

INSTRUCTIONS FOR PREPARATING ECP FORMS
DD Forms 1692 through 1692/4

DETAILED REQUIREMENTS - Detailed instruction for completion of the DD Forms 1692 through 1692/4.

INSTRUCTIONS FOR PREPARATION OF SPECIFICATION CHANGE NOTICE

DD Form 1692, Engineering Change Proposal, Page 1 (See Figure 9a).

Block. Date. Enter the submittal date of the ECP.

Block. Procuring Activity Number. Enter ECP number and revision indicator if applicable (i.e. TAC-B1234R1).

Block 1. Originator Name and Address. Enter the name and address of the contractor or Government activity, submitting the ECP.

Block 2. Class of ECP. Enter I or II for the applicable ECP as defined below.

Classification of Engineering Changes - An engineering change shall be classified as Class I or Class II by the preparing activity in accordance with this standard. Class I ECPs shall be referred to the Government for approval or disapproval. Classification disagreements shall be referred to the Government for final decision. A proposed engineering change to a CI, or to any combination or discrete portion thereof, shall contractually be applicable, to determine if they would be impacted as a result of implementing the change.

The change shall be Class I if:

a. The Functional Configuration Documentation (FCD) or Allocated Configuration Documentation (ACD) once established, is affected to the extent that any of the following requirements would be outside specified limits or specified tolerances:

- (1) Performance
- (2) Reliability, maintainability or survivability
- (3) Weight, balance, moment of inertia
- (4) Interface characteristics
- (5) Electromagnetic characteristics
- (6) Other technical requirements in the specifications

b. A change to the Product Configuration Documentation (PCD), which impacts those items identified above or will impact one or more of the following:

- (1) Government Furnished Equipment (GFE)
- (2) Safety
- (3) Compatibility or specified interoperability with interfacing CIs, support equipment or support software, spares, trainers or training devices/equipment/software
- (4) Configuration to the extent that retrofit action is required
- (5) Delivered operation and maintenance manuals for which adequate revision funding is not provided in existing contracts
- (6) Preset adjustments or schedules affecting operating limits or performance to such extent as to require assignment of a new identification number
- (7) Interchangeability, substitutability, or replaceability as applied to CIs, and to all subassemblies and parts except the pieces and parts of non-repairable subassemblies
- (8) Sources of CIs or repairable items at any level defined by source control drawings
- (9) Skills, manning, training, biomedical factors or human engineering design

c. Any of the following contractual factors are affected:

- (1) Cost to the Government including incentives and fees
- (2) Contract guarantees or warranties
- (3) Contractual deliveries
- (4) Scheduled contract milestones

The change shall be Class II if none of the above Class I factors are impacted.

Block 3. Justification Code. Enter the justification code, as shown below, which is applicable to the proposed Class I engineering change. If more than one of the following codes are applicable, the one which is the most descriptive or significant shall be assigned to the ECP.

- a. Interface – Code B – shall be assigned to an engineering proposal for correction of a deficiency which will eliminate the interference or incompatibility at an interface between CI's.
- b. Compatibility. Code C shall be assigned to an engineering change to correct a deficiency with the following characteristics:
 - (1) The need for the change has been discovered during the system or item functional checks or during installation and checkout and is necessary to make the system or item work.
 - (2) By assigning the compatibility code the contractor is declaring that the effort required to accomplish the change is considered to be within the scope of the existing contract except for changes caused by the Government.
 - (3) Contractual coverage completing the formal documentation of the engineering change will not reflect an increase in contract price for the corrective action in

production and to delivered items in-warranty or otherwise stipulated in the contract.

- c. Correction of deficiency. Code D shall be assigned to an engineering change which is required to eliminate a deficiency, unless a more descriptive separate code applies. Such separate codes are used to identify deficiencies of the nature of safety, interface, or compatibility.
- d. Operational or logistics support. Code O shall be assigned to an engineering change which will make a significant effectiveness change in operational capabilities or logistics support.
- e. Production stoppage. Code P shall be assigned to an engineering change which is required to prevent slippage in an approved production schedule. This code applies when production to the current configuration documentation either is impracticable or cannot be accomplished without delay.
- f. Cost reduction. Code R shall be assigned to an engineering change which will provide a net total life cycle cost savings to the Government, but which is not being submitted pursuant to the Value Engineering clause of the contract. The savings in life cycle cost should include all effects on cost and price for the effort and requirements covered by the contract(s) currently in effect for this contractor, plus the costs resulting from necessary associated changes in delivered items, and logistics support.
- g. Safety. Code S shall be assigned to an engineering change for correction of a deficiency which is required primarily to eliminate a hazardous condition. When this code is assigned, a system hazard analysis shall be included with the ECP. (See MIL-STD-882)
- h. Value engineering (VE). Code V shall be assigned to an engineering change that will effect a net life cycle cost reduction and which is submitted pursuant to the VE clause of the contract.

Block 4. Priority. The Contractor shall recommend a priority to the Government and enter an "E", "U" or "R" (Emergency, Urgent or Routine) as defined below. When short form procedure is specified by contract, the Government representative will assign the appropriate priority code.

Class I Engineering Change Priorities. - A priority shall be assigned to each Class I ECP based upon the following definitions:

- a. Emergency. An emergency priority shall be assigned to an engineering change proposed for any of the following reasons:

(1) To effect a change in operational characteristics which, if not accomplished without delay, may seriously compromise national security;

(2) To correct a hazardous condition which may result in fatal or serious injury to personnel or extensive damage or destruction of equipment (a hazardous condition usually will require withdrawing the item from service temporarily, or suspension of the item operation, or discontinuance of further testing or development pending resolution of the condition.); or

(3) To correct a system halt (abnormal termination) in the production environment such that CSCI mission accomplishment is prohibited

b. Urgent. An urgent priority shall be assigned to an engineering change proposed for any of the following reasons:

(1) To effect a change which, if not accomplished expeditiously, may seriously compromise the mission effectiveness of deployed equipment, software, or forces

(2) To correct a potentially hazardous condition, the uncorrected existence of which could result in injury to personnel or damage to equipment. (A potentially hazardous condition compromises safety and embodies risk, but within reasonable limits, permits continued use of the affected item provided the operator has been informed of the hazard and appropriate precautions have been defined and distributed to the user.)

(3) To meet significant contractual requirements (e.g., when lead time will necessitate slipping approved production or deployment schedules if the change was not incorporated)

(4) To effect an interface change which, if delayed, would cause a schedule slippage or increase cost

(5) To effect a significant net Life Cycle Cost (LCC) savings to the Government, as defined in the contract, through value engineering or through other cost reduction efforts where expedited processing of the change will be a major factor in realizing lower costs

(6) To correct unusable output critical to mission accomplishment

(7) To correct critical CI files that are being degraded

(8) To effect a change in operational characteristics to implement a new or changed regulatory requirement with stringent completion date requirements issued by an authority higher than that of the functional proponent.

c. Routine. A routine priority shall be assigned to a proposed engineering change when emergency or urgent is not applicable.

Block 5. ECP Designation. The contractor shall modify this block to include the ECP/VECP/PPEP Distribution Statement. The change document distribution statement shall reflect the same distribution statement of the affected drawings. When the affected drawings have different distribution statements, the change documentation shall reflect the highest distribution statement code other than "A".

Block 5a. Model/Type. Enter "See Attachment 1 - ECP Enclosure List" if there is more than one model/type.

Block 5b. CAGE Code. Enter the CAGE code as shown in Defense Logistic Agency (DLA) Cataloging Handbook H4/H8 for the activity originating the ECP.

Block 5c. System Designation. The system or top-level CI designation or nomenclature assigned by the Government shall be entered, if known.

Block 5d. ECP Number. Once an ECP number is assigned to the first submission of a change proposal, that number shall be retained for all subsequent submissions of that change proposal. One of the following methods of assigning ECP numbers may be used unless otherwise stated in the contract:

a. ECP numbers shall run consecutively commencing with number 1, for each CAGE Code identified activity, or ECP numbers may be assigned in a separate series for each system that the Contractor produces.

b. When an ECP is split into a basic ECP and related ECPs, the basic ECP shall be identified with the number prescribed above and each related ECP shall be identified by the basic number plus a separate dash number. The number of characters in the ECP number, dash number, type, and revision identification shall not exceed 15.

c. Other systems may be used provided the ECP number is unique for any CAGE Code identified activity, and the 15 character limitation in paragraph (b) above is not exceeded.

Block 5e. Type. Enter either a "P" for preliminary, or "F" for formal.

Preliminary Change Proposal (Type P) - A preliminary change proposal is the type which may be submitted to the Government for review prior to the availability of the information necessary to support a formal ECP. It shall include a summary of the proposed change, its impact on related areas and a justification.

Formal Change Proposal (Type F) - A formal ECP is the type which provides engineering information and other data in sufficient detail to support formal change approval/contractual implementation.

Block 5f. Revision. If an ECP is being revised, enter the proper identification of the revision, i.e., R1 for the first revision, R2, R3, etc. for subsequent revisions.

Block 6. Baseline Affected. Place an "X" in the boxes according to the baselines affected.

Block 7. Other Systems/Configuration Items Affected. Enter an "X" in the "yes" or "no" box, as applicable, to indicate whether there is an effect on other systems or CIs which will require the submittal of related Class I ECPs. Supply details in Blocks 28 and 30.

Block 8. Specifications Affected. If specifications cited in the contract are affected by the ECP, their identity by the CAGE Code of the design activity, document number, revision letter, and the SCN (or NOR) number of the SCN (or NOR) being submitted with the ECP, shall be entered.

Block 9. Drawings Affected. Enter the drawing number, applicable cage code, latest known revision level of affected drawings, and applicable NOR number. If more than three drawings are affected, enter "See Attachment A - ECP Enclosure List".

Block 10. Title of Change. Enter a brief title to identify the component or system affected by the ECP. Do not include the purpose or description which are to be entered in Block 16.

Block 10a. Weapon System code or Designation. Enter the weapon system code for the affected vehicle or vehicle system.

Block 11. Contract Number and Line Item. Product Baseline Changes: Enter only current production contract number when proposed change affects production contract. Enter "FUTURE CONTRACTS" when change is only for future contracts; for Functional/Allocated Baseline Changes: Enter the affected validation/development phase contract number.

Block 12. Procuring Contracting Officer (PCO). Enter the PCO's name, code and telephone number applicable to the CI shown in Block 16.

Block 13. Configuration Item Nomenclature. Enter the assigned name and type designation, CSCI name and number if applicable or authorized name and number of the CI affected by the ECP.

Block 14. In Production. If "yes", provide information as to whether deliveries have been completed on the contract(s). If the affected CI's are not currently in production enter "no".

Block 15. All Lower Level Items Affected.

a. For hardware, an appropriate, complete descriptive name of the part shall be provided without resorting to such terms as "Numerous bits and pieces". The number of the part shall also be entered. Additionally, applicable NSNs shall be entered. An attached list may be used when necessary.

b. For CSCIs, enter the name and identifier of each lower level CI and computer software unit affected.

Block 16. Description of Change. The description of the proposed change shall include the purpose and shall be given in sufficient detail to adequately describe what is to be accomplished. It shall be phrased in definitive language such that, if it is repeated in the contractual document authorizing the change, it will provide the authorization desired. A

description as to which part of the item or system is being changed shall be provided. Supplemental drawings and sketches shall be provided to the extent necessary to clearly portray the proposed change. If the proposed change is an interim solution, it shall be so stated. If additional space is needed, use continuation pages for details but provide an overview in this block. Information should be included as to whether the revision is a re-submission, replaces the existing ECP in its entirety, or provides change pages to the existing ECP.

Block 17. Need for Change. Enter an explanation of the need for the change including the specific benefit of the change. The nature of the defect, failure, incident, malfunction, etc. substantiating the need for the change shall be described in detail. Full utilization shall be made of available failure data. If a new capability is to be provided, improvements in range, speed, performance, endurance, striking power, defensive or offensive capabilities, etc. shall be described in quantitative terms. Correspondence establishing requirements for the change and any testing accomplished prior to the submission shall be identified and summarized. If the ECP is needed to correct maintenance/logistics problems, that fact will be included with sufficient detail to identify the issues. If the ECP is being submitted in response to a request for ECP or at the Government's direction, cite that authority. Additional pages may be added as required.

Block 18. Production Effectivity by Serial Number (to be completed by production contractor, when applicable).

a. For hardware, enter the contractor's estimated production effectivity point for the production items including serial number, or other item identification (e.g., block or lot number) as approved by the Government. In determining the effectivity point for the proposed change, the contractor shall consider, in addition to the time factors, the availability of all support elements affected and the most economical point of introduction consistent with all the salient factors involved. The earliest production incorporation is not necessarily the singular or most important factor in the establishment of a proposed change effectivity point. The effectivity point will be based on concurrent availability of all logistics support elements and materials affected by the change to the item.

b. For CSCIs, identify the CSCI version number into which the change will be incorporated. Where applicable, the effectivity of the end item CI and vehicle (truck, trailer, etc.) into which the capability represented by the new version of the software is proposed to be incorporated shall also be provided. If the impact of the ECP merits the release of a new software version, Block 18 of the ECP submittal shall include a recommendation to this effect. Serial numbers may be used in lieu of version numbers if approved by the Government.

Block 19. Effect on Production delivery schedule. State the estimated delivery schedule of items incorporating the change, either in terms of days after contractual approval, or by specific dates contingent upon contractual approval by a specified date. If there will be no effect on the delivery schedule, so state. For a complex ECP, or for related ECPs, this

delivery date will be repeated on the milestone chart together with the schedule for other interrelated actions.

Block 20. Retrofit.

Block 20a. Recommended Item Effectivity. When recommending that the engineering change be accomplished in accepted items by retrofit (see Block 40), the quantities and serial (or lot) numbers of accepted items in which the change will be incorporated by retrofit shall be entered in Block 20a, or in a referenced enclosure. Such statement regarding items currently in production shall be based upon the estimated approval date of the ECP.

Block 20b. Ship/Vehicle Class Affected. When the delivered CI is installed in one or more ship/vehicle classes, enter the identification of such classes. Not applicable when ECP Short Form procedure is specified by contract.

Block 20c. Estimated Kit Delivery Schedule. State estimated kit delivery schedule by quantity and date. When special tooling for retrofit is required, reference an enclosure in Block 20b which specifies the dates of availability of tools, jigs, and test equipment required in conjunction with the kits to accomplish the change.

Block 20d. Locations or Vehicle Numbers Affected. State the location at which retrofit is to be accomplished. If retrofit is to be accomplished in vehicles for which the serial numbers are not shown in Block 20, enter the vehicle numbers. Not applicable when ECP Short Form procedure is specified by contract.

For CSCIs, this block shall apply if the change is part of a hardware or equipment change and implementation of the CSCI change is per a hardware retrofit schedule, or the fielded version of the software is to be replaced. If the CSCI change is part of a larger hardware or equipment change and incorporation of the CSCI change is per a hardware retrofit schedule, that information will be included here either directly or by reference.

Block 21. Estimated Costs/Savings Under Contract. Provide the total estimated costs/savings impact of the proposed change on the contract or the subject CI. Savings shall be shown in parentheses.

Block 22. Estimated Net Total Costs/Savings. Provide the total estimated costs/savings impact of the basic and all related ECPs including other costs/savings to the Government. Savings shall be shown in parentheses.

NOTE: Enter page number of cost sheet DD Form 1692/3 or DD Form 1692/4, if used, in block 21 and 22.

Block 23. Submitting activity authorized signature. An authorized official of the activity entered in Block 1 shall sign this block and provide title in Block 26a. This indicates the ECP has the official sanction of the submitting activity.

Block 24. Approval/Disapproval. Leave blank

DD Form 1692/1, "Engineering Change Proposal, Page 2", Effects on Functional/Allocated Configuration Identification. DD Form 1692/1 is to be completed only if the proposed change affects the system specification or the item development specifications. If a separate product function specification is used, effects on such specification of changes proposed after the Product Base Line (PBL) has been established shall be described either on DD Form 1692/2 or on enclosures referenced.

Originator Name and Address, Procuring Activity Number, and ECP Number. Enter the same information as was provided on the DD Form 1692 (Page 1).

Block 25. Other Systems Affected. Insert data when Block 7 of DD Form 1692 (Page 1) is checked "YES".

Block 26. Other Contractors/Activities Affected. Identify the other contractors or Government activities that will be affected by this engineering change.

Block 27. Configuration Items Affected. Enter the names and numbers of all CIs, maintenance and operator training equipment, and support equipment affected.

Block 28. Effects on Performance Allocations and Interfaces in System Specification. Describe in this block the changes in performance allocations and in the functional/physical interfaces defined in the system specification.

Block 32. Effects on Employment, ILS, Training, Operational Effectiveness, or Software.

a. For hardware, describe the effects of the proposed change on employment, deployment, logistics, and/or personnel and training requirements which have been specified in the approved system and/or CI specifications, including any changes or effects on the operability of the system. In particular, there shall be an entry detailing any effect on interoperability.

b. For CSCIs, the following information shall be entered as applicable to the degree of design development of the CSCI at the time of ECP submission:

(1) Identify any required changes to the data base parameters or values, or to data base management procedures;

(2) Identify and explain any anticipated effects of the proposed change on acceptable computer operating time and cycle-time utilization;

(3) Provide an estimate of the net effect on computer software storage; and,

(4) Identify and explain any other relevant impact of the proposed change on utilization of the system.

Block 33. Effects on Configuration Item Specifications. The effect of the proposed change on performance shall be described in quantitative terms as it relates to the parameters contained in the CI development specifications.

Block 34. Developmental Requirements and Status.

a. For hardware, when the proposed engineering change requires a major revision of the development program (e.g., new prototypes, additional design review activity, tests to be re-accomplished), the nature of the new development program shall be described in detail, including the status of programs already begun.

b. For CSCIs, the contractor shall identify the scheduled sequence of computer software design and test activities that will be required. ECPs initiated after preliminary design which affect the Functional and/or the Allocated Base Line shall identify, as appropriate, significant requirements for computer software redesign, recoding, repetition of testing, changes to the software engineering/test environments, special installation, adaptation, checkout, and live environment testing. In addition, the specific impact of these factors on approved schedules shall be identified. The impact of the software change on the hardware design and input/output cabling shall also be detailed.

Block 35. Trade-offs and alternative solutions. A summary of the various solutions considered shall be included with an analysis showing the reasons for adopting the solution proposed by the ECP.

Block 36. Date by Which Contractual Authority is Needed. Enter the date contractual authority will be required in order to maintain the established schedule.

DD Form 1692/2, "Engineering Change Proposal Page 3", Effects on Product Configuration Documentation, Logistics and Operations. Certain information required on DD Form 1692/2 may have been required on DD Form 1692 and 1692/1 (Pages 1 and 2) or does not apply to computer software. When this information has already been supplied, a cross-reference to such information will be adequate.

a. For hardware, if any specific logistic interoperability factors are affected, the Contractor shall provide information detailing the possible impact on the operational configuration on an attached page.

b. For CSCIs, the software engineering and test environments are usually not affected by the changes in the product configuration of a CSCI. In Block 39, provide information about the status of the software redesign and re-testing effort. There shall also be a review of the intent of Blocks 37, 38, 43, 44 and 46, to document CSCI impacts in these areas.

ECP Number. Enter the same ECP number as in Block 5d of DD Form 1692 (Page 1). If the number is assigned by system, include the system designation.

Block 34. Effect on Product Configuration Documentation or Contract. An "X" should be placed next to the affected FACTOR. The cross-reference identification to the enclosure, attachment, or impact that addresses the effects the ECP has on the FACTOR should be entered in the appropriate column. For example, identify the enclosure, Engineering Change Proposal Enclosure List, in line d - "CDRL, TECHNICAL DATA". The enclosure should include the information as described later in this Attachment.

Block 35. Effect on Integrated Logistics Support Elements. Identify the effects the engineering change will have on the logistic support of the item to be provided. These effects should be explained in detail. The information required shall indicate the method to be used to determine the integrated logistic support plans and items which will be required for the support of the new configuration as well as retrofitting previously delivered items to the same configuration. This shall be accomplished for each FACTOR affected. An "X" should be placed next to the affected FACTOR. The cross reference identification to the enclosure, attachment or impact that addresses the effect the ECP has on the FACTOR should be entered in the appropriate column. For example, identify the enclosure, ECP Interchangeability Factors, in line e - "SPARE AND REPAIR PARTS". The enclosure should contain the information as described later in this Attachment.

Block 36. Effect on Operational Employment. The effects of the engineering change of CI utilization shall be indicated by checking the appropriate factors and providing details by enclosures. Quantitative values shall be used whenever practicable, but are required when reliability and service life are impacted. Survivability includes nuclear survivability. A cross-reference to the enclosure or attachment similar to the manner identified above shall be used.

Block 37. Other Considerations. The effects of the proposed engineering change on the following shall be identified on an enclosure indexed by appropriate identification adjacent to the factor affected:

- a. Interfaces having an effect on adjacent or related items (output, input, size, mating connections, etc.).
- b. GFE or Government Furnished Data (GFD) changed, modified or obsoleted.
- c. Physical Constraints. Removal or repositioning of items, structural rework, increase or decrease in overall dimensions.
- d. Software (other than operational, maintenance, and training software) requiring a change to existing code and/or, resources or addition of new software.
- e. Rework required on other equipment not included previously which will effect the existing operational configuration.

- f. Additional or modified system test procedures required.
- g. Any new or additional changes having an effect on existing warranties or guarantees.
- h. Changes or updates to the parts control program.
- i. Effects on LCC projections for the configuration item or program, including projections of operation and support costs/savings for the item(s) affected over the contractually defined life and projections of the costs/savings to be realized in planned future production and spares buys of the item(s) affected.

Block 38. Alternate Solutions. A summary of the various alternative solutions considered, including the use of revised operation or maintenance procedures, revised inspection or servicing requirements, revised part replacement schedules, etc., shall be included. Provide an analysis of the alternatives, identify the advantages and disadvantages inherent in each feasible alternative approach, and show the reasons for adopting the alternative solution proposed by the ECP. When the analysis addresses new concepts or new technology, supporting data (to include LSA if contractually required) should be presented with the proposal to authenticate the trade-off analysis.

Block 39. Developmental Status. When applicable, the Contractor shall make recommendations as to the additional tests, trials, installations, prototypes, fit checks, etc., which will be required to substantiate the proposed engineering change. These recommendations shall include the test objective and test vehicle(s) to be used. Indicate the development status of the major items of GFE used in conjunction with the change and the availability of the equipment in terms of the estimated production incorporation point.

Block 40. Recommendations for Retrofit. When applicable, the contractor shall make recommendations for retrofit of the engineering change into accepted items with substantiating data, any implications thereto and a brief description of the action required. Where retrofit is not recommended, an explanation of this determination shall be provided. Reference shall be made to any enclosure required to state recommended retrofit effectivity (See Block 20a).

Block 41. Work-hours per Unit to install Retrofit Kits. Complete Blocks 41a through 41d to show the amount of work that must be programmed for various activities to install retrofit kits. Estimate work-hours to install retrofit kits when weapon system is undergoing overhaul.

Block 42. Work-hours to Conduct System Tests after Retrofit. Enter the work-hours required to test the system or the item following installation of the retrofit kit.

Block 43. This change must be accomplished. Where previously approved engineering changes must be incorporated in a specific order in relation to the proposed change, such order should be specified.

Block 44. Is Contractor Field Service Engineering Required? Check applicable box. If "yes", attach proposed program for your participation.

Block 45. Out of Service Time. Estimate the total time period from removal of the equipment from operational service until equipment will be returned to operational status after being retrofitted.

Block 46. Effect of this ECP and Previously Approved ECPs on Item. Summarize the cumulative effect upon performance, weight, electrical load, etc., of this ECP and previously approved ECPs when design limitations are being approached or exceeded. Consequences of ECP disapproval may be stated in this block or in a referenced enclosure.

Block 47. Date Contractual Authority Needed. Provide the date by which contractual authority to proceed is needed to maintain the estimated effectiveness specified in the ECP and to provide concurrent ILS and logistics support item deliveries. Consider the targets for decision (see ref. below) for allowing additional time for review, mailing, and other incidental handling and processing requirements.

Target for Technical Decision on Class I ECPs: The criticality of the need for decision will dictate the actual processing time for ECPs. Emergency and urgent ECPs should be proposed based upon the targets below unless otherwise agreed to between the Contractor and the Government. Processing targets for routine ECPs will be tailored to maximize cost effectiveness, recognizing the program, system and ECP complexity. The target for technical decision on Class I ECPs assigned the various priorities will be the following:

- | | |
|--------------|------------------|
| a. Emergency | 48 hours |
| b. Urgent | 14 calendar days |
| c. Routine | 45 calendar days |

DD Form 1692/3, "Engineering Change Proposal, Page 4", Estimated Net Total Cost Impact. DD Form 1692/3 is intended as the summary of the estimated net total cost/savings impact of a single ECP. In Blocks 48a through 48d, each cost factor associated with the ECP shall be considered as to whether such cost or portion thereof under the subject contract is recurring or nonrecurring. Enter costs/savings in columns 1, 4 and 5, as applicable, using entries in the "unit" and "quantity" columns when appropriate. Savings shall be enclosed with parentheses. Other costs/savings to the Government resulting from approval of this ECP shall be entered in column 6 to the extent these costs can be determined by the Government. This estimate of cost impact will be used for planning purposes and for a cost education or VE ECP analysis as to the net saving that would result. Firm cost proposals shall be submitted, in addition to this cost information, per contract requirements, together with the appropriate cost breakdown.

ECP Number, Originator Name and Address. Enter the same information as provided on DD Form 1692 (Page 1). If the number is assigned by system, include system designation.

Block 48. Estimated Net Total Cost Impact.

Block 48a. Production Costs/Savings. Except for the line "Engineering, Engineering Data Revision", enter in columns (1) thru (5) production contract cost incurred by the responsible engineering activity in column (6). Also enter in column (6) line "Configuration Item" and other applicable factors estimated future production costs for future contract ECPs.

Block 48b. Retrofit Costs. Enter the estimate of costs applicable to retrofit of the item, including installation and testing costs. When our personnel accomplish, or are involved in, the installation and/or testing activities, the estimated costs shall be entered in column (6) on the affected lines. Show design costs of the retrofit kit and data revision costs strictly related to retrofit when the CI is in production; show all redesign and data revision costs when the item is not in production. Costs of modifications required to existing GFE and subsequent testing also shall be shown. Enter the subtotal of retrofit costs in the fifth column. If some or all of the retrofit activities and costs will have to be deferred and placed on contract at a future date, show that deferred portion of the cost applicable to each line of Block 48b in column 6.

Block 48c. Integrated Logistic Support Costs/Savings. Enter the estimated cost of the various elements of ILS applicable to the item covered by the ECP. On the line titled "interim support," estimated costs shall be entered based upon the period of time between initial installation/operation of the item (truck, trailer, etc.) as modified by the ECP and attaining support capability. Such "interim support" costs shall include costs estimates of the Contractor's recommended/provided spares and repair parts, special support equipment, training equipment and personnel training program. On the line titled "maintenance manpower" shall be entered the estimated costs/savings for the contracted maintenance support for the remainder of existing maintenance contracts. Other ILS costs/savings associated with ILS elements for which appropriate titles do not appear in Block 48c may be entered in place of a factor not used unless such costs are covered on DD Form 1692/4 (Page 5) or in related ECPS. Enter the subtotal of ILS costs/savings in column 5. Enter the operation and support portion of the life cycle cost/savings on the subtotal line in column 6.

Block 48d. Other Costs/Savings. If there are other costs under the contract which do not fall under the production, retrofit or ILS headings, enter the total of such costs in Block 48d, column 6. If there are other costs to the Government which do not fall under the production, retrofit or ILS headings or under Block 48g, "coordination changes by the Government, enter the total of such costs in Block 48d, column 6.

Block 48e. Subtotal Costs/Savings. Enter the subtotals of column 1, 4, 5, and 6 on this line. The subtotal in column 5 shall be the sum of columns 1 and 4. This subtotal under the contract then shall be entered on the line so titled in column 6 and on DD Form 1692 (Page 1), Block 21.

Block 48f. Coordination of Changes with Other Contractors. This term applies to interface changes to items other than GFE, and changes to GFE being covered under 48b. If such coordination changes are covered by related ECPs and summarized on DD Form 1692/4 (Page 5), the estimated costs thereof shall not be entered in Block 48f. However, if Page 5 is not required, or if costs of certain coordination changes are not tabulated on Page 5, an estimate of such costs shall be entered in Block 48f, when available.

Block 48g. Coordination Changes by the Government. Enter in this block an estimate of the cost to the Government of the interface changes which must be accomplished in delivered items (trucks, trailers, facilities, etc.) to the extent such costs are not covered in Block 48b or on DD Form 1692/4 (Page 5).

Block 48h. Estimated Net Total Costs/Savings. Enter the sum of all cost savings on column 6 and on DD Form 1692 (Page 1), Block 22.

DD Form 1692/4, "Engineering Change Proposal, Page 5", Estimated costs/savings summary, related ECPs. DD Form 1692/4, is intended as the summary of the estimated net total cost impact of both the package of related ECPs and other associated new requirements which are needed to support the modified items. A few revised requirements for ILS, such as ILS plans and maintenance concepts do not appear as headings on DD Form 1692/3 (Page 4). When only a single ECP is involved, these additional costs for revision of ILS plans, etc. should be shown on Page 4 under the ILS heading, and Page 5 may be omitted.

a. Responsibility for preparation:

(1) **Prime Contractor.** The prime contractor shall summarize the costs/savings of all related ECPs for which the contractor is responsible, on DD Form 1692/4 (Page 5). If there is no system integrating contractor, the prime contractor submitting the basic ECP shall include the costs of related ECPs being submitted by other affected contractors to the extent such information is available.

(2) **System Integrating Contractor.** When a system integrating contractor (or coordinating contractor) has contractual responsibility for ECP coordination, the Contractor shall summarize the costs of related ECPs of the several prime contractors involved in an interface or interrelated ECP on DD Form 1692/4 (Page 5) and shall attach this page to the ECP package.

b. Summarization Techniques. The costs of certain related ECPs are entirely ILS costs. Thus costs of ECPs for trainers, other training equipment and SE shall be listed as a total under the "ILS Costs" heading. Other ECPs (applicable to trucks, trailers, subsystems thereof, etc.) shall be split into the four subtotals of "production," "retrofit," "ILS," and DD Form 1692/4 (Page 5). The sum of the four subtotals attributed on Page 5, column (c), to an individual ECP should agree with the subtotal of costs/savings under contract, line e, column (e) of DD Form 1692/3 (Page 4) of that ECP. Cost breakdowns should be arranged in such manner that costs/savings are neither included more than once on the summary nor omitted.

The purpose of the grouping on the cost summary is to arrive at a total ILS cost, and a net total cost of all actions for the complete group of related ECPs. If more related ECPs will have to be summarized than there is room available in the blocks on the form, the summarization of each cost area shall be accomplished on a separate enclosure and the total for that cost area entered on the subtotal line for that area on the DD Form 1692/4.

c. **Software Changes Only.** This form shall not apply in the case where all related ECPs being summarized refer to software changes only. However, a separate page(s) shall be provided with the ECP detailing the summary of the individual CSCI costs/savings for each of the related ECPs, grouped by the cost areas, and providing the total costs/savings for all of the related software ECPS.

ECP Number. Enter the same ECP number as in Block 8d of DD Form 1692 (Page 1). If the number is assigned by system, include system designation.

Block 49.

Block 49a. Production Costs/Savings. Enter the ECP number in column 2. Enter the production subtotals from column 5 and 6 of Block 48a of each ECP applicable to weapons, trucks, trailers, subsystems thereof, etc. in columns 3 and 4 respectively. (Note that total costs of ECPs on trainers, training equipment, and support equipment are entered in Block 49c.)

Block 49b. Retrofit Costs. Retrofit costs may be charged by the Government to production funds or maintenance funds or may be split between the two. The type of funds used depends upon the phase in the items life cycle. If the originator has knowledge of the Government's intent to split the costs, the retrofit costs shall be entered in, or split between Blocks 49b and 49c.1, as appropriate. If such practice is unknown, enter in Block 49b the ECP number and the retrofit subtotals from the columns 5 and 6 of Block 48b for each applicable ECP.

Block 49c. ILS Costs/Savings. Enter retrofit costs in Block 49.c.1, if appropriate. Enter in Block 49.c.2 the ILS subtotals from columns 5 and 6 of Block 48c of each ECP applicable to weapons, trucks, trailers, subsystems thereof, etc. Enter costs of ECPs for ILS items in Blocks 49.c.3, 4, 5 and 6. Enter costs of revision or preparation of ILS plans and LSA records for the CI or complete system in Block 49.c.7. Enter in Block 49.c.9 costs of revision of the interim support plan to the extent such costs have not already been covered under Block 48c of DD Form 1692/3 (Page 4) of the applicable ECPs. Enter in Blocks 49.c.10 through 49.c.18 the costs of all new requirements for ILS not covered by ECPs, such costs being broken down into recurring and nonrecurring costs, as appropriate, and totaled in column 3.

Block 49d. Other Costs/Savings. Enter in Block 49d the sum of the "other costs" totals from columns 5 and 6 of Block 48d of each ECP applicable to weapons trucks trailers,

subsystems thereof, etc. Enter the subtotals of column (c) and (d) on this line. The subtotal under contracts) shall then be entered on the line so titled in column (d).

Block 49e. Estimated Net Total Costs/Savings. Enter the sum of the preceding lines of columns 3 and 4.

**INSTRUCTIONS FOR PREPARATION OF SPECIFICATION CHANGE NOTICE
DD FORM 1696**

Block 1. Date. Enter submittal date of the SCN.

Block 2. Procuring Activity Number. Leave Blank

Block 3. DODAAC. Leave Blank

Block 4. Originator Name and Address. Enter the name and address of the contractor preparing the SCN.

Block 5. SCN Type. Indicate by an "X" in the appropriate block if this is a proposed SCN. If the SCN is being submitted to the government for final technical approval, prior to distribution according to the contract, both blocks should be left blank. The approved block will be marked by the Government upon approval/contractual implementation.

Block 6. CAGE Code. Enter the CAGE Code of the design activity for the specification identified in Block 7.

Block 7. Specification Number. Enter the identification number, including revision letter, of the specification being changed.

Block 8. CAGE Code. Enter the CAGE Code of the activity preparing the SCN.

Block 9. SCN Number. Enter the identification number for the SCN being submitted.

Block 10. System Designation. Enter the type, model, series or the nomenclature number for the system affected, or major item of equipment, if it is not a system.

Block 11. Related ECP Number. Enter the complete ECP number (including dash numbers and revisions) that identifies the related engineering change.

Block 12. Contract Number. Enter the complete contract number affected by this SCN, if applicable.

Block 13. Contractual Authorization. There should be no entry in this block on a proposed SCN.

Block 14. Configuration Item Nomenclature. Enter the nomenclature (name and number) of the CI affected by the change. Normally, this will be different than Block 10.

Block 15. Effectivity.

a. For hardware, enter the serial numbers of the items for which this SCN is effective. This will include the applicable production line items plus items approved for a retrofit or modification program.

b. For CSCIs, enter the revision or version of the CSCI to which the change applies. If a new version is warranted by the incorporation of this ECP, the new version number should be entered here.

Block 16. Pages Affected by this SCN. (Indicate Deletions). The entries in this section (upper half) shall provide information about the pages affected by the SCN being submitted. Enter a listing of all pages being changed by this SCN and indicate whether the pages are being superseded or added (by entering an "S" or an "A" in the column) or deleted (by printing the word "deleted" after the page number so affected). A separate line should be used for each category of page change. Once the SCN has been approved by the Government, enter the approval date (from Block 18) in this block.

Block 17. Summary of Previously Changed Pages.

Block 17a. SCN Number. For all SCNs previously submitted, enter the identification number of each SCN starting with SCN number 1 at the top of the column.

Block 17b. Related ECP Number. Enter the identification number (including revision designator and dash numbers) of each ECP effected by each previously issued SCN against this specification revision.

Block 17c. Pages. List the pages changed by each previously issued SCN against this specification. A separate line should be used for each category of page change.

Block 17d. Date Submitted. For a proposed SCN, enter the submittal date for each previously submitted SCN opposite the appropriate SCN number in Block 17. For the approved SCN, enter the submitted date for each previously submitted SCN that has been approved opposite the appropriate SCN number in Block 17.

Block 17e. Type of Change. Indicate whether the pages being superseded or added (by entering an "S" or an "A" in the column).

Block 17f. Approval Date. For each approved SCN previously submitted, enter its approval date on the same line as the SCN number in Block 17.

Block 18. Government Activity. The Government contracting officer, or a duly appointed representative, will affix an approval signature and the date in this block, and will mark an "X" in the approved box, to designate approval of the SCN. The signature denotes technical concurrence with the contents of the DD Form 1696 and attached change pages. When Block 18 has been signed and the approved block has been marked, the status of the SCN changes from a proposed SCN to an approved SCN.

**INSTRUCTIONS FOR PREPARATION OF NOTICE OF REVISION (NOR) UTILIZING
DD FORM 1695**

GENERAL REQUIREMENTS

Use of DD Form 1695. DD Form 1695, Figure 12, may be used to propose revisions to drawings, associated lists, or other referenced documents, which require revision after ECP approval.

DETAILED REQUIREMENTS - The following are detailed instructions for completion of the DD Form 1695.

Block 1. Date. Enter the submittal date of the NOR. Normally this date will be identical to the ECP submittal date.

Block 2. Procuring Activity No. Leave Blank.

Block 3. DODAAC. Leave blank.

Block 4. Originator Name and Address. Enter your name and address

Block 5. CAGE code. Enter the originator of the ECP's CAGE Code.

Block 6. NOR number. The NOR number shall consist of a sequential number, starting with one (1) and the total number of NORs separated by a dash, e.g. if there are 10 NORs in an ECP, the NORs shall be numbered 1-10, 2-10, 3-10, etc. thru 10-10. If there are 25 NORs they shall be numbered 1-25, etc. thru 25-25.

Block 7. CAGE Code. Enter the alphabetical symbol of the document custodian.

Block 8. Document Number. Enter the document number.

Block 9. Title of Document. Enter the title of the document (drawing) to which the NOR applies.

Block 10. Revision Letter.

Block 10a. Current. Show the existing revision of the document for which the NOR is prepared.

Block 10b New. Leave Blank or enter the proposed revision level of the document.

Block 11. ECP number. Enter the number of the ECP (DD Form 1692) describing the engineering change which necessitates the document revision covered by this NOR.

Block 12. Configuration Item (or System) to which ECP Applies. Enter the assigned system designation (if any); otherwise, enter the name and type designation of the CI to which the ECP applies (see Blocks 5a, 5c and 13 on ECP Form 1692).

Block 13. Description of Revision. Describe the change in detail giving the exact wording of sentences or paragraphs that are to be added, or that are to replace designated sentences or paragraphs of the current document. State the dimensions, tolerances and other quantitative requirements that are to replace the current requirements. Attach a marked print (or a copy of the "TO" condition drawing) to clearly explain the desired revision. Use a "From - To" format in the description of the change.

SECTION 14 - THIS SECTION IS FOR GOVERNMENT USE ONLY - Leave Blank.

Block 15. Activity.

Block 15a. Activity Accomplishing Revision. The name of the activity (custodian) that is directed to make the revision in the master document will be entered by the approving activity.

Blocks 15b, and 15c. Revision Completed and Date. An authorized representative of the custodian shall sign in this accomplished, including entry of the date of the accomplishment. The signed original shall be returned to the Government or held by the activity that maintains the master document.

INSTRUCTIONS FOR PREPARING ECP/VECP/RFD ENCLOSURE LIST

This form is used to identify any possible conflicts with other changes (ECPs/VECPs/RFDs) being made to the drawings identified and to identify the END ITEM(S) the drawings affect.

Block ECP/VECP/RFDNO: Enter the ECP/VECP/RFD number.

Block NOR: Enter the ECP/VECP/RFD number followed by the NOR number (example 6800-1, 577-1).

Block DOCUMENT ITEM NUMBER: Enter the drawing number, specification number, or technical document number of the document being revised.

Block LATEST DOCUMENT DATE: Enter the date of latest change from the Revision Block on the drawing.

Block CUST: Enter the cage code for the customer (TACOM: 19207).

OTHER PENDING ECP/VECP/RFD

Block NUMBER: Enter the number for any pending change (example 6600-3).

Block CONFLICTS: Enter X in the appropriate column.

Blocks LEGEND CODE: enter an X in the appropriate column for the End Item associated with this drawing.

NOTE: For initial release documents enter the document number and annotate the date field (block LATEST DOCUMENT DATE) with "INITIAL"

Blocks END ITEMS AFFECTED: Enter ONLY the END ITEM or ITEMS that the above listed drawings represent (example: ALL FMTV's, ALL LMTV's, M1089, ALL MTV's except M1088 and M1089, TROOPSEAT KIT, etc.).

Blocks CHANGE AFFECTS: Enter an X to identify ALL areas these changes AFFECTS. Remaining Blocks are for TACOM entries.

**ECP INTERCHANGEABILITY FORM
(STA FORM 4762)**

This form is used to identify interchangeability relationship between parts.
As a general rule this form is used when parts are introduced into or removed from a baseline or configuration.

If there are no part number changes (NEW or CANCELLED) or the part numbers changed are not a removable component from the vehicle then identify interchangeability Not Affected on the ECP Enclosure List or DD Form 1692/3.

For part number changes or cancellations to interchangeable components provide the following information

Block ECP/VECP/RFD. Enter the ECP, VECP, RFD number.

Block PART NUMBER INVOLVED. Enter the NEW or CANCELLED part number.

Block NEW OR CANCELLED. Enter 'N' for new or "C" for cancelled part number.

Block DOES NEW INTER CHANGE WITH OLD. For NEW part numbers enter "Y" for yes or "N" for no. For CANCELLED part numbers enter N/A.

Block DOES OLD INTER CHANGE WITH NEW. For NEW part numbers enter "Y" for yes or "N" for no. For CANCELLED part numbers enter N/A.

Block CAN EITHER BE REWORKED. For NEW part numbers enter "Y" for yes and "N" for no. For CANCELLED part numbers enter N/A.

Block CAN ONE BE INTER CHANGED WITH OTHER BY COMBINING WITH OTHER PARTS. For NEW part numbers enter "Y" for yes or "N" for no. For CANCELLED part numbers enter N/A.

Block REPLACES PART NUMBER. For NEW part numbers enter the part number(s) the new part replaces. For CANCELLED part numbers enter N/A.

Block USED IN NEXT ASSEMBLY. Enter drawing number for Next Higher Assembly (NHA)

Blocks RECOMMENDED DISPOSITION OF REPAIR PARTS. Enter and "X" or N/A in the appropriate column(s).

NOTE: FOR RECOMMENDED DISPOSITION OF REPAIR PARTS, The contractor is making a recommendation to the Government as to what should be the disposition of repair parts the Government currently may have in their supply system. Make ONLY one entry (X) for NEW part numbers. For CANCELLED part numbers Blocks 10 through 13 will be N/A.

Remarks: Entry required if Block 13 was filled in other than N/A.

ENGINEERING CHANGE PROPOSAL, PAGE 1				DATE (YYMMDD)		Form Approved OMB NO. 0704-0188	
Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Service, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, D.C. 20503						PROCURING ACTIVITY NO.	
1. ORIGINATOR NAME AND ADDRESS				2. CLASS OF ECP			
				3. JUST. CODE		4. PRIORITY	
6. ECP DESIGNATION				6. BASELINE AFFECTED			
a. MODEL/TYPE SEE AGENDUM #1		b. CAGE CODE		c. SYSTEM DESIGNATION		<input type="checkbox"/> FUNCTIONAL <input type="checkbox"/> ALLOCATED <input type="checkbox"/> PRODUCT	
d. ECP NO.			e. TYPE	f. REV	g. AMEND		7. OTHER SYS./COMPS. ITEMS AFFECTED
							<input type="checkbox"/> YES <input type="checkbox"/> NO
8. SPECIFICATIONS AFFECTED - TEST PLAN				8. DRAWINGS AFFECTED			
	CAGE CODE	SPEC/DOC. NO.	REV.	SCN	CAGE CODE	NUMBER	REV.
a. SYSTEM							
b. ITEM							
c. TEST PLAN							
10. TITLE OF CHANGE				10.a. WEAPON SYSTEM CODE OR DESIGNATION			
11. CONTRACT NO. AND LINE ITEM				12. PROCURING CONTRACTING OFFICER			
				CODE:		TEL:	
13. CONFIGURATION ITEM NOMENCLATURE						14. IN PRODUCTION	
						<input type="checkbox"/> YES <input type="checkbox"/> NO	
15. LOWEST ASSEMBLY AFFECTED							
NOMENCLATURE				PART NO.		NSN	
16. DESCRIPTION OF CHANGE							
17. NEED FOR CHANGE							
18. PRODUCTION EFFECTIVITY BY SERIAL NUMBER				19. EFFECT ON PRODUCTION DELIVERY SCHEDULE			
20. RETROFIT							
a. RECOMMENDED ITEM EFFECTIVITY				c. SHIP/VEHICLE CLASS AFFECTED			
b. ESTIMATED KIT DELIVERY SCHEDULE				d. LOCATIONS OR SHIP/VEHICLE NUMBERS AFFECTED			
21. ESTIMATED COSTS/SAVINGS UNDER CONTRACT				22. ESTIMATED NET TOTAL COSTS/SAVINGS			
23. SUBMITTING ACTIVITY AUTHORIZED SIGNATURE				23. a. TITLE			
24. APPROVAL/DISAPPROVAL							
a. CLASS I		b. CLASS II		c. CLASS II			
<input type="checkbox"/> APPROVAL RECOMMENDED <input type="checkbox"/> DISAPPROVAL RECOMMENDED		<input type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED		<input type="checkbox"/> CONCUR IN CLASSIFICATION <input type="checkbox"/> NONCONCUR IN CLASSIFICATION			
d. GOVERNMENT ACTIVITY				SIGNATURE		DATE (YYMMDD)	
e. APPROVAL		f. GOVERNMENT ACTIVITY		SIGNATURE		DATE (YYMMDD)	
<input type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVE D							

ENGINEERING CHANGE PROPOSAL, PAGE 2Form Approved
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ORIGINATOR NAME AND ADDRESS

PROCURING ACTIVITY NUMBER

ECP NUMBER

EFFECTS ON FUNCTIONAL/ALLOCATED CONFIGURATION IDENTIFICATION

25. OTHER SYSTEMS AFFECTED

26. OTHER CONTRACTOR/ACTIVITIES AFFECTED

27. CONFIGURATION ITEMS AFFECTED

28. EFFECTS ON PERFORMANCE ALLOCATIONS AND INTERFACES IN SYSTEM SPECIFICATION

29. EFFECTS ON EMPLOYMENT, INTEGRATED LOGISTICS SUPPORT, TRAINING, OPERATIONAL EFFECTIVENESS OR SOFTWARE

30. EFFECTS ON CONFIGURATION ITEM SPECIFICATIONS

31. DEVELOPMENTAL REQUIREMENTS AND STATUS

32. TRADE-OFFS AND ALTERNATIVE SOLUTIONS

33. DATE BY WHICH CONTRACTUAL AUTHORITY IS NEEDED

ENGINEERING CHANGE PROPOSAL, PAGE 3

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ORIGINATOR NAME AND ADDRESS

PROCURING ACTIVITY NUMBER

ECP NUMBER

EFFECTS ON PRODUCT CONFIGURATION IDENTIFICATION, LOGISTICS AND OPERATIONS

(X)	FACTOR	ENCL.	PAR.	(X)	FACTOR	ENCL.	PAR.
	34. EFFECT ON PRODUCT CONFIGURATION IDENTIFICATION OR CONTRACT				36. EFFECT ON OPERATIONAL EMPLOYMENT		
	a. PERFORMANCE				a. SAFETY		
	b. WEIGHT-BALANCE-STABILITY (Airwork)				b. DURABILITY		
	c. WEIGHT-MOMENT (Other equipment)				c. RELIABILITY		
	d. CIVIL TECHNICAL DATA				d. MAINTAINABILITY		
	e. NOMENCLATURE				e. SERVICE LIFE		
					f. OPERATING PROCEDURES		
	35. EFFECT ON INTEGRATED LOGISTICS SUPPORT (ILS) ELEMENTS				g. ELECTROMAGNETIC INTERFERENCE		
	a. ILS PLANS				h. ACTIVATION SCHEDULE		
	b. MAINTENANCE CONCEPT, PLANS AND PROCEDURES				i. CRITICAL SINGLE POINT FAILURE ITEMS		
	c. LOGISTICS SUPPORT ANALYSES				j. INTEROPERABILITY		
	d. SUPPORT PROGRAMS						
	e. SPARES AND REPAIR PARTS				37. OTHER CONSIDERATION		
	f. TECH MANUAL/PROGRAMMING TAPES				a. INTERFACE		
	g. FACILITIES				b. OTHER AFFECTED EQUIPMENT/COMP		
	h. SUPPORT EQUIPMENT				c. PHYSICAL CONSTRAINTS		
	i. OPERATOR TRAINING				d. COMPUTER PROGRAMS AND RESOURCES		
	j. OPERATOR TRAINING EQUIPMENT				e. REWORK OF OTHER EQUIPMENT		
	k. MAINTENANCE TRAINING				f. SYSTEM TEST PROCEDURES		
	l. MAINTENANCE TRAINING EQUIPMENT				g. WARRANTY/WARRANTEE		
	m. CONTRACT MAINTENANCE				h. PARTS CONTROL		
	n. PACKAGING, HANDLING, STORAGE, TRANSPORTABILITY						

38. ALTERNATE SOLUTIONS

39. DEVELOPMENTAL STATUS

40. RECOMMENDATIONS FOR RETROFIT

41. WORK-HOURS PER UNITS TO INSTALL RETROFIT KITS

a. ORGANIZATION	b. INTERMEDIATE	c. DEPOT	d. OTHER
-----------------	-----------------	----------	----------

42. WORK-HOURS TO CONDUCT SYSTEM TESTS AFTER RETROFIT

43. THIS CHANGE MUST BE ACCOMPLISHED

BEFORE WITH AFTER THE FOLLOWING CHANGES

44. IS CONTRACTOR FIELD SERVICE ENGINEERING REQUIRED?

YES NO

45. OUT OF SERVICE TIME

46. EFFECT OF THIS ECP AND PREVIOUSLY APPROVED ECP'S ON ITEM

47. DATE CONTRACTUAL AUTHORITY NEEDED FOR

PRODUCTION
RETROFIT

ENGINEERING CHANGE PROPOSAL, PAGE 4
 (See MIL-STD-489 for Instructions)

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 OMB No. 0704-0188

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ORIGINATOR NAME AND ADDRESS

TACTICAL VEHICLE SYSTEMS DIV.

PROCURING ACTIVITY NUMBER

ECP NUMBER

48. ESTIMATED NET TOTAL COST IMPACT (Use parentheses for savings)

FACTOR	COSTS/SAVINGS UNDER CONTRACT				TOTAL (8)	OTHER COSTS/SAVING TO THE GOVERNMENT (9)
	NON-RECURRING (1)	UNIT (2)	QUANTITY (3)	TOTAL (Recurring) (4)		
a. PRODUCTION COSTS/SAVINGS						
CONFIGURATION ITEM/CSCI						
FACTORY TEST EQUIPMENT						
SPECIAL FACTORY TOOLING						
SCRAP						
ENGINEERING, ENGINEERING DATA REV.						
REVISION OF TEST PROCEDURES						
QUALIFICATION OF NEW ITEMS						
SUBTOTAL OF PDCS COSTS/SAVINGS						
b. RETROFIT COSTS						
ENGINEERING DATA REVISION						
PROTOTYPE TESTING						
KIT PROOF TESTING						
RETROFIT KITS FOR OPERATIONAL SYS						
PREF. OF MWO/TCTO/IC/AL/TD						
SPECIAL TOOLING FOR RETROFIT						
CONTRACTOR FIELD SERV ENGINEERING						
GOVT PERSONNEL INSTALLATION						
TESTING AFTER RETROFIT						
MODIFICATION OF GPE/GFP						
QUALIFICATION OF GPE/GFP						
SUBTOTAL OF RETROFIT COSTS/SAVINGS						
c. INTEGRATED LOGISTICS SUPPORT COSTS/SAVINGS						
SPARE/REPAIR PARTS REWORK						
NEW SPARES AND REPAIR PARTS						
SUPPLY/PROVISIONING DATA						
SUPPORT EQUIPMENT						
RETROFIT KITS FOR SPARES						
OPERATOR TRAINING COURSES						
MAINTENANCE TRAINING COURSES						
REV. OF TECH MAN./PROGRAMMING TAPES						
NEW TECH MAN./PROGRAMMING TAPES						
TRAINING/TRAINERS						
INTERIM SUPPORT						
MAINTENANCE MANPOWER						
COMPUTER PROGRAMS/DOCUMENTATION						
SUBTOTAL OF ILS COSTS/SAVINGS						
d. OTHER COSTS/SAVINGS						
e. SUBTOTAL COSTS/SAVINGS						
SUBTOTAL UNDER CONTRACT						
f. COORDINATION CHARGES WITH OTHER CONTRACTORS						
g. COORDINATION CHARGES BY GOVERNMENT						
ESTIMATED NET TOTAL COSTS/SAVINGS						

ENGINEERING CHANGE PROPOSAL, PAGE 5

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OMB No. 0704-0188

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ORIGINATOR NAME AND ADDRESS

TACTICAL VEHICLE SYSTEMS DIV

PROCURING ACTIVITY NUMBER

ECP NUMBER

49. ESTIMATED COSTS/SAVINGS SUMMARY, RELATED ECP'S (Use parentheses for savings)	BASE CODE (1)	ECP NUMBER (2)	EXPENSES UNDER CONTRACTS (3)	OTHER EXPENSES TO GOVERNMENT (4)
a. PRODUCTION COSTS/SAVINGS (Subtotal of costs/savings Elements from block 49a applicable to aircraft, ship, tank, vehicle, missile or its subsystem)				
SUBTOTAL PRODUCTION COSTS/SAVINGS				
b. RETROFIT COSTS (Applicable to aircraft, ship, tank, vehicle, missile or its subsystem)				
SUBTOTAL RETROFIT COSTS				
c. INTEGRATED LOGISTICS SUPPORT COSTS/SAVINGS				
REVISED REQUIREMENT				
1. ITEM RETROFIT (If not covered under "b") (Applicable to aircraft, ship, tank, vehicle, missile or its subsystem)				
2. ILS SUBTOTAL (Applicable to aircraft, ship, tank, vehicle, missile or its subsystem)				
3. OPERATOR TRAINER (Not total cost/saving from each ECP covering operator trainer)				
4. MAINTENANCE TRAINER (Not total cost/saving from each ECP covering maintenance trainer)				
5. OTHER TRAINING EQUIPMENT				
6. SUPPORT EQUIPMENT (Not total cost/saving from each ECP on support equipment)				
7. ILS PLANS				
8. MAINTENANCE CONCEPT, PLANS, SYSTEM DOCUMENTS				
9. INTERIM SUPPORT PLAN				
NEW REQUIREMENTS	PROCURING ACTIVITY CODE	USE RECURRING COSTS	RECURRING COSTS	
			UNIT	TOTAL
10. PROVISIONING DOCUMENTATION				
11. OPER TRAINING DEVICES/EQUIP				
12. MANUALS/PROGRAMMING TAPES, SPARES, REPAIR PARTS (For 11)				
13. MAINTENANCE TRAINING DEVICES/EQUIPMENT				
14. MANUALS/PROGRAMMING TAPES, SPARES, REPAIR PARTS (For 13)				
15. SUPPORT EQUIPMENT				
16. MANUALS/PROGRAMMING TAPES (For 15)				
17. PROVISIONING DOCUMENTATION (For 15)				
18. REPAIR PARTS (For 15)				
SUBTOTAL ILS COSTS/SAVINGS (Sum of a. 1 through a. 18)				
d. OTHER COSTS/SAVINGS	BASE CODE	ECP NUMBER		
Total from block 49d of related ECP's)				
TOTAL OTHER COSTS/SAVINGS				
SUBTOTAL OF COLUMNS				
SUBTOTAL UNDER CONTRACT				
e. ESTIMATED NET TOTAL COSTS/SAVINGS (a + b + c + d)				

NOTICE OF REVISION (NOR)		1. DATE (YYMMDD)	Form Approved OMB No. 0704-0188
This revision described below has been authorized for the document listed.			
Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.			2. PROCURING ACTIVITY NO.
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9. TITLE OF DOCUMENT	10. REVISION LETTER		11. ECP NO.
	b. CURRENT	b. NEW	
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES			
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d. TITLE	e. SIGNATURE	f. DATE (YYMMDD)	
15. a. ACTIVITY ACCOMPLISHING REVISION	b. REVISION COMPLETED (Signature)	c. DATE (YYMMDD)	

DATE	SIGNATURE OF ACCEPTING OFFICIAL	CMO ACCEPTANCE	CCB MTG DATE
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