

FEDERAL COMPUTER PERFORMANCE EVALUATION
AND SIMULATION CENTER (FEDSIM)
BASIC AGREEMENT

AGREEMENT ID: 82047-NRC
TITLE: NRC MAC Cost Analysis

DATE:
2 August 1982

This document constitutes the BASIC AGREEMENT portion of an overall agreement between FEDSIM and the Nuclear Regulatory Commission, hereinafter referred to as "the customer" or as the NRC, which governs their relationship in work to be performed by FEDSIM for the customer. In addition to this BASIC AGREEMENT, the overall agreement also incorporates the specifics of all PROJECT ELEMENT PLANS formally issued under this BASIC AGREEMENT.

This BASIC AGREEMENT:

- ° identifies the specific customer requirement(s) to be addressed by FEDSIM in the work to be performed subject to the overall agreement;
- ° identifies the objectives of the customer in requesting that FEDSIM undertake this work;
- ° defines the general terms and conditions under which the work is to be performed;
- ° provides for the customer's funding of the effort and the procedures by which he will be billed;
- ° establishes formal procedures for the modification or cancellation of this BASIC AGREEMENT and for the issuance, modification, or cancellation of PROJECT ELEMENT PLAN(s) subject to this BASIC AGREEMENT.

The PROJECT ELEMENT PLAN(s) issued under this BASIC AGREEMENT specifies the details of the work to be performed in meeting the customer requirement(s), the items to be delivered, relevant schedules and milestones, costs, etc. Since final specification of the details of all the work to be performed may be dependent upon completion of preliminary work under this BASIC AGREEMENT, it may be necessary to issue additional PROJECT ELEMENT PLANS under this BASIC AGREEMENT at a later date or to modify any initial PROJECT ELEMENT PLAN(s) issued as attachments to this document.

BACKGROUND

The Division of Data Administration and Management Information of the NRC Office of Resource Management is responsible for providing Automated Data Processing (ADP) support for NRC.

AGREEMENT ID: 82047-NRC
AGREEMENT TITLE: NRC MAC Cost Analysis

DATE
2 August 1982

Computer support for the NRC Nuclear Material Accounting Program is currently provided by the Nuclear Material Management and Safeguard System (NMMSS) at Oak Ridge, Tennessee. NMMSS is a batch system, run by Union Carbide, at an annual cost to NRC of \$1.5 million. The NRC independently operates the Nuclear Material Safeguards Status Report System (SSRS), which provides status reports on the shipment and receipt of nuclear materials.

The NRC is considering the development of a new automated system separate and removed from the Oak Ridge National Laboratory facility, which will satisfy current safeguards information needs, and be expandable to satisfy additional safeguards and ADP requirements in the future.

Boeing Computer Services conducted an indepth study, which started in 1977 and ended in 1979, and provided the conceptual design for a new system called the Integrated Safeguard Information System (ISIS). ISIS is composed of 23 modules, one of which, the Material Accounting Service Module (MAC), comprises 70% of the data processing of the entire system. MAC is generally equivalent to the combined capability of NMMSS and SSRS.

The NRC requested FEDSIM assistance in the development of a 10 year life-cycle cost analysis for the proposed MAC system. This cost analysis will provide the basis of a cost benefit study to be conducted by NRC.

REQUIREMENTS AND OBJECTIVES

The work to be performed by FEDSIM under this agreement addresses the following requirement(s) and objective(s) as identified by the customer:

- ° cost analysis for the design, development, implementation, and operation of the Material Accounting (MAC) module.

All such work will be limited in scope to the following areas:

- ° analysis and documentation of costs for the Material Accounting Module (MAC)

All PROJECT ELEMENT PLAN(s) that are or become part of this agreement are in support of the stated requirements and objectives and are subject to the above limitations in scope.

AGREEMENT ID: 82047-NRC
AGREEMENT TITLE: NRC MAC Cost Analysis

DATE
2 August 1982

PROJECT ELEMENT PLANS

The specifics of the work to be performed under this agreement to meet the customer's identified requirement(s) are contained in one or more PROJECT ELEMENT PLANS issued under this BASIC AGREEMENT. In instances where a complete specification of the work to be performed is contingent upon the completion of preliminary work either by FEDSIM or by the customer, one or more PROJECT ELEMENT PLANS will be prepared for the customer's consideration upon completion of the preliminary work. Each PROJECT ELEMENT PLAN will include:

- ° the specifications of key deliverables to be produced by FEDSIM;
- ° the schedule for these deliverables and for other critical milestones of significance to the customer;
- ° the total cost at completion estimated for that PROJECT ELEMENT PLAN;
- ° the specification of materials, data, and other forms of support from the customer required by FEDSIM.

PROJECT ELEMENT CHANGE NOTICE

A Project Element Change Notice to be submitted by FEDSIM for the customer's endorsement will be required to revise the cost estimates at completion of a project element, to revise any of the schedules established by an earlier PROJECT ELEMENT PLAN, to revise or change the substance of deliverables to be provided by FEDSIM, or to change the level or degree of support required from the customer.

In no case, however, will a Project Element Change Notice be permitted to exceed the requirements and objectives established in this BASIC AGREEMENT. Neither will a Project Element Change Notice be permitted to cause the cost estimate of the BASIC AGREEMENT to be exceeded, without the necessary amendment to this BASIC AGREEMENT having been executed.

A PROJECT ELEMENT PLAN and a Project Element Change Notice become effective when signed by the Director, Directorate of System Evaluation for FEDSIM and by Mary Jo Mattia, Contracting Officer for the customer.

AGREEMENT ID: 82047-NRC
AGREEMENT TITLE: NRC MAC Cost Analysis

DATE
2 August 1982

STATUS REPORTS

FEDSIM will provide a monthly status report to the customer for each open PROJECT ELEMENT PLAN under this BASIC AGREEMENT. This status report, in addition to a description of progress, problems encountered, etc., will:

- ° summarize costs to date against the PROJECT ELEMENT PLAN and either explicitly reaffirm the original (current) estimate of total cost at completion or furnish a revised cost estimate;
- ° summarize deliverables and other milestones completed and either explicitly reaffirm the original (current) estimates of the schedules for pending deliverables and other milestones or furnish a revised estimate.

CUSTOMER SUPPORT

In general, FEDSIM cannot accomplish its tasks without the cooperation and support of its customers. It is important that customer personnel be advised that they should cooperate and lend assistance to FEDSIM personnel. The successful implementation of any FEDSIM recommendations and the employment of FEDSIM technical products depends on the customer's understanding of the technical issues and tools applied. FEDSIM encourages the customer to view each project as a training experience and to assign staff members to work with FEDSIM personnel to develop some in-house capability in the use, interpretation, or application of the technical tools and/or techniques employed during the project. If appropriate, the customer should provide FEDSIM a written copy of its Rules of Conduct and information on safeguards it has established governing activities of its personnel relevant to protection of privacy and data security in accordance with the Privacy Act of 1974.

AGREEMENT CHARGES

All work will be performed on a time and material basis. Direct time devoted to work under this agreement will be recorded by FEDSIM personnel daily. Accumulated direct time will be billed monthly at the rates in effect at the time the hours are worked. All other project-related material expenses (e.g., computer time, hardware and/or software lease, contractor support, direct travel, and direct material) will be billed at actual cost or, if applicable, at approved standard rates plus the 2% GSA administrative charge.

AGREEMENT ID: 82047-NRC
AGREEMENT TITLE: NRC MAC Cost Analysis

DATE
2 August 1982

Direct costs will be recovered for technical reports having unusual duplicating, graphic, reduction, or layout requirements; e.g., reproduction costs for customer reports in excess of five copies. At the time of the initial reproduction, customers will be billed \$0.10 per page for more than five copies of technical reports. However, if the customer requests additional copies after the initial reproduction, a \$16.50 data clerk manhour rate will be added to the \$0.10-per-page cost of any subsequent copies.

Those project-related support activities which require that FEDSIM procure products or services specifically for the customer will also be subject to the administrative charge. The cost of FEDSIM-owned hardware or software used will be billed at the standard charge in effect at the time of use.

Accounting records pertaining to this BASIC AGREEMENT are available for customer review.

FUNDING

The United States Air Force operates FEDSIM as Executive Agent for the General Services Administration (GSA). FEDSIM derives its financing from the GSA ADP Fund, a revolving fund established under the authority of PL 89-306 (the Brooks Act). In accordance with a Comptroller General ruling (Memorandum of Decision, File B-186535, Matter of: Interagency Agreement - Administrative Office of the U.S. Courts), payments for FEDSIM services under this agreement are governed by the terms of the Brooks Act rather than the Economy Act. Under these terms, the existence of a defined requirement at the time this BASIC AGREEMENT is executed forms the basis for the incurring and recording of a financial obligation on the part of the customer. This obligation remains in force across fiscal year boundaries until the required services are delivered or the agreement is rescinded by the signatories. The funds so obligated by the customer do not have to be deobligated at the end of a fiscal year as they would have been if subject to the Economy Act. The customer should ensure that any financial obligation incurred under this agreement is properly recorded so that the funds remain available to pay for FEDSIM services for the duration of this agreement.

BILLING PROCEDURE

Payments will be made by the agency using the standard billing procedure. FEDSIM's standard billing procedure is to submit a monthly billing request to the GSA Office of Finance (through the

AGREEMENT ID: 82047-NRC
AGREEMENT TITLE: NRC MAC Cost Analysis

DATE
2 August 1982

GSA Automated Data Telecommunications Service, Financial Management Division). The billing request will be computed at the rates in effect at the time for the services and products rendered.

The Accounts Receivable Branch of the GSA Office of Finance will bill the customer. These billings must be paid promptly as rendered, without pre-audit or receipt verification (FPMR 101-2.105). Any discrepancies noted after payment will be adjusted on subsequent billings.

The billing address for this agreement is:
U.S. Nuclear Regulatory Commission
Office of Resource Management
Division of Accounting & Finance ATTN: Gov/Com Accounts
Washington, DC 20555

All services performed under this agreement will be charged to the following accounting classification(s):

80-20-25-06 B8807 31X0200.802

The customer hereby authorizes FEDSIM to charge up to \$ 51,645.00 against the above cited accounting classifications. Under no circumstances will charges to the customer under this BASIC AGREEMENT exceed the amount authorized without a formal Amendment to this BASIC AGREEMENT having been executed and approved by the customer. The total charges to accomplish the objectives of this BASIC AGREEMENT are estimated to be \$51,645.

Each PROJECT ELEMENT PLAN issued under this BASIC AGREEMENT will contain total estimates of the cost at completion for that PROJECT ELEMENT PLAN. No PROJECT ELEMENT PLAN or Project Element Plan Change Notice will be approved that would cause the sum of the estimated costs at completion to exceed the maximum charges authorized above.

When authorized by the customer, expenses incurred in support of the agreement before the execution of this BASIC AGREEMENT are chargeable to the agreement. Unless there is a written exception to the contrary, the customer's written acceptance of this BASIC AGREEMENT also constitutes such authorization.

As of 2 August 1982, it is estimated that no expenses have been incurred in this manner. Before signing this BASIC AGREEMENT, the customer may obtain more current information in this regard by contacting Mr William A. Rupp on (202) 274-7910, AUTOVON 284-7910.

AGREEMENT ID: 82047-NRC
AGREEMENT TITLE: NRC MAC Cost Analysis

DATE
2 August 1982

RESTRICTIONS/CONFIDENTIALITY OF DATA

All data tapes, cards, listings, and similar material provided by the customer will be returned by FEDSIM at the customer's request. It is FEDSIM's customary procedure to retain in its own files its working materials and copies of reports and other documents delivered to the customer. FEDSIM will seek a release from the customer before honoring any informal request from a third party for copies of such material.

That an agreement has been executed between FEDSIM and a customer and the general requirements and objectives addressed in that agreement are considered public information which will be routinely made available to the appropriate officials in the Air Force, GSA, and other Federal agencies.

FEDSIM may abstract technical data, findings, and/or conclusions from project reports to make information of wide, general interest available to the professional CPE community. Such information will be presented without identification of or attribution to the customer.

If an unsolicited proposal in any way related to the requirement(s) identified in this BASIC AGREEMENT has been received from a commercial firm, a separate determination of the propriety of FEDSIM participation must be made by the customer and must be attached to this agreement before this agreement can be considered valid.

PROTECTION OF PRIVACY AND DATA SECURITY

FEDSIM personnel will follow the rules established by the customer with respect to data confidentiality and security. Except in cases of conflict, FEDSIM personnel will also follow the Rules of Conduct and safeguards program established by FEDSIM for the design, development, operation, analysis, or maintenance of equipment, systems, or services used to store or process systems or records. These Rules of Conduct and procedures are available for customer review.

AMENDMENT OF AGREEMENT

The financial arrangements and general terms and conditions (i.e., customer signature authority, reproduction costs, billing address, etc.) of this BASIC AGREEMENT can only be extended or modified by mutual agreement between FEDSIM and the customer in the form of a formal agreement Amendment. An amendment cannot be used to extend or modify the customer requirement(s) and objective(s). When a customer requirement changes, a new BASIC AGREEMENT is required.

AGREEMENT ID: 82047-NRC
AGREEMENT TITLE: NRC MAC Cost Analysis

DATE
2 August 1982

When amendments are made, all outstanding PROJECT ELEMENT PLANS issued under the original BASIC AGREEMENT will continue in force unless explicitly cancelled or modified by the amended BASIC AGREEMENT or by Project Element Change Notices.

DELAY/CANCELLATION CHARGES

Should it be necessary for the customer to cancel this agreement, either in its entirety or in part, or should the customer request that work already scheduled by FEDSIM under an existing PROJECT ELEMENT PLAN be deferred, FEDSIM is authorized to bill the customer for:

- ° Any direct costs already incurred by FEDSIM in support of this agreement which cannot be similarly cancelled or deferred (e.g., fixed-term leases for software or hardware; contracts for vendor services).
- ° The time planned for analyst support that cannot be rescheduled for other projects, up to a maximum of 80 hours for each analyst so affected.

FEDSIM management will make every effort to reduce reimbursement charges incurred after a notice of cancellation or request to defer work has been received. Such notification must be received in writing before FEDSIM management will take action to discontinue or defer support to an active customer project.

POINTS-OF-CONTACT

The FEDSIM contact responsible for the administration of this BASIC AGREEMENT and for resolving administrative questions related to it is:

Agreement Administrator: Mr William A. Rupp

Mailing Address: Department of the Air Force
FEDSIM/NA
Washington, D.C. 20330

Telephone No: (202) 274-7910
or Autovon 284-7910

If this individual is not available, contact:

Alternate Contact: Mr James T. Fowler

Telephone No: (202) 274-7910
or Autovon 284-7910

AGREEMENT ID: 82047-NRC
AGREEMENT TITLE: NRC MAC Cost Analysis

DATE
2 August 1982

The customer's financial accounting point-of-contact who will be responsible for resolving any financial question that may arise is:

<u>NAME</u>	<u>ORGANIZATION/ OFFICE SYMBOL</u>	<u>PHONE</u>
Dian B. Dandois	RM/AFO	(301) 492-7558

The individual below will be the customer's contact (and alternate) for this BASIC AGREEMENT:

Customer's Point-of-Contact: (Technical) Ira Frost
Mailing Address: RM/D, MNBB 7602, Washington, DC 20555
Area Code and Telephone No: (301) 492-8054
Division of Contracts Administrator: Marie Page

CHECKLIST

Before signing this document, the customer should ensure that the following items have been properly entered:

- ° The title of the agency official authorized to approve PROJECT ELEMENT PLANS and Project Element Change Notices issued under this BASIC AGREEMENT on page 3;
- ° The estimated total charges to accomplish the objectives of this agreement on page 6;
- ° The maximum total charges currently authorized to be billed to the customer under this agreement on page 6;
- ° The billing address on page 6.
- ° The accounting classification(s) to be charged on page 6;
- ° The FEDSIM and customer points-of-contact on pages 8 and 9.

AGREEMENT ID: 82047-NRC
AGREEMENT TITLE: NRC MAC Cost Analysis

DATE
2 August 1982

APPROVED

FOR THE FEDERAL COMPUTER
PERFORMANCE EVALUATION AND
SIMULATION CENTER

FOR THE
NUCLEAR REGULATORY COMMISSION

William A. Rupp

M J Mattia

WILLIAM A. RUPP, Director
Directorate of System Evaluation
Date: 3 Aug 82

Mary Jo Mattia, Contracting Officer

Date: 8/25/82

Richard L. Blair

RICHARD L. BLAIR, Colonel, USAF
Commander
Date: 4 Aug 82

FEDERAL COMPUTER PERFORMANCE
EVALUATION AND SIMULATION CENTER (FEDSIM)
PROJECT ELEMENT PLAN

BASIC AGREEMENT ID. 82047-NRC
PROJECT ELEMENT ID. 1

DATE:
2 August 1982

INTRODUCTION

This PROJECT ELEMENT PLAN is issued under the terms and conditions of the BASIC AGREEMENT referenced above and is part of an overall agreement between FEDSIM and the US Nuclear Regulatory Commission, hereinafter referred to as "the customer."

BACKGROUND

The NRC has requested that FEDSIM conduct a life cycle cost analysis for the proposed MAC module which comprises 70% of the ISIS system conceptually designed by Boeing Computer Services. The NRC will then use the cost analysis to conduct a cost benefit study that will enable them to select the most feasible option for developing the MAC module.

STATEMENT OF WORK

This PROJECT ELEMENT PLAN consists of one Task, as described below.

FEDSIM will perform a cost analysis for the design, development, implementation, and operation of the NRC Material Accounting (MAC) module. In the cost analysis, FEDSIM will consider the following alternatives:

- (1) hardware alternatives
 - minicomputer
 - mainframe
- (2) implementation alternatives
 - basic system (MAC module only),
 - expandable system (23 ISIS modules)
- (3) facility and equipment alternatives
 - Government-Owned Contractor Operated (GOCO)
 - Contractor-Owned Contractor Operated (COCO).

The cost analysis will include the analysis of functional costs for functions, such as system design, systems development, acceptance testing, conversion, parallel processing, system operation, and system maintenance. Costs will be categorized into appropriate areas, such as computer equipment, other equipment (not computer or facility related), facility equipment,

BASIC AGREEMENT ID: 82047-NRC
PROJECT ELEMENT ID: 1

DATE:
2 August 1982

communications equipment, proprietary software licenses and maintenance, equipment maintenance, personnel, data transmission, travel, documentation, computer resource utilization, training, overhead, and supplies.

RELATION TO OTHER WORK

The objective of the BASIC AGREEMENT will be accomplished by this PROJECT ELEMENT PLAN and it is expected that no additional PROJECT ELEMENT PLAN(s) will be issued.

DELIVERABLES

In fulfillment of this PROJECT ELEMENT PLAN, FEDSIM will deliver to the customer: a FEDSIM Technical Product documenting the cost analysis.

The "final deliverable" for this project is a notice of completion. Delivery and customer acceptance of this deliverable will serve to indicate that the project element effort has been completed.

MILESTONES AND SCHEDULE

The following schedule of significant milestones (including delivery of items specified above as "deliverables") will be used by FEDSIM and the customer to monitor timely progress on this project element:

<u>MILESTONE</u>	<u>PLANNED COMPLETION DATE</u>
Start Project	Project Start (PS)
Finish Project	PS + 14 weeks

The schedule given above is based on the best information available at this time. As better information becomes available, or should unforeseen circumstances arise, it may be necessary to modify this schedule. FEDSIM assumes the responsibility of formally notifying the customer by means of a Project Element Change Notice as soon as it becomes likely that a scheduled date will slip by more than 10 days. In this regard, the customer is expected to promptly notify FEDSIM of expected slippages in those milestone items not under FEDSIM's responsibility.

To assure positive management control, FEDSIM will explicitly affirm the scheduled completion dates of all outstanding milestones in each monthly status report to the customer.

BASIC AGREEMENT ID: 82047-NRC
PROJECT ELEMENT ID: 1

DATE:
2 August 1982

CUSTOMER POINT-OF-CONTACT AND SUPPORT

The individuals below will be the customer's point-of-contact (and alternate) for the work to be performed under this PROJECT ELEMENT PLAN:

Point-of-Contact (Technical) Ira Frost
Mailing Address RM/D, MNBB 7602, Washington, DC 20555
Area Code and Telephone No. (301) 492-8054
Division of Contracts Administrator: _____

FEDSIM POINT-OF-CONTACT

The following individual will manage FEDSIM activities under this PROJECT ELEMENT PLAN:

Project Element Manager: Mr James T. Fowler
Mailing Address: Department of the Air Force
FEDSIM/NA
Washington, DC 20330
Telephone No: (202) 274-7910, AUTOVON 284-7910

If this individual is unavailable, contact:

Alternate contact: Mr William D. Kerns
Telephone No: (202) 274-7910, AUTOVON 284-7910

ESTIMATED COSTS

The total cost for the work to be performed under this PROJECT ELEMENT PLAN is estimated to be \$51,645, broken down by charge category as follows:

Senior Analyst (900 hours @ \$43.50/hr.)	\$39,150
Technical Manager (90 hours @ \$50.50/hr.)	4,545
Local Travel and TDY	2,950
Computer Time	5,000
Total	<u>\$51,645</u>

BASIC AGREEMENT ID: 82047-NRC
PROJECT ELEMENT ID: 1

DATE:
2 August 1982

The estimate of costs given above is based on the best information available at this time. As better information becomes available, or should unforeseen circumstances arise, it may be necessary to modify these estimates. FEDSIM assumes the responsibility of formally notifying the customer by means of a Project Element Change Notice as soon as it becomes likely that the estimated total cost for the work performed under this PROJECT ELEMENT PLAN will increase. In this regard, FEDSIM will not authorize any change in the estimated cost at completion of a project element that will exceed the amount authorized under the BASIC AGREEMENT without an appropriate amendment to the BASIC AGREEMENT having been executed.

To assure positive management control, FEDSIM will explicitly affirm the estimated cost at completion for this project element in each monthly status report to the customer.

FOLLOW-UP

To enable its management and staff to judge the quality and value of its services, FEDSIM will make a follow-up contact 30 days after the completion of this project element. This follow-up is intended to assess the extent to which FEDSIM has satisfied the PROJECT ELEMENT PLAN. Subsequent interviews may be conducted, with the agreement of the customer, to quantify the benefits of the work performed.

APPROVED

FOR THE FEDERAL COMPUTER
PERFORMANCE EVALUATION AND
SIMULATION CENTER

William D. Kerns
WILLIAM D. KERNS,
Technical Manager
Directorate of System Evaluation
Date: 3 August 1982

William A. Rupp
WILLIAM A. RUPP, Director
Directorate of System Evaluation
Date: 3 Aug 82

FOR THE
NUCLEAR REGULATORY COMMISSION

M. J. Mattia
Mary Jo Mattia
Contracting Officer

Date: 8/25/82