|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. DATE *(MMDDYYYY):* | | | | 1. Vendor Code: | | | | | | | | | |  | | | | | | | | | |
| 1. ORIGINATOR | | | | | | | | | b. ADDRESS *(Street, City, State, Zip Code)* | | | | | | | | | | | | | | |
| a. NAME *(First, Last)* | | | | | | | | |  | | | | | | | | | | | | | | |
| 4. CLASS I or FAA Major: | | | | | | | | | 5. JUSTIFICATION CODE: | | | | | | | | 6. PRIORITY: | | | | | | |
| 7. ECP DESIGNATION | | | | | | | | | | | | | | 8. BASELINE AFFECTED | | | | | | | | | |
| a. MODEL/TYPE | b. CAGE CODE | | | | c. SYSTEM DESIGNATION | | | | | | | | |  | | FUNCTIONAL | | |  | PRODUCTION | | | |
|  | | ALLOCATED | | |  |  | | | |
| d. SUPPLIER CHANGE NUMBER: | | | | | | | e. TYPE | | | | | f. REV | | 9. OTHER SYS./CONFIG. ITEMS AFFECTED | | | | | | | | | |
|  | | YES | | |  | NO | | | |
| 10. SPECIFICATIONS AFFECTED | | | | | | | | | | | | 11. DRAWINGS AFFECTED | | | | | | | | | | | |
|  | | CAGE Code | Specification/Document No. | | | REV. | | | | SCN | | CAGE Code | | | NUMBER | | | | | | REV. | | NOR |
| a. SYSTEM | |  |  | | |  | | | |  | |  | | |  | | | | | |  | |  |
| b. DEVELOPMENT | |  |  | | |  | | | |  | |  | | |  | | | | | |  | |  |
| c. PRODUCTION | |  |  | | |  | | | |  | |  | | |  | | | | | |  | |  |
| 12. TITLE OF CHANGE | | | | | | | | | | | | | | | | | | | | | | | |
| 13. CONTRACT NO. OR PURCHASE ORDER | | | | | | | | 14. SIKORSKY PURCHASING CONTACT | | | | | | | | | | | | | | | |
| NAME (*First, Last)* | | | | | | | | | | | | | | | |
| 15a. SUPPLIER CONFIGURATION ITEM NOMENCLATURE & NUMBER    15b. SIKORSKY CONFIGURATION ITEM NOMENCLATURE & NUMBER | | | | | | | | | | | | | | | | | | | 16. IN PRODUCTION | | | | |
|  | YES | |  | NO |
| 17. ALL LOWER-LEVEL ITEMS AFFECTED | | | | | | | | | | | | | | | | | | | | | | | |
| a. NOMENCLATURE | | | | | | | | | b. SIKORSKY PART NO. | | | | | | | | | c. NSN | | | | | |
| 18. DESCRIPTION OF CHANGE | | | | | | | | | | | | | | | | | | | | | | | |
| 19. REASON FOR CHANGE | | | | | | | | | | | | | | | | | | | | | | | |
| 20. PRODUCTION EFFECTIVITY BY SERIAL NUMBER | | | | | | | | | | | 21. EFFECT ON PRODUCTION DELIVERY SCHEDULE | | | | | | | | | | | | |
| 22. RETROFIT | | | | | | | | | | | | | | | | | | | | | | | |
| a. RECOMMENDED RETROFIT EFFECTIVITY | | | | | | | | | | | b. SHIP/VEHICLE CLASS AFFECTED | | | | | | | | | | | | |
| c. ESTIMATED KIT DELIVERY SCHEDULE | | | | | | | | | | | d. LOCATIONS OR SHIP/VEHICLE NUMBERS AFFECTED | | | | | | | | | | | | |
| 23. ESTIMATED COST/SAVINGS UNDER CONTRACT | | | | | | | | | | | 24. ESTIMATED NET TOTAL COSTS/SAVINGS | | | | | | | | | | | | |
| 25. SUBMITTING ACTIVITY  a. AUTHORIZED SIGNATURE | | | | | | | | | | | b. TITLE | | | | | | | | | | | | |
| EFFECTS ON FUNCTIONAL/ALLOCATED CONFIGURATION DOCUMENTATION | | | | | | | | | | | | | | | | | | | | | | | |
| 26. HISTORICAL SUPPLIER ECP NUMBER (S) | | | | | | | | | | | | | | | | | | | | | | | |
| 27. OTHER SYSTEMS AFFECTED | | | | | | | | | | | 28. OTHER CONTRACTORS/ACTIVITIES AFFECTED | | | | | | | | | | | | |
| 29. CONFIGURATION ITEMS AFFECTED | | | | | | | | | | | | | | | | | | | | | | | |
| 30. EFFECTS ON PERFORMANCE ALLOCATIONS AND INTERFACES IN SYSTEM SPECIFICATION | | | | | | | | | | | | | | | | | | | | | | | |
| 31. EFFECTS ON OPERATIONAL EMPLOYMENT, DEPLOYMENT, INTEGRATED LOGISTICS SUPPORT, TRAINING, OPERATIONAL EFFECTIVENESS OR SOFTWARE | | | | | | | | | | | | | | | | | | | | | | | |
| 32. EFFECTS ON CONFIGURATION ITEM SPECIFICATIONS | | | | | | | | | | | | | | | | | | | | | | | |
| 33. DEVELOPMENTAL REQUIREMENTS AND STATUS | | | | | | | | | | | | | | | | | | | | | | | |
| 34. TRADE-OFFS AND ALTERNATE SOLUTIONS | | | | | | | | | | | | | | | | | | | | | | | |
| 35. DATE BY WHICH CONTRACTUAL AUTHORITY IS NEEDED *(MMDDYYYY*) | | | | | | | | | | | | |  | | | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EFFECTS ON PRODUCT CONFIGURATION DOCUMENTATION, LOGISTICS AND OPERATIONS | | | | | | | | | | | | | | | | |
| (X) | FACTOR | | | ENCL. | | PAR. | (X) | FACTOR | | | | | | | ENCL. | PAR. |
|  | 36. EFFECTS ON PRODUCTION CONFIGURATION DOCUMENTATION OR CONTRACT | | |  | |  |  | 38. EFFECTS ON OPERATIONAL  EMPLOYMENT | | | | | | |  |  |
|  | a. PERFORMANCE | | |  | |  |  | a. SAFETY | | | | | | |  |  |
|  | b. WEIGHT-BALANCE-STABILITY *(Aircraft)* | | |  | |  |  | b. SURVIVABILITY | | | | | | |  |  |
|  | c. WEIGHT-MOVEMENT *(Other equipment)* | | |  | |  |  | c. RELIABILITY | | | | | | |  |  |
|  | d. CDRL, TECHNICAL DATA | | |  | |  |  | d. MAINTAINABILITY | | | | | | |  |  |
|  | e. NOMENCLATURE | | |  | |  |  | e. SERVICE LIFE | | | | | | |  |  |
|  |  | | |  | |  |  | f. OPERATING PROCEDURES | | | | | | |  |  |
|  | 37. EFFECT ON INTEGRATED LOGISTICS  SUPPORT (ILS) ELEMENTS | | |  | |  |  | g. ELECTROMAGNETIC INTERFERENCE | | | | | | |  |  |
|  | |  |  | h. ACTIVATION SCHEDULE | | | | | | |  |  |
|  | a. ILS PLANS | | |  | |  |  | i. CRITICAL SINGLE POINT FAILURE ITEMS | | | | | | |  |  |
|  | b. MAINTENANCE CONCEPT, PLANS AND  PROCEDURES | | |  | |  |  | j. INTEROPERABILITY | | | | | | |  |  |
|  |  | | | | | | |  |  |
|  | c. LOGISTICS SUPPORT ANALYSES | | |  | |  |  |  | | | | | | |  |  |
|  | d. INTERIM SUPPORT PROGRAMS | | |  | |  |  |  | | | | | | |  |  |
|  | e. SPARES AND REPAIR PARTS | | |  | |  |  | 39. OTHER CONSIDERATIONS | | | | | | |  |  |
|  | f. TECH MANUALS/PROGRAMMING TAPES | | |  | |  |  | a. INTERFACE | | | | | | |  |  |
|  | g. FACILITIES | | |  | |  |  | b. OTHER AFFECTED EQUIPMENT/GFE/GFP | | | | | | |  |  |
|  | h. SUPPORT EQUIPMENT | | |  | |  |  | c. PHYSICAL CONSTRAINTS | | | | | | |  |  |
|  | i. OPERATOR TRAINING | | |  | |  |  | d. COMPUTER PROGRAMS AND  RESOURCES | | | | | | |  |  |
|  | j. OPERATOR TRAINING EQUIPMENT | | |  | |  |  |  |  |
|  | k. MAINTENANCE TRAINING | | |  | |  |  | e. REWORK OF OTHER EQUIPMENT | | | | | | |  |  |
|  | l. MAINTENANCE TRAINING EQUIPMENT | | |  | |  |  | f. SYSTEM TEST PROCEDURES | | | | | | |  |  |
|  | m. CONTRACT MAINTENANCE | | |  | |  |  | g. WARRANTY/GUARANTEE | | | | | | |  |  |
|  | n. PACKAGING, HANDLING, STORAGE  TRANSPORTABILITY | | |  | |  |  | h. PARTS CONTROL | | | | | | |  |  |
|  | i. LIFE CYCLE COSTS | | | | | | |  |  |
|  |  | | |  | |  |  |  | | | | | | |  |  |
|  |  | | |  | |  |  |  | | | | | | |  |  |
| 1. ALTERNATE SOLUTIONS | | | | | | | | | | | | | | | | |
| 1. DEVELOPMENTAL STATUS | | | | | | | | | | | | | | | | |
| 1. RECOMMENDATIONS FOR RETROFIT | | | | | | | | | | | | | | | | |
| 43. WORK-HOURS PER UNIT TO INSTALL RETROFIT KITS | | | | | | | | | 1. WORK-HOURS TO CONDUCT SYSTEM TESTS AFTER   RETROFIT | | | | | | | |
| a. ORGANIZATION | | b. INTERMEDIATE | c. DEPOT | | d. OTHER | | | |
| 45. THIS CHANGE MUST BE ACCOMPLISHED | | | | | | | | | 46. IS CONTRACTOR FIELD | | | | | 1. OUT OF SERVICE TIME | | |
| BEFORE  WITH  AFTER THE FOLLOWING CHANGES | | | | | | | | | SERVICE ENGINEERING | | | | |
|  | | | | | | | | | REQUIRED? | | | | |
| 1. EFFECT OF THIS ECP AND PREVIOUSLY APPROVED ECP’S ON ITEM | | | | | | | | |  | YES | |  | NO |
| 1. DATE CONTRACTUAL AUTHORITY NEEDED   *(YYYYMMDD)* | | | | | | | |
| a. PRODUCTION | |  | | | | | |
| b. RETROFIT | |  | | | | | |

**Additional Space**

Use the Change Classification Criteria (MIL-STD-973/EIA-649/MIL-HDBK-61 current revisions) to determine if a Class I change request is required. SA1359 is used to request a Class I change. The following instructions are to be used in conjunction with SA1359, Sikorsky Supplier Engineering Change Proposal (ECP). General guidance on classification is available at the link below under “Engineering Change Submission Questionnaire”.

https://www.lockheedmartin.com/en-us/suppliers/business-area-procurement/rms.html

**All fields must be filled out. Enter NA where Blocks do not apply with exception to sections 36, 37, 38, 39. Leave those blank if not applicable. Please ensure any links included are accessible to those outside of your organization.**

If additional space is needed for any section, use the additional space section for details but provide an overview in the originating block. Information placed in the additional space section should begin with the section number and title.

Ex: 18. Reason for Change (Continued)

Block 1. Date. Enter the submittal date of the ECP or of the revision to the ECP.

Block 2. Vendor Code. Enter vendor code.

Block 3. Originator name and address. Enter the name and address of the supplier, submitting the ECP. Use Block 3a for the supplier name (inclusion of submitting individual’s name is optional). Use Block 3b for the supplier address.

Block 4. Class I or FAA Major. Enter I or FAA Major as applicable. Use the Change Classification Criteria (U. S. Military or Civil/Commercial) to determine the classification.

Block 5. Justification code. Enter the applicable justification code as shown below.

B - Interface

C - Compatibility

D - Deficiency

O - Operational or logistics support

P - Production stoppage

R - Cost Reduction

S - Safety

V - Value engineering

Block 6. Priority. The supplier shall recommend a priority. Enter an “E”, “U”, or “R” (Emergency, Urgent or Routine). Use the criteria shown below:

Emergency: An emergency priority exists when:

* National Security is affected
* Fatal or serious injury to operator personnel is affected
* Current condition will prevent mission accomplishment

Urgent: An urgent priority exists when:

* Mission accomplishment is degraded
* Potential for operator injury exists
* Delivery schedules will be affected without making the change
* Increased cost will be incurred without making the change

Routine: A routine priority exists when none of the above is applicable.

### Block 7. ECP Designation

Block 7a. Model/Type. Enter model or type designation of the configured item (CI) for which this proposal is being filled out. For CSCI’sS, enter the computer software configuration item (CSCI) identification number.

Block 7b. CAGE code. Enter the CAGE code for the activity originating the change.

Block 7c. System designation. The system or top-level CI designation or nomenclature assigned by the Sikorsky shall be entered, if known.

Block 7d. Supplier change 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 is producing.

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 (2) above is not exceeded.

Block 7e. Type. Enter either a “P” for preliminary, or “F” for formal. (Unless directed, supplier requested changes will be “F”).

Block 7f. Revision. If an ECP is being revised, enter the proper identification of the revision, i.e., R1 for the first revision; R. for subsequent revisions. (The date submitted shall be the date of the revised ECP.)

Block 8. Baseline affected. Place an “X” in the box (es) according to the baseline(s) affected.

*Functional Baseline*: The initially approved documentation describing a system’s or item’s functional, interoperability, and interface characteristics and the verification required to demonstrate the achievement of those specified characteristics.

*Allocated Baseline*: The initially approved documentation describing an item’s functional, interoperability, and interface characteristics that are: allocated from those of a system or higher level CI; interface requirements with interfacing CI’s; additional design constraints; verification required to demonstrate the achievement of those specified characteristics.

*Product Baseline*: The initially approved documentation describing all of the necessary functional and physical characteristics of the CI, selected functional and physical characteristics designated for production acceptance testing, tests necessary for support of the CI, or the actual equipment or software.

Block 9. 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 10. 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 number of the SCN being submitted with the ECP, shall be entered.

Block 11. Drawings affected. Enter the indicated information for all drawings affected by the ECP. The CAGE code to be entered is that of the design activity whose number is assigned to the listed drawing(s). If more than three drawings are affected, enter the information required in the first line for the top-level drawing affected by the ECP and make direct reference on the second line to the enclosure and paragraph containing the list of all the affected drawings.

Block 12. 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 is to be entered separately. For example: F-18 Aircraft Air Turbine Start Connector Backshell Replacement; AN/AYK-l4 (v) CP-1502/CP-1503 Reconfiguration to CP-1799; (CSCI name) Block Update.

Block 13. Contract number(s) or purchase order. Enter the number(s) of all, currently active contract(s), or purchase orders, at the originating CAGE-coded activity that are affected by the engineering change. If more contracts are affected than can be fit in the block, make reference to the enclosure and paragraph where this information is provided. In the case of a Government-prepared change, the task number under which the ECP will be funded and implemented shall be provided in this block.

Block 14. Sikorsky Purchasing Contact. Enter the procuring contracting officer’s name applicable to the CI shown in Block 15.

Block 15a. Supplier Configuration Item nomenclature/number. Enter the assigned Supplier name and type designation, CSCI name, number if applicable, or authorized name and number of the Cl(s) affected by the change.

Block 15b. Sikorsky Configuration Item nomenclature/number. Enter the assigned Sikorsky name and type designation, CSCI name, number if applicable, or authorized name and number of the Cl(s) affected by the change.

Block 16. In production. The “yes” box shall be marked if deliveries have not been completed on the contract(s). The “no” box shall be marked if the deliveries have been completed. This block is not always applicable to software. If not applicable, state N/A.

Block 17. All lower level items affected. (If applicable. Only enter items changed.)

a. For hardware, as appropriate, complete descriptive name of the part(s) shall be given here without resorting to such terms as “Numerous bits and pieces”. The number(s) of the part(s) shall also be entered.

1. Enter the Sikorsky Part Number (if known).
2. Additionally, applicable National Stock Number (NSN) shall be entered. An attached list may be used when necessary.

Block 18. Description of change. The description of the proposed change shall include 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. Information should be included as to whether the revision is a resubmittal, replacing the existing ECP in its entirety, or provides change pages to the existing ECP.

Block 19. Reason for change. Enter an explanation of why the change is needed specifically identifying the benefit of the change. The nature of the defect, failure, incident, malfunction, etc. substantiating the need for the change shall be described in detail. New capabilities, if provided, shall be described in quantitative terms and full utilization shall be made of available failure data. 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 as a response to a request for ECP or Government direction, cite that authority herein.

Block 20. Production effectivity by serial number. Enter contractor’s estimated production effectivity point by serial number or other item identifiers (ex: block or lot number).  Consider all time and availability factors to determine the most economical point of introduction which may not always be the earliest.

Block 21. Effect on production delivery schedule. State the estimated delivery schedule impact of items incorporating the change, either in terms of days after contractual approval, or by specific date contingent upon contractual approval by a specified date. If there will be no effect on the delivery schedule, state no effect. 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 22. Retrofit.

Block 22a. Recommended item effectivity. When the supplier 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 will be incorporated by retrofit shall be entered in Block 22a, or in a referenced enclosure. Such statement regarding items currently in production shall be based upon the estimated approval date of the ECP.

Block 22b. 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 22c. Estimated kit delivery schedule. State estimated kit delivery schedule by quantity and date. When special tooling for retrofit is required for Government use, reference an enclosure in Block 22C on which is specified the dates of availability of tools, jigs, and test. equipment required in conjunction with the kits to accomplish the change.

Block 22d. Locations or ship/vehicle numbers affected. State the location(s) 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 22, enter the vehicle numbers.

Block 23. Estimated costs/savings under contract. Enter the total estimated costs/savings impact of the ECP on the contract for the subject CI. This Figure normally will be the same as that in column 5, line e, of Page 4. (Savings shall be shown in parentheses.)

Block 24. Estimated net total costs/savings. Enter the total estimated costs/savings impact of the basic and all related ECPs. This Figure normally will be the same as that in column 6 the bottom line of Page 4 or, if there are related ECPs, in column 4, line e, of Page 5.

Block 25. Submitting activity authorized signature. An authorized official of the activity entered in Block 4 shall sign this block and provide title in Block 25b. This indicates the ECP has the official sanction of the submitting activity. Typed is acceptable.

Block 26. Historical Supplier ECP Number. Enter all historically related supplier ECP numbers approved by Sikorsky that had an effect on functional or allocated configuration documentation.

Block 27. Other systems affected. Insert data when Block 10 (Page 1) is checked “yes”.

Block 28. Other contractors/activities affected. Identify the other contractors or Government activities which will be affected by this engineering change.

Block 29. Configuration items affected. Enter the names and numbers of all CIs, maintenance and operator training equipment, and support equipment affected.

Block 30. 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 31. Effects on employment, deployment, integrated logistic support, training, operational effectiveness, or software.

a. For hardware, describe the effects of the proposed change on operational 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 or survivability 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 tune 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 32. 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 33. 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, the contractor shall identify the scheduled sequence of computer software design and test activities which will be required. ECP initiated after preliminary design which affect 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.

Block 34. 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 35. Date by which contractual authority is needed. Enter the date contractual authority will be required in order to maintain the established schedule.

Block 36. Effect on product configuration documentation or contract. The effects on the approved CI product specifications shall be described by reference to the SCNs or drawing changes, or other enclosure(s) which cover such proposed text changes in detail. The effects on performance, 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 Page 1, shall be described in general terms by means of a referenced enclosure.

Block 37. Effect on integrated logistics support elements. The effects of the engineering change on logistic -support of the item shall be indicated by checking the appropriate boxes. These effects shall be explained in detail on an enclosure indexed by appropriate identification adjacent to the subject under discussion. 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 ILS 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.

d. Extension/revision of the interim support plan.

1. 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 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, and for any related ECP not furnished with the basic ECP, 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. See paragraph i above for instructions.

l. See paragraph j above for instructions.

m. Any effect on contract maintenance that increases the scope or dollar limitation established in the contract.

n. Effects on packaging, handling, storage, and transportability resulting from changes in materials, dimensions, fragility, inherent environmental or operating conditions.

Block 38. 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.

Block 39. 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 affect 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.

Block 40. 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. 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. When the contractor’s 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 41. 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. The contractor shall 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.

Block 42. 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 23a)

Block 43. Work-hours per unit to install retrofit kits. Complete Blocks 44a through 44d to show the amount of work which must be programmed for various activities to install retrofit kits. Estimate work-hours to install retrofit kits when weapon system is undergoing overhaul.

Block 44. 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 45. 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 46. Is contractor field service engineering required? Check applicable box. If “yes” attach proposed program for contractor participation.

Block 47. 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 48. Effect of this ECP and previously approved ECPs on item. The contractor shall 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. The ECP history and effect of each change should be listed. Consequences of ECP disapproval may be stated in this block or in a referenced enclosure.

Block 49. Date contractual authority needed. The contractor shall 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.