DATA DELIVERY DESCRIPTION -
ENGINEERING CHANGE PROPOSAL (ECP) AND
VALUE ENGINEERING CHANGE PROPOSAL (VECP)

This Data Delivery Description (DDD) contains the content and preparation instructions for the data product resulting from the work task specified in the contract. This DDD is used in conjunction with a Notice of Revision (NOR). A requirement for NORs, as applicable, should be contractually imposed in conjunction with this DDD. The same information is required for a VECP.

Requirements:

Reference Documents. The applicable issue of any documents cited herein, including their approval dates and dates of any applicable amendments, notices, and revisions, shall be as specified in the contract.

Format and Content. The Engineering Change Proposal shall be prepared in contractor format, or ECP/VECP forms included as part of this DDD. ECPs that are submitted by contractor for the purpose of spare part procurement are required to use the shaded elements that are in the table below. System Technical Support (STS)/Production contractor prepared Class I ECPs are required to use all fields applicable within this DDD. If the ECP is designated as a Class II change, the minimum requirements are indicated with an "*".

Supporting Data. In addition to the information required below, the ECP/VECP shall include supporting data. Formal ECPs/VECPs shall be supported by drawings and other data (e.g., Logistic Support Analysis (LSA) data, detailed cost proposal data, test data and analyses) as specified in the contract to justify and describe the change and to determine its total impact including assessments of changes to system operational deployment characteristics. When a life cycle cost and/or operation and support cost model has been included in the contract, the ECP/VECP shall also include the costs expected to result from the implementation of the change into all future production and spare items procured for the program. Also for all projected operation and support costs for the total inventory of items by the Government. A summary of any testing done to validate concepts or new technology to be employed in the proposed ECP/VECP shall be presented with the supporting data. Details of such test data, shall be provided if it is vital to the decision making process.

RELATED BLOCK #	ELEMENT	DEFINITION
ENGINEERING CHANGE PROPOSAL (Blocks below pertain to STA FORM 1692/1)		
1	ECP Or VECP *	Check ECP or VECP Block
2	Originator Name And Address *	Name and address of the activity submitting the ECP/VECP
3	Date *	Submittal or Revision date of ECP/VECP
4	Weapon System Code*	Enter Designated Weapon Code (WSC)
5	ECP/VECP Classification*	**Designate as Either Class I or II**. Proposed changes that do not meet the criteria for Class I shall be designated as Class II. The engineering change shall be Class I if: a. The Functional Configuration Documentation (FCD) or Allocated Configuration Documentation (ACD) 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. NOTE: Minor clarifications and corrections to FCD or ACD shall be made only as an incidental part of the next Class I ECP/VECP NOR, unless otherwise directed by the Government. b. A change to the Product Configuration Documentation (PCD) will affect the FCD or ACD as described in block 5a or will impact one or more of the following: (1) Government Furnished Equipment (GFE). (2) Safety. (3) Compatibility or specified interoperability with interfacing Configuration Items (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 change/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-reparable 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) Guarantees or warranties. (3) Deliveries. (4) Scheduled milestones. **For Class II, only the ECP/VECP elements indicated with a * symbol, and the following minimum information content, are applicable:** • Name and part number of item affected • Name and part number of next higher assembly • Description of the engineering change • Need (reason) for making the engineering change

<table>
<tr><th>RELATED BLOCK #</th><th>ELEMENT</th><th>DEFINITION</th></tr>
<tr><td>6</td><td>ECP/VECP Justification Code</td><td>Provide a justification code that is applicable to a proposed Class I engineering change. The justification code is not required for Class II ECPs/VECPs. 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/VECP.
<table>
<tr><th>Code</th><th>Title</th><th>Criteria for Assignment</th></tr>
<tr><td>B</td><td>Interface</td><td>Proposed to eliminate a deficiency consisting of an incompatibility between CIs.</td></tr>
<tr><td>C</td><td>Compatibility</td><td>a. 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.
b. 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.
c. 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.

Note: The contractor must also notify the Government within 48 hours after determining that a compatibility change is necessary. The contractor's message must define the need, identify factors that are impacted, and provide a preliminary estimate of cost and schedule. A formal ECP/VECP is required 30 days after the initial message. Where further procurement or manufacturing action is necessary due to lead-time considerations prior to approval of a Code C ECP/VECP, the contractor may proceed at his own risk (except where the Government caused the deficiency), after notifying the Government of the additional systems/items to be corrected.</td></tr>
<tr><td>D</td><td>Correction of Deficiency</td><td>To eliminate a deficiency. Code D is used if a more descriptive code (such as S, B, or C) does not apply.</td></tr>
<tr><td>O</td><td>Operational or Logistic Support</td><td>To make a significant effectiveness or performance change in operational capability or logistic support. Commonly known as an improvement change.</td></tr>
<tr><td>P</td><td>Production Stoppage</td><td>To prevent slippage in an approved production schedule, where delivery to current configuration documentation is impractical or cannot be accomplished without delay.</td></tr>
<tr><td>R</td><td>Cost Reduction</td><td>To provide net total life cycle cost savings to the Government and not pursuant to a contract VE clause. Code R ECPs/VECPs include cost and price of the current contract(s), plus costs resulting from associated changes in delivered items (retrofit), and life cycle logistic support.</td></tr>
<tr><td>S</td><td>Safety</td><td>Correction of a deficiency that is a hazardous condition</td></tr>
<tr><td>V</td><td>Value Engineering</td><td>To effect a net life cycle cost reduction, and the VECP is being submitted pursuant to the Value Engineering (VE) clause of the contract</td></tr>
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<tr><th>RELATED BLOCK #</th><th>ELEMENT</th><th>DEFINITION</th></tr>
<tr><td>7</td><td>Priority</td><td>A priority shall be assigned to each Class I ECP/VECP based upon the following definitions. Class II ECPs do not require a priority assignment. The proposed priority is assigned by the originator and will stand unless the Government has a valid reason for changing the priority.
<table>
<tr><th>Priority Code</th><th>Criteria</th></tr>
<tr><td>Emergency</td><td>An emergency priority is assigned to an ECP/VECP 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 in 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 Computer Software Configuration Item (CSCI) mission accomplishment is prohibited.</td></tr>
<tr><td>Urgent</td><td>An urgent priority is assigned to an ECP/VECP 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 un-corrected 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 (for example, 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 savings to the tasking activity, as defined in the contract, where expedited processing of the change will be a major factor in realizing lower costs
(6) To correct a condition causing unusable output information that is 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.</td></tr>
<tr><td>Routine</td><td>A routine priority is assigned to an ECP/VECP when emergency or urgent implementation is not applicable, required or justifiable.</td></tr>
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RELATED BLOCK #	ELEMENT	DEFINITION	
8	ECP/VECP Designation *	Model/Type *	Model or type designation, or identifier of the CI or CSCI for which proposal is being submitted. For Computer Software Configuration Items (CSCI), enter the CSCI identification number.
		CAGE code *	CAGE code for the activity originating the ECP/VECP
		System designation *	The system or top-level CI designation or nomenclature
		ECP/VECP Number *	Provide an ECP/VECP number. Once an ECP/VECP number is assigned to the first submission of a change proposal, that number shall be retained for all subsequent submissions of a change proposal. One of the following methods of assigning ECP/VECP numbers may be used unless otherwise stated in the contract: a. ECP/VECP numbers shall run consecutively commencing with number 1, for each CAGE Code identified activity, or ECP/VECP numbers may be assigned in a separate series for each system that the contractor is producing. b. When an ECP/VECP is split into a basic ECP/VECP and related ECPs/VECPs, the basic ECP/VECP shall be identified with the number prescribed above and each related ECP/VECP shall be identified by the basic number. c. Other systems may be used provided the ECP/VECP number is unique for any CAGE Code identified activity.
		Type	For Class I ECPs/VECPs, indicate either a "P" for preliminary, or "F" for formal. A Class I ECP/VECP shall be preliminary if it meets the criteria below. a. A preliminary change proposal is one that is submitted to the Government for review prior to the availability of the information necessary to support a formal ECP/VECP. It shall include a summary of the proposed change, its impact on related areas, and a justification. Examples are to furnish the Government with available information in order to permit: (1) A preliminary evaluation relative to the merits of the proposed change (2) (e.g. installation of a proposed change for the purpose of evaluation and testing prior to making a final decision to proceed with a proposed change); or, (3) A determination regarding the desirability of continuing expenditures required to further develop the proposal. (4) To provide alternative proposals; or (5) To supplement a message relative to an emergency or urgent priority (6) ECP/VECP when it is impracticable to submit a formal ECP/VECP within 30 calendar days; or (7) To obtain Government approval to proceed with software engineering development prior to the development of the actual coding changes. b. A formal ECP/VECP is the type, which provides the engineering information and other data in sufficient detail to support formal change approval/contractual implementation.
		Revision *	If an ECP/VECP is being revised, enter the proper identification of the revision, i.e., R1 for the first revision; R2, R3, etc. for subsequent revisions. (The date submitted (Block 1) shall be the date of the revised ECP/VECP.)
9	Baseline Affected	Indicate whether Functional, Allocated or Product baseline(s) is affected	
10	Other Sys./Config. 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 that will require the submittal of related Class I ECPs/VECPs. Supply details in Blocks 27a and 27c.	
11	Specifications Affected	Identity specifications cited in the contract that are affected by the ECP/VECP, by the CAGE code of the design activity, document number and revision letter, and if applicable, the number of the NOR being submitted with the ECP/VECP.	
12	Drawings Affected *	If drawings are affected by the ECP/VECP, their identity by the CAGE code of the design activity, document number, revision letter, and the NOR number of the NOR being submitted with the ECP/VECP, shall be provided.	
13	Title Of Change *	Provide a brief title to identify the component or system affected by the ECP/VECP. For example: F-18 Aircraft Air Turbine Start Connector Backshell Replacement; AN/AYK-14 (v) CP-1502/CP-1503 Reconfiguration to CP-1799; (CSCI name) Block Update.	
14	Contract Number(s) And Line Item(s)*	Provide the number(s) of all currently active contract(s), and the affected contract line item number(s), at the originating CAGE-coded activity that are affected by the engineering change.	
15	Procuring Contracting Officer *	Provide the procuring contracting officer's name, office symbol/code, and telephone number applicable to the CI shown in block 14	

DATA DELIVERY DESCRIPTION - ECP/VECP (Cont'd)

RELATED BLOCK #	ELEMENT	DEFINITION
16	Configuration Item Nomenclature*	Name and type designation, CSCI name and number, or other authorized name and number of all CI(s) affected by the ECP/VECP
17	Is The CI in Production?	If "yes", provide information as to whether deliveries have been completed on the contract(s). This data is not always applicable to software.
18	Lowest Assembly Affected*	a. For hardware, an appropriate, complete descriptive name of the part(s) shall be provided. Additionally, applicable NSNs shall be provided. b. For CSCI's, provide the name and identifier of each lower level CI and computer software unit affected.
19	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. Supporting data may 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.
20	Need For Change *	Provide an explanation of the need for the change to include specifically identifying the benefit of the change to the Government. 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/VECP is needed to correct maintenance/ logistics problems, that fact will be included with sufficient detail to identify the issues. If the ECP/VECP is being submitted as a response to a request for ECP/VECP or Government direction, cite that authority herein.
21	Production Effectivity By Serial Number	a. For hardware, provide the 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, 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 shall be based on concurrent availability of all logistics support elements and materials affected by the change to the item. b. For CSCI's, identify the CSCI version number, if known, into which the change will be incorporated. Where applicable, the effectivity of the end item CI and vehicle (aircraft, tank, ship, 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/VECP merits the release of a new software version include a recommendation to this effect. Serial numbers may be used in lieu of version numbers if approved by the Government.
22	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 date's contingent upon contractual approval by a specified date. If there will be no effect on the delivery schedule, so state.
23	Retrofit	a. Recommended item effectivity. When the contractor recommends that the engineering change be accomplished in accepted items by retrofit, the quantities and serial (or lot) numbers of accepted items in which the change is proposed to be incorporated by retrofit shall be provided. Such statement regarding items currently in production shall be based upon the estimated approval date of the ECP/VECP. b. Estimated kit delivery schedule. State estimated kit delivery schedule by quantity and date. When special tooling for retrofit is required for Government use, provide the dates of availability of tools, jigs, and test equipment required in conjunction with the kits to accomplish the change. c. Ship/vehicle class affected. When the delivered CI is installed in one or more ship/vehicle classes, enter the identification of such classes. d. Locations or ship/vehicle numbers affected. State the location(s) where retrofit is to be accomplished. If retrofit is to be accomplished in ships (or in vehicles for which the serial numbers are not shown in block 23c), enter the ship hull numbers or vehicle numbers. NOTE: The appropriate information shall be provided for CSCI changes that are to be incorporated as part of hardware or equipment change; and implemented per a hardware retrofit schedule, or where the fielded version of the software is to be replaced.

RELATED BLOCK #	ELEMENT	DEFINITION	
24	Estimated Costs/Savings Under Contract *	Production Costs/Savings	Estimated costs/savings applicable to production of the item resulting from the change. Includes the costs of redesign of the CIs or components thereof, of factory test equipment, of special factory tooling, of scrap, of engineering design, of engineering data revision, of revision of test procedures, and of testing and verification of performance of new items.
		Retrofit Costs	Estimated costs applicable to retrofit of the item including installation and testing costs. Includes retrofit-specific engineering data revision, prototype testing, kit proof testing, purchase of retrofit kits for operational systems, preparation of modification instructions, design and manufacture of special tooling for retrofit, installation of kits by contractor personnel, installation of kits by government personnel, testing after retrofit and modification, and testing and verification of performance of Government Furnished Equipment/Property (GFE/GFP).
		Logistics Support Costs/Savings	Estimated costs/savings of the various elements of logistics support applicable to the item. Includes spares/repair parts rework, new spares and repair parts, supply/provisioning data, support equipment, retrofit kit for spares, operator training courses, maintenance training courses, revision of technical manuals, new technical manuals, training/trainers, interim support, maintenance manpower, and computer programs/documentation.
		Other Costs/Savings	Includes estimated costs of interface changes accomplished by other contractor activities. (Do not include costs if the changes are covered by related ECPs/VECPs by other contractors. Also includes estimated costs of interface changes accomplished by the Government for changes which must be accomplished in previously delivered items (aircraft, ships, facilities, etc.), other interfacing products, and/or retrofit of GFE/GFP, to the extent that such costs are not covered under production, retrofit, or logistics support.
25	Estimated Net Total Costs/Savings *	Total of all the costs/savings under contract and from other costs/savings.	
26	Signature *	An authorized official representing the contractor submitting the ECP/VECP shall sign the ECP/VECP. a. Title and name of submitting activity	
NOTE: BLOCKS 27-31 ARE ONLY FILLED IN IF THE SYSTEM SPECIFICATION IS IMPACTED.			

RELATED BLOCK #	ELEMENT	DEFINITION
ENGINEERING CHANGE PROPOSAL (Blocks below pertain to STA FORM 1692/2)		
27	Effects On Functional/Allocated Configuration Identification	Effects on Functional/Allocated Configuration Identification. This information is to be provided only if the proposed change affects the system specification or the item development specification(s). If a separate product function specification is used, effects on such specification of changes proposed after the Product Baseline has been established shall be described as required. a. Other systems affected. Provide only if other systems/configuration items are affected as indicated in Block 10. b. Other contractors/activities affected. Identify other contractors or Government activities that will be affected by this engineering change. c. Configuration items affected. Enter the names and numbers of all CIs, maintenance and operator training equipment, and support equipment affected. d. Effects on performance allocations and interfaces in system specification. Describe the changes in performance allocations and in the functional/physical interfaces defined in the system specification. e. Effects on employment, integrated logistic support, training, operational effectiveness, or software. (1) 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. (2) For CSCIs, the following information shall be entered as applicable to the degree of design development of the CSCI at the time of ECP/VECP submission: (a) Identify any required changes to the data base parameters or values, or to data base management procedures; (b) Identify and explain any anticipated effects of the proposed change on acceptable computer operating time and cycle-time utilization; (c) Provide an estimate of the net effect on computer software storage; and, (d) Identify and explain any other relevant impact of the proposed change on utilization of the system.
28	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.
29	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 reaccomplished), the nature of the new development program shall be described in detail, including the status of programs already begun. b. For CSCIs, identify the scheduled sequence of computer software design and test activities, which will be required. ECPs/VECPs initiated after preliminary design which affects the FBL and/or the ABL 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.
30	Trade-Offs And Alternative Solutions.	Summary of the various solutions considered and reasons for adopting the solution proposed by the ECP/VECP. When analysis addresses new concepts or new technology, supporting data may be presented with the proposal to authenticate the trade-off analysis.
31	Date By Which Contractual Authority Is Needed	Provide the date contractual authority is required in order to maintain the established schedule for: a. Production b. Retrofit

RELATED BLOCK #	ELEMENT	DEFINITION
ENGINEERING CHANGE PROPOSAL (Blocks below pertain to STA FORM 1692/3)		
32	Effect On Product Configuration Documentation Or Contract	The effects on the approved CI product specifications shall be described by reference to the NORs or other enclosure(s), which cover such proposed text changes in detail. The effects on performance, weight-balance-stability, weight-moment, etc., which are covered in the enclosure(s), shall be indexed by proper identification adjacent to the factor affected. The effects on drawings, when not completely covered on ECP/VECP Form, Page 1, shall be described in general terms by means of a referenced enclosure. Such enclosure may consist of a list of enclosed NORs if submittal of a NOR for each drawing affected is a requirement of the contract. Indicate any technical data submittal, which is not provided for in the CDRL by means of a referenced enclosure. Address nomenclature change when applicable.
33	Effect On Acquisition Logistics Support (ALS) Elements	The effects of the engineering change on logistic support of the item shall be provided. These effects shall 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. The following shall be covered as applicable: a. Effects on schedule and content of the ALS plan. b. Effect on maintenance concept and plans for the levels of maintenance and procedures. c. System and/or CI logistics support analysis (LSA) tasks to be accomplished and LSA data requiring update wherever it exists in the contract. (MIL-PRF-49506). d. Extension/revision of the interim support plan. e. Spares and repair parts that are changed, modified, obsoleted or added, including detailed supply data for interim support spares. NOTE: Failure to include detailed supply data will delay ECP/VECP processing. f. Revised or new technical manuals. g. Revised or new facilities requirements and site activation plan. h. New, revised, obsoleted or additional support equipment (SE), test procedures and software. For items of SE and trainers, which require change, furnish a cross reference to the related ECPs/VECPs, and for any related ECP/VECP not furnished with the basic ECP/VECP, furnish a brief description of the proposed change(s) in SE and trainers. i. Qualitative and quantitative personnel requirements data which identify additions or deletions to operator or maintenance manpower in terms of personnel skill levels, knowledge and numbers required to support the CI as modified by the change. j. New operator and maintenance training requirements in terms of training equipment, trainers and training software for operator and maintenance courses. This information should include identification of specific courses, equipment, technical manuals, personnel, etc. required to set up the course at either the contractor or Government facility. k. Any effect on contract maintenance that increases the scope or dollar limitation established in the contract. l. Effects on packaging, handling, storage, and transportability resulting from changes in materials, dimensions, fragility, inherent environmental or operating conditions.
34	Effect On Operational Employment	The effects of the engineering change of CI utilization shall be provided. Quantitative values shall be used whenever practicable and are required when reliability and service life are impacted. Survivability includes nuclear survivability. The effects of the change proposal on safety, maintainability, operating procedures, electromagnetic interference, and activation schedule critical single point failure items, and interoperability shall also be provided, if applicable.

RELATED BLOCK #	ELEMENT	DEFINITION
35	Other Considerations	The effects of the proposed engineering change on the following shall be identified: 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 life cycle cost 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.
36	Alternate Solutions	When applicable, provide a summary of the various alternative solutions considered, including the use of revised operation or maintenance procedures, revised inspection or servicing requirements, or revised part replacement schedules. The contractor shall 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/VECP. When contractor's analysis addresses new concepts or new technology, supporting data shall be presented with the proposal to authenticate the trade-off analysis.
37	Developmental Status	When applicable, 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, which will be used in conjunction with the change, and the availability of the equipment in terms of the estimated production incorporation point.
38	Recommendations For Retrofit	When applicable, 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.
39	Work-Hours Per Units To Install Retrofit Kits	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.
40	Work-Hours To Conduct System Tests After Retrofit	Provide the work-hours required to test the system or the item following installation of the retrofit kit.
41	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.
42	Is Contractor Field Service Engineering Required?	If "yes" attach proposed program for contractor participation.
43	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.
44	Production Impact Costs	Estimated costs/savings applicable to production of the item resulting from the change. Includes the costs of Redesign of the CIs or Components thereof, of Factory Test Equipment, of Special Factory Tooling, of Scrap, of Engineering Design, of Engineering Data Revision, of Revision of Test Procedures, and of Testing and Verification of Performance of New Items.
45	Date By Which Contractual Authority Is Needed	Provide the date contractual authority is required in order to maintain the established schedule for: a. Production b. Retrofit

RELATED BLOCK #	ELEMENT	DEFINITION
ENGINEERING CHANGE PROPOSAL (Blocks below pertain to STA FORM 1692/4)		
46	Estimated Net Total Cost Impact *	Summary of the estimated net total cost/savings impact of a single ECP/VECP. In Blocks 46a through d, each cost factor associated with the ECP/VECP shall be considered as to whether such cost or portion thereof under the subject contract is recurring or nonrecurring. Enter cost savings in columns 1 and 4, as applicable, using entries in the "unit" and "quantity" columns when appropriate. Savings shall be enclosed with parentheses. a. Production Costs/Savings Summary. Estimated costs/savings applicable to production of the item resulting from the change. Includes the costs of redesign of the CIs or components thereof, of factory test equipment, of special factory tooling, of scrap, of engineering design, of engineering data revision, of revision of test procedures, and of testing and verification of performance of new items. b. Retrofit Costs. Estimated costs applicable to retrofit of the item including installation and testing costs. Includes retrofit-specific engineering data revision, prototype testing, kit proof testing, purchase of retrofit kits for operational systems, preparation of modification instructions, design and manufacture of special tooling for retrofit, installation of kits by contractor personnel, installation of kits by government personnel, testing after retrofit and modification, and testing and verification of performance of Government Furnished Equipment/Property (GFE/GFP). c. Logistics Support Costs/Savings. Estimated costs/savings of the various elements of logistics support applicable to the item. Includes spares/repair parts rework, new spares and repair parts, supply/provisioning data, support equipment, retrofit kit for spares, operator training courses, maintenance training courses, revision of technical manuals, new technical manuals, training/trainers, interim support, maintenance manpower, and computer programs/documentation. d. Other Costs/Savings. Includes estimated costs of interface changes accomplished by other contractor activities. (Do not include costs if the changes are covered by related ECPs/VECPs by other contractors. Also includes estimated costs of interface changes accomplished by the Government for changes which must be accomplished in previously delivered items (aircraft, ships, facilities, etc.), other interfacing products, and/or retrofit of GFE/GFP, to the extent that such costs are not covered under production, retrofit, or logistics support. e. Subtotal costs/savings. Enter the subtotals of columns 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 in Block 24, page 1. f. Coordination changes with other contractors. This term applies to interface changes to items other than GFE, and changes to GFE being covered under 46b. g. Coordination changes by Government. Enter in this block an estimate of the cost to the Government of interface changes which must be accomplished in delivered items (aircraft, ships, facilities, etc.) to the extent such costs are not covered in Block 46b. h. Estimated Net Total Costs/Savings. Enter the sum of all cost savings on column 6 and in Block 25, page 1.

RELATED BLOCK #	ELEMENT	DEFINITION
ENGINEERING CHANGE PROPOSAL (Blocks below pertain to STA FORM 1692/5)		
47	Estimated Costs/Savings Summary, Related ECPs/VECPs (use parentheses for savings) *	Provide a summary of the estimated net total cost impact of both the ECPs/VECPs and any related ECPs/VECPs and other associated new requirements that are needed to support the modified items broken out by categories described in block 46 (b), (c), (d). RESPONSIBILITY FOR PREPARATION: (1) Prime contractor. The prime contractor shall summarize the costs/savings of all related ECPs/VECPs for which the contractor is responsible. If there is no system integrating contractor, the prime contractor submitting the basic ECP/VECP shall include the costs of related ECPs/VECPs 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/VECP coordination, the contractor shall summarize the costs of related ECPs/VECPs of the several primes involved in an interface or interrelated ECP/VECP. SUMMARIZATION TECHNIQUES. The costs of certain related ECPs/VECPs are entirely ALS costs. Costs of ECPs/VECPs for trainers, other training equipment and SE shall be listed in total under the "ILS costs" heading. Other ECPs/VECPs (applicable to weapons, aircraft, tanks, and subsystems thereof, etc.) shall be split into the four subtotals of "production," "retrofit," 'ALS," and ECP/VECP Form Page 5. The sum of the four subtotals attributed on Page 5, column (3), to an individual ECP/VECP should agree with the subtotal of costs/savings under contract, line e, column (5) of STA Form 1692/4 of that ECP/VECP. 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 ALS cost, and a net total cost of all actions for the entire group of related ECPs/VECPs. If more related ECPs/VECPs 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 STA Form 1692/5. SOFTWARE CHANGES ONLY. This form shall not apply in the case where all related ECPs/VECPs being summarized refer to software changes only. However, a separate page(s) shall be provided with the ECP/VECP detailing the summary of the individual CSCI costs/savings for each of the related ECPs/VECPs, grouped by the cost areas, and providing the total costs/savings for all of the related software ECPs/VECPs. a. Production costs/savings. Enter the ECP/VECP number in column (2). Enter the production subtotals from columns (5) and (6) of Block 46a of each ECP/VECP applicable to weapons, aircraft, tanks, subsystems thereof, etc. in columns (3) and (4) respectively. (Note that total costs of ECPs/VECPs on trainers, training equipment, and SE are entered in Block 47c.) b. 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 practice of the Government in this regard is known to the originator of Page 5, retrofit costs shall be entered in, or split between, Blocks 47b and 47c.1, as appropriate. If such practice is unknown, enter in Block 47b the ECP/VECP number and the retrofit subtotals from the columns (5) and (6) of Block 46b for each applicable ECP/VECP. c. ALS costs/savings. Enter retrofit costs in Block 47c.1, if appropriate. Enter in Block 47c.2 the ALS subtotals from columns (5) and (6) of Block 46c of each ECP/VECP applicable to weapons, aircraft, tanks, subsystems thereof, etc. Enter costs of ECPs/VECPs for ALS items in Blocks 47c, 3, 4, 5 and 6. Enter costs of revision or preparation of ALS plans and LSA records for the CI or complete system in Block 47c.7. Enter in Block 47c.9 costs of revision of the interim support plan to the extent such costs have not already been covered under Block 46c of STA Form 1692/4 of the applicable ECPs/VECPs. Enter in Blocks 47c.10 through 47c.18 the costs of all new requirements for ALS not covered by ECPs/VECPs, such costs being broken down into nonrecurring and recurring costs, as appropriate, and totaled in column (3). d. Other costs/savings. Enter in Block 47d the sum of the "other costs" totals from column (5) and (6) of Block 46d of each ECP/VECP applicable to weapons aircraft, tanks, subsystems thereof, etc. Enter the subtotals of columns (3) and (4) on this line. The subtotal under contract(s) shall then be entered on the line so titled in column (4). e. Estimated net total costs/savings. Enter the sum of the preceding two lines of column 4.

RELATED BLOCK #	ELEMENT	DEFINITION
ENGINEERING CHANGE PROPOSAL ENCLOSURE LIST (Blocks below pertain to STA FORM 1692/6)		
48	Page No.	Enter total number of pages per enclosure list number.
49	Document Identification	a. Enter NOR number from ECP/VECP. b. Enter document item number (part number). c. Enter latest document date. d. Enter CAGE Code.
50	Other Pending ECPs/VECPs	a. Enter pending ECP/VECP number, if applicable. b. Check box Yes if there is a conflict between ECP/VECP and pending ECP/VECP; Check box No if there are no pending ECPs/VECPs
51	End Items And Models Affected	a. Check corresponding End Items or Models Affected, if known using the Legend Code. b. Annotate End Item or Models Affected from block 51a. c. Check applicable changes that affect the change proposal.
52	Comments for conflicting ECP/VECP Issues	Enter comments for conflicting ECP/VECP issues.

RELATED BLOCK #	ELEMENT	DEFINITION
ECP/VECP/DEVIATION INTERCHANGEABILITY FACTORS (Blocks below pertain to STA FORM 1692/7)		
53	Interchangeability	a. Enter part number affected from ECP/VECP. b. Enter N for New, or C for Canceled for applicable part number. c. Enter Replacement part number, if applicable. d. Enter the up assembly used. e. Check box for YES; leave box blank for NO if the new part interchanges with the old part number. f. Check box for Yes; leave box blank for NO if the old part number interchanges with the new part number. g. Check box for YES; leave box blank for NO if either part number can be reworked to interchange with the other. h. Check box for YES; leave box blank for NO if one part number can be interchanged with the other by combining with other parts. i. Check box, if applicable. j. Check box, if applicable. k. Check box, if applicable. l. Check box, if applicable. m. Enter remarks, if applicable. n. Enter date. o. Enter total number of pages per enclosure list.