This instruction implements Air Force Policy Directive 21-1, Maintenance of Military Materiel, and Air Force Instruction 16-402 Aerospace Vehicle Programming, Assignment, Distribution, Accounting, and Termination. It explains the procedures for entering and updating the Aircraft Maintenance Production/Compression Report System (A030D), outlines responsibility for data entry, and addresses exercise management. The Aircraft Maintenance Production/Compression Report System provides Headquarters, Air Force Materiel Command, Headquarters United States Air Force, other services and possessing/assigned owning Major Command with the status of aircraft undergoing depot level maintenance at all Department of Defense, Air Force, contractor, other commercial repair and Depot Maintenance Inter-Service Agreement facilities. It provides annual production plans based on project directives and scheduled completion date, and provides users the capability to complete detailed Root Cause analysis. This instruction is not applicable to the Air Force Reserve Command or the Air National Guard. This publication may be supplemented at any level, but all Supplements must be routed to the Office of Primary Responsibility of this publication for coordination prior to certification and approval. The authorities to waive requirements in this publication are identified with a Tier (“T-0, T-1, T-2, and T-3”) number following the compliance statement. See Air Force Instruction 36-360, Publications and Forms Management, for a description of the authorities associated with Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the Publication Office of Primary Responsibility for non-tiered compliance items. Refer recommended changes and questions about this publication.
to the Office of Primary Responsibility using the Air Force Form 847, Recommendation for Change of Publication; route Air Force Forms 847 from the field through the appropriate functional chain of command to Headquarters, Air Force Materiel Command /A4FI. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual 33-363, Management of Records, and disposed of in accordance with Air Force Records Information Management System Records Disposition Schedule. The use of the name or mark of any specific manufacturer, commercial, product, commodity, or service in this publication does not imply endorsement by the Air Force. See Attachment 1 for a glossary of references and supporting information.

**SUMMARY OF CHANGES**

This revision to Air Force Materiel Command Instruction 21-118 incorporates reorganization changes within Air Force Materiel Command and clarifies and further defines Aircraft Maintenance Production/Compression Report System roles and responsibilities. Additionally, it clarifies who may request a waiver to Aircraft Maintenance Production/Compression Report System reporting requirements and incorporates requirements to: review Reliability and Maintainability Information System Error Listing as well as Root Cause Analysis, conduct Aircraft Maintenance Production/Compression Report self-assessment checklist contained in Management Internal Control Toolset, and monitor functional check flight data. External aircraft quality standard calculations are further defined and identifies how quality standards are assigned to new weapon systems. Increases time period required to update Aircraft Maintenance Production/Compression Report System from one (1) day to three (3) days. Defines system Office of Primary Responsibility responsibilities. Identifies time period to update Revised Schedule Out date to no later than 15 days after completion of aircraft. Provides guidance on Drop-In aircraft. Further defines Assessment Period, and where applicable, calculations have been deleted from body of policy and provided in a separate table.

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Section A—Background

1. Introduction. This instruction provides guidance and procedures and identifies responsibilities for input and maintenance of the data in the Aircraft Maintenance Production/Compression Report System (A030D). It also confers policy for reporting weapon systems such as aircraft, both fixed and rotary wing and Remotely Piloted Aircraft in a depot maintenance status, scheduling of aircraft back to the user, and the operation and use of the Aircraft Maintenance Production/Compression Report System during exercises and contingencies. Aircraft Maintenance Production/Compression Report System data is used to measure overall Air Force Materiel Command weapon system support. This instruction applies to organic, contract, Organic Field Team, Contract Field Team, Depot Maintenance Inter-Service Agreement and partnership activities; it outlines aircraft metrics definitions and reporting requirements. These requirements are defined and explained in Attachment 3.

2. Purpose. The purpose of the Aircraft Maintenance Production/Compression Report System is to document the status of aircraft possessed by Air Force Materiel Command (to include Air Force Materiel Command contractors, partnership and other Department of Defense activities) for the various depot maintenance repair activities, engineering evaluation, or other related actions. Aircraft possessed information is a factor in computing aircraft availability metrics used by senior AIR FORCE officials to make resource allocation decisions across weapon systems, charter process improvement and other initiatives. It documents the in-work/storage status of weapon systems such as aircraft, both fixed and rotary and Remotely Piloted Aircraft possessed by Air Force Materiel Command and undergoing depot maintenance (including maintenance performed by depot organic or contract field teams) at a government, contractor, or transitory commercial facility. It also identifies aircraft that can be compressed or accelerated for early return to the possessing/assigned Major Command in support of a simulation or real world contingency.


4. Related Metrics Definitions and Reporting Requirements. See Attachment 3.

Section B—Responsibilities & Procedures

5. Responsibilities:

5.1. Headquarters, Air Force Materiel Command /A4 Directorate of Logistics, Civil Engineering and Force Protection is the command Office of Primary Responsibility for the Aircraft Maintenance Production/Compression Report System and will act as the System Office of Primary Responsibility to assign Mission Design Series user permission.

5.2. The Program Manager or Designated Program Managers are the Office of Primary Responsibility for data contained in this system. Program Managers will designate both a primary and alternate Aircraft Maintenance Production/Compression Report System representative who will enter and update data in the Aircraft Maintenance Production/Compression Report System, specify Mission Design Series and identify any specific input details (e.g., Organic only, Programmed Depot Maintenance only, Field Teams). The responsible Program Managers will maintain a current appointment letter and notify Headquarters, Air Force Materiel Command /A4F of personnel changes by submitting
a copy of the updated appointment letter to Headquarters, Air Force Materiel Command /A4F Workflow. The Program Manager may delegate the authority to update forecast out dates, inputting of root cause data, and Functional Check Flight data if mutually agreed upon by the Program Manager and repair activity. When work is performed at a site other than where the Program Manager is located, the Program Manager may delegate the authority and designate an individual at that location to enter and update Aircraft Maintenance Production/Compression Report System data. However, the Program Manager will not delegate approval authority for schedule changes (extension requests). The Program Manager will ensure the timeliness of all Revised Out Date schedule changes (extension requests). Headquarters, Air Force Materiel Command /A4FI will act as Information Owner with the authority to grant user access and administrative roles. (T-2).

5.2.1. Aircraft possessed by Air Force Materiel Command undergoing depot level inspections, repairs or modifications at an Air Logistics Complex, field location, contractor or transitory commercial facility will be reported in the Aircraft Maintenance Production/Compression Report System. This includes both scheduled (programmed) and unscheduled (unprogrammed) depot maintenance where Air Force Materiel Command has taken possession of the aircraft. Aircraft in the Reliability and Maintainability Information System with “D*” series Purpose Identifier Codes must report in the Aircraft Maintenance Production/Compression Report System. Follow guidelines in Air Force Instruction 21-103, Equipment Inventory, Status, and Utilization Reporting, for weapon system reporting process and Purpose Identifier Codes code definitions. A Reliability and Maintainability Information System error listing is contained in the Aircraft Maintenance Production/Compression Report System to identify those aircraft which are in depot status, but have not been reported in Aircraft Maintenance Production/Compression Report System. As a minimum, Program Managers will review the Reliability and Maintainability Information System Error Listing weekly to ensure all records are included in Aircraft Maintenance Production/Compression Report System. Additionally, all aircraft owned by other services and Foreign Military Sales within Air Force Materiel Command’s control for the purpose of depot level maintenance, must also report. All aircraft must report as received (Received Date on an open Aircraft Maintenance Production/Compression Report System record) in the Aircraft Maintenance Production/Compression Report System within three (3) workdays after the arrival of the aircraft at the repair activity unless specified in a special agreement between the Program Manager, repair activity, and possessing/assigned Major Command. For aircraft awaiting field team maintenance or depot input, the initial entry are made no later than three (3) workdays from the date the 107 request (per Technical Order 00-25-107, Maintenance Assistance) repair action(s) have been formally accepted to be worked by Air Force Materiel Command. As a minimum, the Aircraft Maintenance Production/Compression Report System received date data field entry will be the date Air Force Materiel Command accepted repair or disposition responsibility of the aircraft (i.e., Reliability and Maintainability Information System Purpose Identifier Codes code DJ start date). (T-2).

5.2.1.1. Early arrivals negotiated between the possessing/assigned Major Command, Program Manager and repair activity are placed in-work into the Aircraft Maintenance Production/Compression Report System no later than three (3) workdays after the agreed upon in-work date. To maintain the original negotiated
schedule, the reporting activity must ensure the agreed upon date is entered into the in-work date block of Aircraft Maintenance Production/Compression Report System. Condition and circumstance should be documented in the Remarks section of Aircraft Maintenance Production/Compression Report System. (T-2).

5.2.2. The Program Manager and appointed designees are responsible for timely system updates and assuring the accuracy of the aircraft status data in Aircraft Maintenance Production/Compression Report System (A030D). Aircraft status changes (e.g., revised schedule changes, completions, deliveries, remarks) shall be made no later than one business day from date of occurrence. Aircraft Maintenance Production/Compression Report System is a "real time" system that supports the enterprise level data warehouse, weapon specific systems, and the Global Combat Support System-Air Force Data Services. Accuracy of Aircraft Maintenance Production/Compression Report System data is paramount in keeping the production plan, projections and root cause codes current for further analysis and presentation to senior leaders. (T-2).

5.2.3. Exceptions to Reporting. Aircraft in Purpose Identifier Code DL (Depot Delivery Flight) and aircraft undergoing regeneration for Aerial Target activities are exempt from reporting in the Aircraft Maintenance Production/Compression Report System. Any additional exception to reporting must be recommended by the appropriate Program Executive Officer to Headquarters, Air Force Materiel Command /A4. Such recommendations must be coordinated with the possessing/assigned owning Major Command prior to submission. Headquarters, Air Force Materiel Command /A4 remains the sole approval authority for exceptions to reporting. All aircraft will be reported in Aircraft Maintenance Production/Compression Report System until the exception is granted. (T-2).

5.2.4. The Program Manager will ensure Depot Maintenance performed by contractors (including Contract Depot Maintenance contracts, Contractor Logistics Support contracts, Interim Contract Support contracts, and Public-Private Partnership contracts) and non-Air Force repair activities comply with the requirements identified within this instruction or meet its intent as part of the contract, statement of work, performance work specifications, or Depot Maintenance Inter-Service Agreement. (T-2).

5.2.5. Aircraft Maintenance Production/Compression Report System input users or designated Program Manager representatives working with the Aircraft Maintenance Production/Compression Report System input users will accomplish the Aircraft Maintenance Production/Compression Report self-assessment checklist annually or more frequently if not in compliance with Aircraft Maintenance Production/Compression Report System policy. The Aircraft Maintenance Production/Compression Report self-assessment checklist is contained in the Management Internal Control Toolset system and is mandated as part of the commander’s Inspection Program, in accordance with Air Force Instruction 90-201. Management Internal Control Toolset can be accessed using the following link: https://mict.us.af.mil/. (T-2).
6. Procedures:

6.1. Establishing Original Scheduled Out Date and Revised Scheduled Out Date:

6.1.1. Original Scheduled Out Date. The Original Scheduled Out Date is established and input no later than the day the aircraft is placed in-work. The Original Scheduled Out Date is computed based on the negotiated flowdays. Negotiated flowdays can be derived from; Aircraft and Missile Requirement work specification, weapon system brochure, engineering requirements, contract, project directive, depot/customer requested workload agreement, Program Manager approved items listed in the Air Force Technical Order Form 103, Aircraft/Missile Condition Data; e.g., Programmed Depot Maintenance, Analytical Condition Inspection, on condition maintenance, modifications, Air Force Technical Order 00-25-107, Fixed Price Worksheet, etc. Weapon system maintenance requirements are determined by evaluating data from a variety of sources and not limited to only those stated in this chapter. Flowdays are negotiated by the Program Manager and repair activity with the possessing/assigned Major Command in accordance with Air Force Manual 63-143, Centralized Asset Management Procedures and Technical Order 00-25-4, Depot Maintenance of Aerospace Vehicles and Training Equipment. In accordance with Air Force Manual 63-143, the Program Manager must ensure that all requirements are supportable with existing capacity (i.e., material/parts, facility, manpower, and funds). Requirements that are not supportable will not be accepted by repair activity. Parts supportability issues on planned tasks come with the understanding that additional flowdays may be required and will be added to the Aircraft Maintenance Production/Compression Report System record. Once established, the Original Scheduled Out Date (baseline) will not be changed. (T-2).

6.1.2. Assessment Period. The Assessment Period starts when the aircraft is placed In-Work and ends on the Assessment End Date. The Assessment Period duration shall be **45 percent** of the original negotiated flowdays by Mission Design Series or serial number with a stretch goal of **30 percent**. See Table 1 for formulas used. Any changes to the assessment period duration must be agreed to by the Program Manager, the repair activity commander or civilian equivalent and possessing/assigned Major Command. Any updates to an aircraft’s Assessment Period will be updated in the Aircraft Maintenance Production/Compression Report System with details in the Remarks section. (T-2).

6.1.3. Revised Scheduled Out Date. The Revised Scheduled Out Date reflects schedule changes (extension request asking for additional days) to the Original Scheduled Out Date based on the level of effort required to accomplish assessment period findings, e.g., additional work, Work Specification (project) Related Unpredictables and Over & Above. The new revised date should reflect the days necessary to acquire and install additional parts. Repair activity Due Date Performance will be measured against the Revised Scheduled Out Date.

6.1.4. Schedule Changes:

6.1.4.1. Schedule change restrictions. No more than two changes to the Original Scheduled Out Date are allowed (extension requests asking for additional days); one during the assessment period and one after. Any request to revise the schedule beyond the two authorized changes must be submitted by the Program Manager and approved by Headquarters, Air Force Materiel Command /A4. *Only the Program Manager*
may authorize any schedule changes to the Aircraft Maintenance Production/Compression Report System (this authority cannot be delegated to a repair activity or contracting representative). Changes to the schedule will not be made to compensate for parts supportability problems, facility constraints, or seasonal weather conditions (except as provided for in para 6.1.4.4.). The only exception to this would be new parts required to accomplish additional approved workload. Work Specification (project) Related Unpredictables and Over and Above requirements are considered additional workload. Changes to the scheduled out date as a result of approved acceleration/compression, adjustment to work shifts, or modified workweek are not valid reasons to change the Original Out Date and must be reflected by changing the Forecast Out Date. (T-2).

6.1.4.2. Changes made during the Assessment Period. The repair activity will submit a schedule change (extension request to add additional days) request signed by the repair activity commander, civilian equivalent, or designated representative to the responsible Program Manager. This extension request will include a description of any added requirements to include significant changes in scope to established tasks, the man hours and parts required to accomplish the task, the impact to the established schedule, and a detailed explanation of why the schedule was affected. This will be broken out by days needed per reason, with details provided for each. The designated organic, contract, partnership, and non-Air Force repair activity representative must be appointed by the repair activity commander or civilian equivalent in writing. The Program Manager is responsible for notifying the owning Major Commands of any revisions to the scheduled completion date (Revised Scheduled Out Date). Changes will be made only when the scope of work has changed beyond the original work specification (e.g., customer requested modifications or inspections, previously undiscovered defects, additional Over and Above, new parts required to complete added requirements, or Program Manager directed safety inspections). If new parts are required, the time to acquire and install these parts should be factored into the new revised out date. The additional flowdays will be added to the previously approved flowdays to determine the new Revised Scheduled Out Date. The Program Manager and the repair activity must ensure that any added requirements are supportable with existing capacity (i.e., material/parts, facility, manpower, and funds). Requirements that are not supportable will not be accepted unless mutually agreed upon by the Program Manager and repair activity with the understanding that additional flowdays may be required that may include queue time. Flowdays will be directly tied to the supportability of the aircraft. The Program Manager is the final approval/disapproval authority on schedule changes and will provide a written decision to the repair activity. The Program Manager will maintain copies of all approved and disapproved change requests. In the event the Program Manager disapproved a request to revise the schedule, the Forecast Out Date must be updated to ensure it reflects the most current estimated completion date. The Forecast Out Date should be revised accordingly if the production organization adjusts work shifts or modifies the workweek. At this point, it is possible for the Forecast Out Date and the Revised Scheduled Out Date to differ. (T-2).
6.1.4.2.1. The Revised Scheduled Out Date must be updated in Aircraft Maintenance Production/Compression Report System (A030D) within ten (10) days of Assessment End Date. This will allow time for the completion of internal routing and coordination of the scheduled output date change through repair activity and to the Program Manager. Recommend Program Managers maintain an internal metric to track for coordination and routing issues that need to be addressed. The timeliness of the approval/disapproval process is critical to monthly reporting requirements and any delay impacts accuracy of reports provided to Headquarters, Air Force Materiel Command, Air Staff and Department of Defense. It is at the authority of the Program Manager if late submissions will be disapproved due to tardiness. For example, if the Assessment End Date is July 1, the request for an extension process must be submitted, all signatures and approval process must be 100% complete by July 11. (T-2).

6.1.4.3. Changes after the Assessment Period. The repair activity will submit a schedule change (extension request to add additional days) request signed by the repair activity commander, civilian equivalent, or designated representative to the responsible Program Manager. This extension request will include a description of any added requirements to include significant changes in scope to established tasks, the man hours and parts required to accomplish the task, the impact to the established schedule, and a detailed explanation of why the schedule was affected. This will be broken out by days needed per reason, with details provided for each. The designated organic, contract, partnership, and non-Air Force repair activity designated representative must be appointed by the repair activity commander or civilian equivalent in writing. The Program Manager is responsible for notifying the owning Major Commands of any revisions to the scheduled completion date (Revised Scheduled Out Date). Changes will be made only when the scope of work has changed beyond the original work specification (e.g., customer requested modifications or inspections, previously undiscovered defects, additional Over and Above, new parts required to complete added requirements, or Program Manager directed safety inspections). If new parts are required, the time to acquire and install these parts should be factored into the new revised out date. The additional flowdays will be added to the previously approved flowdays to determine the new Revised Scheduled Out Date. The Program Manager and the repair activity must ensure that any added requirements are supportable with existing capacity (i.e., material/parts, facility, manpower, and funds). Requirements that are not supportable will not be accepted unless mutually agreed upon by the Program Manager and repair activity with the understanding that additional flowdays may be required that may include queue time. Flowdays will be directly tied to the supportability of the aircraft. The Program Manager is the final approval/disapproval authority on schedule changes and will provide a written decision to the repair activity. The Program Manager will maintain copies of all approved and disapproved change requests. In the event the Program Manager disapproved a request to revise the schedule, the Forecast Out Date must be updated to ensure it reflects the most current estimated completion date. The Forecast Out Date should be revised accordingly if the production organization adjusts work shifts or modifies the workweek. (T-2).
6.1.4.3.1. The Revised Scheduled Out Date must be updated in Aircraft Maintenance Production/Compression Report System (A030D) NLT fifteen (15) days after the actual completion of the aircraft. For example, if the date the aircraft was completed is 1 July, all signatures and approval process must be 100% complete by 16 July. This will allow time for internal coordination and routing of the scheduled output date change through repair activity and to the Program Manager. If an extension request is still in process at the time the aircraft completes, do NOT input the completion date into Aircraft Maintenance Production/Compression Report System until the extension request process has been fully completed. Recommend Program Managers Maintain an internal metric to track for coordination and routing issues that need to be addressed. It is important to remember the timeliness of this second Aircraft Maintenance Production/Compression Report System extension is critical for providing accurate metrics to senior Air Force officials and any delays will be addressed immediately. The timeliness of the approval/disapproval process is critical to monthly reporting requirements and any delay impacts accuracy of reports provided to Headquarters, Air Force Materiel Command, Air Staff and Department of Defense. It is at the authority of the Program Manager if late submissions will be disapproved due to tardiness. (T-2).

6.1.4.4. The schedule may also be revised due to extreme weather conditions (e.g., devastating hail storm, ice storm, flooding, extreme temperature, etc.) resulting in base closure, consecutive late reporting, damage to operations and maintenance infrastructure, and safety concerns that significantly caused delays in the schedule. Changes to the scheduled output date for these reasons must be coordinated with repair activity and should follow guidance in paragraphs 6.1.4.2. to 6.1.4.3.

6.1.4.4.1. Changes to the schedule due to extreme weather condition count towards the maximum of two changes.

6.1.4.5. Schedule Change Waiver. Any request beyond the two authorized changes must be coordinated through Headquarters, Air Force Materiel Command /A4F and approved by Headquarters, Air Force Materiel Command /A4. The responsible Program Manager will submit a schedule change request signed by the repair activity management (repair activity commander or civilian equivalent) and coordinated with the possessing/assigned Major Command. Waivers will only be considered when the scope of work has changed beyond the original work specification (e.g., customer requested modifications or inspections, previously undiscovered defects), additional Over and Above requirements, Program Manager directed safety inspections, extreme weather conditions, or other extenuating situations. The Program Manager must ensure that any added requirements are supportable with existing capacity (i.e., material/parts, facility, manpower, and funds). The Program Manager will send all waiver requests to Headquarters, Air Force Materiel Command /A4 Workflow and follow procedures in accordance with Headquarters, Air Force Materiel Command /A4 Standardized Waiver Request and Approval Policy memorandum. (T-2).
6.1.5. Forecast Out Date. The Forecast Out Date represents the best estimated aircraft completion date regardless of the date which appears in the Original/Revised Out Date. This field must be updated as soon as a new forecast out date has been identified or the aircraft completion date is expected to slip. An accurate Forecast Out Date is vital to Major Command customers to allow real world/contingency mission planning and facilitate expectation management. The Program Manager is responsible for keeping the customer Major Command informed of any variations to the original work package and scope of each aircraft undergoing depot level repair. The Forecast Out date can be changed as many times as needed and is not the date used to measure ability to produce planned aircraft according to schedule, however it is used to measure ability to produce unplanned aircraft according to schedule (see Attachment 3). (T-2).

6.1.5.1. For tail numbers input into Aircraft Maintenance Production/Compression Report System as unplanned/Unscheduled/Drop-In (D) aircraft, the Forecast Out Date acts as the Revised Out Date and will be used to identify if an aircraft completes on time. Unscheduled/Drop-In’s do not have a Revised Out date field in Aircraft Maintenance Production/Compression Report System. While an unscheduled aircraft can change the Forecast Out date as many times as needed, it can be late if the delay is maintenance self-induced and will require a Root Cause input.

6.1.5.2. For Tail numbers input into Aircraft Maintenance Production/Compression Report System as Planned/Scheduled aircraft, the Forecast Out Date is not used to measure Due Date Performance and cannot be used to reflect an official Aircraft Maintenance Production/Compression Report System schedule extension. It can be changed as many times as necessary to show any changes to the estimated completion date.

6.1.6. Record deletions. Deletions will be kept to a minimum and only used to correct major input errors. Since all deletions are captured in the Aircraft Maintenance Production/Compression Report System, annotate the reason for the deletion in the remarks section of the new entry if the record is being re-entered. (T-2).

6.1.7. Additional work. Additional work added (customer driven or Over and Above/unpredicted) after an aircraft is received and placed in work will not count as separate actions/completions. It will be staffed as a schedule change request (para. 6.1). Do not close out the record (input a completion date) and then re-open as a Drop-In. The details of the added work is documented in the remarks section of Aircraft Maintenance Production/Compression Report System. Aircraft Maintenance Production/Compression Report System does not track by funding type, nor does it track flowdays by separate maintenance actions, whether they are planned, unplanned tasks, or work added after aircraft is in work to include, but not limited to: 103/107/202 request, unit request, AIR FORCE Time Compliance Technical Order released, new mod, added inspection, over and above, unpredictable, unscheduled, Unscheduled Depot Level Maintenance, facility/manpower induced, repairs, related or unrelated additional workload, project or non-project, Analytical Condition Inspection, On Condition Maintenance, previously undiscovered defects, directed safety inspections, depaint/paint, rework, or Time Compliance Technical Orders. (T-2).
6.1.8. Documentation. The Program Manager and appointed designees must document details of any change to the Revised or Forecast Out Date in the Remarks section of the Aircraft Maintenance Production/Compression Report System. (T-2).

6.1.9. Duplicate/Overlapping Records. At no time will an aircraft be inducted multiple times in the Aircraft Maintenance Production/Compression Report System with the same or overlapping dates. The system is designed to reflect one aircraft induction per visit to a depot maintenance repair activity to line up with aircraft availability metrics contained in Air Force Instruction 21-103. For example, an aircraft record cannot be opened and placed in-work on 5 Jan 16 and then another record opened for the same aircraft with an in-work date of 15 Jan 16, even if there are separate maintenance actions (see para 6.1.7). (T-2).

6.2. Acceleration and Compression Procedures (see definitions in Attachment 1). For the purposes of estimating Acceleration/Compression, Program Managers will establish procedures for each aircraft Mission Design. Program Managers are responsible for ensuring accuracy of Acceleration/Compression factors in the Aircraft Maintenance Production/Compression Report System. (T-2).

6.2.1. Acceleration and Compression Factors between 0 and 1.0. Factors are used to increase production rate during war-time or contingency/emergency requirements (increased need for aircraft). Day to day factors found in Aircraft Maintenance Production/Compression Report System are non-official estimates and can be used for exercises/inspections only. The development of real world factors will be calculated in an official engineering assessment. Acceleration and compression factors should be developed using past experience, expected gains from moving from the current work schedule to up to a 24-hour a day work schedule, personnel constraints, facility constraints, expected changes in efficiency, and other factors as applicable.

6.3. If the Program Manager is directed to compress or accelerate an aircraft by the possessing/assigned owning Major Command, they will have the maintenance organization perform a detailed evaluation of the request. Acceleration and compression of aircraft will be in accordance with procedures in Headquarters, Air Force Materiel Command and Air Force Life Cycle Management Center/Air Force Sustainment Center Plan 70. New compression or acceleration flowdays developed as a result of the detailed evaluation will be entered in the Aircraft Maintenance Production/Compression Report System, overriding the Aircraft Maintenance Production/Compression Report System calculated compression/acceleration flowdays. (T-2).

6.4. Annual Production Plan. Each Program Manager is responsible for entering their annual fiscal year production plan (in accordance with Air Force Manual 63-143) by Mission Design Series into Aircraft Maintenance Production/Compression Report System in terms of expected production for each month broken out by Programmed Depot Maintenance, modifications, and other planned workload. See Attachment 3 for specific details on entering and maintaining the planned production. (T-2).
7. **Contingency/Exercise Management:**

7.1. During contingencies or higher levels of alert, Program Managers should immediately calculate how many aircraft could be compressed or accelerated. This data should be forwarded to possessing/assigned owning Major Command and to the Headquarters, Air Force Materiel Command Battlestaff as soon as possible. If an aircraft compression or acceleration is officially requested, the Program Manager must solicit a detailed evaluation from the repair activity in order to calculate the associated cost. (T-2).

7.2. Command and Joint Chiefs of Staff Command Post Exercise. Headquarters, Air Force Materiel Command Battlestaff Logistics Readiness Center will be responsible for initiating the system’s exercise option and notifying the appropriate activities of this action. (T-2).

Table 1. Formulas.

1. **Negotiated Flowdays**
   a. Negotiated Flowdays is the number of days negotiated to accomplish ALL work
   b. Information needed:
      i. All the work (100% of everything that is going to be done to it) requested to be accomplished to the Tail Number being input into depot.
      ii. Fixed Price Worksheet or equivalent (Air Force Manual 63-143).
   c. Flowdays for scheduled workload + Flowdays for unscheduled workload (-103/-107/202/customer requests) = Negotiated Flowdays.
   d. Example: Tail Number 231 is coming in for Programmed Depot Maintenance, paint, Modification X and the unit requested additional inspections. Depot agreed to perform all work. Depot told the Major Command/Program Manager the scheduled work will take 200 days and the unscheduled additional 85 days to complete.
   e. 200 + 85 = 285
   f. Negotiated Flowdays for this tail number is 285.

2. **Original Scheduled Out Date**
   a. The calendar date projected to complete ALL the work.
   b. Information needed:
      i. Date In Work
      ii. Negotiated Flowdays
      iii. Julian Calendar
   c. Date In-work + Negotiated Flow Days -1 = Original Scheduled Out Date
   d. Example: Tail Number 231 has arrived at the depot location and all work being performed has been agreed upon (285 Negotiated flowdays). Maintenance personnel started working on 5 Jan 2017.
   e. Convert calendar days into Julian dates (remember leap years (2020, 2024, 2028) are different). 5 Jan 2017 is converted to Julian date **17005. Date in work is now 17005.**
   f. 17005 + 285 -1 = 17289
   g. 17289 converted back to a calendar date = 16 Oct 2017.
   h. Original Scheduled Out Date for this tail number is 16 Oct 2017.

3. **Assessment Period**
   a. The Assessment Period Days is the number of days given from the date Tail Number is placed in work to the Assessment End Date.
   b. Information needed:
      i. Date In Work
      ii. Negotiated Flowdays
   c. Negotiated Flowdays x .45 = # of Assessment Period days.
   d. Assessment Period Days are calculated as 45% of the Negotiated Flowdays.
   e. Example: Tail Number 231 has come in for depot maintenance (285 Negotiated Flowdays).
Flowdays) and management would like to know the number of days for initial assessment that is tied to the first Aircraft Maintenance Production/Compression Report System extension opportunity.

f. 285 x .45 = 129.25

g. Assessment Period Days for this tail number is 128 days. The depot has 128 days once the Tail Number is placed in work to discover any additional work and request first Aircraft Maintenance Production/Compression Report System extension.

4. **Assessment End Date**

   a. The Assessment End Date is the calendar date that shows the end of the assessment period (first Aircraft Maintenance Production/Compression Report System extension permitted). After this date, the second Aircraft Maintenance Production/Compression Report System extension must be used.

   b. Information needed:

      i. Date In Work
      ii. Negotiated Flowdays
      iii. Julian Calendar

   c. Date in Work + Assessment Period Days = Assessment End Date.

   d. Example: Tail Number 231 was placed in work on 5 Jan and the assessment period was calculated at 128 days.

   e. Convert calendar days into Julian dates (remember leap years (2020, 2024, 2028) are different). 5 Jan 2017 is converted to Julian date 17005. Date in work is now 17005.

   f. 17005 + 128 = 17133

   g. 17133 converted back to a calendar date = 13 May 2017.

   h. Assessment End date for this tail number is 13 May 2017.

5. **Early, On Time and Late**

   a. Is your aircraft Early, On Time or Late? A lot of metrics use this information to measure how effective the repair activity’s ability to plan to the Original and Revised Scheduled Out date (Forecast Out date on Unplanned/Drop-In’s). You will first need to find out the day variance for each aircraft once it has completed.

   b. Information needed:

      i. Projected Out dates
         1. Original Scheduled Out Date
         2. Revised Scheduled Out Date
         3. For Drop-In’s ONLY, the Forecast Out Date
      
      ii. Completion Date
      
      iii. The current threshold values for early, on time and late

      1. Example: Early is 1 or more days before the projected, On Time is on same date as projected and Late is 1 or more days after projected.

   c. Completion date – Projected Out Date = number of days early, on time or late
d. Example: Tail Number 231 Original Out Date was 16 Oct, Revised Out Date was 20 Dec with an actual completion date of 26 Dec.

e. Convert dates into a Julian Date. 16 Oct is 17289, 20 Dec is 17354 and 26 Dec is 17360.

f. $17360 - 17289 = 71$ days against the Original, $17360 - 17354 = 6$ days against the Revised.

g. This aircraft completed 71 days past what was originally estimated at the beginning of visit and 6 days past the date after an official extension was given (Revised Out Date). BOTH are late to deliver back to the customer. You have to decide what Due Date Performance you need to measure.

6. **Original Due Date Performance**

a. Measurement used to determine how close the actual completion date came to original estimate. This was estimated prior to aircraft being placed in work at the beginning of the visit. This is a measurement of estimated completion date verses actual completion.

b. Information needed:
   i. Original Out Date
   ii. Completion Date
   iii. The current threshold values for early, on time and late

c. Completion date - Original Out Date = number of days early, on time or late.

d. Example: Tail Number 231 Original Out Date was 16 Oct and it actually Completed on 26 Dec.

e. Convert both dates into a Julian Date. 16 Oct is 17289 and 26 Dec is 17360.

f. $17360 - 17289 = 71$ days

g. This aircraft completed 71 days past what was originally estimated at the beginning of visit.

7. **Revised Due Date Performance**

a. Measurement used to determine how close the actual completion date came to revised estimate. This date is estimated when an official extension (schedule change request for additional days) has been approved and a Revised Out date input in Aircraft Maintenance Production/Compression Report System. This is a measurement of the new revised out date verses actual completion.

b. Information needed:
   i. Revised Out Date (will be different than the Original Out date if extension was approved)
   ii. Completion Date
   iii. The current threshold values for early, on time and late

c. Completion date - Revised Out Date = number of days early, on time or late.

d. Example: Tail Number 231 Revised Out Date was 20 Dec and it actually Completed on 26 Dec.

e. Convert both dates into a Julian Date. 20 Dec is 17354 and 26 Dec is 17360
f. 17360 – 17354 = 6 days.
g. This aircraft completed 6 days past what the Revised Out date was estimated after extension was approved.

8. Actual Flowdays
   a. Actual number of days (calendar days) it took to perform all work. Calculated after aircraft is completed.
   b. Information needed:
      i. Date In-work
      ii. Completion date
   c. Date completed – Date In Work + 1 = Actual Flowdays.
   d. Example: Tail Number 231 Was placed In Work on 5 Jan and completed all depot work on 26 Dec.
   e. Convert both dates into a Julian Date. 5 Jan is 17005 and 26 Dec is 17360.
   f. 17360 – 17005 + 1 = 356 (it took 356 Flowdays to perform all the work on this tail number).

FREDRICK G. PLAUMANN, Col, HQ AFMC/A4
Deputy Director Logistics, Civil Engineering and Force Protection
GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References
AIR FORCE POLICY DIRECTIVE 21-1, Maintenance of Military Materiel, 29 October 2015
AIR FORCE INSTRUCTION 16-402, Aerospace Vehicle Programming, Assignment, Distribution, Accounting, and Termination, 30 May 2015
AIR FORCE MANUAL 33-363, Management of Records, 1 March 2008
AIR FORCE INSTRUCTION 21-103, Equipment Inventory, Status, and Utilization Reporting, 16 December 2016
Technical Order 00-25-107, Maintenance Assistance, 1 October 2015
Technical Order 00-25-4, Depot Maintenance of Aerospace Vehicles and Training Equipment, 30 April 2016
AIR FORCE MANUAL 63-143, Centralized Asset Management Procedures, 12 August 2015
Technical Order 00-35D-54 United States Air Force Deficiency Reporting, Investigation, and Resolution, 1 September 2015
DEPARTMENT OF DEFENSE 7000.14-R, Department of Defense Financial Management Regulation, June 2017
AIR FORCE MATERIEL COMMAND PLAN 70, 22 December 2014
AIR FORCE LIFE CYCLE MANAGEMENT CENTER/AFSC Plan 70, 15 March 2014

Prescribed Forms
None

Adopted Forms
AF 847, Recommendation for Change of Publication,
AFTO Form 103, Aircraft/Missile Condition Data,

Terms
Acceleration—Maximum production required for certain designated mission essential materiel undergoing depot level maintenance or modification. Acceleration of aircraft is intended to meet war-time or contingency requirements. Maximize production and preparedness by:
suspending routine peacetime aircraft inputs to depot maintenance facilities, extending the workday and workweek up to 24 hours a day/7 days a week operation, realigning the workstations and redistributing the labor force as required, cannibalizing as
necessary to complete the essential maintenance or modification requirements on the
maximum amount of materiel. During acceleration conditions, the maintenance facility
follows the same basic procedure as in compression, except that the peacetime work
specifications normally remain unchanged (this includes the requirement for functional
check flights).

**Analytical Condition Inspection**—The systematic disassembly and inspection of a
representative sample of aircraft to find hidden defects, deteriorating conditions, corrosion,
fatigue, overstress and other deficiencies in the aircraft structure or systems.

**Actual Flowdays**—Actual flowdays are calculated after aircraft has completed. Calculate by
subtracting Date In-work from Date Completed plus one day. Measured in calendar days.

**Aircraft Maintenance Production/Compression Report Item Number**—Optional field used
by Program Manager to track aircraft sequence number.

**Assessment End Date**—The Assessment End Date is the date that an overall evaluation of the
aircraft is to be completed and the scope of work is known. The Assessment End Date is
calculated by adding the Assessment Period to the Date In-Work. After the Assessment End
Date, the schedule is considered fixed unless there are special circumstances as specified in
paragraph 6.

**Assessment Period**—A period of time, measured from the date that the aircraft is placed in-
work, that Examination and Inventory is conducted (see paragraph 6). Based upon the results of
the Assessment Period, the Program Manager may alter the Revised Scheduled Out Date.

**Completion Date (Ready for Delivery)**—The date the aircraft is ready for delivery to the
possessing/assigned owning Major Command providing that:

All work is completed.
Additional work is not started after this point (see paragraph 6.1.7).
Functional Check Flight acceptance, if required, is completed along with the
corrections of any identified discrepancies requiring work.
The possessing/assigned owning Major Command has been notified the aircraft is ready for
pickup. The aircraft stands ready for crew acceptance and flyaway, except for the operational
preflight. If additional maintenance discrepancies are found during preflight, the completion date
will be voided out (removed from the record so the record is open again). A new completion date
will be input after all the work is accomplished. This should be considered over and above not
directly related to work performed.

**Compression**—When the maximum production is required for specified mission essential
aircraft that are undergoing depot maintenance/modification. Compression of aircraft is intended
to meet war-time or contingency requirements. Production is compressed by:

Suspending routine peacetime work requirements and discontinuing aircraft inputs to
depot maintenance facilities.
Reassembling the aircraft after doing the absolute minimum maintenance essential to the
safety of flight, and only those modifications essential to the weapon's war mission
configuration as directed by engineering.
Extending the workday and the workweek up to 24 hours a day/7 days a week operation; realigning the workstations; and redistributing the labor force, as needed to meet maximum production efforts. Resorting to whatever cannibalization is needed to complete the essential maintenance/modification on the maximum number of aircraft.

**Compression Specifications**—The minimum maintenance or modification requirements needed to render an aircraft effective in its assigned war mission. The requirement for Functional Check Flight is left to the discretion of Program Manager Chief Engineer under compression conditions. This normally requires an engineering assessment of the minimum essential inspections, maintenance, repairs, and modifications required to return each depot-possessed tail number to service.

**Date In-Work**—The date the repair activity began work on the aircraft. Work begins when the aircraft undergoes incoming processing action.

**Date Received**—The date the aircraft arrived at the repair activity or once request for Field Team (-107 request) has been officially approved or disposition responsibility of the aircraft.

**Delivery Date**—The date the aircraft was picked up by, or transported to the possessing/assigned owning Major Command.

**Depot Delivery Flight**—This flight is to deliver aircraft to and from the maintenance facility. This is not part of the Functional Check Flight or Operational Check Flight.

**Depot Maintenance**—Maintenance that requires overhauling or rebuilding parts, assemblies, subassemblies, and end items. It may include manufacture of parts, modifications, inspections, repair, testing, and reclamation. Depot maintenance supports base-level technicians by giving them technical help and doing any repairs beyond their responsibility. Depot maintenance includes all aircraft that has been placed in a “D*” Purpose Identifier Code in Reliability and Maintainability Information System.

**Depot Maintenance Facility (Repair Activity)**—A government (Organic), contractor, facility or depot field team (Organic Field Team and Contract Field Team) that performs depot level maintenance (see above Depot Maintenance).

**Due Date Performance**—Due Date Performance is the accepted metric for aircraft production. It is used to measure aircraft in the month produced against operative schedule (original or revised) against the actual completion date.

**Functional Check Flight**—A flight performed after completing inspections or maintenance to make sure that the aircraft is airworthy and capable of mission accomplishment. Functional Check Flight information must be entered into the Aircraft Maintenance Production/Compression Report System prior to aircraft delivery. Aircraft Maintenance Production/Compression Report System will automatically calculate the total number of attempts once the number of Functional Check Flights and ground aborts are entered.

**Flowdays**—The number of days required to complete work on the aircraft. Flowdays are measured from the Date In-Work. Flowdays are negotiated, by Mission Design Series and work package, between the Program Manager, repair activity, and Major Command based on weapon system specific work schedule and any additional work agreed upon.
Forecast Flowdays—The number of forecasted calendar flowdays, calculated by subtracting the Forecast Out Date from the Date In-Work plus one day. Used for unplanned/drop in maintenance. Flowdays for scheduled workload + flowdays for unscheduled workload (-103 requests) = negotiated flowdays.

Forecast Out Date—The date the repair activity expects to deliver the aircraft to the possessing/assigned owning Major Command. This date may be earlier or later than the Original or Revised Scheduled Out Dates. The Forecast Out Date must reflect the best estimate of completion. Consequently, it will change as conditions warrant and as many times as needed.

Global Combat Support System—AIR FORCE Data Services—Provides the enterprise with a single source for authoritative data, analytical processing, and integrated enterprise solutions. Data is available on-demand to provide consumers with the information they require to make tactical and strategic decisions from across the combat support domains.

In-work Date—The date of the first maintenance action in a series of scheduled events to complete a repair, preventive maintenance, or modification. Also referred to as Induction Date.

Mission, Design, and Series—The official designation for aerospace vehicles used to represent a specific category of aerospace vehicles for operations, support, and documentation purposes (Department of Defense 4120.15L, Model Designation of Military Aerospace Vehicles).

On Condition Maintenance—A program to schedule selected aircraft into a depot level facility to correct known specific defects. Selection is based on combinations of critical and major defects.

Original Scheduled Out Date—The original date when all maintenance on the aircraft is due to be completed and the aircraft is to be ready for delivery to the possessing/assigned owning Major Command. The Original Scheduled Out-Date is established/input no later than the day the aircraft is placed in work. This date serves as the baseline and once entered, this date cannot be changed.

Over and Above—Unknown work/tasks discovered during the course of performing overhaul, maintenance, and repair efforts that is (1) not within the general scope of the work specification, Project Directive or contract, (2) not covered by the line item(s) for the basic work under the work specification, Project Directive or contract, and (3) necessary in order to satisfactorily release the aircraft. These are low frequency items or work that is not called out in the work specification, Project Directive or covered under economy or flight safety tasks. These items of work will only be done to correct a critical or major deficiency and must be approved by the Project Administration Officer or the Program Manager representative.

Original Flowdays—The original (negotiated) calendar flowdays specified in the contract, work specification, workload agreement, or Project Directive for each aircraft tail number for all known requirements, e.g., Programmed Depot Maintenance, Analytical Condition Inspection, On Condition Maintenance, and modifications. The original flowdays are calculated by subtracting the Original Out-Date from the Date In-Work plus one day.

Programmed Depot Maintenance—Predetermined amount of repair work (requiring depot skills, equipment, and tooling) that requires disassembly, necessary cleaning, and inspection for repair or replacement, as necessary, of the component or assemblies.
**Repair Activity**—A government (Organic), contractor, facility or depot field team, (Organic Field Team and Contract Field Team) that performs depot level maintenance (see above Depot Maintenance).

**Revised Flowdays**—The flowdays resulting from an approved schedule extension. The number of days required to complete work on an aircraft based on the Revised Out Date.

**Revised Scheduled Out Date**—A revision to the previously approved scheduled out date as a result of allowable changes.

**Root Cause**—The cause that, if corrected, would prevent recurrence of this and similar occurrences.

**Root Cause Analysis**—A step by step method that leads to the discovery of the cause or causes that led to occurrence.

**Scheduled (Revised) Flowdays**—These are the renegotiated calendar flowdays and are calculated by subtracting the Revised Out Date from the Date In-Work plus one day.

**Program Manager**—A designated individual assigned the responsibility and delegated the authority for the centralized management of a particular system/project.

**Work Specification (project) Related Unpredictables**—These are requirements that are defined or can be related to one of the work codes in the work specification document. These discrepancies within the scope of the Work Specification have a negotiated block of hours/money available to assign against in the course of performing programmed maintenance.
A2.1. The work performance category is an alpha code used to describe the type and extent of work being done. Aircraft Maintenance Production/Compression Report System refers to work performance category codes as Job Designator Codes and references Department of Defense 7000.14-R, Volume 6A, Chapter 14, Addendum 5 (Except B). Aircraft Maintenance Production/Compression Report System includes additional Job Designator Codes (P, Q, R, S, X, and Y) not found in Department of Defense 7000.14-R to allow for tracking of specific depot repairs. The below list provides a brief description of job designator codes as applied in the Aircraft Maintenance Production/Compression Report System (A030D). Authorized work performance categories are as follows:

### Table A2.1. Work Performance Category Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Title and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Overhaul. Returning an unserviceable item of equipment to serviceable condition by restoring most or all internal tolerances to “like new” specification. Overhaul is synonymous with “rework” and “rebuild.”</td>
</tr>
<tr>
<td>B</td>
<td>Scheduled Depot Maintenance. Inspection and correction of defects that require skills, equipment or facilities not normally possessed by operating locations. Includes aircraft with cyclical Standard Depot Level Maintenance and Programmed Depot Maintenance programs. <strong>This code is not a Department of Defense work performance code.</strong></td>
</tr>
<tr>
<td>C</td>
<td>Conversion. The alteration of the basic characteristics of an item to such an extent as to change its mission, performance, or capability.</td>
</tr>
<tr>
<td>D</td>
<td>Activation. The process of returning an item from preservation, storage, or inactive status to an active, serviceable status by removing from storage and containers, stripping, inspecting, servicing, testing, repairing and replacing components, assemblies, or subassemblies as required.</td>
</tr>
<tr>
<td>E</td>
<td>Inactivation. The servicing and preservation of an item prior to placement in storage or an inactive status.</td>
</tr>
<tr>
<td>F</td>
<td>Renovation. The proof and test evaluation, and rework of ammunition or ordnance items as required for retaining their desired capability.</td>
</tr>
<tr>
<td>G</td>
<td>Analytical Condition Inspection. The disassembly, inspection, data gathering, and engineering analysis of an equipment item to compare actual wear characteristics and failure patterns with predicted values. Data collected during analytical inspection is used to validate the adequacy of maintenance planning and execution. Analytical rework is synonymous with the “age exploration analysis” phase of reliability-centered maintenance.</td>
</tr>
<tr>
<td>H</td>
<td>Modifications. A physical change made to weapon systems or equipment such that one or more measurable characteristic is altered. Modifications are often made to improve equipment performance, but may also be designed to increase reliability, improve supportability, or enhance safety. Synonymous with “upgrade.”</td>
</tr>
<tr>
<td>I</td>
<td><strong>Repair.</strong> Returning an unserviceable item of equipment to serviceable condition by restoring failed structures or components to acceptable standards. “Acceptable” may mean “restore to ‘like new’ specification,” or it may be less stringent, depending upon the demands of the equipment user.</td>
</tr>
<tr>
<td>J</td>
<td><strong>Inspection.</strong> The examination of an item to reveal information about its physical condition. Inspection results are typically compared with specifications, standards, or the results of other inspections to determine whether the item under inspection is acceptable for use. Inspections are also an important part of engineering investigations that seek to establish cause-and-effect relationships between observed characteristics and external influences.</td>
</tr>
<tr>
<td>K</td>
<td><strong>Manufacture.</strong> The fabrication of a component or end item from raw materials or components. Can include engineering, design, test, and production. Does not include manufacturing that takes place as a part of the normal repair or overhaul processes.</td>
</tr>
<tr>
<td>L</td>
<td><strong>Reclamation.</strong> The authorized processing of end items, assemblies, or subassemblies to obtain parts or components retained in operating materials and supplies prior to taking disposal action on the end item, assembly, or subassembly. Includes demilitarization actions on items prior to disposal when the demilitarization is incidental to the reclamation.</td>
</tr>
<tr>
<td>M</td>
<td><strong>Storage.</strong> The inspection, preservation, periodic re-preservation, and maintenance in a storage status of weapons, subsystems, and components in the supply system.</td>
</tr>
<tr>
<td>N</td>
<td><strong>Technical Assistance.</strong> The use of qualified depot maintenance personnel to provide technical information, instructions, or guidance, or to perform specific work requiring special skills for operational activities or other maintenance organizations. Includes all demilitarization other than that incidental to reclamation when reporting is required.</td>
</tr>
<tr>
<td>P</td>
<td><strong>Paint.</strong> The application of any liquid or protective coating to aircraft surfaces. This Job Designator Code will only be used if painting is the primary task called out in the Work Control Documents.</td>
</tr>
<tr>
<td>Q</td>
<td><strong>Warranty Work.</strong> Used to document warranty work performed after aircraft delivery.</td>
</tr>
<tr>
<td>R</td>
<td><strong>Depot Development of Technical and Engineering Data.</strong> The use of qualified depot personnel to develop technical and engineering data.</td>
</tr>
<tr>
<td>S</td>
<td><strong>Other Assigned Depot Workload.</strong> Headquarters, Air Force Materiel Command assigned; see Aircraft Maintenance Production/Compression Report Job Designator</td>
</tr>
<tr>
<td>T</td>
<td><strong>Non-Maintenance (Other) Work.</strong> Used to complete the reporting of all maintenance work force costs incurred. Any costs incurred at a depot maintenance activity funded by the Air Force Working Capital Fund that do not meet the criteria for reporting under the other work performance categories must be reported in this category. This includes any maintenance support costs funded by a Defense Working Capital Fund activity. Maintenance support includes centralized programming and planning support, technical and engineering services, preparation of maintenance publications and engineering data, and technical and administrative training.</td>
</tr>
<tr>
<td>U</td>
<td><strong>Software Maintenance.</strong> Those software activities carried out following initial operating capability to include all events that maintain operational capability, correct faults, improve performance, and adapt the software to environmental changes or new requirements. Software maintenance must be reported regardless of location or funding source. For software or related hardware modifications/upgrades, includes the labor associated with the application of the modification.</td>
</tr>
</tbody>
</table>
### Calibration
The comparison of a measurement system or device of unknown accuracy to a system or device of known and greater accuracy. The system or device of greater accuracy is a measurement standard.

### Contractor Logistics Support, Interim Contract Support, Performance Based Logistics, and Similar Contracts
The Contractor Logistics Support, Interim Contract Support, Performance Based Logistics, and similar contracts provide commercial support for weapon systems and equipment that do not have an organic support base established. Contractors provide total logistics support, including depot maintenance for the equipment, end item, and components. Only those maintenance functions that would not be performed by organic forces are provided by contractors. These contracts provide performance-based logistics services for weapon systems.

### Scheduled Inspections
Used to report scheduled inspections other than cyclical Programmed Depot Maintenance s. This includes aircraft Isochronal Inspections (major/minor), Phased Inspections and Home Station Checks performed by depot personnel. This Job Designator Code will only be used if these inspections are the primary task called out in the Work.

### Scheduled Maintenance
Other scheduled depot maintenance not identified by current Job Designator Codes such as the A-10 8 year corrosion.

### Not used.
METRICS DEFINITIONS AND REPORTING REQUIREMENTS

A3.1. **Aircraft Due Date Performance**: Due Date Performance measures Air Force Materiel Command’s ability to produce aircraft according to schedule. This measure tracks scheduled (programmed) and unscheduled (unprogrammed) organic and contract depot level maintenance performed by Air Logistics Complexes, depot maintenance contractors, and non-AIR FORCE repair activities. Due Date Performance does not include field team maintenance workload. Data source for aircraft Due Date Performance is Aircraft Maintenance Production/Compression Report System (A030D).

A3.1.1. Calculation: Aircraft are measured in the month produced against the operative schedule, both the original and revised.

A3.1.1.1. Original Due Date Performance. The Original Due Date Performance is a measure of the Program Manager and Repair Activity’s ability to plan to the basic depot work package and deliver aircraft to the possessing/assigned Major Command based on the original schedule. Aircraft are measured in the month produced against the original schedule. The operative schedule is the original schedule as agreed upon by the Program Manager, repair activity, or possessing/assigned Major Command In Accordance With paragraph 6 of this instruction.

A3.1.1.1.1. Threshold values for early, on time, or late deliveries are:

A3.1.1.1.1.1. Early – Produced 1 day or more before the Original Scheduled Out Date
A3.1.1.1.1.2. On Time – Produced on the Original Scheduled Out Date
A3.1.1.1.1.3. Late – Produced 1 day or more after the Original Scheduled Out Date
A3.1.1.1.1.4. Aircraft Produced Early + Aircraft Produced on Time/Total Aircraft Produced = Original Due Date Performance

A3.1.1.2. Revised Due Date Performance. Revised Due Date Performance is a measure of Program Manager and Repair Activity’s ability to execute to the plan with consideration to the assessment period guidance in paragraph 6 of this regulation. Aircraft are measured in the month produced against the revised schedule. The operative schedule is the current schedule reflecting adjustments as agreed upon by the Program Manager and repair activity In Accordance With paragraph 6 of this instruction.

A3.1.1.2.1. Threshold values for early, on time, or late deliveries are:

A3.1.1.2.1.1. Early – Produced 1 day or more before the Revised Scheduled Out Date
A3.1.1.2.1.2. On Time – Produced on the Revised Scheduled Out Date
A3.1.1.2.1.3. Late – Produced 1 day or more after the Revised Scheduled Out Date
A3.1.1.2.1.4. Aircraft Produced Early + Aircraft Produced on Time/Total Aircraft
Produced = Revised Due Date Performance

A3.1.2. Frequency: Due Date Performance is tracked and reported on a monthly basis or as required.


A3.1.4. Root Cause Reporting Requirement: A root cause is required for any aircraft produced (Organic, Contract, and Field Teams) one day or more past its Revised Scheduled Out Date (Forecast Out date for Drop-In’s). As a minimum, Program Managers will review the Root Cause Analysis weekly to ensure all Candidate, Open and Rejected root cause statuses are promptly addressed in Aircraft Maintenance Production/Compression Report System. Additionally, all aircraft owned by other services and Foreign Military Sales within Air Force Materiel Command’s control for the purpose of depot level maintenance, must also provide root cause reporting on all late completions. The following data must be included with the root cause: Tail Number, Repair Activity, In-Work Date, Completion Date, and Cause for Delay (Cause Code), number of delayed days attributed to each cause and current planned action/measure(s) taken to prevent recurrence. Root Causes for late aircraft will be entered and released to Headquarters, Air Force Materiel Command for submission into Aircraft Maintenance Production/Compression Report System via the Root Cause Analysis module no later than the third workday of the month following the close of the reported month. Use Aircraft Maintenance Production/Compression Report System User’s Manual for details. A snapshot of the Aircraft Maintenance Production/Compression Report System Root Cause screen is provided below. (T-2).
A3.2. Actual Flowdays: The number of days required to complete work on the aircraft and are measured from the Date In-work. For metrics purposes, only scheduled (programmed) aircraft will be used to measure the flowdays. Data source for aircraft flowdays is Aircraft Maintenance Production/Compression Report System (A030D). At the enterprise level, flowdays will be grouped by Aircraft Maintenance Production/Compression Report job designators codes B (Programmed Depot Maintenance), H (modification), and OTHER (All other scheduled workload).

A3.2.1. Calculation: Aircraft are measured in the month produced against the Original Out Date, Revised Out Date, Forecast Out Date, and the Actual Completion Date.

A3.2.1.1. Flowdays for scheduled workload + Flowdays for unscheduled workload (-103 requests) = Negotiated Flowdays

A3.2.1.2. Total Original (Negotiated) Planned Flowdays = (Original Out Date – Date In-work) + 1

A3.2.1.3. Total Revised (Scheduled) Planned Flowdays = (Revised Out Date – Date In-work) + 1

A3.2.1.4. Total Forecasted Flowdays = (Forecast Out Date – Date In-Work) + 1

A3.2.1.5. Total Actual Flowdays = (Completion Date – Date In-work) + 1

A3.2.2. Flow day definitions and allowable extensions to flowdays are contained in paragraph 6 and Attachment 1. Note: Contract extensions granted to a contractor as a result of the government’s failure to act (e.g., failure to provide parts or failure to respond to
Engineering Change Proposal evaluations in a timely manner) should not be considered an allowable schedule change for purposes of the data recorded in Aircraft Maintenance Production/Compression Report System.

A3.3. Functional Check Flight Reporting: Program Managers in coordination with repair activity will report required Functional Check Flight data into the Aircraft Maintenance Production/Compression Report system upon completion of the negotiated depot level repair/modification or no later than the delivery date as outlined in Chapter 14 of Air Force Materiel Command Supplement to Air Force Instruction 21-101, Aircraft and Equipment Maintenance Management. The Number of Functional Check Flights and Number of Ground Aborts are required data fields in Aircraft Maintenance Production/Compression Report System; they are used to generate command level metrics for the Functional Check Flight Fly Rate, Attempt Rate and Effectiveness Rate. Functional Check Flight standards will be re-calculated annually and posted on the Headquarters, Air Force Materiel Command A4 Metrics Enterprise Information Management (Microsoft SharePoint®) Community Site as described in paragraph A3.1.3. Repair activities and Program Managers will monitor Functional Check Flight data to identify potential quality/efficiency issues In Accordance With 21-102, Depot Maintenance Management. (T-2).

A3.4. Programmed Aircraft Production Plan. The Program Manager will ensure that programmed (planned) production plan is entered into Aircraft Maintenance Production/Compression Report System using the Production Planning tool within the data editing portion of Aircraft Maintenance Production/Compression Report System. The production plan should be consistent with the appropriate (original or revised) out date. The data will be entered no later than 15 days after the beginning of the fiscal year to include Programmed Depot Maintenance s, modifications, and other scheduled workload. These production numbers should not include unscheduled aircraft or field team workload. Aircraft inducted for multiple types of maintenance (Programmed Depot Maintenance s, modification, or other) will only enter the predominant type of maintenance in the plan. For types of maintenance added to aircraft already inducted, the annual production plan must be adjusted. For example, a Programmed Depot Maintenance aircraft with a modification added after induction, must remove the modification from the production plan. Additionally, annual production plans will be adjusted to compensate for aircraft produced early or late in the fiscal year program. For example, aircraft scheduled to produce in Fiscal Year Fiscal Year18 that produce in Fiscal Year17 shall be removed from the Fiscal Year18 plan. Likewise, any aircraft intended for Fiscal Year17 production but not produced in Fiscal Year17, must be added to the Fiscal Year18 schedule. Any aircraft where the Revised Out date moves forward into a future month should adjust their plan accordingly.

A3.4.1. Programmed Aircraft Production Reports. There are two separate reports available in Aircraft Maintenance Production/Compression Report System developed to track planned production. The Production Summary Report is used to track the entire fiscal year planned production and the Aircraft Production Plan Report is used to track production based on current data in Aircraft Maintenance Production/Compression Report System (inducted aircraft based on original and revised out dates). (T-2).

A3.4.1.1. Production Summary Report. This report is populated using data from the Production Planning data editing tool. It displays each Mission Design Series fiscal year plan by month for Programmed Depot Maintenance, modifications, and other planned workloads. This report displays the planned numbers for the entire fiscal year for all
current and future completions regardless if the aircraft are inducted into Aircraft Maintenance Production/Compression Report System or not. Once entered, the Original plan cannot change and all revisions thereafter will be considered the Revised plan.

A3.4.1.2. Aircraft Production Plan Report. This report displays all planned aircraft production based on current aircraft inducted into the Aircraft Maintenance Production/Compression Report System. Data is populated using the original and revised out dates from the Comprehensive Report data elements. This is an automated report used to populate the Aircraft Production Metric. The Aircraft Production Metric measures the actual completions against the original and revised planned completions (Revised Out Date). The plan will be adjusted for aircraft produced early or late in the fiscal year program as discussed in **paragraph A3.4**, Programmed Aircraft Production. Headquarters, Air Force Materiel Command activities will extract the Aircraft Production Plan Report on the fourth work day of each month for the previous month’s data. For the end of the fiscal year data, the report will be updated again on the 20th of October for the end-of-year closeout.

A3.5. **Aircraft Quality Defect Rate**: Center Quality Offices will utilize Aircraft Maintenance Production/Compression Report System and Joint Deficiency Reporting System data in developing the monthly aircraft quality defect metric. Measurements showing reported, accepted Critical/Major Defects and reported minors will be developed based on the first month that the aircraft was produced, not the month in which the Quality Defect Rate was received. Program Managers are required to comply with Deficiency Reporting, Investigation and Resolution guidance In Accordance With Technical Order 00-35D-54 *United States Air Force Deficiency Reporting, Investigation, and Resolution*. Program Managers will ensure accuracy of data entered in Joint Deficiency Reporting System to include the correct Aircraft Maintenance Production/Compression Report System completion date. (T-2).

A3.5.1. Headquarters, Air Force Materiel Command /A4F will develop and publish annual quality standards for each Mission Design Series in October using the formula below. Standards will be posted on the Headquarters, Air Force Materiel Command A4 Metrics Enterprise Information Management (Microsoft SharePoint®) Community Site as described in **paragraph A3.1.3**.

**Figure A3.2. Annual Quality Standards.**

\[
0.9 \times \frac{\sum \text{Defects Accepted (previous 3 years)}}{\sum \text{Aircraft Produced (previous 3 years)}} = \text{Accepted Defects Standard}
\]

A3.5.2. Due to the 90 day interval between the receipt of the Quality Defect Rate and investigation process, July–June data will be used to calculate fiscal year standards. Requests for deviations from the approved calculation of the standard must be submitted with justification by the Program Manager to Headquarter, Air Force Materiel Command /A4F not later than 30 November each year. The overall Accepted Defects Standard is a weighted average of all MDSs produced. In no case will the individual Mission Design Series standard be less than 0.10 accepted critical or major defects per aircraft produced. After the Mission Design Series Accepted Defects Standard is calculated and the calculated standard is found to have increased, the previous standard will be used.
A3.5.3. The Headquarters, Air Force Materiel Command goal is to achieve .10 accepted critical or major defects per aircraft produced. Once a Mission Design Series achieves this goal, it will remain at .10. All new Mission Design Series platforms will automatically be assigned a quality standard of .10. Quality standards will be calculated using the entire Mission Design fleet, i.e., all C-135s will be used to calculate a standard for KC-135, RC-135s, OC-135s, etc. Any request to utilize specific Mission Design Series to calculate a quality standard must be coordinated through Headquarters, Air Force Materiel Command /A4F.