

TECHNICAL MANUAL

**FORECASTING REPLACEMENT REQUIREMENTS
FOR SELECTED CALENDAR AND HOURLY
TIME CHANGE ITEMS**

(ATOS)

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Dates of issue for original and changed pages are:

Original..... 0 15 March 2008

TOTAL NUMBER OF PAGES IN THIS MANUAL IS 22, CONSISTING OF THE FOLLOWING:

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CHAPTER 1

GENERAL

1.1 PURPOSE.

This TO provides procedures for forecasting replacement requirements for selected calendar and hourly Time Change Items (TCIs). The TCIs listed in this TO are those items the item manager determines a need for additional forecast data, to assure assets are available to meet replacement requirements. Refer to applicable chapters for preparation and submission of the AFTO Form 223:

1.1.1 Chapter 1 contains general forecasting procedures.

1.1.2 Chapter 2 contains a list of selected calendar and hourly TCIs. The items identified by stock number, part number, noun and/or nomenclature, and weapon or support system or end item applicability have been selected by DoD IMs for special reporting.

1.1.3 Chapter 3 contains a list of selected calendar Time Change Life Sustaining Items such as man-carrying parachutes, parachute components, egress components and survival equipment that are non-munitions cartridge/propellant actuated devices (CAD/PAD) items.

1.1.4 Chapter 4 contains a list of selected CAD/PAD items used primarily in aircrew escape systems. The items identified by stock number, part number, noun and/or nomenclature, and weapon or support system or end item applicability have been selected by DoD IMs for special reporting.

1.2 SCOPE.

The procedures prescribed in this TO are applicable to the AFMC IM, ALC base support organizations, AF bases, Major Commands and requisitioning agencies. Security Assistance (SA) Program countries requisitioning items designated in this technical order from Air Force sources will comply with AF base reporting requirements.

1.3 SUBMITTING CHANGES TO THIS T.O.

Recommended additions/deletions/changes should be submitted IAW TO 00-5-1 to HQ AFMC/ENBP, Wright-Patterson AFB OH, 45433.

1.4 FORECASTING.

NOTE

Accurate forecasting is a critical element of the TCI budgeting and procurement process. Failure to submit an accurate forecast will result in asset shortages and possible aircraft grounding. Forecast data is used to determine requirements for replenishment spares and for development of budget submissions. These submissions are required 4-5 years prior to the actual item due date, depending on item procurement lead times. It is also used to identify optimum time frames for initiation of TCI procurement actions. The forecasting process is vital to successful, effective support of mission critical, safety of flight devices.

1.4.1 The primary method for forecast submission is the (Automated or Manual) AFTO Form 223. Forecasting is the quarterly break out of TCIs by due date. Forecasts for items will be by quarter covering periods outlined in each chapter.

1.4.1.1 Calculating Due Dates: TCI due dates are determined by the earlier of either date of manufacture (DOM) or date of installation (DOI) expiration, not to exceed total shelf or service life of the item. For example, an item manufactured in June 2000 with a ten-year shelf and service life would expire 30 June 2010, regardless of DOI. If the item was not installed until 2005, it would still expire 30 June 2010 because service life cannot exceed shelf life as determined from the DOM. When an item's service life is less than item's shelf life, the earlier expiration date would dictate time change. For example, an item with a nine-year shelf life (based on DOM) and a seven-year service life (based on DOI) manufactured in August 2000 and installed in October 2001 would require time change no later than 31 October 2008 based on service life expiration. However, if that part was installed in July of 2003, it must be changed out by August 2009, based on DOM.

TO 00-20-9

1.4.2 Forms containing classified information will be assigned appropriate security classification and will be processed in accordance with applicable security directives.

1.5 AIR FORCE MATERIEL COMMAND RESPONSIBILITIES.

1.5.1 Calendar and hourly time change items requiring special handling will be selected by the IM from the applicable -6 series or commodity series TO. Listings of these items, including national stock number (NSN), manufacturers part number, noun, or nomenclature and applicability will be forwarded to HQ AFMC/ENBP for publication in this TO. Items, which are calendar time change based on the date of manufacture, will be designated with a double asterisk preceding the stock number. Revision of published lists will be processed in the same manner.

1.5.2 Annually task each IM to validate NSNs and part numbers listed in this TO. The IM will provide HQ AFMC/ENBP with corrections to the listing. Negative replies are required. This validation will be completed by 1 May of each year.

1.5.3 311 HSW/YAC and 784 CBSG/GJ will send a reminder message to all MAJCOM Maintenance Policy Divisions with instructions to retransmit to subordinate units. This message will include any last minute changes to forecasting requirements or procedures and applicable POCs.

1.6 BASE LEVEL RESPONSIBILITIES.

1.6.1 CAMS/G081 Automated Units.

1.6.1.1 All aircraft installed TCIs for example: egress, life support, and survival equipment items, must be loaded in the local CAMS/G081 database for time change tracking and requirements forecasting purposes. For specific loading, changing and updating policy on installed TCIs, refer to Air Force and Command Instructions.

1.6.1.2 The applicable data base manager will be responsible for extracting the applicable time change data from CAMS/G081.

1.7 EGRESS INDICATOR.

The Egress Indicator is used in CAMS to assist in developing certain reports. Although named Egress, the indicator has expanded to include more than just egress items. The three codes are as follows:

1.7.1 "C" is used for CAD/PAD explosive items, but is not used for Egress explosive items. A lot number is required in CAMS.

1.7.2 "B" is used for an item that is both a CAD/PAD explosive item and an Egress explosive item. Egress items of this type do not always have to be installed on a seat itself. The approved installed on chain must always be followed for each aircraft type and actual installation must be properly documented manually or through the electronic data systems. A lot number is required in CAMS.

1.7.3 "E" is an Egress item that is non-explosive and may not have an associated lot number. It may also be used for Life Support items. However a lot number will be used if available.

CHAPTER 2

SELECTED CALENDAR AND HOURLY TIME CHANGE ITEMS

2.1 PURPOSE.

This chapter provides:

2.1.1 The procedures for processing of automated AFTO Form 223 via CAMS/G081. Units hosted on CAMS/G081 will use the automated procedures contained in this technical manual.

2.1.2 The procedure for completion and processing of manual AFTO Form 223, Time Change Requirements Forecasts for those units not hosted on CAMS/G081.

2.1.3 A list of selected time change items that require special reporting.

2.2 FORECASTING CYCLE.

2.2.1 Items listed in Table 2-1 will be forecast quarterly, starting with the next quarter and covering the next two years. Quarters cover periods beginning with Oct, Jan, Apr and Jul. Forecasts are to be completed and submitted to the applicable IM with an info copy to applicable MAJCOM Weapons System Team. Submit NLT 15 days prior to the required quarter.

2.2.2 To calculate previous operating time, refer to TO 00-20-1.

2.3 BASE-LEVEL RESPONSIBILITIES.

2.3.1 CAMS/G081 Units.

2.3.1.1 All aircraft installed items listed in Table 2-1 must be loaded into local CAMS/G081 database for time change tracking and requirements forecasting purposes.

2.3.1.2 Database manager will be responsible for extracting the time change data from CAMS/G081.

2.3.2 Non CAMS/G081 Units.

2.3.2.1 Plans, Scheduling and Documentation (PS&D) personnel will initiate the AFTO Form 223 by completing blocks 1 through 6. Block 4 should be filled in with the Base Supply Stock Record Account Number (SRAN) that can be obtained from the unit Maintenance Supply Liaison. Only forecast for those items listed in this Table 2-1. Review forms to ensure part number accuracy and that all blocks are completed as specified in paragraph 2-6.

2.3.2.1.1 The wing PS&D superintendent will ensure forecasts are reviewed for accuracy; part numbers, duplicate job standard numbers and all blocks are properly filled in; and coordinate the forecast with work centers responsible for maintaining components before submission to the supply activity.

2.3.2.2 A copy will be forwarded not later than 10 workdays following the as of date of the form to maintenance supply liaison or PS&D. Base supply personnel input applicable retail stock level information and return to the initiating PS&D within 18 workdays after the as of date of the form. The supply activity and PS&D should both keep copies of the current forecast. The supply activity will forward a copy to the applicable IM.

2.4 AIR FORCE MATERIEL COMMAND RESPONSIBILITIES.

Upon receipt of projected time change item requirements from AF bases, the applicable IM will consolidate these requirements. Equipment specialist will review forecasts received and make recommendations to IMs prior to initiating procurement actions.

2.5 MANUAL PREPARATION OF AFTO FORM 223 (SEE FIGURE 2-1).

2.5.1 BLOCK 1, LOCATION. Enter name of base.

2.5.2 BLOCK 2, ORGANIZATION. Enter name of organization the forecast is for (not necessarily the same as the forecasting/documentation section).

TO 00-20-9

2.5.3 BLOCK 3, DATE. Enter date on which form is prepared.

2.5.4 BLOCK 4, SUPPLY ACCOUNT NUMBER. Enter six-digit stock record account number.

2.5.5 BLOCK 5, MAJOR COMMAND. Enter command code (two digits). If unsure, just enter the MAJCOM (ex. ACC, AFMC, etc.).

2.5.6 BLOCK 6A, PART NUMBER. Enter the NSN (preferred) and/or part number. Where interchangeable, secondary or substitute items are involved, enter part number or NSN of installed item.

2.5.7 BLOCK 6B, NOUN. Enter noun/nomenclature of item.

2.5.8 BLOCK 6C, REQUIREMENTS QUANTITY. Enter quarterly projections in column under YEAR AND QUARTER. Enter last two digits of calendar year for which projection is being made above the line and 1, 2, 3 or 4 below the line for applicable quarter. Use additional sheets to forecast all required years.

2.5.9 BLOCK 6D, TOTAL. Enter the total.

2.5.10 BLOCK 7, SUPPLY INFORMATION. Completed by the supply activity

2.6 AUTOMATED AFTO FORM 223.

2.6.1 CAMS

2.6.1.1 PS&D will forecast all aircraft installed -6 TO required items contained in Table 2-1.

2.6.1.2 Include on hand balances as part of forecast (filled in by the supply activity).

2.6.1.3 It is essential that data be validated and checked for accuracy. If changes are required, update CAMS database and rerun program.

2.6.1.4 Information on CAMS 490 screens are in AFCSM 21-579, Vol. 2. Units must ensure they fill out all the header data on the 490 screen. Use the servicing base supply SRAN (FB) in the "Supply Acct Code" field.

2.6.1.5 Save the CAMS 490 screen to a 3.5-inch floppy disk in ASCII or TXT format.

2.6.1.6 CAMS mainframes hosting more than one unit/organization should have separate files for each unit. If the organization is another government agency or a civilian company under contract to the Air Force, use a practical abbreviation for their file name.

2.6.1.7 Forward a copy of the disk to applicable aircraft System Program Office with instruction to forward the disk to the appropriate Item Managers (IMs). The System Program Office points of contact can be obtained at the website <https://www.afmc-dr.wpafb.af.mil/BlueBk/bluebook.asp>.

2.7 G081.

2.7.1 Program 67181 will be used to forecast all hourly/calendar TCIs IAW AMCI 21-112. This program is a batch/background program and can only be executed via screen 9058.

2.7.2 Refer to G081 help screen for detailed instructions on how to make the necessary changes prior to executing the program.

2.7.3 Program must be initially set-up by local G081 manager before initiating 67181 program

Table 2-1. Selected Calendar and Hourly Time Change Items

| Stock Number | Part Number | Noun/Nomenclature/ Applicability | SOS*/IM/Symbol/DSN |
|--------------------|--------------|--|---|
| 1095 00 488 2075 | 44G11185 | Bomb Group Selector, AN-A1 B-52 A/C | F2U, Lil Stevenson, LKGWL, 468-6195 |
| *1620 00 505 1184 | 3303591-3 | Nose Gear, C-130 | FGZ, Becky Maroney, LILAM, 777-6322 |
| *1620 01 170 8325 | 3316498-1 | Soft Strut, C-130 | FGZ, Becky Maroney, LILAM, 777-6322 |
| *1620 01 263 6733 | 8430M4 | Ballscrew, C-130 | FGZ, Becky Maroney, LILAM, 777-6322 |
| 1620-01-429-3480 | 16VL031-5 | F-16 H/W LT MLG Shipset | FGZ, Kim Vincent, LGMHLI- 1, 775-6660 |
| 1620-01-429-4928 | 16VL031-6 | F-16 H/W RT MLG Shipset | FGZ, Kim Vincent, LGMHLI- 1, 775-6660 |
| 1620-01-429-4929 | 16VL031-115 | F-16 H/W NLG Shipset | FGZ, Kim Vincent, LGMHLI- 1, 775-6660 |
| 1630-00-827- 8170 | 153715-1 | Wheel, MLG F-104, (t) F-104G | F4U, Teresa Hawkins, LILAM, 775-6063 |
| 1650 00 679 7485 | 871775 | Air Bottle, C-135 | FHZ, Robert Shortley, LIIEC, 336-2433 |
| 1650 01 039 9127 | 23711999 | Air Bottle, E-3, C-135 | FHZ, Robert Shortley, LIIEC, 336-2433 |
| 1680 01 042 3261WF | 2022058-1-1 | Rotary Actuator, F-16 | FGZ, John Bradley, LGFMM, 777-6203 |
| 1680 01 048 8977WF | 2022056-1-1 | Rotary Actuator, F-16 | FGZ, John Bradley, LGFMM, 777-6203 |
| 1680 01 225 7319WF | 2022058-1-2 | Rotary Actuator, F-16 | FGZ, John Bradley, LGFMM, 777-6203 |
| 1680 01 230 1279WF | 2048344-1-4 | Rotary Actuator, F-16 | FGZ, John Bradley, LGFMM, 777-6203 |
| 1680 01 276 8711WF | 2048342-2-1 | Rotary Actuator, F-16 | FGZ, John Bradley, LGFMM, 777-6203 |
| 2835 00 390 1884 | 19E173-2C | PTO Shaft, F-15 | FGZ, Kristie Miles, LIPS, 777-5614 |
| 2835-01-115-6111 | 19E235-2A | PTO Shaft, F-16 | FGZ, Beth Holt, LGHPS, 777-5972 |
| 2835-01-147-1900 | 19E170-2A | PTO Shaft | FGZ, Beth Holt, LGHPS, 777-5972 |
| 2835-01-208-0169 | 5007076B | ADG, F-16 | FGZ, Beth Holt, LGHPS, 777-5972 |
| 2835-01-235-5249 | 5004451H | ADG, F-16 | FGZ, Beth Holt, LGHPS, 777-5972 |
| 2835-01-263-9440 | 581750-11-1 | Turbine Power Unit, F-16 | FGZ, Beth Holt, LGHPS, 777-5972 |
| 2835-01-308-3769 | 160001-1100A | JFS, F-16 | FGZ, Beth Holt, LGHPS, 777-5972 |

Table 2-1. Selected Calendar and Hourly Time Change Items - Continued

| Stock Number | Part Number | Noun/Nomenclature/ Applicability | SOS*/IM/Symbol/DSN |
|--------------------|-------------|---------------------------------------|--|
| 2845 00 827 4044AD | 410915 | Valve Assy, Oxidizer 437, Bumer II | S9G, Customer Service, 695-4865 |
| 4210 00 288 8268 | 13X13261 | Fire Ext, Type A-20 C-121 (ALL) | S9C, Customer Service, 850-271-3191 |
| 4210 01 188 2615 | 896245-03 | Nacelle Fire Bottles | |
| 4210 01 373 1249 | 473034-1 | Over Wing Fairing Bottles | |
| 4320 01 152 8301 | 55113-02 | Pump, Hydraulic, F-16 | FGZ, Diane Watkins, YPXG, 777-3031 |
| 5835 00 954 1190 | 92002 | Head, Reproduce AN/GSH35 | S91, Customer Service, 444-2336 |
| 6135 00 416 2898 | MIL-B-83771 | Battery, Primary A1M-4AD | FHZ, Anita Garcia, LIAC, 884-8290 |

***SOS CONVERSION**

S9G DEFENSE GENERAL SUPPLY CENTER RICHMOND, RICHMOND, VIRGINIA 23297
 FGZ OGDEN AIR LOGISTICS CENTER, HILL AFB, UTAH 84056
 F4U OGDEN AIR LOGISTICS CENTER, HILL AFB, UTAH 84056
 FHZ OKLAHOMA CITY AIR LOGISTICS CENTER, TINKER AFB OKLAHOMA 73145
 S9C DEFENSE SUPPLY CENTER, COLUMBUS, OHIO 43215
 S91 DEFENSE INDUSTRIAL SUPPLY CENTER, PHILADELPHIA, PENNSYLVANIA 19111

CHAPTER 3

SELECTED CALENDAR TIME CHANGE LIFE SUSTAINING ITEMS

3.1 PURPOSE.

This chapter provides:

- 3.1.1 The procedure for completion and processing of the WEB Based Forecasting.
- 3.1.2 A list of selected non-CAD/PAD time change items that require special reporting.

3.2 FORECASTING CYCLE.

3.2.1 Life Sustaining Items will be forecast annually. Each unit's Wing Life Support Superintendent will ensure forecast completion and MAJCOM notification by 30 Sep. Forecasts will be by quarter, for the first three years starting with the first quarter of the upcoming calendar year, and by year for the remaining years for a minimum of six years. Quarters cover periods beginning with January, April, July and October. Each wing is responsible for consolidating their unit forecasts. MAJCOM functional managers will email 311 HSW/YACS by 30 Oct acknowledging their review and validation. 311 HSW/YACS will validate all MAJCOM forecasts and forward to WR-ALC and DLA. The forecast for items listed are to be completed and submitted to 311 HSW/YACS by 1 Nov each year and must include all end items assigned to the forecasting organization as of 15 Aug.

3.2.2 Once a life sustaining item is installed the first time, its service life expiration cannot change. For example, a 5-year service life item installed in October 1994, reaches its service life in October 1999. If the part is taken out and later reinstalled in another aircraft, the service life expiration remains October 1999. Applicable databases must be adjusted manually to reflect this.

3.3 WEB BASED FORECASTING OF LIFE SUSTAINING ITEMS.

Forecast will be accomplished by accessing 311 HSW/YA WEB Site at: hsywa.brooks.AF.MIL/COMMON/MIL-GOV/LSM/LSMDB.HTM. EACH MAJCOM will use their previously designated password to access their time change spreadsheet. MAJCOMS will forward their password to their wings or designated units for completion of the forecast document. To ensure TCIs are forecasted properly, the wings Life Support Superintendent will input all time change data into this website. Obtain aircraft installed data from Wing PS&D personnel.

NOTE

The website is designed to reflect historical forecasts data from past to present years starting with CY 00. Historical data cannot be altered. It is for viewing and tracking only. Do not attempt to input any data in this area.

3.3.1 This website provides a formatted spreadsheet with all the applicable time change stock numbers, and nomenclatures found on the AFTO Form 223. The intent of this formatting is to standardize the inputs and data collection. CAMS, REMIS, ALSMS/ALERTS and/or manual data records should be used to develop forecasts. Installed and uninstalled equipment must be forecast. All time change items in use due to service life extensions must be included in the forecast.

3.4 LISTINGS OF SELECTED LIFE SUSTAINING ITEMS.

Many man-carrying parachutes and parachute components have a calendar year service life but cannot be listed in a -6 scheduled inspection and maintenance requirements manual. Items are not actually installed in the aircraft or may be moved from aircraft to aircraft and once service life begins, it continues to accrue even when the item is removed from service. The service life expiration date must be computed based on instructions contained in the applicable commodity series Technical Order (TO). An example of how to determine the service life expiration date is contained in TO 14D3-11-1, chapter 4. Because procurement lead-time may be 18 months or longer, a projection of replacement requirements is necessary to assure support. The following items have been selected for the special reporting prescribed by this TO. For those items contained in this chapter, the website automated AFTO Form 223 will be completed by the life support and maintenance organizations who have the responsibility for the maintenance of records. Items managed by DLA will be rolled up and transmitted by 311 HSW/YAC to DLA, during the normal annual submission.

Table 3-1. Selected Calendar Time Change Life Sustaining Items

| STOCK NUMBER | PART NUMBER | NOUN/NOMENCLATURE | EGR. IND. | APPLICABILITY |
|---------------------|---|--|-----------|---|
| 1660 01 421 0084 | MR-10095AF | Emergency Passenger Oxygen System (EPOS) | E | Multi-Aircraft |
| 1670 00 000 6440LS | MBEU23177 | Line, Assy, Drogue Withdrawal | E | F-4 |
| 1670 00 020 5038LS | 64D2162-6 | Riser | E | B-57, T-33 |
| 1670 00 020 5039LS | 64D2162-3 | Riser | E | Multi (BA-22 Parachute) |
| 1670 00 106 0743LS | 68D207-1 | Riser Ext | E | C-123, C-130, C-141 |
| 1670 00 106 6482LS | 6752010 | Harness, Personnel | E | C-123, C-130, C-141 |
| 1670 00 106 6483LS | 67J2043 | Pack, Personnel Parachute | E | Multi-Aircraft |
| 1670 00 112 9861LS | 48J6156-3 | Canopy | E | C-141 |
| 1670 00 123 9080LS | MBEU34505 | Parachute Assy Controller Drogue | E | F-4 |
| 1670 00 128 2290LS | 68K147-1 | Canopy, Personnel | E | Multi-Aircraft |
| 1670 00 369 5444LS | 68J5369 | Harness, PCU-15 A/P | E | Multi-Aircraft |
| 1670 00 377 6626LS | 50C7041 | Adapter, Riser | E | Multi-Aircraft |
| 1670 00 377 9094LS | 4857156-2 | Canopy, Personnel | E | C-123, C-130, C-141 |
| 1670 00 451 1982LS | MBEU39295 | Parachute Assembly, 5.00 FT | E | F-4 Stabilizer |
| 1670 00 454 0926LS | 685370 | Harness, PCU-16 A/P | E | F-4, OV-10, A-7D Multi-Aircraft |
| 1670 00 481 9760LS | MBEU38119 | Strap, Extender | E | F-4 |
| 1670 00 486 4891LS | 685420-101- | Harness, Personnel | E | Multi-Aircraft |
| 1670 00 516 8068LS | 5656126 | Personnel Chute | E | Multi-Aircraft |
| 1670-00-760-7933 | 387514-5 | Restraint Harness | E | Multi Aircraft |
| 1670 00 764 9647LS | MBEU4990PA | Line Assy-Withdrawal | E | F-4 |
| 1670 00 807 9436LS | 5956706-30 | Harness | E | Multi-Aircraft |
| 1670 00 830 9134LS | 59C6712 | Riser | E | B-52 |
| 1670 00 834 8347LS | 5956710 | Harness | E | B-52H |
| 1670 00 889 8322LS | MBEU34010 | Line, Drogue Connecting | E | F-4 |
| 1670 00 891 1884LS | 64D2162-4 | Riser | E | Cargo Aircraft |
| 1670 00 943 3024L | 65K1533-101 | Harness, Personnel | E | Multi-Aircraft, (BA-22 Parachute) |
| 1670 01 003 4535LSS | 7445709-10 | Chute, Drogue | E | B-52 |
| 1670 01 003 4536LS | 7445709-50 | Chute, Drogue | E | B-52 |
| 1670 01 024 6642LS | 68K147-7 | Canopy, Personnel | E | C-130 |
| 1670 01 034 5836LS | GID51-474-505 | Harness Assy, Ejection Seat | E | T-38, AT-38 |
| 1670 01 040 2569LS | GID21-288-503 | Parachute Assy, Ejection Seat | E | T-38, AT-38 |
| 1670 01 040 5864LS | GID53-686-311 | Sleeve Deployment, Ejection Seat | E | T-38, AT-38, F-5 |
| 1670 01 070 5208LS | D114549-501 D114549-505 | Riser | E | ACESII |
| 1670 01 236 3820 | J5114551-505 J114551-501, J114551-505 | Canopy, Personnel | E | ACES |
| 1670 01 236 3822 | 50E6877-3A | Canopy, C9 | E | F-4, T-37, T-38, AT-38, (BA-22 Parachute) |

Table 3-1. Selected Calendar Time Change Life Sustaining Items - Continued

| STOCK NUMBER | PART NUMBER | NOUN/NOMENCLATURE | EGR. IND. | APPLICABILITY |
|--------------------|---|---|-----------|-----------------------------------|
| 1670 01 250 5468 | J5114712-503 J114712-501, J114712-505 | Drogue Assy | E | ACES |
| 1670 01 375 2098 | D114549-505 | ACES II Riser Assy. | E | A-10, F-15, F-16, F-117, B-1, B-2 |
| 1670 01 375 2118 | 7947313-60 | Riser Strap (RH) | E | F-4 |
| 1670 01 375 2119 | 7947313-50 | Riser Strap (LH) | E | F-4 |
| 1670 01 443 290 | 64D2162-3A | Riser Assy | E | B-52, B-1 |
| 1680-00-115-29128 | MBEU35674 | Line, Release Assy | E | F-4 |
| 1680 00 496 0290LS | 683417-10 | Strap Safety | E | Multi-Aircraft (Cargo) |
| 1680 00 944 0107LS | MBEU167H5 | Face Screen, Seat | E | F-4 |
| 1680 01 084 6923LS | MBEU54600 | Strap Restraining | E | F-4 |
| 1680 01 100 6631LS | 300900-5,811-00112 | Environmental Sensor | E | ACESII |
| 1680 01 163 1590 | 68E417-30 | Strap, Safety | E | C-130 |
| 1680 01 195 1059 | MBEJ74139 | Strap Assy | E | F-4 |
| 1680 01 224 5696 | 811-00112-1 | Environmental Sensor | E | B-1 |
| 1680 01 234 0811 | 811-00087 | Velocity Sensor | E | B-1 |
| 1680 01 385 3630 | 811-00112-2 | Sensing Unit | E | F-117, B-2 |
| 1680-01-385-3630 | 300900-15 | Sensing Unit | E | B-2 |
| 1680-01-385-3630 | 9800200-30 | Sensing Unit | E | B-2 |
| 4220 01 167 7594 | 852AS101 | Electronic Package Assembly | C | SEAWARS Seawars |
| 4240 01 119 2315 | D5-3-1500 | Canister, C-2 | E | M40/43 Mask |
| 4240 01 217 0046LS | 802300-11 | Emergency Escape Breathing Device (EEBD) | N/A | Multi-Aircraft |
| 4240 01 217 0046 | 802300-14 | Protective Breathing Equipment (PBE) | E | Multi Aircraft, Cargo |
| 4240 01 361 1319 | 5-3-1520 | Canister, C-2A1 | E | M40/43 Mask |
| 6135 01 050 3193 | 7747390-10 | Battery, AN/URT33CM | E | Multi-Aircraft |
| 6135 01 056 4609 | P4-01-0013-110 | Power Unit | E | C-5 Slide |
| 6135 01 088 2708 | BA-5588/U08 | Battery, Lithium | N/A | AEPR Blower Assembly |
| 6135 01 115 2867 | 4SR44 | Battery, Non Rechrq | E | |
| 6135 01 167 7604 | 1837-004-01 | Battery, Seawars | E | Fighters |
| 6135 01 187 4382 | MMI-90-301 | Battery, AN/URT-33 | E | B-1 |
| 6135 01 235 4168 | BA-5112/U | Battery | E | AN/PRC-112 |
| 6135 01 268 2151 | A544 | Battery, LPU-9/P | E | Multi-Aircraft |
| 6135 01 268 2151 | 152-99-5341 | Battery, Non Rechrq | E | LPU-SP Mask |
| 6135 01 455 7947 | BA-5368/U | Battery, AN/PRC-90 (LITH) | E | All Aircraft |
| 6135 01 455 9646 | BA-5374/U | Battery, SDU-5/E Light (LITH) | E | All Aircraft |
| 6135 01 47 3935 | 1784AS0999 | Battery (Lithium) for AN/URT-33 C/M and AN/URT- 33D | | |

CHAPTER 4

SELECTED CARTRIDGE/PROPELLANT ACTUATED DEVICES (CAD/PAD)

4.1 PURPOSE.

NOTE

Accurate CAD/PAD forecasting is a critical element of the TCI budgeting, procurement, and distribution process. Failure to submit an accurate forecast or provide accurate IMDS/G081 data will result in shortages and possible aircraft grounding. All CAD/PAD items sufficiently tracked in IMDS will no longer be required to be forecasted to OO-ALC. The Life Support Activity is responsible for submitting a manual AFTO Form 223 for any and all CAP/PAD TCIs listed in Table 4-1 that are utilized by Life Support but are not tracked in IMDS/G081.

The 784 CBSG/GJ at OO-ALC will use the Requirements Determination Module (RDM), which utilizes information from IMDS/G081 to determine future forecasts. The items listed in Table 4-1 still require submission of the AFTO Form 223 in accordance with this technical order.

This chapter provides:

4.1.1 The procedures for processing of automated AFTO Form 223 via IMDS G081. This includes the few items in IMDS/G081 that are also included in Table 4-1.

4.1.2 Procedures for completing and processing a manual AFTO Form 223, Time Change Requirements Forecasts for those units not hosted on IMDS/G081. Life Support items not reported in IMDS/G081 will use manual AFTO Form 223 procedures.

4.1.3 Procedures for identifying quarterly requirements for CAD/PAD items not contained in Table 4-1 to the munitions MASO for quarterly requisitioning (reference AFI 21-101, paragraph 7.16, and AFI 21-201, paragraph 31.2).

4.1.4 A list of selected time change items that require special reporting.

4.2 FORECASTING CYCLE.

4.2.1 Forecast annually for CAD/PAD items listed in Table 4-1. Submit forecast to OO-ALC, 784 CBSG/GJ, by 1 October each year; it must include all aircraft assigned as of 15 August. Units who utilize IMDS/G081 will use it to produce an annual forecast by quarter for the first four years starting with the first quarter of the upcoming fiscal year, and by year for the remaining years covering a period of time corresponding to the total service life of the item or a minimum of nine years. Non IMDS/G081 units will generate a forecast using the same time periods. Quarters cover periods beginning with October, January, April, and July.

NOTE

For CAD/PAD items not listed in Table 4-1, the 784 CBSG/GJ at OO-ALC will use RDM to forecast future time change requirements.

4.2.2 Once a CAD/PAD item is installed the first time, its service life expiration cannot change. For example, a 5-year service life item installed in October 1994, reaches its service life in October 1999. If the part is taken out and later reinstalled in another aircraft, the service life expiration remains October 1999. IMDS must be adjusted manually to reflect this. For items that are on temporary extension, IMDS/G081 records will retain the original TCI due date.

NOTE

The annual forecast may be adjusted to accommodate maintenance production constraints, with OG and MXG approval. The adjustment will begin no less than 3 years from current forecast.

4.2.3 Units using items contained in Table 4-1 with no projected usage are required to submit negative reports to the 784 CBSG/GJ by message with a copy to MAJCOM Egress and Maintenance Scheduling Functional Managers.

4.3 BASE-LEVEL RESPONSIBILITIES.

NOTE

To ensure 784 CBSG includes all annual requirements, an accurate forecast is required. Failure to submit an accurate forecast and ensuring accurate IMDS/G081 data will result in shortages and possible aircraft grounding.

4.3.1 To comply with the intent of AFI 21-101, paragraph 7.16, and the CAD/PAD TCI requisitioning time frames contained in AFI 21-201, paragraph 31-2, the wing PS&D will hold a quarterly meeting with Munitions Operations personnel (prior to 90 - 120 days before the next calendar year quarter for OCONUS, or 45 - 60 days prior to the next calendar year quarter for CONUS) to ensure IMDS/G081 quarterly requirements and AFTO Form 223 forecasts are accurate and available to the MASO for timely requisitioning. Life Support Superintendents will participate in this quarterly meeting to ensure life support CAD/PAD items are properly forecast and the forecast available to the MASO for requisitioning.

4.3.1.1 Any requirement that will not need to be requisitioned by the MASO will be identified during the planning session so double requisitioning of assets is avoided.

4.3.1.2 Examples are: TCI items that will be changed out during depot maintenance and the depot is tasked to order the items as part of the scheduled workload; TCI changes scheduled when an aircraft is off station and another activity has agreed to order the parts and coordinated the requirement with the off station MASO.

4.3.2 MDS/G081 Units

4.3.2.1 All aircraft installed CAD/PAD items must be loaded into local IMDS/G081 database for time change tracking and requirements forecasting purposes. This process greatly eases administrative workloads at both local and depot levels, and provide greater visibility of worldwide assets and requirements to depot level managers.

4.3.2.2 Database manager will be responsible for extracting the CAD/PAD time change data from IMDS/G081 for all host and associate unit agencies.

4.3.3 Non IMDS/G081 Units and life support activities not maintaining TCI records in IMDS/G081.

4.3.3.1 PS&D (or the life support activity) will initiate the forecast by completing blocks 1 through 6 of the AFTO Form 223. Block 4 should be filled in with the munitions Stock Record Account Number (SRAN) that can be obtained from the base Munitions Operations (MASO or AFK). Only forecast for those items listed in Table 4-1. Review forms to ensure part number accuracy and that all blocks are completed as specified in paragraph 4.5.

4.3.3.2 The wing PS&D (and the life support activity) superintendent will ensure forecasts are reviewed for accuracy; part numbers, duplicate job standard numbers and all blocks are properly filled in; and coordinate the forecast with work centers responsible for maintaining CAD/PAD components (egress, life support and survival) before submission to the munitions activity.

4.3.3.3 The Munitions Operations section or MASO, and PS&D will keep both copies of the current forecast. PS&D (and the life support activity) will forward one copy to OO-ALC 784 CBSG/GJ, 6043 Elm Lane, Hill AFB, UT 84056-5819 by 1 August of each year. Send a courtesy copy to the applicable MAJCOM Maintenance Scheduling and Egress Functional Managers and the life support functional, if applicable, OO-ALC 784 CBSG/GJ will provide a formatted spreadsheet that may be used in place of the AFTO Form 223.

NOTE

Tenant unit AFTO Forms 223 will be forwarded by host PS&D to OO-ALC 784 CBSG/GJ with a courtesy copy to the MASO. Requirements shall not be consolidated with requirements of the host organization unless they have the same MAJCOM. Bring any consolidations to OO-ALC 784 CBSG/GJ.

4.3.4 All Units

4.3.4.1 All forecasts must include a base or unit POC, phone number and e-mail address (if available).

4.3.4.2 E-mail can now be utilized to send forecast OO-ALC, 784 CBSG/GJ. The e-mail address is hill.cadpad.jpo@hill.af.mil.

4.4 AIR FORCE MATERIEL COMMAND RESPONSIBILITIES.

Upon receipt of projected time change item requirements from AF bases, the OO-ALC POC will consolidate these requirements for all Item Managers (IM). Discrepancies identified will be resolved between the originator of the forecast and 784 CBSG/GJ.

4.5 MANUAL PREPARATION OF AFTO FORM 223 (SEE FIGURE 2-1).

4.5.1 BLOCK 1, LOCATION. Enter name of base.

4.5.2 BLOCK 2, ORGANIZATION. Enter name of organization the forecast is for (not necessarily the same as the forecasting PS&D).

4.5.3 BLOCK 3, DATE. Enter date on which form is prepared.

4.5.4 BLOCK 4, SUPPLY ACCOUNT NUMBER. Enter six-digit stock record account number (obtained from the base MASO or Munitions Operations section).

4.5.5 BLOCK 5, MAJOR COMMAND. Enter command code (two digits). If unsure, just enter the MAJCOM (ex. ACC, AFMC, etc.).

4.5.6 BLOCK 6A, PART NUMBER. Enter the NSN (preferred) and/or part number. Where interchangeable, secondary or substitute items are involved, enter part number or NSN of installed item.

4.5.7 BLOCK 6B, NOUN. Enter noun/nomenclature of item.

4.5.8 BLOCK 6C, REQUIREMENTS QUANTITY. Enter quarterly projections in column under YEAR AND QUARTER. Enter last two digits of calendar year for which projection is being made above the line and 1, 2 and 3 or 4 below the line for applicable quarter. Use additional sheets to forecast all required years.

4.5.9 BLOCK 6D, TOTAL. Enter the total of all remaining additional yearly forecasts, as required, to cover service life of item for those items with service life longer than 9 years.

4.5.10 BLOCK 7, SUPPLY INFORMATION. No data required.

4.5.11 Units can submit the Aircrew Life Support Equipment and Records Tracking System (ALERTS) generated AFTO 223 form for items listed in Table 4-1 in lieu of the manual form.

4.6 AUTOMATED AFTO FORM 223.

4.6.1 IMDS

4.6.1.1 PS&D will forecast all Work Unit Code (WUC) 97XXX items contained in their IMDS database using the IMDS 490 screen to produce the forecast.

4.6.1.2 Do not include on-hand balances as part of forecast.

4.6.1.3 It is essential that data be validated and checked for accuracy. If changes are required, update IMDS database and rerun program.

4.6.1.4 Information on IMDS 490 screens is in AFCSM 21-579, Vol. 2. Units must ensure they fill out all the header data on the 490 screen. Use the servicing munitions SRAN (FV or FK) in the "Supply Acct Code" field. The IMDS 490 screen only covers three years worth of data at a time and must be pulled three times to obtain nine years of data.

4.6.1.5 Save the IMDS 490 screen to file in TXT format and submit the file to OO-ALC 784 CBSG/GJ. Units must use their host designation as file name, followed by ".ASC" or ".TXT." For example, the 58FW forecast would have a file name 58FW.ASC or 58FW.TXT. For multiple files, assign numbers after the host designation; for example, 338FW1.TXT, 338FW2.TXT, 338FW3.TXT, and so on.

4.6.1.6 IMDS mainframes hosting more than one unit/organization should have separate files for each unit. If the organization is another government agency or a civilian company under contract to the Air Force, use a practical abbreviation for their file name.

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4.6.1.7 Forward a copy of the disk as specified in paragraph 4.3, or by e-mail as specified in the annual update message from OO-ALC, 784 CBSG/GJ.

4.6.1.8 If problems are encountered with this program, contact OO-ALC 784 CBSG/GJ, 6043 Elm Lane, Hill AFB, UT 84056-5819.

4.6.2 G081

4.6.2.1 Batch Program 67181 will be used to forecast all CAD/PAD TCIs IAW AFMCI 21-112. This program is a batch/background program and can only be executed via screen 9058.

4.6.2.2 Refer to G081 help screen for detailed instructions on how to make the necessary changes prior to executing the program.

4.6.2.3 Program must be initially set-up by local G081 manager before initiating 67181 program.

4.7 LISTING OF SELECTED ITEMS.

The following items (Table 4-1) identified by NSN, Part No., Noun/Nomenclature and Applicability have been selected by AFMC IMs for special reporting prescribed by this chapter. The items listed are due for change based on DOI, date item was removed from its hermetically sealed container, or when item has exceeded shelf-service as prescribed in each applicable -6 scheduled inspection and maintenance requirements manual, or applicable commodity series technical order.

Table 4-1. Selected Cartridge/Propellant Actuated Devices

| NSN | Part No. | Noun/Nomenclature | EGR. IND. | Applicability |
|--------------------|--------------------|--|------------------|---|
| 1377-00-172-048ES | 895408 895408-1 | Cartridge | C | UH-1N |
| 1377-00-174-5024ES | 895409 895409-1 | Cartridge | C | UH-1N |
| 1377-00-188-4086ES | 30900400 | Cartridge, Fire Ext | C | UH-1N |
| 1377-00-241-1595ES | 807991 | Generator, Gas | C | HC-130 |
| 1377-01-003-1175ES | 50577-51 | Parts Kit, Egress System | C | AC-130H |
| 1377-01-073-3831ES | K303104-1 | Refire Kit | C | UH-1N |
| 1377-01-085-9358ES | 6010600 | Cartridge, Booster | C | C-5, C-130, KC-135, B-52, T-37, T-38, F-22 |
| 1377-01-087-5166ES | 303104-1 | Cutter, Cable | C | UH-1N |
| 1377-01-090-7557ES | 6022100 | Cartridge, Delay | C | C-130, C-5 |
| 1377-01-168-2559ES | 6047100 | Cartridge, Delay 0.25 Second | B | T-38 |
| 1377-01-168-4419ES | 6046100 | Cartridge, Delay 1.0 Second | B | T-37 |
| 1377-01-211-7211ES | 1512AS121 | Cartridge, Cargo Hook | C | H-60G, C-135, WC-135, OC-135, NKC-135 |
| 1377-01-211-7212ES | 1512AS120 | Thruster | C | H-60G |
| 1377-01-212-8583ES | 3215-2 | Cartridge, External Hoist | C | UH-53J/M |
| 1377-01-216-4889ES | 6061100 | Cartridge, Delay.75 Second | B | B-52 |
| 1377-01-263-3627ES | 897899-1 897899 | Cartridge, Fire Extinguisher | C | H-60G |
| 1377-01-289-8570 | 3892-1 | Cartridge, Cutter (Lucas Western Hoist) | C | H-60G |

Table 4-1. Selected Cartridge/Propellant Actuated Devices - Continued

| NSN | Part No. | Noun/Nomenclature | EGR. IND. | Applicability |
|--------------------|-------------------------|--|--------------|---------------|
| 1377-01-297-5283ES | 519-1952-014 | Cartridge, Fire Extinguisher Deicer truck | C | |
| 1377-01-419-8796ES | 200240 873364-1 | Cartridge, Fire Extinguisher | C | HH-53J/M |
| 1377-01-454-9864ES | 1812-181-01 | Inflation Device, FLU-9 Life Preservers | C | |
| 1377-01-480-0671ES | 100001062-501 | Battery, Thermal External Canopy Jettison | C | F-22 |
| 1377-01-487-0716ES | 7263971 | Cartridge, Actuator Initiated (Extraction Jettison Parachute System) | C | C-130E/H |
| 1377-01-487-1828ES | 10001050-501 | Battery, Thermal Internal Canopy Jettison | C | F-22 |
| 1377-01-488-1068ES | 103377-371 | EED, Catapult | B | F-22 |
| 1377-01-505-5212ES | 30903948-1 | Cartridge, Fire Ext. APU | C | F-22 |
| 1377-01-505-5213ES | 30903946-1 | Cartridge, Fire Ext. LH EN | C | F-22 |
| 1377-01-505-5214ES | 30903947-1 | Cartridge, Fire Ext. RH EN | C | F-22 |
| 1377-01-512-1805ES | 42315-75-1 | Cutter, Cable (Lucas Western Hoist) | C | H-60G |
| 1377-01-515-3484ES | 12357300 | EED, Dual Bridgewire | B | F-22 |
| 1377-01-515-3485ES | 12350100-3 | Thruster, Canopy Remover | B | F-22 |
| 1377-01-515-3486ES | 12830100, 12830100-1 | Cutter Assy, Zeroize (Inert) | C | F-22 |
| 1377-01-515-3487ES | 12357100-1 | EED, Single Bridgewire, Canopy Thruster, Rocket Mo- tor | B | F-22 |
| 1377-01-515-3489ES | 12351100-4 | Rocket, Canopy Remover | B | F-22 |
| 1377-01-515-5924ES | 10000811-501 | Battery, Thermal | B | F-22 |
| 1377-01-515-5927ES | 12357200-1 | EED, Dual Bridgewire | B | F-22 |

