

16 Jan 04 DXP  
28 Jan 04 / DXP

Sp/20 Jan 04

HQDA STAFF ACTION MEMORANDUM

URGENT  ROUTINE

1. SUBJECT: Patriot Recapitalization Program Baseline (RPB) Approval  
 2. TODAY'S DATE: 16/01/04  
 3. OFFICE SYMBOL: SAAL-SFP  
 4. HQDA/SACO Control Number: 30905527  
 5. SUSPENSE DATE: 27 Feb 04

6. TYPE OF ACTION:  OSD:  Congressional:  EOH:  Other:  Staff Generated

7. DISPOSITION:  Approve  X Signature  Information  Decision  Other

8. BACKGROUND: (Describe the task, origin of the action, issue and the requirement. Provide fact-filled background and comments. List most important information first.)

- The Recapitalization Program Baseline (RPB) describes cost, schedule and performance objectives for the Patriot Recapitalization Plan approved by the VCSA on 9 January 02.
- The 7 November 01 letter from LTG Caldwell tasked PEO to comply with the RPB guidance and obtain the required coordination from the appropriate Major Subordinate Command along with the Army Cost and Economic Analysis Center (CEAC).
- PEO Air, Space and Missile Defense (ASMD) conducted a decision review of the Patriot Recapitalization Program and approved it pending final approval of the RPB by the AAE and VCSA.

ROUTING: (ECC USE ONLY)

|   |           |
|---|-----------|
| SA  |           |
| CSA   |           |
| USA   |           |
| 3 VCSA                                      |           |
| 2 DAS                                       | 22 4/2/04 |
| AASA  |           |
| SMA   |           |
| 1 DIR, ECC                                  | 51        |
| 4 ECC POC: MAJ ROHALL (Rank, Name, Phone #) | 695-7522  |

10. EXECUTIVE SUMMARY: (Short and clear statement of purpose, major issue, and objective. Why are you telling this to the EOH? What should EOH know and discuss? What is the objective of the action?)

- Purpose: To acquire the final approval signatures from the Army Acquisition Executive (AAE) and The Vice Chief of Staff, Army (VCSA).
- Issue: Army Recapitalization Program approval for the Patriot system.
- Objective: To retain the AAE and VCSA final approval for the Patriot Recapitalization Program.

Sir, RECOMMEND ASST W/PED BRIEF YOU SOONEST ON THIS, ENSURING ALL IN SYNC W/ RESET OBJECTIVES, OSD INPUT W/ MEAD & PATRIOT... THIS DECISION MADE OVER TWO YEARS AGO. LOVE ~~HERE~~ HAS CHANGED E/OH

M. Idey approval 4/27

11. RECOMMENDATION (Provide a brief statement defining the desired action by the final approval authority and explain why this is the best option.)

I recommend VCSA Approve & Sign memo (Tab A)

12. PRINCIPAL APPROVALS (Lead Agency Use Only)

| TITLE      | INITIAL | DATE (DD MM YY) | TITLE     | INITIALS | DATE (DD MM YY) | APPROVED | NOTED | SEE ME | BRIEF | NOTE CHANGES |
|------------|---------|-----------------|-----------|----------|-----------------|----------|-------|--------|-------|--------------|
| DIRECTOR   | HR      | 16 Jan 04       | DASA, ZS  | ✓        | 29/10/03        |          |       |        |       |              |
| Team Chief |         |                 | ASST DASA | ✓        | 29/10/03        |          |       |        |       |              |

13. ACTION OFFICER NAME (Name/Position/Phone Number/Email)  
 MAJ Mark Pincoski/DASC/703-604-7214/mark.pincoski@saalt.army.mil

14. SACO NAME (Name/Position/Phone Number/Email)  
 MAJ Jarrett, Director SACO, 6932223 21 Jan 04 80x

15. FILE LOCATION (IDENTIFY FILE LOCATION - EXAMPLE: J:\COMMON\B DOE\CONGRESSIONALS\CIVPAY.DOC)

SEE REVERSE FOR COORDINATION SUMMARY





DEPARTMENT OF THE ARMY  
OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY  
ACQUISITION LOGISTICS AND TECHNOLOGY  
103 ARMY PENTAGON  
WASHINGTON DC 20310-0103



SAAL-SSI

MEMORANDUM THRU ARMY ACQUISITION EXECUTIVE  
DIRECTOR, ARMY STAFF

*CTE @ 8 JAN 2004  
has seen 2/2/04  
vfb*

FOR VICE CHIEF OF STAFF, ARMY

SUBJECT: Patriot Recapitalization Program Baseline (RPB) Approval--ACTION  
MEMORANDUM

1. Purpose. The enclosed subject memorandum is provided for both the Army Acquisition Executive (AAE) and Vice Chief of Staff, Army (VCSA) signatures. The Patriot RPB obtained the required documentation and coordination from the Army Staff.
2. Discussion. The Recapitalization Program Baseline (RPB) describes cost, schedule and performance objectives for the Patriot Recapitalization Plan approved by GEN Keane on 9 January 2002. The 7 November 2001 letter from LTG Caldwell tasked the Program Executive Officer (PEO) to comply with the RPB guidance and obtain the required coordination from the appropriate Major Subordinate Command along with the Army Cost and Economic Analysis Center (CEAC). The PEO Air, Space and Missile Defense (ASMD) conducted a decision review of The Patriot Recapitalization Program and approved it pending final approval of the RPB by the AAE and the VCSA.
  - (a) Action Memorandum
  - (b) Tab A, RPB Memorandum
  - (c) Tab B, MILDEP Recapitalization Guidance Letter
  - (d) Tab C, PEO ASMD Validation Letter/CEAC Validation Letter
3. Coordination. Coordination provided on the HQDA Form 5.

SAAL-SSI

SUBJECT: Patriot Recapitalization Program Baseline (RPB) Approval--ACTION  
MEMORANDUM

4. Recommendation. That the AAE and the VCSA approve the Patriot Recapitalization Baseline at Tab A.

Encls

  
JOSEPH L. YAKOVAC  
Lieutenant General, GS  
Military Deputy to the  
Assistant Secretary of the  
Army (Acquisition, Logistics  
and Technology)



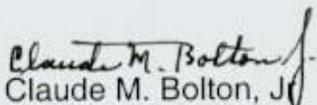
DEPARTMENT OF THE ARMY  
WASHINGTON DC 20310  
28 FEB 2004

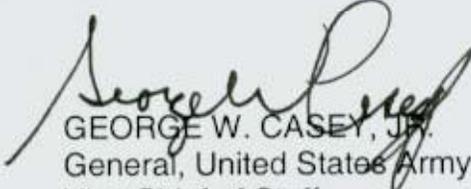


MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Patriot Recapitalization Program Baseline (RPB) Approval

1. The Patriot RPB (Tab A) is the latest of 17 major Army systems to submit its RPB for review and approval by the Army Acquisition Executive/Vice Chief of Staff, Army. This RPB is submitted in accordance with guidance provided in the 7 November 2001, memorandum (Tab B) from LTG Caldwell tasking Recapitalization Program Executive Officers (PEOs) to prepare and submit the RPB after performing required coordination with the appropriate Major Subordinate Command and having the Cost and Economic Analysis Center validate the methodology used for the recapitalization cost estimate (Tab C).
2. In accordance with the Army Recapitalization Management Policy, the Patriot RPB, dated 9 January 2002, is approved for implementation. The PEO and Project Manager will execute all selected upgrades and rebuilds for the Patriot system in accordance with the funding and schedule baselines documented in the RPB. The RPB will provide the basis for sound management and a historical record from which to measure success.
3. It is imperative that we work together and establish close partnerships at all levels to ensure success. Our warfighters depend on this recapitalization effort to maintain system readiness, sustainability, and combat overmatch as we transform the Army.
4. The point of contact for this matter is MAJ Mark Pincoski, commercial 703-604-7214, DSN 664-7214, or e-mail: mark.pincoski@saalt.army.mil.

  
Claude M. Bolton, Jr.  
Army Acquisition Executive

  
GEORGE W. CASEY, JR.  
General, United States Army  
Vice Chief of Staff

3 Encls

SUBJECT: Patriot Recapitalization Program Baseline (RPB) Approval

DISTRIBUTION:

ASSISTANT SECRETARY OF THE ARMY (ACQUISITION, LOGISTICS  
AND TECHNOLOGY), ATTN: SAAL-ZR, SAAL-RP  
ASSISTANT SECRETARY OF THE ARMY (FINANCIAL MANAGEMENT  
AND COMPTROLLER), ATTN: SAFM-BUI  
GENERAL COUNSEL, ATTN: SAGC  
DEPUTY CHIEF OF STAFF, G-4, ATTN: DALO-SMM  
DIRECTOR, PROGRAM ANALYSIS AND EVALUATION, ATTN:  
DACS-DPZ-A  
DIRECTOR, U.S. ARMY COST AND ECONOMIC ANALYSIS CENTER,  
ATTN: SAFM-CES-U

COMMANDERS:

U.S. ARMY MATERIEL COMMAND, ATTN: AMCRDA-AM  
U.S. ARMY AIR AND MISSILE COMMAND



DEPARTMENT OF THE ARMY  
OFFICE OF THE ASSISTANT SECRETARY  
FINANCIAL MANAGEMENT AND COMPTROLLER  
109 ARMY PENTAGON  
WASHINGTON DC 20310-0109



REPLY TO  
ATTENTION OF

22 SEP 2003

SAFM-CEA-WS

MEMORANDUM FOR THE PROGRAM EXECUTIVE OFFICER, AIR AND  
MISSILE DEFENSE, ATTN: SPAE-ASMD-BD (MS. FOWLER), P.O.  
BOX 1500, HUNTSVILLE, AL 35807-3801

SUBJECT: Patriot Recapitalization Baseline Cost  
Sufficiency Review

We have reviewed the recent cost estimate provided  
for the Patriot Recapitalization Baseline (which  
generated the attached cost projections). The  
submission provided a reasonable estimate of the total  
contract cost.

Per our agreement, Assistant Secretary of the Army  
Acquisition, Logistics and Technology ASA(ALT) will  
examine the potential savings of the program and any  
potential supportability issues in Phase II. These  
issues will need further review and validation through  
an established ASA(ALT) O&S working group.

The point of contact is Bill Boston, (703) 601-4126  
or DSN 329-4126.

Robert W. Young

Deputy Assistant Secretary of the Army  
(Cost and Economics)

Encl

CF:  
ASA (ALT), ATTN: SAAL-SI

## Patriot Recap Cost Projection

In Millions of FY03 \$

| FY          | 2    | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    |
|-------------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| RDT&E       | 5.3  | 27.4  | 42.8  | 25.7  | 12.9  | 2.8   | 0.9   | 0.9   | 0.9   |
| Procurement | 0.0  | 59.4  | 52.7  | 49.5  | 70.7  | 53.2  | 31.6  | 28.1  | 24.4  |
| O&S         | 58.8 | 110.7 | 120.6 | 120.6 | 122.8 | 117.4 | 119.5 | 117.4 | 119.5 |

| FY          | 11    | 12    | 13    | 14    | 15    | 16    | TOTAL  |
|-------------|-------|-------|-------|-------|-------|-------|--------|
| RDT&E       | 0.9   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 124.5  |
| Procurement | 23.6  | 23.6  | 23.6  | 23.6  | 22.5  | 22.5  | 509.3  |
| O&S         | 117.2 | 119.3 | 117.2 | 119.3 | 117.2 | 119.3 | 1716.9 |

***PATRIOT GROUND SUPPORT EQUIPMENT  
RECAPITALIZATION PROGRAM BASELINE***

***9 JANUARY 2002***



RECAPITALIZATION PROGRAM BASELINE  
PATRIOT GROUND SUPPORT EQUIPMENT SYSTEM

**1. Program Description:** On 17 Aug 01, the Vice Chief of Staff of the Army (VCSA) approved the Recapitalization plan for the PATRIOT Ground Support System. The Recapitalization Program will be accomplished via production, depot overhaul/rebuild, and field retrofit and is designed to bring the ground support system to near zero hours/miles as well as apply the PAC-3 upgrades of the modernization program while minimizing interference with unit day to day mission requirements. If funding were made available, more aggressive efforts could be undertaken to support a service life extension program (SLEP) for the PATRIOT system (e.g., modernization and downsizing of the Major End Items). Such activities would serve to increase the operational usefulness and strategic mobility of the system as well as reduce the operations and support cost of the system.

The PATRIOT Recapitalization Program equals rebuild and selected upgrades/technology insertions and consists of the following ten initiatives:

**Initiative #1,** Radar Set (RS) Program; Rebuild of 90 RSs at Letterkenny Army Depot (LEAD). Upgrade will be performed at Raytheon facility.

**Initiative #2,** Engagement Control Station (ECS) Program; Rebuild of 87 ECSs at LEAD. Upgrade will be performed by personnel at LEAD or user location.

**Initiative #3,** Information and Coordination Central (ICC) Program; Rebuild of 21 ICCs at LEAD. Upgrade will be performed by personnel at LEAD or user location.

**Initiative #4,** Launcher Station (LS) Program; Rebuild of 587 LSs at LEAD. Upgrade will be performed by personnel at LEAD or user location.

**Initiative #5,** Electric Power Plant III (EPP III) Program; Rebuild of 70 EPP IIIs at LEAD, TACOM, and CECOM designated depots.

**Initiative #6,** Antenna Mast Group (AMG) Program; Rebuild or replacement of 168 AMGs.

**Initiative #7,** Communications Relay Group (CRG) Program; Rebuild of 56 CRGs at LEAD. Upgrade will be performed by personnel at LEAD or user location.

**Initiative #8,** Small Repair Parts Transporter (SRPT) Program; Rebuild of 70 SRPTs at designated government or contractor facilities . Upgrade will be performed by personnel at LEAD or user location.

**Initiative #9**, Battery Maintenance Center (BMC) Program; Rebuild of 70 BMCs at designated government or contractor facilities. Upgrade will be performed by personnel at LEAD or user location.

**Initiative #10**, Battalion Maintenance Equipment (BME) Program; Rebuild of 14 BMEs at designated government or contractor facilities. Upgrade will be performed by personnel at LEAD or user location.

**Initiative #11**, PATRIOT Ground SLEP (currently not fully funded); take maximum advantage of existing government and industry efforts to modernize the PATRIOT ground system in Recap initiatives 1-10. Pending additional funding, improvements would include downsizing and/or modernization to PATRIOT ground equipment. Rebuild will be performed as indicated above. Upgrade will be performed at appropriate government and/or industry facilities.

**2. Baseline Funding:** The recapitalization cost/funding profile in Table 2a was approved by the VCSA on 17 Aug 01. (Note: As part of the FY 02 budget approval process, the Joint Appropriation Conference added \$5.3M RDT&E for PATRIOT Ground SLEP) Table 2b represents the cost/funding profile by appropriation in Base Year 2001 dollars to be used for breach determination.

**3. Baseline Schedule:** Table 3 presents the PATRIOT Recapitalization Program Schedule. Recapitalization will be accomplished in battalion equivalent sets each year throughout the POM and EPP years. Battalion equivalent sets consist of 6 RSs, 6 ECSs, 1 ICC (2 every second year), 5 EPP IIIs, 4 CRGs, 40 LSs, 12 AMGs, 5 SRPTs, 5 BMCs, and 1 BME until all battalion equipment is recapitalized or replaced.

**4. Performance:** The Army leadership will track the metrics outlined in Table 4 to measure the effectiveness of the PATRIOT Recapitalization Program.

**5. Interfaces:** The PATRIOT Recapitalization Program relies on partnership between the Lower Tier Project Office, Tank and Automotive Command, Communications and Electronics Command, Aviation and Missile Command, Letterkenny Army Depot, Raytheon, Defense Logistics Agency and the TRADOC System Manager. The goal for the PATRIOT Recapitalization is to maintain operational readiness for the PATRIOT fleet at or above the Chief of Staff, Army goal of 90% and reduce the operational and support cost fleet wide. Table 5 outlines the major recapitalization responsibilities of each partner.

|                     | FY 02         | FY 03          | FY 04          | FY 05          | FY 06          | FY 07          | FY 03-07       | EPP             | Total (FY03-EPP) |
|---------------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|------------------|
| <b>RDT&amp;E</b>    | <b>5.30</b>   | <b>27.75</b>   | <b>29.50</b>   | <b>19.80</b>   | <b>9.00</b>    | <b>3.00</b>    | <b>89.05</b>   | <b>9.00</b>     | <b>98.05</b>     |
| <b>Procurement</b>  | <b>0.00</b>   | <b>58.92</b>   | <b>52.54</b>   | <b>40.63</b>   | <b>52.92</b>   | <b>36.89</b>   | <b>241.91</b>  | <b>181.26</b>   | <b>423.17</b>    |
| Modifications       | 0.00          | 27.09          | 36.99          | 34.35          | 46.50          | 30.34          | 175.27         | 125.36          | 300.62           |
| Mod Initial Spares  | 0.00          | 23.63          | 13.90          | 4.10           | 4.20           | 4.30           | 50.13          | 38.70           | 88.83            |
| Other Procurement   | 0.00          | 8.20           | 1.65           | 2.18           | 2.22           | 2.26           | 16.51          | 17.21           | 33.72            |
| <b>Total RDA</b>    | <b>5.30</b>   | <b>86.67</b>   | <b>82.04</b>   | <b>60.43</b>   | <b>61.92</b>   | <b>39.89</b>   | <b>330.96</b>  | <b>190.26</b>   | <b>521.22</b>    |
| <b>OMA</b>          | <b>56.36</b>  | <b>108.88</b>  | <b>108.05</b>  | <b>108.30</b>  | <b>112.93</b>  | <b>107.44</b>  | <b>545.59</b>  | <b>977.90</b>   | <b>1523.49</b>   |
| Recap               | 48.67         | 93.31          | 96.98          | 97.06          | 100.87         | 100.93         | 489.14         | 918.02          | 1407.17          |
| SSTS                | 1.26          | 7.00           | 4.00           | 3.80           | 6.20           | 0.00           | 21.00          | 0.00            | 21.00            |
| COSIS               | 0.00          | 1.55           | 1.59           | 1.64           | 1.69           | 1.74           | 8.20           | 18.20           | 26.40            |
| SDO                 | 0.67          | 0.68           | 0.70           | 0.71           | 0.72           | 0.74           | 3.55           | 6.63            | 10.19            |
| SDT                 | 5.76          | 6.34           | 4.78           | 4.89           | 3.23           | 3.82           | 23.07          | 34.39           | 57.46            |
| PPSS                | 0.00          | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           | 0.00            | 0.00             |
| MWO                 | 0.00          | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           | 0.00            | 0.00             |
| Initial Spares      | 0.00          | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           | 0.00            | 0.00             |
| Support Equip       | 0.00          | 0.00           | 0.00           | 0.20           | 0.21           | 0.21           | 0.62           | 0.66            | 1.28             |
| Training Devices    | 0.00          | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           | 0.00            | 0.00             |
| CLS                 | 0.00          | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           | 0.00            | 0.00             |
| USF Cost            | 0.00          | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           | 0.00            | 0.00             |
| <b>Other Funded</b> | <b>2.38</b>   | <b>1.827</b>   | <b>1.829</b>   | <b>1.83</b>    | <b>1.832</b>   | <b>1.833</b>   | <b>9.151</b>   | <b>13.28</b>    | <b>22.431</b>    |
| Training            | 0             | 0              | 0              | 0              | 0              | 0              | 0              | 0               | 0                |
| Manning             | 2.316         | 1.65           | 1.65           | 1.65           | 1.65           | 1.65           | 8.25           | 11.55           | 19.8             |
| Munitions           | 0             | 0              | 0              | 0              | 0              | 0              | 0              | 0               | 0                |
| Installation Spt    | 0.064         | 0.177          | 0.179          | 0.18           | 0.182          | 0.183          | 0.901          | 1.73            | 2.631            |
| <b>Total OMA</b>    | <b>64.041</b> | <b>198.795</b> | <b>193.426</b> | <b>172.165</b> | <b>178.388</b> | <b>150.969</b> | <b>893.743</b> | <b>1200.986</b> | <b>2094.729</b>  |

**TABLE 2a – Then Year Baseline Funding/Unit Cost**

FY 02 – No Program Acquisition Unit Cost is calculated since the program does not support recapitalization of a Battalion Equivalent Set. For future years, the PAUC will be calculated using RDT&E, Procurement and MILCON funding divided by the number of Battalion Equivalent Sets planned in that year.

|                               | FY 02        | FY 03         | FY 04         | FY 05         | FY 06         | FY 07         | FY 03-07      | EPP           | Total (FY03,and EPP) |
|-------------------------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------------|
| RDT&E                         | 5.15         | 26.46         | 27.55         | 18.11         | 8.06          | 2.63          | 82.81         | 7.13          | 89.94                |
| Procurement                   | 0.00         | 55.12         | 48.14         | 36.46         | 46.52         | 31.76         | 218.00        | 141.21        | 359.21               |
| OMA (to include Other Funded) | 56.97        | 106.72        | 103.83        | 102.02        | 104.15        | 97.29         | 514.00        | 798.99        | 1312.99              |
|                               |              |               |               |               |               |               |               |               |                      |
| <b>Total</b>                  | <b>62.12</b> | <b>188.30</b> | <b>179.52</b> | <b>156.59</b> | <b>158.73</b> | <b>131.68</b> | <b>814.82</b> | <b>947.33</b> | <b>1762.14</b>       |

**TABLE 2b – Base Year 2001 Baseline Funding/Unit Cost**

FY 02 – No Program Acquisition Unit Cost is calculated since the program does not support Recapitalization of a Battalion Equivalent Set. For future years, the PAUC will be calculated using RDT&E, Procurement and MILCON funding divided by the number of Battalion Equivalent Sets planned in that year.

|   | FY 02 | FY 03 | FY 04 | FY 05 | FY06 | FY 07 | FY 08 | FY 09 | FY 10 | FY 11 | FY 12 | FY 13 | FY 14 | FY 15 | FY 16 |
|---|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>End-Item</b>                               |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |
| Battalion Set                                 | N/A   | 1     | 1     | 1     | 1    | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |
| <b>Total Items to be Recapped or Replaced</b> | 36    | 85    | 86    | 85    | 86   | 85    | 86    | 85    | 86    | 85    | 86    | 85    | 86    | 85    | 86    |
| <b>Sub End-Items</b>                          |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |
| Radar   | 6     | 6     | 6     | 6     | 6    | 6     | 6     | 6     | 6     | 6     | 6     | 6     | 6     | 6     | 6     |
| ECS   | 3     | 6     | 6     | 6     | 6    | 6     | 6     | 6     | 6     | 6     | 6     | 6     | 6     | 6     | 6     |
| ICC   | 0     | 1     | 2     | 1     | 2    | 1     | 2     | 1     | 2     | 1     | 2     | 1     | 2     | 1     | 2     |
| LS  | 27    | 40    | 40    | 40    | 40   | 40    | 40    | 40    | 40    | 40    | 40    | 40    | 40    | 40    | 40    |
| CRG   | 0     | 4     | 4     | 4     | 4    | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     |
| AMG   | 0     | 12    | 12    | 12    | 12   | 12    | 12    | 12    | 12    | 12    | 12    | 12    | 12    | 12    | 12    |
| EPP III                                       | 0     | 5     | 5     | 5     | 5    | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     |
| BMC   | 0     | 5     | 5     | 5     | 5    | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     |
| SRPT  | 0     | 5     | 5     | 5     | 5    | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     |
| BME   | 0     | 1     | 1     | 1     | 1    | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |

**Table 3 – Baseline Schedule**

TABLE 4 – Baseline Performance

| METRIC   | REQUIREMENT   | SOURCE OF DATA                          | Calculation Method  |      |              |      |             |      |             |      |             |      |              |      |              |      |             |
|--|---|---|---|------|--------------|------|-------------|------|-------------|------|-------------|------|--------------|------|--------------|------|-------------|
| Operational Readiness  | Recapped equipment must meet the Chief Of Staff's goal of 90%   | AMCOM's Readiness Reporting Directorate | N/A   |      |              |      |             |      |             |      |             |      |              |      |              |      |             |
| Fleet Age  | The average age of PATRIOT equipment, across the fleet, must be reduced beginning in FY 03.                               | N/A                                     | <p>PATRIOT production began in 1982 and continued through 1988 as follows:</p> <table border="0"> <tr><td>1982</td><td>3 Battalions</td></tr> <tr><td>1983</td><td>1 Battalion</td></tr> <tr><td>1984</td><td>1 Battalion</td></tr> <tr><td>1985</td><td>1 Battalion</td></tr> <tr><td>1986</td><td>3 Battalions</td></tr> <tr><td>1987</td><td>3 Battalions</td></tr> <tr><td>1988</td><td>1 Battalion</td></tr> </table> <p>In 2002, the average age is 17.0 years. As a battalion is recapped, its age is reset to zero, while all other battalions have aged an additional year. At the end of each year, the age will be calculated as follows:</p> <p><math>A = \frac{\sum(\text{Current Year-Production or Recap Year})}{\text{Total Number of Battalions}}</math></p> | 1982 | 3 Battalions | 1983 | 1 Battalion | 1984 | 1 Battalion | 1985 | 1 Battalion | 1986 | 3 Battalions | 1987 | 3 Battalions | 1988 | 1 Battalion |
| 1982   | 3 Battalions  |   |   |      |              |      |             |      |             |      |             |      |              |      |              |      |             |
| 1983   | 1 Battalion   |   |   |      |              |      |             |      |             |      |             |      |              |      |              |      |             |
| 1984   | 1 Battalion   |   |   |      |              |      |             |      |             |      |             |      |              |      |              |      |             |
| 1985   | 1 Battalion   |   |   |      |              |      |             |      |             |      |             |      |              |      |              |      |             |
| 1986   | 3 Battalions  |   |   |      |              |      |             |      |             |      |             |      |              |      |              |      |             |
| 1987   | 3 Battalions  |   |   |      |              |      |             |      |             |      |             |      |              |      |              |      |             |
| 1988   | 1 Battalion   |   |   |      |              |      |             |      |             |      |             |      |              |      |              |      |             |
| O&S Cost Savings   | To stabilize the raising O&S costs associated with identified Recap components (EPP III, CRG, LS, AMG, SRPT, BMC and BME) | AIT Tags OSMIS                          |   |      |              |      |             |      |             |      |             |      |              |      |              |      |             |
| <p><b>Calculation Method :</b></p> $MTBR = \frac{\sum_{i=1}^n \left( \frac{MTBR(R)_i}{MTBR(B)_i} - 1 \right)}{N} \times 100\%$                         |   |   |   |      |              |      |             |      |             |      |             |      |              |      |              |      |             |
| <p>The Patriot PPA has a detailed description of the components and their projected MTBR (F) increase percentage</p>                                   |   |   |   |      |              |      |             |      |             |      |             |      |              |      |              |      |             |
| <p>MTBR(R)= Mean Time Between Removal (Recapped)<br/>           MTBR (B)= Mean Time Between Removal (Baseline)<br/>           N= Sum of Components</p> |   |   |   |      |              |      |             |      |             |      |             |      |              |      |              |      |             |

| <b>Depot/Industry Partnership</b>                  | <b>Agreements</b>  | <b>Date of Signature/ Implementation</b>            | <b>Recap Support</b>  |
|--|--|---|---|
| <b>Industry</b><br>Raytheon                        | <ul style="list-style-type: none"> <li>▪ REP III Mod Kits Contract</li> <li>▪ Engineering Services Contract</li> </ul> | 6 Dec 1996<br><br>Annual Contract<br>1 Feb – 31 Jan | RS Modification, CLS<br>Secondary Item Recap,<br>Materiel Support, OCONUS<br>Recap Support, Depot<br>Overflow Workload,<br>Patriot Ground SLEP (if<br>funded) |
| <b>Depot</b><br>Letterkenny Army<br>Depot          | MOU/SOW  | TBD   | RS, ECS, ICC, LS, AMG,<br>CRG, SRPT, BMC, BME   |
| <b>MACOMs</b><br>Tank and<br>Automotive<br>Command | MOU  | TBD   | Prime Movers  |
| Communications<br>and Electronics<br>Command       | MOU  | TBD   | Radios, IFF, EPP III  |
| Aviation and Missile<br>Command                    | MOU  | TBD   | Depot Programming,<br>Readiness Reports, Spares,<br>Technical Documentation,<br>Maintenance Engineering,<br>Provisioning                                      |
| <b>USER</b><br>TRADOC System<br>Manager            | MOU  | TBD   | Fielding Assets   |

**TABLE 5 - Baseline Interface**





DEPARTMENT OF THE ARMY  
OFFICE OF THE ASSISTANT SECRETARY  
ACQUISITION LOGISTICS AND TECHNOLOGY  
103 ARMY PENTAGON  
WASHINGTON DC 20310-0103

07 NOV 2001

REPLY TO  
ATTENTION OF  
SAAL-SI

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Recapitalization Program Baseline

This memorandum sets forth guidance that should be followed to document and track the Army's Recapitalization effort. Enclosed is the template that will be used to develop and execute the individual systems Recapitalization Program Baseline. The Program/Project/Product Manager of the systems that have already been approved by the Army Acquisition Executive/Vice Chief of Staff, Army (AAE/VCSA) will be afforded 90 days from the date of this document to follow and complete the Recapitalization approval process laid out in this Recapitalization Program Baseline guidance. Future candidate systems that have not been seen by the AAE/VCSA will be afforded 60 days after an option is adopted, to complete the process of creating a baseline. All recapitalization systems will obtain validation, within afforded time frames, of the Baseline Cost Data, Cost Benefit Analysis and Trade Off Analysis from the Cost and Economic Analysis Center.

The point of contact for this matter is COL Jim Wells, DSN: 224-3993 or 703-614-3993.

JOHN S. CALDWELL, JR.  
Lieutenant General, GS  
Military Deputy to the  
Assistant Secretary of the  
Army (Acquisition, Logistics  
and Technology)

Enclosure

DISTRIBUTION:  
ASSISTANT SECRETARY OF THE ARMY (ACQUISITION, LOGISTICS AND  
TECHNOLOGY), ATTN: SAAL-ZR, SAAL-RP  
ASSISTANT SECRETARY OF THE ARMY (FINANCIAL MANAGEMENT  
AND COMPTROLLER), ATTN: SAFM-BUI





DEPARTMENT OF THE ARMY  
PROGRAM EXECUTIVE OFFICE, AIR, SPACE AND MISSILE DEFENSE  
POST OFFICE BOX 1500  
HUNTSVILLE, ALABAMA 35807-3801

REPLY TO  
ATTENTION OF

SEP 26 2003

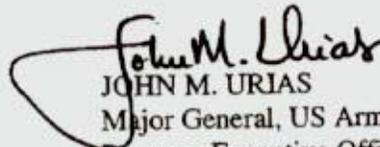
SFAE-ASMD

26 September 03

DECISION MEMORANDUM

SUBJECT: Patriot Recapitalization Program Baseline (RPB)

1. On 9 January 2002, the Vice Chief of Staff, Army (VCSA), approved the Patriot Recapitalization Program. In accordance with Army Recapitalization Policy dated 11 April 2001 and the RPB Guidance dated 7 November, I have conducted a Decision Review of the Patriot Recapitalization Program and approved its entry into Phase I- Program Definition and Phase II- Production and Fielding, pending final approval of the RPB by the Army Acquisition Executive (AAE)/Vice Chief of Staff, Army (VCSA).
2. The Lower Tier Project Manager has worked closely with the US Army Aviation and Missile Command (AMCOM), Letterkenny Army Depot and the Army Cost and Economic Analysis Center (CEAC) during the development of the RPB to ensure full compliance by all parties involved in this process.
3. I have received and reviewed the CEAC validation letter and concur with the assessment.
4. The point of contact for this matter is MAJ Mark Pincoski, (703) 604-7214, DSN: 664-7214.

  
JOHN M. URIAS  
Major General, US Army  
Program Executive Officer  
Air, Space and Missile Defense



DEPARTMENT OF THE ARMY  
OFFICE OF THE ASSISTANT SECRETARY  
FINANCIAL MANAGEMENT AND COMPTROLLER  
109 ARMY PENTAGON  
WASHINGTON DC 20310-0109



REPLY TO  
ATTENTION OF

22 SEP 2003

SAFM-CEA-WS

MEMORANDUM FOR THE PROGRAM EXECUTIVE OFFICER, AIR AND  
MISSILE DEFENSE, ATTN: SFAE-ASMD-BD(MS. FOWLER), P.O.  
BOX 1500, HUNTSVILLE, AL 35807-3801

SUBJECT: Patriot Recapitalization Baseline Cost  
Sufficiency Review

We have reviewed the recent cost estimate provided  
for the Patriot Recapitalization Baseline (which  
generated the attached cost projections). The  
submission provided a reasonable estimate of the total  
contract cost.

Per our agreement, Assistant Secretary of the Army  
Acquisition, Logistics and Technology ASA(ALT) will  
examine the potential savings of the program and any  
potential supportability issues in Phase II. These  
issues will need further review and validation through  
an established ASA(ALT) O&S working group.

The point of contact is Bill Boston, (703) 601-4126  
or DSN 329-4126.

Robert W. Young

Encl

Deputy Assistant Secretary of the Army  
(Cost and Economics)

CF:  
ASA (ALT), ATTN: SAAL-SI