed, the offeror must also provide summary total amounts covering all line items for each element of cost.

F. Whenever the offeror have incurred costs for work performed before submission of a proposal, the offeror must identify those costs in the offeror's cost/price proposal.

G. If the offeror has reached an agreement with Government representatives on use of forward pricing rates/factors, identify the agreement, include a copy, and describe its nature.

H. As soon as practicable after final agreement on price or an earlier date agreed to by the parties, but before the award resulting from the proposal the offeror must submit a Certificate of Current Cost or Pricing Data as follows:

(1) Certificate

CERTIFICATE OF CURRENT COST OR PRICING DATA

This is to certify that, to the best of my knowledge and belief, the cost or pricing data submitted, either actually or by specific identification in writing, to the CO or to the CO's representative in support of [*] are accurate, complete, and current as of [**]. This certification includes the cost or pricing data supporting any advance agreements and forward pricing rate agreements between the offeror and the Government that are part of the proposal.

[Offeror insert the following information.]

Firm _____

Signature _____

Name _____

Title _____

Date of execution [*** _____]

**Offeror identify the proposal, request for price adjustment, or other submission involved, giving the appropriate identifying number (e.g., SIR No.)*

*** Offeror insert the day, month, and year when price negotiations were concluded and price agreement was reached or, if applicable, an earlier date agreed upon between the parties that is as close as practicable to the date of agreement on price.*

**** Offeror insert the day, month, and year of signing, which should be as close as practicable to the date when the price negotiations were concluded and the contract price was agreed to.*

(End of
certificate)

(2) The certificate does not constitute a representation as to the accuracy of the offeror's judgment on the estimate of future costs or projections. It applies to the data upon which the judgment or estimate was based. This distinction between fact and judgment should be clearly understood. If the offeror had information reasonably available at the time of agreement showing that the negotiated price was not based on accurate, complete, and current data, the offeror's responsibility is not limited by any lack of personal knowledge of the information on the part of its negotiators.

(3) The CO and offeror are encouraged to reach a prior agreement on criteria for establishing closing or cutoff dates when appropriate in order to minimize delays associated

with proposal updates. Closing or cutoff dates should be included as part of the data submitted with the proposal and, before agreement on price, data should be updated by the offeror to the latest closing or cutoff dates for which the data are available. Use of cutoff dates coinciding with reports is acceptable, as certain data may not be reasonably available before normal periodic closing dates (e.g., actual indirect costs). Data within the offeror's or a subcontractor's organization on matters significant to offeror management and to FAA will be treated as reasonably available. What is significant depends upon the circumstances of each acquisition.

(4) Possession of a Certificate of Current Cost or Pricing Data is not a substitute for examining and analyzing the offeror's proposal.

(5) If certified cost or pricing data are requested by FAA and submitted by an offeror, but an exception is later found to apply, the data must not be considered certified cost or pricing data and must not be certified in accordance with this subsection.

II. COST ELEMENTS

Depending on the offeror's system, the offeror must provide breakdowns for the following basic cost elements, as applicable:

A. Materials and services. Provide a consolidated priced summary of individual material quantities included in the various tasks, orders, or contract line items being proposed and the basis for pricing (vendor quotes, invoice prices, etc.). Include raw materials, parts, components, assemblies, and services to be produced or performed by others. For all items proposed, identify the item and show the source, quantity, and price. Conduct price analyses of all subcontractor proposals. Conduct cost analyses for all subcontracts when certified cost or pricing data are submitted by the subcontractor. Include these analyses as part of the offeror's own certified cost or pricing data submissions. Submit the subcontractor certified cost or pricing data as part of the offeror's own certified cost or pricing data as required in subparagraph IIA (2) below. These requirements also apply to all subcontractors if required to submit certified cost or pricing data.

(1) Adequate Price Competition. Provide data showing the degree of competition and the basis for establishing the source and reasonableness of price. For interorganizational transfers priced at other than the cost of comparable competitive commercial work of the division, subsidiary, or affiliate of the offeror, explain the pricing method.

(2) All Other. Obtain certified cost or pricing data from prospective sources (i.e., adequate price competition, commercial items, prices set by law or regulation or waiver). Also provide data showing the basis for establishing source and reasonableness of price. In addition, provide a summary of the offeror's cost analysis and a copy of certified cost or pricing data submitted by the prospective source in support of each subcontract or purchase order that is the lower of either \$10,000,000 or more, or both more than the pertinent certified cost or pricing data threshold and more than 10 percent of the prime offeror's proposed price. The CO may require the offeror to submit certified cost or pricing data in support of proposals in lower amounts. Subcontractor certified cost or pricing data must be accurate, complete and current as

of the date of final price agreement, or an earlier date agreed upon by the parties, given on the prime offeror's Certificate of Current Cost or Pricing Data. The prime offeror is responsible for updating a prospective subcontractor's data. For standard commercial items fabricated by the offeror that are generally stocked in inventory, provide a separate cost breakdown, if priced based on cost. For interorganizational transfers priced at cost, provide a separate breakdown of cost elements. Analyze the cost or pricing data and submit the results of the offeror's analysis of the prospective source's proposal. When submission of a prospective source's certified cost or pricing data is required as described in this paragraph, it must be included along with the offeror's own certified cost or pricing data submission, as part of the offeror's own certified cost or pricing data. The offeror must also submit any other certified cost or pricing data obtained from a subcontractor, either actually or by specific identification, along with the results of any analysis performed on that data.

B. Direct Labor. Provide a time-phased (e.g., monthly, quarterly, etc.) breakdown of labor hours, rates, and cost by appropriate category, and furnish bases for estimates.

C. Indirect Costs. Indicate how the offeror have computed and applied the offeror's indirect costs, including cost breakdowns. Show trends and budgetary data to provide a basis for evaluating the reasonableness of proposed rates. Indicate the rates used and provide an appropriate explanation.

D. Other Costs. List all other costs not otherwise included in the categories described above (e.g., special tooling, travel, computer and consultant services, preservation, packaging and packing, spoilage and rework, and Federal excise tax on finished articles) and provide bases for pricing.

E. Royalties. If royalties exceed \$1,500, the offeror must provide the following information on a separate page for each separate royalty or license fee:

- (1) Name and address of licensor.
- (2) Date of license agreement.
- (3) Patent numbers.
- (4) Patent application serial numbers, or other basis on which the royalty is payable.
- (5) Brief description (including any part or model numbers of each contract item or component on which the royalty is payable).
- (6) Percentage or dollar rate of royalty per unit.
- (7) Unit price of contract item.
- (8) Number of units.
- (9) Total dollar amount of royalties.

(10) If specifically requested by the CO, a copy of the current license agreement and identification of applicable claims of specific patents.

F. Facilities Capital Cost of Money. When the offeror elects to claim facilities capital cost of money as an allowable cost, the offeror must submit form "Contract Facilities Capital Cost of Money." (see Template 32 in the FAA Procurement Forms section of the Procurement Toolbox). The offeror must show the calculation of the proposed amount.

III. FORMATS FOR SUBMISSION OF LINE ITEM SUMMARIES

A. New Contracts (including letter contracts)

(1)	(2)	(3)	(4)
COST ELEMENTS	PROPOSED CONTRACT ESTIMATE- TOTAL COST	PROPOSED CONTRACT ESTIMATE- UNIT COST	REFERENCE

Column Instruction

(1) Enter appropriate cost elements.

(2) Enter those necessary and reasonable costs that, in the offeror's judgment, will properly be incurred in efficient contract performance. When any of the costs in this column have already been incurred (e.g., under a letter contract), describe them on an attached supporting page. When preproduction or startup costs are significant, or when specifically requested to do so by the CO, provide a full identification and explanation of them.

(3) Optional, unless required by the CO.

(4) Identify the attachment in which the information supporting the specific cost element may be found. (Attach separate pages as necessary.)

B. Change Orders, Modifications, and Claims.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
COST ELEMENTS	ESTIMATED COST OF ALL WORK COMPLETED	COST OF DELETED WORK ALREADY	NET COST TO BE DELETED	COST OF WORK ADDED	NET COST OF CHANGE	REFERENCE

		PERFORMED				

Column Instructions

- (1) Enter appropriate cost elements.
- (2) Include the current estimates of what the cost would have been to complete the deleted work not yet performed (not the original proposal estimates), and the cost of deleted work already performed.
- (3) Include the incurred cost of deleted work already performed, using actuals incurred if possible, or, if actuals are not available, estimates from the contractor's accounting records. Attach a detailed inventory of work, materials, parts, components, and hardware already purchased, manufactured, or performed and deleted by the change, indicating the cost and proposed disposition of each line item. Also, if the contractor desires to retain these items or any portion of them, indicate the amount offered for them.
- (4) Enter the net cost to be deleted, which is the estimated cost of all deleted work less the cost of deleted work already performed. Column (2) minus Column (3) equals Column (4).
- (5) Enter the contractor's estimate for cost of work added by the change. When nonrecurring costs are significant, or when specifically requested to do so by the CO, provide a full identification and explanation of them. When any of the costs in this column have already been incurred, describe them on an attached a supporting schedule.
- (6) Enter the net cost of change, which is the cost of work added, less the net cost to be deleted. Column (5) minus Column (4) equals Column (6). When this result is negative, place the amount in parentheses.
- (7) Identify the attachment in which the information supporting the specific cost element may be found. (*Attach separate pages as necessary.*)

2 Appendix – Developing A Detailed Independent Government Cost Estimate Added 3/2016

- (1) *Developing a Detailed Cost Estimate.* An IGCE should be independently prepared by a subject matter expert(s). To begin, the estimator should perform a detailed analysis of the requirement. The estimator should be familiar with the market for the item, including prior prices, inflation, market conditions, quantity, existing and emerging technologies, and substitutions. The estimator should be able to explain clearly the rationale used to develop the estimate and document the results. The estimator should list any assumptions, methodology used, and reference material used in developing the estimate.

Detailed Cost Estimate – Standard Elements. The following description of standard cost elements used in a detailed estimate is intended to assist in the preparation of a detailed

IGCE. A sample format for a detailed cost estimate is in Appendix 3.

a. *Estimating Labor Hours*

(i) Labor costs are usually the most significant part of the cost estimate for a contract. Direct labor is the labor directly applied to the task or project performed under a contract. Estimating hours for individual labor categories may be achieved using one or a combination of several techniques.

(ii) Evaluating historical actual cost data gathered from FAA contracts for similar goods or services to estimate future requirements. The comparison between past and future items or services can be accomplished at a summary or task level. Many companies keep detailed cost records at the task level, which may be utilized if FAA has access to these records. When using this method consider aberrations that could skew the estimate. Consider also possible reductions in labor hours resulting from improvement from experience. This reduction can be estimated using learning curve theories.

(iii) Labor standards may be used to estimate labor hours for manufacturing or repetitive functions. Labor standards are developed from data within the company, data published by trade associations, and data gathered from various other reference sources. For example, a company may determine that to produce a widget requires a standard of 12 hours of an engineer's time. This means that on average 12 engineer hours are needed to produce one widget; the actual time may vary from widget to widget.

(iv) Estimates based on the professional experience and judgment of engineers and managers may be used to estimate labor hours, but it is the least accurate approach to estimating. Determining the proper mix of labor categories is important to make sure that the type of labor as well as the skill level of workers is appropriate for the work to be performed.

(v) Labor hours may vary from year to year depending on the goods or services acquired. Estimated hours should be adjusted when more or less work is anticipated in different years.

(vi) The productive hours for full-time contractor personnel should account for the anticipated vacations, holidays, sick days, and other administrative days. The number of potential work hours in a year is 2,080 (40 hours per week X 52 weeks per year); from the 2,080 hours estimated hours for vacation time (e.g. 120 hours), holidays (e.g. 80 hours), and sick leave (e.g. 40 hours) should be deducted (2,080 hours

– 120 vacation hours – 80 holiday hours – 40 sick leave hours = 1,840 productive or direct hours).

Documenting the methods used to estimate labor hours is essential to support the independent government cost estimate. This information must be included in the IGCE narrative. Maintain copies of all source information.

b. *Estimating Labor Rates.* Estimates for labor rates may be derived from many sources including the following:

(i) Historical trends on FAA contracts for similar goods or services (be sure to determine if the labor rates are for direct labor or fully-loaded rates that include overhead, general and administrative, and profit) such as MASS, BITS II, and NISC.

(ii) Labor rates for similar services from General Services Administration (GSA) Federal Supply Schedules (FSS), Bureau of Labor Statistics (BLS), Office of Personnel Management (OPM) for comparison to federal employee salaries, and private surveys of labor rates may be used. Be sure to determine if the labor rates are for direct labor or fully-loaded rates that include overhead, general and administrative, and profit.

(iii) Geography may influence labor rates. Work locations should be considered because labor rates vary significantly by location for the same labor skills.

(iv) When the potential contractor is known (such as in a single source or contract modification situation) forward pricing rate agreements (FPRA) with the federal government (often through FAA or Defense Contract Management Agency (DCMA)) may be available and should be used to support estimated labor rates.

(v) In the situation of a known contractor, a comparison of labor rates among FAA contracts should be performed; that is checking the labor rates with the labor rates on other FAA contracts (such as MASS, BITS II, and NISC) for the same labor categories by the same contractor. This comparison avoids paying higher rates for the same labor categories by the same contractor for similar work.

(vi) Labor rates for future periods may be estimated by performing a trend analysis of past labor rates on similar projects, or by escalating labor rates. Escalation must be substantiated by a recognized source such as IHS Global Insight (available on the FAA website) or Bureau of Labor Statistics indices (Consumer Price Index or Producer Price Index).

(vii) Estimates for exempt employees may be estimated for positions performing similar duties covered in Office of Personnel Management (OPM) position descriptions (PD) for general schedule (GS) or wage grade (WG) employees. For example, if an information technology management analyst was required, using OPM's "position classification" worksheet for a series GS-2210 for an information technology management analyst, following the worksheet instructions, the required analyst may be rated as a GS-14 employee equivalent. The salary tables published by OPM states that a GS-14, at a step 5 earns \$106,000 per year or \$50.95 per hour. This figure could be used as the basis for estimate.

(viii) Estimates for non-exempt labor for services and construction are available from the Department of Labor wage determinations provided under the provisions of the Service Contract Act and the Davis Bacon Act. A non-exempt employee covered by one of these acts must be paid no less than the rate of pay listed in the wage determination. Examining the list may help in determining the appropriate labor categories.

Documenting the methods used to estimate labor rates is essential to support the independent government cost estimate. This information must be included in the IGCE narrative. Maintain copies of all source information.

c. Estimating Indirect Costs.

(i) The following definitions are provided for indirect costs:

<u>Terms</u>	<u>Definitions</u>
Indirect Cost	Any cost that cannot be <i>directly</i> identified with a single final cost objective (i.e. one contract) but can be identified with multiple final cost objectives (i.e. multiple contracts or the overall business).
Fringe Benefit Expenses	Costs of employee benefits – health insurance, vacation, as well as payroll taxes. These costs may be included in Overhead, rather than being a separate rate
Overhead Expenses	Costs benefiting more than one contract, such as supervision, training, and professional membership fees
General and Administrative (G&A) Expenses	Expenses that benefit the business as a whole, such as executives, accounting, and legal.
Material Handling Rate	Costs associated with ordering, receiving, inspecting, and shipping materials even when purchased for FAA at cost. Costs associated with subcontracts, including subcontract management
Facilities Capital Cost of Money	FCCM is an imputed cost that represents the cost to the

(FCCM)	contractor employing capital when investing in facilities or assets under construction that benefit FAA.
Indirect Cost Pool	An indirect cost pool is a logical grouping of incurred costs identified with multiple final cost objectives.
Allocation Base	The costs over which the indirect rates are spread (the denominator in the indirect rate calculation). The allocation base and the indirect costs in the associated pool must have a causal/beneficial relationship.

(ii) When the potential contractor is known (such as in a single source or contract modification situation) forward pricing rate agreements (FPRA) with the federal government (often through FAA or Defense Contract Management Agency (DCMA)) may be available and must be used to support estimated indirect rates.

a. There may also be a forward pricing rate recommendation (FPRR) available, if no FPRA. This may come from FAA, DCMA, or the Defense Contract Audit Agency (DCAA).

(iii) Understanding the composition of each indirect cost or overhead pool is important to ensure proper treatment of costs and to avoid duplication. If a cost estimate contains fully loaded rates, fringe benefits, overhead, G&A, and fee should already be included. Additional overhead should not be applied to avoid over estimating the cost.

d. *Material Overhead.* Material overhead or material handling includes the expenses associated with acquiring, transporting, receiving, inspecting, handling, and storing materials. Different options exist for collecting and allocating indirect material-related costs. Because material costs can vary significantly from contract to contract, a separate pool ensures that overhead costs are charged commensurately with the material cost in the contract. This pool often contains subcontract expenses, as well.

e. *Labor Overhead.*

(i) Labor overhead includes:

a. Indirect labor consisting of supervision, inspection, maintenance, custodial, and other personnel whose labor is not charged directly to a production or operation;

b. Costs associated with labor such as Social Security, unemployment taxes, and fringe benefits, if not in a separate indirect cost pool;

- c. Indirect supplies such as small tools and janitorial supplies; and
- d. Fixed charges such as depreciation, insurance, rent, and property taxes.

(ii) Overhead may vary significantly if the work is being performed on-site (contractor's location) or off-site (government's location). Off-site work normally is lower because the contractor does not need to maintain a building and avoid costs such as utilities.

(iii) Labor overhead is often separated by labor function such as engineering and manufacturing overhead.

f. *Fringe Benefits Overhead.* Contractors often have a separate pool for fringe benefits. Fringe benefits may include:

- (i) Vacation leave;
- (ii) Sick pay;
- (iii) Holidays;
- (iv) Health Insurance;
- (v) Payroll taxes; and
- (vi) Supplemental unemployment benefits.

g. *General and Administrative (G&A) Expense.*

(i) General and administrative costs typically include labor for corporate officers, clerical personnel, accountants, human resources personnel, purchasing agents, and attorneys. It also includes the cost of corporate level equipment, office supplies, utilities, interest expense, and legal costs.

(ii) The G&A allocation base one of three groups of costs:

a. Total cost input (TCI) is the preferred base to apply the G&A rate. The total cost input base includes all costs, both direct and indirect (excludes profit). This approach must be used unless there is a reasonable basis to use one of the other approaches

b. Value-added cost input is total cost minus material and subcontract costs. Value-added is appropriate when the inclusion of material and subcontract costs would distort the G&A allocation. When material and subcontract costs are

significant, the use of value-added G&A allocation may be a better measure of G&A expense than total cost input.

c. Single element cost input would use one cost element to allocate G&A expense. For example, the G&A rate would be multiplied by only the direct labor cost. This approach may be used when there are no other significant cost elements, or when other significant elements vary in the same proportion to total costs. This is the least preferred method.

h. *Material Costs.* The following approaches could support the estimated cost for materials:

(i) If the contract is a follow-on or is similar to another FAA contract, the purchase history of the costs of materials could be a basis for estimate. The IGCE narrative should explain the similarities between the needed material and the historical basis. The estimate must be supported with accounting records, vendor invoices, bills of material, or other documentation that can support a per unit cost of the items being acquired. Any modification required for the new item being acquired should be estimated and supported.

(ii) Commercial items and catalog prices could be used to estimate material costs. Examples would include things like security cameras and doors. Copies of the catalogs used to estimate the material cost should be retained.

(iii) Vendor quotes can be used to estimate material costs. Vendor quotes from similar FAA contracts may be used to estimate material costs for the new acquisition.

(iv) Prices of some commodities may be regulated by law; in this case a copy of the law listing the particular commodity's price would support the cost estimate.

(v) The Producer Price Index (PPI) is an example of a widely used published index for escalation of material cost. The Bureau of Labor Statistics' PPI lists products by commodity groups and individual items. Trade and industry publications are other possible sources for obtaining appropriate data for material cost escalation.

i. *Escalation.* Future periods may be estimated by performing a trend analysis of past projects that are similar to the proposed work, or by using escalation factors. Escalation must be substantiated by a recognized source such as IHS Global Insight or the Bureau of Labor Statistics indices (Consumer Price Index or Producer Price Index).

j. *Other Direct Costs (ODC)*. Other direct costs (ODC) are costs charged directly to the contract that have not been included in proposed material, direct labor, indirect costs, or any other category of costs. Examples of ODC include special tooling, shipping expenses, reproduction costs, royalties, and federal excise taxes. All ODC should be listed in the IGCE, and supporting documentation retained and available for inspection by interested third parties.

k. *Travel Costs*. The program office must estimate the number of trips, the origin and destination for each trip, the length of stay, and the number of persons per trip before estimating the cost of travel. The purpose for the trips should be included in the IGCE narrative. Travel costs usually include cost of transportation, lodging, and meals and incidental expenses. The Federal Travel Regulation prescribed by the General Services Administration should be used to estimate lodging, meal and incidental expense, mileage for privately owned vehicles used for official travel, and so forth. Estimates for airfare and car rentals can be obtained using several travel web sites. (Note: make and retain copies of all source information used for travel estimates.)

l. *Profit or Fee*. Profit is the revenue in excess of the costs to perform a firm fixed price contract, and a fee is a flat charge paid in addition to costs on cost reimbursable contracts. The use of several forms may develop an estimated profit by using weighted-averages for different functions. These forms include DOT Form 4220 and DD Form 1547. A simpler approach is to apply a percentage to the total cost, excluding any directly reimbursable items. The percentage will vary according to risk factors, market factors, and location.

3 Appendix - Template for Detailed Independent Government Cost Estimate

Revised 3/2016

Detailed Independent Government Cost Estimate

Independent Government Cost Estimate for _____

Prepared by: _____

Office title and phone: _____

Date: _____

Direct Labor by Category	Hours		Hourly Rate		Total
		X		=	
		X		=	
		X		=	
		X		=	

			Subtotal	
Labor Overhead (____%) of labor				
Total Labor (Direct Labor + Labor Overhead)				
Direct Material				
Purchased Parts and Supplies				
Subcontracts				
Other Material				
Total Material				
Other Direct Costs				
Travel				
Consultants				
Special Equipment				
Other				
Total Other Direct Cost				
TOTAL DIRECT COST = (Labor + Material + Other Direct Cost)				
GENERAL AND ADMINISTRATIVE EXPENSE = (_____%) X Total Direct Cost				
Subtotal				
FEE/PROFIT = (_____%) X (Direct Cost + General and Administrative)				
TOTAL ESTIMATED COST				

Narrative for basis of estimate attached