f the aircraft. (Reference FAR 91.407)

(2)Flight Tests will be performed when required as set forth in this chapter and may be performed when requested by an aircraft maintenance supervisor, a pilot in command, the <Your Agency> Supervisor of Maintenance, or a quality control supervisor, when in their opinion a flight is justified to assure correct operation in flight.

**NOTE:** The pilot in command (PIC) will request a flight test through the maintenance or quality control supervisor.

(3)The Maintenance Release and Flight Request, <Your Agency> GMM Form MRFR, will be initiated to release aircraft for flight tests.

(4)There are three classifications of flight tests for <Your Agency> operations:

(a)Airworthiness Flight Test (AFT) - A flight for the purpose of testing a system or component, the failure of which may affect the airworthiness of the aircraft. Aircraft undergoing an airworthiness flight test will be returned to the base where the flight originated.

(b)Evaluation Flight (EF) - A flight for the purpose of checking a component or system for proper operation. After an aircraft evaluation flight, if the equipment being evaluated is found to operate satisfactorily, the flight crew may continue on an assigned mission with the aircraft. NOTE: if the crew continues on an assigned mission, the PIC will ensure that <Your Agency> GMM Form MRFR is mailed or faxed to the <Your Agency> Maintenance Coordinator as soon as possible upon landing.

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(c)Supplemental Type Certificate Flight (STCF) - A flight for the purpose of showing that the altered product meets applicable airworthiness requirements.

B.REQUIRED AIRWORTHINESS FLIGHT TEST ITEMS.

(1)Definitions

(a)Replacement - Indicates the removal of a damaged or malfunctioning unit, or one due a scheduled change, and the installation of a like serviceable unit.

(b)Reinstallation - Indicates the removal and reinstallation of the same unit.

(2)Aircraft Components/Structures

(a)Wing, vertical, or horizontal stabilizer replacement or reinstallation.

(b)Replacement or reinstallation of any primary control surface where adjustment/rigging of the primary control surface or the associated operating mechanism is accomplished.

(c)Replacement or reinstallation of any primary control cables when the associated rigging cannot be accomplished by the use of rigging pins.

(d)Repairs, including control surface balancing, alterations, or modifications which may have changed the flight characteristics of the aircraft.

(e)Completion of major inspection or overhaul.

(3)Engine/Propellers

(a)Replacement of an engine on single-engine aircraft.

(b)Replacement of an engine on multiengine aircraft.

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(c)Replacement of a propeller on single-engine aircraft.

**NOTE:** Flight test not required for reinstallation provided a functional check can be made on the ground.

(d)Replacement of two fuel controls on multiengine aircraft.

(e)In the case of repeated (three or more) complaints of a condition that cannot be thoroughly checked by inspection or tests performed on the ground.

C.PROCEDURES

(1)The flight test will be conducted by properly rated, certificated, and authorized pilot personnel. AFT and STCF flight test personnel must be trained on those parts of the GMM applicable to flight tests and such training entered into their training file. EF may be accomplished by any qualified, current PIC.

(2)The line maintenance supervisor will request the flight test through the quality control organization or designee. The requesting office will request a flight test using <Your Agency> GMM Form and completing the following blocks:

(a)Enter the aircraft "N" Number.

(b)Enter the Time the request is initiated.

(c)Enter the Date the request is initiated.

(d)Give the reason for the Test/Evaluation flight.

(e) A line maintenance supervisor will certify that the maintenance has been completed and that the aircraft is serviced and ready for flight.

(3)An aircraft inspector will complete <Your Agency> GMM Form and make an entry in the discrepancy block of the Aircraft Log Book, requesting a flight test and stating the reason(s) it is required. (S)he will enter the words "Flight Test Only" in the Airworthy Release block of the Aircraft Log Book and sign this block to signify the aircraft is released for test flight only.

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(4)The <Your Agency> Supervisor of Maintenance will notify the Chief Pilot, that a flight test is required. The Chief Pilot will ensure flight crew availability. At locations away from the <Your Agency> Home Base, the maintenance facility will notify the <Your Agency> Maintenance Coordinator that a flight test is required and obtain approval and flight crew availability.

(5)Except when the test flight is requested by the PIC, the line maintenance supervisor or lead mechanic will advise the PIC of the specific reason(s) the flight test is needed. The repairs, replacements, adjustment, or questionable conditions which must be checked will be discussed. Particular emphasis will be placed on actions involving maintenance to primary flight controls or flight controls on flight control systems.

(6)Test and Evaluation Flight Limitations. The crewmembers authorized to be aboard during flight are those persons. including technical personnel, required to operate the aircraft and to evaluate the equipment or system requiring test. These crewmembers limitations DO NOT APPLY when the flight is being conducted to evaluate performance of aircraft systems or components which DO NOT affect the airworthiness of the aircraft.

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(a)The limitations listed below apply to test flights conducted to determine the airworthiness of <Your Agency> aircraft.

(1)Reciprocating Engine Aircraft - Day VFR conditions with a 2000-foot ceiling and 5 miles visibility.

(2)Turbine Powered Aircraft - Day VFR conditions with a 3000-foot ceiling and 5 miles visibility.

(3)After basic airworthiness has been established under VFR conditions, the pilot may, at his discretion, obtain a local clearance to climb through an intervening overcast to VFR conditions on top to accomplish remaining portions of the flight test.

(4)Flight test maneuvers which could result in unusual attitudes or stalls must be completed above the highest of 5000 feet AGL or the minimum altitude specified in the appropriate approach to stall training maneuver.

**NOTE:** Propeller feathering checks or engine shutdowns may be accomplished in the vicinity of the airport at a minimum of 1500 feet above ground level. This will be done at the pilot's discretion after consideration is made as to fuel load, approach climb performance, and prior coordination with the local ATC facility.

(7)The flight crew will perform the flight test and indicate on <Your Agency> GMM Form whether:

(a)the aircraft requires a re-flight by completing <Your Agency> GMM Form or

(b)the flight test was completed and was satisfactory, and the aircraft is released to Quality Control by completing <Your Agency> GMM Form.

If the flight test was satisfactory, the PIC will make a statement in the discrepancy block of the Aircraft Log Book that the aircraft is released to Quality Control.

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(8)All discrepancies found during flight test that are related to the reason for the test flight require buy back by QC before the aircraft is returned to service.

(9)Quality Control will complete <Your Agency> GMM Form and enter an "Approval for Return to Service" statement in the corrective action block of the aircraft log book.

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15.MAINTENANCE ANALYSIS PROGRAM .

A.GENERAL.

The <Your Agency> Maintenance program is monitored by a trend analysis process. This process analyzes all report of findings and/or actions taken during aircraft and component maintenance.

B.RESPONSIBILITIES.

The <Your Agency> Maintenance Coordinator is responsible for ensuring the trend analysis program is functional, findings are reviewed, and appropriate actions taken.

C.PROGRAM ELEMENTS.

The <Your Agency> Maintenance Analysis Program shall analyze:

(1)Repair actions - aircraft and components

(2)Pilot reports (PIREPS) - especially repeat reports

(3)Repeat discrepancies of maintenance functions.

(4)Reject of new or newly overhauled components and/or parts

The data collected by this program will be grouped according to the Air Transport Association Specification 100, and the results of the findings compiled for review. Significant trends, when the data are plotted against aircraft operating hours, shall be acted upon immediately. Any trend that presents an impending airworthiness liability to <Your Agency> aircraft or danger to flight crews is considered a significant trend.

D.SPECTROGRAPHIC OIL ANALYSIS PROGRAM (SOAP).

All <Your Agency> aircraft engines shall be subjected to an oil analysis program that provides a method to monitor unusual wear to components or sub-units. The program shall be specific to the type of engine installed and provide trend analysis, immediate feedback, and recommended actions to the <Your Agency> Maintenance Coordinator.

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III. CONTINUOUS AIRWORTHINESS MAINTENANCE PROGRAM (CAMP)

16.MAINTENANCE ALERT PROCESS.

A.GENERAL.

Situations arise where special maintenance actions are necessary to preserve or return an aircraft's airworthy condition. These situations are normally unique to the operator's mission, environment, maintenance support, parts support program, and other factors. When the airworthiness of a <Your Agency> aircraft is impaired the <Your Agency> Maintenance Coordinator may initiate a Maintenance Alert Directive (MAD) to remedy the situation.

B.MAINTENANCE ALERT DIRECTIVE (MAD).

The MAD is a letter containing a description of the situation affecting airworthiness and specified actions signed by the <Your Agency> Supervisor of Maintenance. It will contain the following information:

(1)Date of letter

(2)Subject.

(3)Applicability.

(4)Problem identification (history).

(5)Concise instructions.

(6)Compliance and discrepancy reporting requirements.

(7)Cancellation of MAD.

C.DURATION OF MADS.

Maintenance Alert Directives are temporary, immediate issuances and will be self-cancelling upon completion.

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D.ISSUANCE AND DISTRIBUTION.

(1)Maintenance Alert Directives will be issued to transmit the following types of information.

(a)Notification to add or delete items on inspection checklists.

(b)Request for short notice maintenance actions or to provide information for the maintenance analysis program.

(c)Alert personnel to safety hazards.

(2)In urgent circumstances, MAD information may be transmitted by telephone/dispatch, and later followed by a mailed copy, to:

(a)All <Your Agency> Maintenance personnel, including the COTR

(b)Chief Pilot

(c)All <Your Agency> Maintenance Contractors and line support organizations

(3)All <Your Agency> maintenance activities, including contractors, shall ensure that all personnel are familiar with the MAD system.

E.MAINTENANCE ALERT DIRECTIVE MASTER INDEX.

(1)Master Index

The Master Index, located in office of the <Your Agency> Maintenance Coordinator, is a listing by number, subject, and approval date of all general Maintenance Alert Directives issued to <Your Agency> operated aircraft.

(2)MAD Number

This denotes <Your Agency> identification number assigned for record keeping purposes. It will contain the fiscal year and sequence number of the MAD. (i.e., 93-16)

III. CONTINUOUS AIRWORTHINESS MAINTENANCE PROGRAM (CAMP)

(3)Subject

This is a brief, descriptive title which identifies the general area of work to be accomplished.

F..COMPLIANCE..

Compliance with MAD directives shall be in accordance with standard reporting procedures in permanent aircraft/equipment records. For example, if the MAD can be accomplished during a daily inspection, the compliance will be recorded in the aircraft log book. When this process is not applicable, i.e. the MAD applies to parts in the stores area, the inspector performing the actions to comply with the MAD shall sign a copy of the MAD including the date and actions taken and return the copy to the <Your Agency> Maintenance Coordinator.

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17.AIRCRAFT TIME CONTROLLED COMPONENTS.

A.GENERAL.

This section establishes a procedure for assuring timely replacement of time-controlled components and accomplishment of other compliance items. These items are to be monitored by the <Your Agency> Maintenance Coordinator and components replaced or compliance accomplished prior to the items becoming overdue.

B.OVERHAUL/NUMBERED INSPECTIONS

(1)All components on aircraft in for major inspections shall be replaced if time remaining on the component is less than the next inspection not-to-exceed (NTE) time.

(2)Exceptions

(a)Occasionally it is desirable to replace an item that has more time that paragraph B.(1) minimum. Such items are those difficult to reach except during overhaul, major components, or items requiring considerable aircraft downtime. The <Your Agency> Maintenance Coordinator shall make the economical determination in these cases and schedule replacement accordingly.

(b)If parts are not available, the <Your Agency> Maintenance Coordinator may authorize a part to remain in service when time remaining is less than paragraph B.(1), but not to exceed the established time limit.

C.REPLACEMENT SCHEDULING AND RECORDING.

(1)For accessible components/items, the <Your Agency> Maintenance Coordinator shall have the time-controlled items scheduled for replacement as close to expiration time as possible. In no case shall time limits be exceeded.

(2)Special emphasis shall be placed on keeping accessory overhaul control records current and updated as replacement components are installed on the aircraft. For components/items changed between inspections information shall be entered on the aircraft flight log book by maintenance and transferred to the accessory overhaul control record by the <Your Agency> Maintenance Coordinator.

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III. CONTINUOUS AIRWORTHINESS MAINTENANCE PROGRAM (CAMP)

18.PROCESSING AND RETENTION OF MAINTENANCE RECORDS.

A.PURPOSE.

This chapter establishes the responsibilities and procedures for maintaining and storing temporary and permanent aircraft records of <Your Agency> aircraft by "N" number and serial number.

B.PRIME OFFICE.

Office of the <Your Agency>, <Your Agency Aviation Title>, Supervisor of Maintenance

C.RESPONSIBILITIES.

The reviewing and updating of all records of aircraft maintenance performed is the responsibility of the <Your Agency> Maintenance Coordinator, Office of the Supervisor of Maintenance, <Your Agency>, Agency Address.

D.DEFINITIONS.

(1)TEMPORARY RECORD. Temporary aircraft records consist of segment inspections and below.

(2)PERMANENT RECORD. Permanent aircraft records consists of the permanent logbook and all forms and records used for major repairs, inspections, airworthiness directives, major/minor modifications or alterations, and major overhauls. Records of the last complete overhaul inspection cycle for each aircraft, airframe, engine, propeller, rotor, and appliance, i.e., serviceable parts tags will be replaced in the aircraft maintenance files.

E.PROCEDURES.

(1)All component overhaul times will be maintained by the <Your Agency> Maintenance Coordinator.

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(2)Airworthiness Directives (AD's) compliance will be recorded in the aircraft maintenance log. Repetitive AD's will be noted in the aircraft maintenance log and tracked by the <Your Agency> Maintenance Coordinator. The person who performs the work required by the AD is responsible for recording compliance on the aircraft maintenance records.

(3)The maintenance files will contain all records required by the Federal Aviation Regulations (FAR's) as follows:

(a)The total time in service of the airframe, engine, and propeller.

(b)The current status of life-limited parts of each airframe, engine, propeller, rotor, and appliance.

(c)The time since the last overhaul of each item installed on the aircraft which is required to be overhauled on a specified time basis.

(d)The identification of the current inspection status of the aircraft, including the time since the last inspections required by the inspection program under which the aircraft and its appliances are maintained.

(e)The current status of applicable airworthiness directives, including the date and methods of compliance, and if the airworthiness directive involves recurring action, the time and date when the next action is required.

(f)A list of current major alterations and repairs to each airframe, engine, propeller, rotor, and appliances (FAA Form 337and Engineering drawings may also be included.)

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F.RECORD RETENTION

(1)Permanent Records

The permanent logbook; engine/propeller historical records; all forms and records used for major repair, modifications, or alterations; and major and overhaul inspection forms through the last complete overhaul cycle for each aircraft, airframe, engine, propeller, rotor, and appliance are permanent records and shall be:

(a)Retained as long as the aircraft is owned.

(b)Transferred to the new owner when the aircraft is sold.

(c)Retained for one year if the aircraft is disposed of as scrap or two years if the aircraft is destroyed in an accident.

(2)Temporary Records

These records will be retained until superseded by like scope and detail. These records are stored by "N" number and chronological order. Temporary aircraft records consist of minor (segment) inspections and minor repair records of each aircraft.

(a)Maintenance forms and releases used exclusively for daily or preflight inspection may be disposed of after a period of three months.

(b)Line maintenance inspection forms/cards and worksheets (excluding daily and preflight inspection form(s) shall be placed in a supplemental folder to the permanent logbook and may be disposed of after two years from the date of approval for return to service of the aircraft to which the records pertain.

(c)Inspection forms, cards, and sheets used in conjunction with major and overhaul inspections shall be retained by the performing activity until the work is superseded.

(d)Vendor's documentation shall be retained until the vendor's item is replaced.

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(3)Record Location

(a)These records are maintained by the organization to which the aircraft is assigned. When the aircraft is transferred to a new location, the records will be transferred to the receiving organization by traceable means other than placing aboard the aircraft.

(b)All maintenance records required to be kept by this section will be available for inspection by the Federal Aviation Administrator or any authorized representative of the National Transportation Safety Board.

(4)Transfer of Records

The <Your Agency> Maintenance Coordinator is responsible for the maintenance and transfer of all records. (Reference page III.18.1, Responsibilities)

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19.REPORTS OF DEFECTS OR UNAIRWORTHY CONDITIONS.

A.GENERAL.

FAA regulations require the reporting of occurrences or detection of failures, malfunctions, or defects within 72 hours of discovery to the FAA Flight Standards district office in whose area the operator has its principal operations base. The Supervisor of Maintenance will cause a report to be filed to:

Manager

Flight Standards District Office

<Your Appropriate FSDO Address>

B.CONDITIONS TO BE REPORTED.

The following conditions are to be reported within 72 hours of discovery:

(1)Fire during flight and whether the related fire warning system functioned properly.

(2)Fire during flight not protected by a related fire warning system.

(3)False fire warning during flight.

(4)An engine exhaust system that causes damage during flight to the engine, adjacent structure, equipment or components.

(5)An aircraft component that causes accumulation or circulation of smoke, vapor, or toxic or noxious fumes in the crew compartment or passenger cabin during flight.

(6)Engine shutdown during flight because of flame-out.

(7)Engine shutdown during flight when external damage to the engine or airplane structure occurs.

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(8)Engine shutdown during flight due to foreign object ingestion of icing.

(9)Engine shutdown during flight or more than one engine.

(10)A propeller feathering system or inability of the system to control overspeed during flight.

(11)A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage during flight.

(12)An unwanted landing gear extension or retraction or opening or closing of landing gear doors during flight.

(13)Brake system components that result in loss of brake actuating force when the airplane is in motion on the ground.

(14)Aircraft structure that requires major repair..

(15)Cracks, permanent deformation, or corrosion of aircraft structures if more than the maximum acceptable to the manufacturer or the FAA.

(16)Aircraft components or systems that result in taking emergency action during flight (except action to shutdown an engine).

(17)Emergency evacuation systems or components including all exit doors, passenger emergency evacuation lighting system, or evacuation equipment that are found defective, or that fail to perform the intended functions during an actual emergency or during training, testing, maintenance, demonstrations, or inadvertent deployment.

C.DEFINITION

For the purposes of this subpart, "during flight" means the period from the moment the aircraft leaves the surface of the earth on takeoff until it touches down on landing.

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D.METHOD OF REPORTING.

Reports of defects and/or un-airworthy conditions shall be reported to the <Your Agency> Maintenance Coordinator in letter format or using FAA Malfunction and Defect Report, FAA form 8010-4.

(1)Information to be included in the report, as applicable, is:

(a)Aircraft registration number of the aircraft

(b)Aircraft manufacturer, model/series, and serial number

(c)Powerplant manufacturer, model/series, and serial number

(d)Propeller manufacturer, model/series, and serial number

(e)Specific part of component causing trouble

(1)Part Name

(2)Manufacturer's model or part number

(3)Serial number

(4)Part/Defect location

(f)Appliance/component assembly that includes part

(1)Appliance/component name

(2)Manufacturer

(3)Model or part number

(4)Serial number

(g)Part total time

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(h)Part time since overhaul and last overhaul facility

(i)Part condition

(j)Comments describing the malfunction or defect and the circumstances under which it occurred. State the probable cause and the recommendations to prevent recurrence. Include whether an accident or incident was involved, disposition of the component/part, and any other information that would assist in the investigation of the malfunction or defect. Indicate date and conditions under which it was discovered (i.e., 10/23/92 during C-1 check.)

The report shall be identified with the following information:

(a)Name of the submitter (i.e., AXZ Repair Station, BCA Aviation, etc.)

(b)<Your Agency> as the operator

(c)Date submitted

(d)Telephone number (405) 231-5805 for further details.

The report shall be filed even though all information required above is not available. When additional information, including information from the manufacturer or other agency, concerning a report required by this section, the information will expeditiously be submitted as a supplemental to the first report and reverence the date and place of submission of the first report.

E.REPORTS TO THE FAA.REPORTS TO THE FAA.REPORTS TO THE FAA.REPORTS TO THE FAA

The <Your Agency> Maintenance Coordinator shall review each report, determine subsequent actions, and forward a copy of the report to the FAA as required.

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20.CANNIBALIZATION OF AIRCRAFT AND/OR EQUIPMENT.

A.GENERAL.

Cannibalization of aircraft or equipment to obtain serviceable parts shall be resorted to only when the item needed is not in stock and cannot be obtained in time to meet flight schedules or other priority requirements.

B.AUTHORITY

The Supervisor of Maintenance is the approving authority for cannibalization of aircraft

C.IDENTIFICATION OF CANNIBALIZED AIRCRAFT.

A list of equipment, parts, etc., removed from the aircraft shall be entered on the aircraft logbook. A notice shall be placed on the control column of the aircraft identifying that the aircraft has been "cannibalized" to alert maintenance and other personnel who may be moving the aircraft that certain components are missing.

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III. CONTINUOUS AIRWORTHINESS MAINTENANCE PROGRAM (CAMP)

21.REQUIRED INSPECTION ITEM LISTS

A.GENERAL.

(1)Federal Aviation Regulations require designation of the items of maintenance and alteration that must be inspected (required inspections). This list must include at least those items that could result in a failure, malfunction, or defect endangering the safe operation of the aircraft, if not performed properly or if improper parts or material are used.

(2)In addition to the items identified in paragraph E of the Chapter, a quality control inspector or maintenance supervisor may designate any major alteration or major repair of an aircraft component, aircraft system, or aircraft as a required inspection item. The term Major Alteration and Major Repair are defined in Part 1 of the Federal Aviation Regulations and in the Glossary of Terms section of this manual.

(3)Required Inspection Items may not be signed off by the individual that performed the work. A "second person" is required to sign off any work operation that is listed on the "Required Inspection Item" list.

**NOTE**: The person performing the required inspection may give physical assistance such as lifting or holding, but cannot perform any of the critical steps or operations that require safety check, measurement, or sign-off verifying compliance with procedure.

(4)All work on Required Inspection Items shall be in accordance with the procedures, standards, and limitations contained in current <Your Agency> aircraft maintenance programs or manufacturers' manuals. The manufacturers' manuals will take precedence over <Your Agency> maintenance procedures.

(5)Persons authorized to perform inspection of "Required Inspection Items" shall be under the jurisdiction of the <Your Agency> Supervisor of Maintenance organization when performing such inspections, regardless of their current position classification with their parent organization.

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B.REQUIRED INSPECTION ITEMS (RII) INSPECTION AUTHORIZATION.

(1)Classifications of RII authority

(a)Full authority - may inspect all RII items. This authority is granted to qualified full time <Your Agency> Maintenance personnel. The authority remains in effect until revoked by the issuing authority.

(b)Limited - may inspect only RII items shown on individual authorization letters. This authority may be issued to any qualified employee within the <Your Agency> maintenance program. This authority is normally issued when a person with "Full Authority" is unavailable to perform RII functions. The authority is issued for a specific RII function and for a specific time frame.

(c)One-time Limited - may inspect only emergency maintenance item. This authority can be issued to either full time <Your Agency> maintenance personnel or contract personnel. The authority is normally issued for maintenance performed away from an <Your Agency> maintenance facility. The authority is issued for a specific RII function, and may be exercised for only one task.

(2)Required Qualifications(2)Required Qualifications

(a)Understanding and knowledge of FAR's and the <Your Agency> General Maintenance Manual.

(b)Valid FAA Mechanic Certificate with both airframe and/or power plant ratings or appropriate repairman certificate.

(c)Satisfactorily completed familiarization maintenance training on applicable type of aircraft.

(d)Satisfactorily completed RII or equivalent training course.

(3)When work is to be contracted to an outside organization involving inspection of Required Inspection Items, the <Your Agency> Supervisor of Maintenance will ensure that the contracting agency has a listing of qualified personnel, who are properly certificated, trained, and authorized to perform RII inspections.

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C.PROCEDURES FOR INSPECTION OF REQUIRED INSPECTION ITEMS.

(1)Required inspection items appearing on the work order will be clearly identified as being in the (RII) category.

(2)At the completion of maintenance on a required inspection item, the mechanic performing the maintenance will request that the item be inspected, after (s)he has signed the "MECH" or "BY" block on the work card.

(3)The inspector will then perform the required inspection as follows:

(a)Work card: If an item is approved for return to service, the inspector will so designate by signing and dating the block marked "INSPECTOR".

(b)Aircraft Log Book: If an Aircraft Log Book write-up requires an RII and is approved for return to service, the inspector will stamp and date the block marked "RII" on the log page after the mechanic enters the corrective action.

(4)Non-approved (Rejected) Inspection Buy-back Procedures

(a)Aircraft Log Book: If an Aircraft Log Book write-up requiring an RII is not approved for return to service, the inspector will not stamp the "RII" block on the log page. The inspector will contact maintenance and discuss the reason(s) for rejection.

(b)If the item is rejected, the mechanic will make the designated repairs and then request that it be re-inspected.

(c)In the case of a dispute over the rejection of an item, an inspector's decision may only be countermanded by the <Your Agency> Maintenance Coordinator.

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D.REQUIRED INSPECTION ITEMS (RII).

The following are the designated items of maintenance and alterations which must be inspected by the RII Inspector whenever the type of maintenance identified below is accomplished on the aircraft. Additionally, whenever any of these systems or components are disturbed to gain access to other components, their reinstallation must be a Required Inspection Item. The RII will require checking by a second person before release for flight. The second person cannot be the one who performed the work.

**NOTE 1:** Any non-routine item written as a result of an RII is considered a part of the original inspection and, as such, is also an RII.

**NOTE 2:**  Installation inspection is defined as an inspection of the final (prior to release for flight) installation, operation, rigging, leak check, etc., as required by the Manufacturer's maintenance manual or applicable work card.

(1)Doors and Windows

(a)Rigging of latching mechanism which require adjustment of two or more rod ends.

(b)Installation and/or performance of maintenance on entry doors, cargo doors, or any doors or exits within a pressured area.

(c)Replacement or reinstallation of any window within a pressurized area.

**NOTE:** Removal of an emergency exit for ventilation purposes or to facilitate access for maintenance does not require an inspection buy back upon re-installation, unless maintenance is performed on the exit door or adjacent structure.

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(2)Flight Controls (Primary or Secondary) - Includes the following for ailerons, elevators, rudders, landing flaps, stabilizers, trim tabs, and actuators.

(a)Installation/rig of the flight controls

(b)Complete system rig

(c)Control rod installation/rig

(d)Flight control actuators installation/rig

(e)Flight control cable installation/rig or the adjustment of any turnbuckle or control rod

(f)flight control balance

(3)Landing Gear

(a)Landing gear assembly installation/rig (excludes tire, wheels, brakes, scissor links, and servicing).

(b)Installation/rig of any component or actuator that affects extension, retraction, locking or indication system.

(c)Extension check of emergency extension system following a repair/rig that affects extension or locking.

(4)Power plants

(a)Final installation of powerplant and/or gearboxes.

(b)Engine mount installation and torquing.

(c)Final QEC buildup.

(d)Control cable/rod installation and/or rigging.

(e)Fuel control unit installation and/or rigging.

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(f)Prop pitch control installation and/or rigging.

(g)Prop governor installation and/or rigging.

(h)Hot Section Inspection.

(i)APU rigging and/or final installation and operational check.

(j)Thrust reverser installation and/or rigging.

(5)Propeller

(a)Inspection of completed installation.

(b)Observe propeller functions in accordance with run-up procedures.

(6)Major Repair or Alteration of Primary Structure or Flight Control Surface

(a)Includes any repair/replacement or alteration to pressurized skin/bulkheads, and primary support frames, intercostals, webs, stringers, forgings, castings, and similar structural member. Additionally, it includes repair/replacement of structure which supports flight controls, actuators, cables, linkages, landing gear controls, or door controls.\

(b)Any maintenance or quality control supervisor may classify an operation not listed above as a required inspection item if there is reason an inspection of the work by a Quality Control Inspector is warranted.

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22.WEIGHT AND BALANCE.

A.PROCEDURES.

The following outlines the basic empty weight and balance control program for aircraft operated by the <Your Agency>. The primary goal of this control program is to establish and maintain a master file for each aircraft's weight and balance, to schedule aircraft for periodic weighing, and to provide procedures for the accountability of basic empty weight and balance during the period between weighing.

(1)The <Your Agency> Maintenance Coordinator will be responsible for administering this control system.

(2)The approved weighing interval for each type of aircraft is found in the approved maintenance program for each make and model of aircraft and applicable FAR's.

(3)Excluded from this control system are the exclusive use rental aircraft which will utilize the system prescribed by the owner.

B.GUIDELINES.

The guidelines established herein shall be adhered to in the following manner:

(1)The aircraft will utilize individual aircraft weights and normally will be weighed at intervals of 36 calendar months.

(a)The actual weighing should coincide as much as practical with major inspections or overhauls.

(b)The scheduling for a periodic weighing will be accomplished by the <Your Agency> Maintenance Coordinator.

(c)The responsibility for accountability of basic empty weight and balance changes between periodic weighing is placed with the <Your Agency> Maintenance Coordinator.

III. CONTINUOUS AIRWORTHINESS MAINTENANCE PROGRAM (CAMP)

(2)Extensions of this weighing period for a particular type aircraft may be granted when the following can be ensured.

(a)All pertinent records and actual weight changes during the preceding 36 months of operation show that weight and balance records maintained are accurate.

(b)All extensions must be approved by the <Your Agency> Supervisor of Maintenance

(c)Such extensions will be limited to 12 months, and increases should not be granted which would permit any aircraft to exceed a total of 48 calendar months since the last weighing.

C.CALCULATING WEIGHT PROCEDURES

All weight changes of 1 pound or more are to be recorded and accounted for in the following manner:

(1)The aircraft and/or avionics supervisor working the aircraft is to assure that all items affecting weight and balance are recorded.

(2)This includes non-routine and routine work orders covering repairs, alterations, Airworthiness Directives, and service bulletins.

(3)The aircraft weight and balance manual shall be prepared in accordance with instructions appropriate procedures in the manual.

(4)The Airplane Flight Manual and the aircraft weight and balance manual will be used as the official record of basic empty weight and balance of an aircraft either by actual weighing or by computations.

III. CONTINUOUS AIRWORTHINESS MAINTENANCE PROGRAM (CAMP)

D.DEFINITIONS.

(1)Basic Empty Weight (BEW) is the weight of the structure, power plant, furnishings, systems, and other items of equipment that are considered an integral part of the aircraft configuration plus:

(a)Fixed ballast;

(b)Unusable fuel;

(c)Full engine oil tanks and system;

(d)Full hydraulic system;

(e)Other fluids required for normal operation of aircraft systems, except potable water and lavatory recharge water; and

(f)All items listed on the Equipment List.

(2)Operational Empty Weight (OEW) is the Basic Empty Weight plus the Operational Items.

(3)Operational Items are those personal items, equipment, and supplies that are necessary on a particular operation. These items may vary for a particular aircraft configuration according to the operator's allowances for the service intended. These services include:

(a)Manuals and navigational equipment.

(b)Air-crew members, passengers, and baggage.

(c)Removable cabin and meal service equipment.

(d)Food and beverages.

(e)Usable drinking and washing water.

(f)Emergency equipment, (life rafts, life vests, etc.).

III. CONTINUOUS AIRWORTHINESS MAINTENANCE PROGRAM (CAMP)

(g)Cargo handling system, cargo containers, and/or cargo tie down equipment if used.

(h)Flight spares, maintenance supplies, and equipment.

(4)Maximum Design Takeoff Weight or Maximum Gross Weight (MDTW or MGW) of an aircraft is the maximum weight authorized by government regulations for the takeoff condition of a dispatch-loaded aircraft, and it excludes the weight of taxi and run-up fuel. This is the aircraft weight at "Brake Release" or start of takeoff run.

(5)Maximum Design Taxi Weight (MTW) is the maximum weight allowed for ground maneuvering per applicable governmental regulations. This weight includes the weight of taxi and run up fuel.

(6)Unusable Fuel is that amount of fuel that cannot be delivered to the engines are tanks are empty.

(7)Drainable Unusable Fuel is the "Unusable Fuel" minus the "Trapped Fuel".

(8)Trapped Fuel is the un-drainable fuel remaining when the aircraft is de-fueled and sumped in the static ground attitude, by using the normal means and procedures specified.

(9)Un-drainable Fluids is the amount of fluid remaining after draining by the normal means and specified procedures. Un-drainable fluids may be Anti-detonant augmentation injection, deicing and lavatory fluids.

(10)Arm is the horizontal distance of any item, pieces of equipment, etc., from the datum line. The arms length of distance is always given or measured in inches.

(11)Datum is a reference point or line from which distance measurements to objects are taken or began; it could be real or imaginary. A Datum may also be defined as a location on a vertical plane from which all pertinent horizontal measurements are made or indicated when the aircraft is in level flight attitude.

(12)Moment is the product of a weight multiplied by its arm.

III. CONTINUOUS AIRWORTHINESS MAINTENANCE PROGRAM (CAMP)

(13)Center of Gravity (CG) of an aircraft is the pivotal point about which the nose-heavy and tail-heavy moments are equal in magnitude. It is the point about which the weight of an aircraft or any other object is concentrated.

(14)Center of Gravity Range is the distance between the most forward and most rearward CG indicated in the pertinent aircraft specifications. these limits are determined, at the time of the design and manufacture of the aircraft, as the extreme loaded CG positions obtainable within the requirements of the applicable FAR's controlling the design of the aircraft.

(15)Tare Weight is the weight of any object that must be added/subtracted from the weight of the item being weighed.

E.WEIGHING PROCEDURES.

Weighing procedures will vary with the aircraft and the type of weighing equipment employed. The weighing procedure contained in the manufacturer's manual should be followed for each particular aircraft. Accepted general procedures when weighing an aircraft are:

(1)Remove excessive dirt, grease, moisture, etc., from the aircraft before weighing.

(2)De-fuel and sump aircraft fuel system. The amount of fuel remaining in the tanks and fuel system is termed **"unusable fuel"** and is included in the aircraft empty weight.

(3)Engine oil tanks are to be full, unless otherwise noted in maintenance manual and included in the aircraft empty weight.

(4)Have all items of equipment included in the certified empty weight installed in the aircraft when weighing. These items of equipment are a part of the current weight and balance report (Equipment List).

(5)Weigh the aircraft inside a closed building to prevent error in scale reading due to wind.

III. CONTINUOUS AIRWORTHINESS MAINTENANCE PROGRAM (CAMP)

(6)A pre-weighing checklist will be used and attached to the aircraft weighing form.

(7)Properly calibrate, zero and use the scales in accordance with the scales manufacturer's instructions. Each set of scales should have been calibrated, either by the manufacturer or by a department of civil weights and measures within 1 (one) year prior to weighing any aircraft.

(8)To determine the CG, place the aircraft in a level flight attitude.

(9)Do not set brakes while taking scale readings.

(10)Note tare weight when aircraft is removed from the scales.

F.WEIGHT AND BALANCE RECORDS.

The weight and balance system includes methods which will maintain a complete, current, and continuous record of the weight and center of gravity of each aircraft. Such records will reflect all alterations and changes affecting either the weight or balance of the aircraft, and will include a complete and current equipment list.

G.DISTRIBUTION OF WEIGHT AND BALANCE CHANGE

Copies of the weight and balance change will be distributed as follows:

(1)One copy (original) placed in the Airplane Flight Manual or Weight and Balance Manual, aboard the aircraft.

(2)One copy to the <Your Agency> Maintenance Coordinator for retention in the master weight and balance file for that aircraft.

III. CONTINUOUS AIRWORTHINESS MAINTENANCE PROGRAM (CAMP)

23.PRECISION MEASURING EQUIPMENT CONTROL.

A.GENERAL.

(1)This chapter sets forth procedures for the calibration, recalibration, and maintenance of precision measuring equipment and specialized measuring equipment used by <Your Agency> aircraft and avionic maintenance personnel/contractors.

(2)This chapter also establishes the responsibilities and procedures for determining the adequacy and currency of all precision measuring equipment.

B.DEFINITION.

(1)Equipment Categories

(a)Category I, Prime Standards. Used to calibrate Category II equipment.

(b)Category II, Calibration Shop Standards. Used to calibrate Category III equipment.

(c)Category III, Maintenance Standards. Used for maintenance, trouble-shooting, testing, and verification of aircraft equipment and components.

(d)Category IV, Uncontrolled Work Standards. Equipment which by its usage does not require periodic calibration.

(2)Approved Technical Procedures

(a)Manufacturer's manuals shall be used for the calibration process and frequency of <Your Agency> precision measuring equipment. Companies performing maintenance for the <Your Agency> shall have their own system, approved by the <Your Agency> Maintenance Coordinator, for maintaining the condition and calibration of precision measuring equipment.

III. CONTINUOUS AIRWORTHINESS MAINTENANCE PROGRAM (CAMP)

NOTE: If a manufacturer's manual does not exist, approved maintenance and calibration specifications will be furnished by the <Your Agency> Maintenance Coordinator. To obtain this information the requestor will include the following information in the request: (a) Model, part, or type number, (b) Item name, (c) Manufacturer, (d) Serial number, and (e) National Stock Number (NSN) of applicable military specification, when known.

(3)Calibration

(a)Comparison of the accuracy of an item of precision measuring equipment with a standard of known accuracy and adjusting it to required accuracy when necessary.

(4)Calibration Interval

(a)The maximum calendar time an item of precision measuring equipment may be used without recalibration.

**NOTE:** All requests for adjustment to calibration intervals on <Your Agency> owned equipment shall be submitted to the <Your Agency> Maintenance Coordinator for review and approval.

(5)Certification

(a)The act of determining by calibration and/or maintenance that precision measuring equipment meets the requirements established for the specific use of that piece of equipment.

(6)Facility Capability Review (FCR)

(a)A review to determine if a shop has the technical capability, manuals or approved engineering technical specifications, and tools and equipment to accomplish calibration and maintenance of precision measuring equipment.

III. CONTINUOUS AIRWORTHINESS MAINTENANCE PROGRAM (CAMP)

(7)Precision Measuring Equipment

(a)Aircraft and/or avionic tooling, gauging, instrumentation, and test equipment used in maintaining and overhauling aircraft and aircraft components where specific measurements are specified.

(8)Traceability of Standards

(a)All Categories I, II, and III precision measuring equipment will be traceable to the National Bureau of Standards.

C.USE.

(1)Each person using an item of precision measuring equipment and specialized tools shall check that the item:

(a)Is identified by either the manufacturer's, or an <Your Agency> assigned serial number permanently marked on the item.

(b)Has an equipment category identified.

(c)Calibration is current, and the item is in a serviceable condition.

(d)Is removed from service and tagged as unserviceable, whenever the item is damaged, deteriorated or the calibration is not current.

**NOTE:** The item shall be repaired and/or recalibrated prior to further use.

D.ORGANIZATIONAL RESPONSIBILITIES.

(1)<Your Agency> Maintenance Coordinator shall perform surveillance on the precision measuring equipment used at the Home Base to assure:

(a)All precision measuring equipment, tools, and devices are inspected for deterioration, breakage, and general condition at thirty day intervals.

(b)Proper storage and usage is occurring. Precision measuring equipment, except for Category IV items, shall not be stored in tool boxes.

III. CONTINUOUS AIRWORTHINESS MAINTENANCE PROGRAM (CAMP)

(c)Calibration is kept current.

(2)<Your Agency> Maintenance Coordinator is responsible for:

(a)Monitoring precision measuring equipment maintenance and calibration system.

(b)Performing Facility Capability Reviews.

(c)Affixing, or causing to be affixed, a label denoting the appropriate equipment category and calibration status.

(d)Processes precision measuring equipment for calibration and maintenance.

(e)Establishing maximum calibration and repair intervals for all precision measuring equipment if different than those recommended by the equipment manufacturer.

(f)Identifying and obtaining manuals for or writing specifications for repair and functional test of precision measuring equipment when no manufacturers' manual(s) exist.

(g)Resolving questions concerning test equipment equivalency and issuing appropriate instructions regarding the item(s).

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IV.TECHNICAL DATA, FORMS, AND REPORTS

1.TECHNICAL DATA LIBRARY.

A.GENERAL.

The <Your Agency> maintains a technical data library <location> (Ex.: in it's Hangar at Will Rogers World Airport, Oklahoma City, OK), that contains the technical date required for maintaining it's fleet of aircraft.

This library contains manufacturer's manuals, service bulletins, airworthiness directives, and other technical material necessary for the maintenance of the <Your Agency> fleet.

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IV.TECHNICAL DATA, FORMS, AND REPORTS

2.FORMS.

A.GENERAL.

The <Your Agency> utilizes commercial maintenance organization's forms when applicable to record maintenance performed on it's aircraft and equipment. These forms are documented by commercial maintenance programs applicable to each aircraft and approved FAA forms used by various commercial repair facilities.

Records for purchase of spare parts, components, etc., are maintained by using maintenance contractor forms and requiring applicable information to be included on their forms.

Certain forms unique to <Your Agency> operations or where commercial forms are not applicable are maintained by the <Your Agency> Aircraft Maintenance Organization. These forms and the procedures for completing them are described in this Chapter.

Example:

USMS FORM NUMBERTITLE AND PURPOSE

NoneAircraft Log Book - Used to record flight time, servicing, and maintenance requirements and actions on USMS owned aircraft.

USMS GMM DDLDeferred Discrepancy List - Used to track deferred maintenance actions

USMS GMM FLT RELMaintenance Release and Flight Request - Used to show aircraft has been released for flight test, record results of flight test, and show flight crew acceptance.

FAA Form 8010-4Malfunction and Defect Report - Used to report aircraft and component malfunctions and defects to the USMS Maintenance Coordinators and the FAA.

IV.TECHNICAL DATA, FORMS, AND REPORTS

B.AIRCRAFT LOG BOOK.

The <Your Agency> aircraft log book is used to record operations and maintenance data and is part of the aircraft permanent record system.

The aircraft log Book is printed on NCR (No Carbon Required) paper and thus requires special handling to ensure that no writing is done on paper covering these sheets. All entries except signatures will be PRINTED legibly and accurately in BLACK ink. The fly sheet attached to the back cover must be inserted under the yellow sheet before any entries are made. Each daily aircraft log book sheet consists of three pages: blue, white, and yellow, in that order. The following procedures will be used:

Example:

(1)Entries

(a)**Date** - Date shall be entered as month/day/year.

(b)**Base** - Use the station identifier symbol; for example; "OKC" - Oklahoma City, "ATL" - Atlanta.

(c)**'N' number** - United States Registry Identification. Example; N1, N92.

(d)**Crew** - The pilot in command (PIC) will enter the names of all crewmembers and any additional passengers.

(e)**Station Symbol** - Enter the station identifier symbol; for example, "OKC" - Oklahoma City, "STL" - St. Louis.

(f)**Time** - Time in service will be entered by the pilot as the time OFF the moment an aircraft leaves the surface of the earth and ON when it touches it at the next point of landing. Enter the time in 24-hour local standard time. Pilots shall enter total elapsed time in tenths as follows. If an elapsed time meter is installed, the reading before take-off shall be entered in OFF block and the reading after landing in the ON block.

(1)1 - 2 min. = .0

(2)3 - 8 min. = .1

IV.TECHNICAL DATA, FORMS, AND REPORTS

Example: (contd.)

(3)9 - 14 min. = .2

(4)15 - 20 min. = .3

(5)21 - 26 min. = .4

(6)27 - 33 min. = .5

(7)34 - 39 min. = .6

(8)40 - 45 min. = .7

(9)46 - 51 min. = .8

(10)52 - 57 min. = .9

(11)58 - 62 min. = 1.0

(g)**Aircraft Landings** - Total landings carried forward from previous page and total landings on current page totaled together and brought forward to the next page.

(h)**Discrepancy Block** - Discrepancies, (preparing for flight, during flight, immediately following flight, and while performing line maintenance) shall be entered in this column.

(i)**Corrective Action Block** - Enter the corrective action for the discrepancy. Each discrepancy will be signed off with a signature, certificate number, date, and station.

(j)**Item/Component Replacement** - Maintenance will enter position number, part number, and serial number in this block.

(k)**Engine Trend Monitoring Check** - Flight crews shall record engine readings during cruise at least once a day, weather permitting.

IV.TECHNICAL DATA, FORMS, AND REPORTS

Example: (contd.)

(l)**Airworthy Release** - This space is provided for a certificated mechanic to release the aircraft for flight after maintenance has performed a Daily/Weekly inspection and/or repair.

(1)An authorized signature in the "Aircraft Released" block verifies that:

(a)All inspection panels, and hatches (interior and exterior) are closed and secured for flight.

(b)Aircraft total time and total landings recorded and entered are correct.

(c)The aircraft has been serviced with the specified amount of fuel.

(d)Daily inspection is completed and signed.

(e)So far as the discrepancy/corrective actions the aircraft is prepared for flight. A certificated mechanic with a valid airframe and powerplant rating will be authorized to sign this block.

(m)**Oil Added** - Enter oil in pints, quarts, or gallons as appropriate in space provided.

(2)Disposition of Forms

Upon completion of each operating day, the original blue sheet will be removed and delivered to the activity maintaining the aircraft log book. All discrepancies must have corrective action entered and signed off before blue and white sheets are removed. Entries stating "transferred to Deferred Discrepancy List" are considered corrective action and should be used on any item except an MEL item if the blue and white sheets must be removed before discrepancies can be cleared. Each day the blue sheet will be removed and forwarded to the <Your Agency> Supervisor of Maintenance. The white sheet will be retained by the maintenance facility. The third copy (yellow sheet) remains in the logbook.

IV.TECHNICAL DATA, FORMS, AND REPORTS

Example: (contd.)

**EXCEPTION**: While aircraft are on itinerary, all sheets shall remain in the aircraft flight log until the aircraft lands at or returns to the <Your Agency> home maintenance base. It is the responsibility of the person filing the blue sheets to review the sheets for accuracy of all time entries. Incorrect entries may cause inspections or replacement of flight-hours-controlled items to occur too early or too late, resulting in increased cost or unsafe conditions.

(3)Reconciliation of Aircraft Log Book Entries

Airframe and engine times, and number of landings shown in the aircraft log book will be reconciled by the <Your Agency> Maintenance Coordinator as follows:

(a)Prior to starting each scheduled inspection.

(b)When logbook is completed.

(c)When an aircraft is reassigned.

A written entry showing the date and signature of the person making the reconciliation will be made on the appropriate page of the aircraft log book.

AIRCRAFT LOG BOOK FORM

IV.TECHNICAL DATA, FORMS, AND REPORTS

Example: (contd.)

C.DEFERRED DISCREPANCY LIST.

The Deferred Discrepancy List shall be used to record all deferred discrepancies. This form is located on the inside of the front cover of the aircraft log book carried in the aircraft. All sheets with outstanding items must be transferred to the new aircraft log book when it is placed in use.

(1)Entries

(a)**Entry Number** - Enter the number of the discrepancy. Entries shall be entered consecutively. When using a new sheet, use the next consecutive number.

(b)**Date** - Enter date discrepancy is entered.

(c)**Discrepancy** - Self explanatory.

(d)**Not-to-Exceed Time (NTE)** - Enter the not-to-exceed time for correcting the discrepancy.

(e)**Location** - Enter the location of the maintenance facility where work was completed.

(f)**Signature** - Signature of person making the entry.

(g)**Corrective Action** - Self explanatory.

(h)**Date Parts Order** - Self explanatory.

(i)**Work Performed By** - Self explanatory.

(j)**Sheet Number** - Deferred discrepancy list sheet numbers shall be consecutive.

(2)Disposition of Forms

When all entries on the deferred discrepancy sheet are completed, the sheet will be filed as part of the aircraft records.

IV.TECHNICAL DATA, FORMS, AND REPORTS

Example: (contd.)

(3)Instructions for Use

Place this sheet on the inside cover of the aircraft log book. Enter the entry number, date, discrepancy item, not to exceed time, location and signature. Signature for the deferred discrepancy item means that the discrepancy is safe for further flight. All deferred discrepancies will be processed in accordance with Chapter/Section III.9.

Example:

DEFERRED DISCREPANCY LIST FORM

IV.TECHNICAL DATA, FORMS, AND REPORTS

Example: (contd.)

D.MAINTENANCE RELEASE AND FLIGHT REQUEST.

This form is used to request a flight test and/or evaluation. It provides spaces for sign off by maintenance personnel showing the aircraft has been properly prepared for the flight.

(1)Entries

(a)**Registration Number** - Enter the "N" number of the aircraft being tested.

(b)**Time** - Enter the time the aircraft is ready for flight test/evaluation.

(c)**Date** - Enter the date of the flight test/evaluation.

(c)**BLOCK 1** - Flight crew will enter the reason for the flight test/evaluation.

(d)**BLOCK 2** - Enter appropriate maintenance sign offs.

(e)**BLOCK 3** - Enter the signature of the person approving the release of the aircraft for the flight test/evaluation.

(g)**BLOCK 4** - Flight crew will enter the reason for the re-flight(s).

(h)**BLOCK 5** - Flight crew will sign to show the flight was completed satisfactorily.

(i)**BLOCK 6** - Maintenance will sign to show the aircraft is released for routine service.

(2)Disposition of Form

Completed forms will be forwarded to the <Your Agency> Maintenance Coordinator for filing in the aircraft records.

Example:

MAINTENANCE RELEASE AND FLIGHT REQUEST FORM

IV.TECHNICAL DATA, FORMS, AND REPORTS

Example: (contd.)

E.MALFUNCTION AND DEFECT REPORT.

Reports of defects and/or un-airworthy conditions shall be reported to the <Your Agency> Maintenance Coordinator in letter format or using FAA Malfunction and Defect Report, FAA form 8010-4.

(1)Entries

(a)**BLOCK 1** - Aircraft registration number of the aircraft

(b)**BLOCK 2** - Aircraft manufacturer, model/series, and serial number

(c)**BLOCK 3** - Powerplant manufacturer, model/series, and serial number

(d)**BLOCK 4** - Propeller manufacturer, model/series, and serial number

(e)**BLOCK 5** - Specific part of component causing trouble

(1)Part Name

(2)Manufacturer's model or part number

(3)Serial number

(4)Part/Defect location

(f)**BLOCK 6** - Appliance/component assembly that includes part

(1)Appliance/component name

(2)Manufacturer

(3)Model or part number

(4)Serial number

(5) Part total time

(6)Part time since overhaul and last overhaul facility

IV.TECHNICAL DATA, FORMS, AND REPORTS

Example: (contd.)

(7)Part condition

(g)**BLOCK 7** - Date the report is submitted

(h)**BLOCK 8** - Comments describing the malfunction or defect and the circumstances under which it occurred. State the probable cause and the recommendations to prevent recurrence. Include whether an accident or incident was involved, disposition of the component/part, and any other information that would assist in the investigation of the malfunction or defect. Indicate date and conditions under which it was discovered (i.e., 10/23/92 during C-1 check.)

(i)The report shall be identified with the following information:

(1)Name of the submitter (i.e., AXZ Repair Station, BCA Aviation, etc.)

(2)<Your Agency> as the operator

(3)Date submitted

(4)Telephone number (405) 231-5805 for further details.

The report shall be filed even though all information required above is not available. When additional information, including information from the manufacturer or other agency, concerning a report required by this section, the imformation will expeditiously be submitted as a supplemental to the first report and reference the date and place of submission of the first report.

Example: (contd.)

MALFUNCTION AND DEFECT REPORT FORM

FAA Form 8010-4

IV.TECHNICAL DATA, FORMS, AND REPORTS

Example: (contd.)

F.MINIMUM EQUIPMENT LIST EXTENSION AUTHORIZATION REQUEST.

This form is to grant an extension when the repair can not be accomplished within the specified time interval granted in the Minimum Equipment List.

(1)Entries

(a)MEL Control Number. To be obtained from the <Your Agency> Maintenance Coordinator

(b)Aircraft and ATA Code and MEL Item No. Self explanatory.

(c)MEL Nomenclature and Category. In accordance with the MEL

(d)Time Recorded in Aircraft Log Book and Date. Self explanatory.

(e)Expiration Time. In accordance with MEL (hours, days, and/or landings).

(f)Supply Document Number and Estimated Delivery Date. Information concerning parts on order.

(g)Justification for Extension. Parts availability, etc.

(h)Maintenance Person Requesting Extension. Signature and title of person requesting extension.

(i)Amount of Extension Authorized. To be determined by the <Your Agency> Supervisor of Maintenance.

(j)Expiration Time and Date. To be determined by the <Your Agency> Supervisor of Maintenance.

(k)Extension Authorized By. Signature of <Your Agency> Supervisor of Maintenance or Designee.

(2)Disposition of Form

Copies of the form will be distributed as per Chapter/Section III.6.

IV.TECHNICAL DATA, FORMS, AND REPORTS

Example: (contd.)

MINIMUM EQUIPMENT LIST EXTENSION AUTHORIZATION REQUEST FORM

IV.TECHNICAL DATA, FORMS, AND REPORTS

Example: (contd.)

G.SPECIAL FLIGHT PERMIT.

This form is provided for maintenance activities to document requests for ferry flights and special flight permits.

(1)Entries

The items on this form are self explanatory.

(2)Disposition

Per Chapter/Section III. of this manual.

IV.TECHNICAL DATA, FORMS, AND REPORTS

Example: (contd.)

SPECIAL FLIGHT PERMIT FORM

IV.TECHNICAL DATA, FORMS, AND REPORTS

H.INCOMPLETE MAINTENANCE WORK TURNOVER, <Your Agency> FORM #

1.General

This form is provided to document incomplete work so that the following shift can resume the task without overlooking any step. It is not necessary to use this form for incomplete work on inspection forms as the sign-off columns depict where the work terminated. It is intended that the crew leaving an unfinished task shall initiate this form whenever it is needed. This form is not intended to replace AC Form 4100-155 or AC Form 4100-155-1 for hand-off of normal partially completed discrepancies.

(2)Instructions for Use

(a)Description of Job

Enters complete description of job being performed. Example: Replace left engine fuel pump.

(b)Work Done

Enters steps completed, lines or connections not tightened, parts replaced, etc. Example: (1) Lines loosened at carburetor: (2) fuel pump replaced and mounting bolts tightened.

(c)Work Remaining

Enters steps which must be done to complete the job. Example: (1) Hook up inlet and outlet fuel lines to pump; (2) tighten fuel line at carburetor; (3) perform leak check and adjust pressure.

(3)Disposition

Crews leaving incomplete work for which this form has been prepared, shall leave form at work station. Crew completing remaining work on form shall submit completed form to work station. Completed forms shall be filed with the main base aircraft records.

IV.TECHNICAL DATA, FORMS, AND REPORTS

INCOMPLETE MAINTENANCE WORK TURNOVER

<Your Agency> FORM #

IV.TECHNICAL DATA, FORMS, AND REPORTS

3.REPORTS.

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V. AIRCRAFT MAINTENANCE TIME LIMITS

1.GENERAL.

A.GENERAL.

This section establishes control of inspection and overhaul frequencies and prescribes the procedures to be used in establishing basic intervals of maintenance operations, functional checks, inspection, overhaul, etc., of <Your Agency> aircraft, engines, and associated equipment.

B.ESTABLISHING INSPECTION, OVERHAUL TIMES, ETC., FOR NEW AIRCRAFT OR EQUIPMENT.

When aircraft or equipment new to the system is introduced into the <Your Agency>, the following shall apply:

(1)Establishment of inspection frequencies, overhaul intervals, etc., will be based on a review of applicable maintenance information and the manufacturer's maintenance requirements. Consideration will be given to the intended mode of aircraft operation.

(2)Where only the manufacturer's recommendation exists, it will be accepted and adjusted to compensate for the intended aircraft flight profile.

(3)When no recommendations exist, and equipment is not listed in operations specifications, the following will apply:

(a)Military technical orders will be reviewed to determine time intervals when the item is of military origin.

(b)Time intervals of <Your Agency> aircraft/equipment having similar characteristics or use will be reviewed.

(c)The intended operation and environmental conditions to which the aircraft/ equipment will be subjected shall be evaluated against (a) and (b) above.

(d)If time intervals are required for one-of-a-kind or unique equipment and there is no reference to use as a guide, intervals will be established on the basis of equating (b) to the applicable portion of (c).

V. AIRCRAFT MAINTENANCE TIME LIMITS

C.INSPECTION/OVERHAUL ADJUSTMENTS.

Adjustments in time will be based on an analytical review of the maintenance program inspection findings and component removal data. Due to the small fleet size, the element of judgement and experience may, in some cases, be required to determine if an inspection/overhaul frequency should be increased or decreased.

(1)Airframe

Maintenance inspection data pertaining to the aircraft/equipment under consideration will be under continual observation to determine the significance, frequency, and quantity of component removals and discrepancies.

(2)Engines/Propellers/Associated Components/Accessories/Appliances

(a)Data accumulated through the maintenance inspection program and removal data will be evaluated, taking into consideration the frequency of malfunctions or failures as related to the quantity of component removals, component operating time, and the total number of significant discrepancies. Opinions obtained from all maintenance activities will be considered prior to making a final determination but will not be justification for change(s) without substantiating documentation.

(3)Documentation

All adjustments to routine inspections, major aircraft inspections, aircraft components, engine overhaul times, hot section inspections, and propeller overhaul times will be documented and issued as revisions or supplements to appropriate maintenance program documents.

(4)Increments

Manufacturer's recommended inspections and overhaul time intervals may be utilized in lieu of the sampling provided safe operation(s) can be expected.

V. AIRCRAFT MAINTENANCE TIME LIMITS

(5)Program Measurements - In general, reliability is measured by:

(a)Pilot reports and unscheduled removals per 1,000 aircraft hours;

(b)Shutdowns per 1,000 engine hours;

(c)Serious hazard reports.

(d)Malfunction or Defect Reports

(6)Systems are reviewed and measured against established values. Initial values are established based on the manufacturer's historical experience.

(7)As problem areas are identified, detailed investigations are initiated and appropriate corrective measures implemented.

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V. AIRCRAFT MAINTENANCE TIME LIMITS

2.AGE CONTROL OF AIRCRAFT PARTS, SUPPLIES, AND EQUIPMENT.

A.GENERAL.

This chapter prescribes time limits for storage, issue, and shipment of specific items and categories of aircraft parts, supplies, and equipment owned and managed by the <Your Agency> and prescribes the action to be taken at the end of such time limits.

B.RESPONSIBILITIES.

The <Your Agency> Supervisor of Maintenance is responsible to ensure that qualified personnel (equal to those for the Aviation Supply Clerk) are assigned to:

(1)Establish and maintain identification, condition, and status of aircraft parts, supplies, and equipment;

(2)Make systematic inspection of aircraft parts, supplies, and equipment being received, shipped, and in storage to determine if the age control period has expired or if obvious or suspected damage or deterioration has occurred which may render parts and equipment unfit for use;

(3)Establish age control time limits for other than <Your Agency> owned and managed aircraft parts and equipment that meet the age control criteria set forth by the original manufacturer.

(4)Ensure that appropriate inspection, maintenance, or disposal action is accomplished on parts and equipment requiring such action.

C.DEFINITIONS.

(1)"Age Control" is the designation of a specific maximum period of age after cure date or assembly date, based on proper preservation and method of packaging, that will assure parts or equipment will not become unserviceable due to deterioration prior to issue for use.

(2)"Cure Date" is the date that an uncured compound is cross linked to change the physical properties and produce an elastomeric or rubber like material.

V. AIRCRAFT MAINTENANCE TIME LIMITS

(3)"Assembly Date" is the date applicable parts are installed in an appliance, accessory, or higher assembly.

(4)"Functional Test" is a test using equipment and procedures specified in the appropriate overhaul, repair, or inspection manuals to determine serviceability.

D.CRITERIA.

(1)Experience shows that certain items deteriorate while in storage. Such items require inspection, functional test, or other maintenance action prior to issue or shipment if the specified age control period has elapsed since manufacture, last inspection, or overhaul. Age control periods are considered maximum safe time limits. Where assemblies contain items subject to age control, the age control period of such separate items will normally apply to the complete assembly. When an assembly is subject to age control, subassemblies will be subject to the same control.

(2)Criteria for applying age control to aircraft parts and equipment.

(a)Assemblies or components which have a direct affect on safety of flight and/or life sustaining equipment will be subject to age controls if factual data indicates that premature failure may occur as a result of deterioration while in storage.

(b)For new parts or equipment entering the inventory, experience gained on like parts or equipment will be used to establish age control limits. If no factual shelf life deterioration date is available, such items shall not be subjected to age control until experience dictates. Other items, which factual data indicates serviceability has deteriorated due to shelf life, will be considered for age control.

(c)Age controls will not be applied to items containing silicone, neoprene, or teflon merely because of the presence of these materials in the part or assembly.

(d)Supplements to this manual will be issued as necessary to provide current age control instructions.

V. AIRCRAFT MAINTENANCE TIME LIMITS

E.PERIOD INSPECTION AND FUNCTIONAL TEST.

(1)Certain parts or equipment require specific action be taken while materials are in storage or prior to issue to ensure that the designated age limit has not elapsed and the item is serviceable. If an item is not specifically identified it is "on condition" and must be visually inspected prior to installation and a complete functional and operational test performed after installation to determine serviceability. The part, supplies, or equipment manufacturer's age limits will be followed when available. As an alternate, the original equipment manufacturer's (Boeing, Cessna, etc.) recommendations may be used.

(2)Manufacturer's often permit extensions of age limits if specific tests or other conditions are met. The following procedures may be used to return items to stock when age limits have been reached:

(a)If the age limit of an item indicates that the item requires a functional test and the required maintenance action be performed prior to use

those items determined to be serviceable as a result of functional test (and maintenance action as necessary) shall have the shelf life expiration date extended for 1 year from the date of such test. Re-test and further extension of shelf life limits, if justified, shall be accomplished each succeeding year. The functional test shall consist of appropriate procedures necessary to determine operational serviceability of the part or equipment. This test may be performed at any maintenance base where adequate facilities are available or by local certificated contractor if more expedient or economical than returning the item to the <Your Agency> Home Base. When such facilities are not available, E&R items shall be processed locally. All such items returned to the <Your Agency> Home Base shall have the original serviceable parts tag and/or certification attached and appropriate repairable part tag bearing the note: "Functional Test Due."

V. AIRCRAFT MAINTENANCE TIME LIMITS

(b)If the age limit of an item indicates that the item requires maintenance action prior to issue if the designated limit has elapsed the maintenance action will include replacement of all gaskets, diaphragms, seals, and other components containing natural or synthetic rubber and, when necessary, bearings, lubricants, and any other components and/or reconditioning required to place the item in a serviceable condition. After such reconditioning, the item is eligible for issuance and use for the full term of the designated age limit.

**NOTE**: Where facilities are not equipped to provide this maintenance, E&R items shall be returned to the <Your Agency> Home Base; non-E&R items shall be processed locally. All such items shall have the original serviceable parts tag and/or certification attached and appropriate repairable part tag bearing the note: "Has exceeded storage time; maintenance action required."

(c)If the age limit of an item indicates that the item is considered unsuitable for its intended use at the expiration of the designated period, it shall be removed from stock for processing as administratively condemned parts and/or equipment.

F.INSPECTION AND DISPOSITION OF SYNTHETIC RUBBER.

(1)Personnel assigned responsibility for surveillance of parts and equipment in storage will screen stocks of age-controlled synthetic rubber parts once annually or more frequently if necessary to disclose parts suspected to be deteriorated or which will be over-age prior to next inspection.

(2)Expendable items determined to be unserviceable by designated quality control personnel shall not be issued for use on aircraft or aircraft accessories. Fuel cells (E&R items) determined to be unserviceable but reparable in accordance with applicable maintenance or repair instructions may be repaired by any facility having such capability. Whenever inspection of any expired-age fuel cell reveals no evidence of un-serviceability, the re-inspection date may be extended for 1 year, after which the fuel cell may be re-inspected and time extended for 1 more year, if still serviceable. Total allowable extension is 2 years. The age limit for bulk and precut hose and hose assemblies may be extended by being visually inspected. Total allowable extension is 1 year.

V. AIRCRAFT MAINTENANCE TIME LIMITS

(3)An accessory shall not be accepted into the <Your Agency> supply system without evidence of cure date; date of manufacture, overhaul, or test; the item shall have at least 50% of its age control limit remaining when accepted.

G.AGE CONTROL OF AVIONIC PARTS AND EQUIPMENT.

(1)Shelf time limits for avionic equipment while in storage, are based on the method of preservation which defines the maintenance action necessary when storage time limits have expired. Equipment accepted by the <Your Agency> shall have a shelf life indicated on the part serviceable tag and be based on the equipment and preservation methods used by the repair/shipping facility.

(2)Preservation methods and maintenance action prescribed herein are established to prevent deterioration of avionic equipment while in storage and are considered to be safe maximum limits for all geographic areas and storage conditions.

(3)All avionic items listed shall receive maintenance action as prescribed upon expiration of the applicable storage time limit.

H.PREFERRED PACKAGING AND/OR PRESERVATIONS.

The method of packaging and/or preservation for each item, along with the shelf life expiration date, must be identified on the serviceable part tag. A brief description of preferred methods of preservation and identification is given below. Military specification MIL-P-116 fully describes the methods and will be used as reference.

(1)Method I - Preservative coating (with grease-proof wrap as required).

(2)Method IA - Water/vapor proof enclosure (with preservative as required).

(3)Method IB - Strippable compound coating (hot dip).

(4)Method IC - Waterproof barrier (with preservative as required).

(5)Method II - Water/vapor proof barrier with desiccant (with contact preservative when required).

(6)Method III - Packaged for mechanical and physical protection only.

V. AIRCRAFT MAINTENANCE TIME LIMITS

I.MAINTENANCE ACTION AND INSPECTIONS.

(1)Avionic equipment requires a specific maintenance action to be taken upon expiration of the storage time limit. (Refer to the manufacturer's manuals for these limits and appropriate action for the item involved) Some of the actions to be taken are:

(a)A visual inspection to determine condition. Whenever there is evidence that the item is unserviceable, appropriate maintenance action shall be taken to restore its serviceability.

(b)An operational check which shall consist of performing all necessary test procedures, utilizing a suitable test stand or mockup, to determine that the item is operating properly. Items found to not be operating properly shall receive additional maintenance action as necessary to restore their serviceability.

(c)An inspection, including any necessary disassembly, to determine the operational reliability of the item. Maintenance performed during this inspection shall include removal of any rust or corrosion detected; relubrication of gear trains; replacement or repacking of bearings; reforming or replacement of electrolytic capacitors; replacement of deteriorated seals, gaskets, or rubber goods; and the replenishment of liquid levels as necessary to assure the item's reliability. The item shall be given a complete operational check utilizing a suitable test stand or mockup upon completion of any required maintenance and prior to returning to storage.

(2)New re-inspection dates will be entered on the part serviceable tag upon completion of the maintenance action. Such dates will be computed by adding the appropriate storage period time interval to the date upon which the prescribed action was accomplished.

(3)All maintenance actions and inspections shown may be performed at any maintenance activity when adequate facilities are available. Items which, because of expired storage item, require maintenance action which exceeds the capability of a maintenance facility will be appropriately identified and returned to the <Your Agency> Home Base for further action.

V. AIRCRAFT MAINTENANCE TIME LIMITS

J.ISSUING LIMITATIONS.

The personnel assigned responsibility for surveillance of avionic parts and equipment in storage will ensure that all serviceable property is stored and issued in a manner which will provide for the issuance of oldest items first.

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1.PERSONNEL PERFORMING MAINTENANCE ON AIRBORNE EQUIPMENT.

A.GENERAL.

All personnel, temporary or permanent, performing maintenance or servicing of <Your Agency> aircraft or ground support equipment, may, at the discretion of the <Your Agency>, be required to undergo a criminal background check. This check may also include a history of violations and other actions contained in the individual's FAA certificate record maintained by the FAA.

Ten (10) working days prior to hiring any new employees or assigning different employees to perform maintenance or servicing of <Your Agency> aircraft or GSE, Contractors providing support to the <Your Agency> shall provide the following information on prospective employees to the <Your Agency> COTR:

(1)Full name of employee

(2)Date of birth

(3)Social security number

(4)Driver license number

(5)Place(s) of residence for the past ten (10) years

(6)FAA Certificate number, if applicable

If the <Your Agency> determines that an employee is unsuitable, the <Your Agency> shall have the right to require the replacement of said employee within five (5) working days.

VI. AIRCRAFT MAINTENANCE AND INSPECTION TRAINING PROGRAM

B.PERSONNEL QUALIFICATION.

Qualifications for each position supported by a contractor are as follows:

(1)Shift Supervisor This person shall hold a valid mechanic certificate issued by the FAA with both airframe and powerplant ratings; and have a minimum of ten (10) years of experience in aircraft and powerplant maintenance; and have a minimum of five (5) years experience with the Federal Aviation Regulations, Part 121, 125, 135, or 145 operations at the level of responsibility for making airworthiness determinations. Must possess a working knowledge of all applicable regulations and the <Your Agency> GMM.

(2)Lead Mechanic This position shall hold a valid mechanic certificate issued by the FAA with both airframe and powerplant ratings; and have held the certificate and exercised the privileges for a minimum of seven (7) years with two (2) of those years working with the type aircraft identified herein at the level of responsibility for making airworthiness decisions.

(3)Aircraft Mechanic This position shall hold a valid mechanic certificate issued by the FAA with both airframe and powerplant ratings; and have five (5) years experience with one (1) year at the level of responsibility for making airworthiness decisions.

(4)Radio and Electrical TechnicianRadio and Electrical Technician(4)Radio and Electrical Technician This position shall have a valid mechanic certificate issued by the FAA with both airframe and powerplant ratings; or a General FCC License; and have five (5) years radio, avionics, and electrical experience.

(5)Aircraft Mechanic Helper This position shall hold a valid mechanic certificate issued by the FAA with either an airframe or powerplant or both rating; and have a minimum of one (1) year training or equivalent experience.

VI. AIRCRAFT MAINTENANCE AND INSPECTION TRAINING PROGRAM

2.PERSONNEL PERFORMING MAINTENANCE ON GROUND SUPPORT EQUIPMENT.

A.GENERAL

Personnel performing maintenance on <Your Agency> owned ground support equipment must be cleared as per Chapter/Section/Paragraph VI.1.A if the equipment is located the confines of the <Your Agency> Hangar and/or ramp.

B.PERSONNEL QUALIFICATIONS.

(1)GSE Mechanic. This person shall have a minimum of five (5) years experience in aviation ground support equipment maintenance. The experience must cover those general types of GSE used by the <Your Agency>.

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VI. AIRCRAFT MAINTENANCE AND INSPECTION TRAINING PROGRAM

3.ALL OTHER PERSONNEL (STORES, ETC.).

A.GENERAL

Personnel performing stores or aircraft cleaning duties under contract must be cleared as per Chapter/Section/Paragraph VI.1.A if their duties require them to be within the confines of the <Your Agency> Hangar and/or ramp.

B.PERSONNEL QUALIFICATIONS

(1)Aviation Supply Clerk This person shall have one (1) year experience working with aircraft tools and parts and possess a knowledge and understanding of the hazards associated with them. This person shall also have at least one (1) year experience working with the age control of aviation parts, supplies, and components.

(2)Cleaner This person shall have six (6) months experience working around aircraft or similar equipment and possess a knowledge and understanding of the hazards associated with them.

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VI. AIRCRAFT MAINTENANCE AND INSPECTION TRAINING PROGRAM

4.MAINTENANCE AND INSPECTION TRAINING PROGRAM

A.GENERAL

(1)An effective continuous maintenance and inspection program requires formal aircraft and avionics maintenance training programs for <your agency or contractor> personnel. The training must enable the employees to perform their duties at a competent level and comply with the provisions of FAR Part 135, Section 433. The most effective training organization is an entity separate from the maintenance organization.

B.<Your Agency or Contractor> TRAINING OFFICER

(1)The duties and responsibilities of <your agency or contractor> Training Officer are listed below and may be delegated to the extent necessary, except for item (a).

(a)Responsible for the overall training of aircraft maintenance personnel except the RII training.

(b)Ensure that all maintenance personnel are current and properly trained in accordance with this GMM.

(c)<Your agency or contractor> Training Officer will arrange and schedule all needed training. This may require checking and coordinating with various universities, industry, and the FAA Academy, etc., to determine availability of training.

(d)Courses obtained or developed will be evaluated by <your agency or contractor>Training Officer

(e)Ensure that all required training records for maintenance and inspection personnel are current and in proper files. The files will be maintained in the office of the <your agency or contractor> Training Officer.

**Note**:Required Inspection Item (RII) authorization records will be the responsibility of and located in the office of the <Quality Control Section Supervisor or other approved title>

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(f)Ensure the individuals training records reflect the number of hours of training, course completion date, and includes signed documents signifying satisfactory course completion.

(g)Ensure that all required training is conducted in a timely manner.

(h)Maintain a file listing OJT Instructors, and their qualifications.

C.EQUIVALENT TRAINING EXPERIENCE

(1)The Supervisor of Maintenance may accept in lieu of training, documents, certificates, and authorizations which reflect training associated with the job function an employee received during previous employment. This experience must have been exercised within the previous three years.

(2)The <your agency or contractor:> Training Officer will be presented with a copy of all training documents and will update the employee training records.

D.TYPES OF TRAINING

(1)<Your Agency or Contractor, as appropriate> training courses.

(a)Indoctrination Training

1 Each <your agency or contractor:> employee will receive familiarization training as soon as possible, but not to exceed 120 days after entering on duty. This training will include:

aFAA rules and regulations;

bSafety and fire control;

c<Your Agency> General Maintenance Manual;

d Technical Manuals;

e<Your Agency> policies and organization;

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(b)Directed Study Courses

1This type of training is not required but is recognized as being an integral part of an employee's career progression.

(c)Out of Agency Training

1This is classroom type training which is performed under the supervision of an out-of-agency training facility.

2Documents and Certificates presented to the employee upon satisfactory completion of a course will be entered in the employee's permanent training record file.

(d)Informal On-the-Job Training

1Informal on-the-job training is conducted at the work site by a supervisor, designated instructor, or manufacturer's representative. This type instruction is limited to the demonstration of a maintenance operation or the direct supervision of an employee performing maintenance. Course material is not required.

(e) Formal On-the-Job Training

1Formal on-the-job training may be conducted by the supervisor, designated instructor, or manufacturer representative as an integral part of an employee's normal work assignment.

2Maintenance OJT Instructors will be qualified by experience, job knowledge, schooling.

(f)Ground Operations of <Your Agency> Aircraft Training

1<Your agency or contractor> will establish and continue an on-the-job proficiency program to qualify and maintain currency of mechanics who require aircraft engine run-up and taxi authorization.

VI. AIRCRAFT MAINTENANCE AND INSPECTION TRAINING PROGRAM

2No person shall perform engine run-up or taxi of <your agency> aircraft until checked by a designated proficiency check examiner.

3Each person recommended for run-up authorization must hold a valid airframe and powerplant rating and be recommended by the Aircraft Maintenance Foreman.

4Tests will be revised and maintained in the Aircraft Maintenance Foreman's office.

5After meeting the requirements, a Taxi and Runup Authorization will be issued and placed in the persons training file.

6Designee Examiners for each make and model of aircraft, will be an aircraft mechanic leader or foreman and will be certified by a qualified flight engineer or a pilot.

7A written request to the Training Officer from the manager of the maintenance activity will be required when designated examiners are needed.

(g)Special Situation Training

Special training courses or instruction by Classroom Projection Systems may be developed, whenever the need arises, to improve the reliability or maintenance effectiveness of a system or item of equipment or when new products and equipment are initiated into the maintenance system.

(h)Management Training

Management training furnishes a systematic approach to the development of employees having the potential ability to manage. It provides a progressive departure from maintenance skills to the management skills.

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(i)Return to Service Training

Persons authorized to approve aircraft, airframes, aircraft engines, propellers, appliances, or component parts for return to service after maintenance, preventive maintenance, rebuilding, or alteration must have:

1Received training on the system(s) to be maintained by specific make and model airframe, powerplant, accessories, or avionics equipment; OR

2Previously performed satisfactorily under the direct supervision (OJT) of a mechanic, technician or supervisor.

3Received a thorough indoctrination in the use of current technical data reflecting the configuration of the aircraft, equipment, and associated hangar, line and test equipment.

4Have a working knowledge of the forms and procedures as outlined in Chapter III.25 of the General Maintenance Manual. Documentation of authorization will be in accordance with Chapter III.25.

(j)Required Inspection Item (RII) Training

1The <Quality Control Section Supervisor or other approved title> is responsible for administering the RII training program.

2Quality Control Contracting Officer Representatives (COR), have a wide range of experience and may be designated as RII Instructors.

3Personnel being considered as RII Inspectors must have the following qualifications acceptable to the <Quality Control Section Supervisor or other approved title>:

aA valid FAA Airframe and Powerplant (A&P) Mechanic certificate.

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bMust have completed the training requirements as shown in D.(1)(a).

cDemonstrate a thorough knowledge of the <Your Agency> General Maintenance Manual, aircraft maintenance manual system, aircraft logbook, and the completion of maintenance forms and aircraft work cards.

dA good working knowledge of FAA regulations, Airworthiness Directives, and Required Inspection Items.

(k)RII Designee Training Requirements

1A review of the General Maintenance Manual required Inspection Item list contained in Section III.21.1 and a description of the inspection procedures for each item.

2A full description of the duties and responsibilities of an RII designee and the accountability to the Quality Control Section.

3The procedures for re-inspection of work ("Buy back procedures").(See III.21.3)

4Procedures for inspection and calibration of precision tools, test equipment, and the proper use of this equipment. (See III.23.1)

5Procedures to ensure that required inspection at shift change or other work interruption are properly completed before the aircraft is released to service.

6Recurrent training of RII designees is required annually and will consist of reading General Maintenance Manual Section III.21. This review must be documented in the employee's training record.

7After satisfactory completion of the RII Training, a qualification test will be administered prior to certification.

8All training will be documented.

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(l)Nondestructive Test (NDT) Training

NDT training will be completed in accordance with NDT Test Standards, TI 4151.1 prior to certification.

(m)Recurrent Training

Additional training will be scheduled when a supervisor or manager determines the need, a deficiency is discovered through surveillance, and/or analysis of data from the reliability program reflects that such training would be beneficial to the aircraft maintenance program. Recurrent training will include at least the following:

1Review and upgrade of training given during both indoctrination and technical training.

2Input from maintenance bulletins and newsletters.

3Employees qualified for run-up and taxi, Required Inspection Items, and Non-destructive Testing will receive recurrent training annually through OJT, with documentation made to the training records.

E.TRAINING RECORDS

(1)The official records for formal training are maintained in the <Your Agency or Contractor> records.

(2)It is the responsibility of the <your agency or contractor>Training Officer to maintain the Individual Training Records in the proper files.

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5.ON-THE-JOB TRAINING OUTLINE

A.GENERAL

The following course outline has been developed as a guide for the maintenance instructor. A memorandum to the mechanic or technician's training file will be prepared by the instructor, certifying that the mechanic or technician has been trained on a particular system. The mechanic or technician will sign the memorandum to certify (s)he has received the training.

B.AIRCRAFT MECHANIC COURSE

(1)Objective - to provide the mechanic with a thorough understanding of the aircraft in the <your agency> fleet, the aircraft systems, and the maintenance thereof.

(2)Course Outline

(a)Ground Handling

(b)Engine Start and APU

(c)Taxiing

(d)Engine Run-up

(e)Electrical

(f)Flight Controls

(g)Fuel

(h)Power plants and Propellers

(i)Hydraulic system, landing gear, brakes, wheels and struts

(j)Environmental

(k)Anti-ice and de-ice

(l)Fire protection

(m)Oxygen

(n)Nickel Cadmium Battery

(o)Security

(p)Hazardous Materials

(3)Reference

Applicable aircraft maintenance, parts, and wiring diagram manuals as contained in the Technical Library.

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(4)OJT Course Detail Outline

(a) Ground Handling

1Basic procedures for working around aircraft

aProper procedures for pushing, pulling, towing and parking aircraft

bAircraft tie downs

cProper procedures for shutting and locking doors

dCleaning aircraft

eSafety – work stands, ladders, oil spills

2Cowling

aRemoval

bInspection

cRepairs

dCleaning

eInstallation

3Jacking

aProper selection of jacks

bUse of ballast

cSafety pins

dRemoving aircraft from jacks

eStrut deflation and inflation

4Lubrication

aTypes of lubricants to use

bHow often to lubricate

cLocation of lubrication points

(b)Engine Start and APU

1Pre-flight inspection (oil, tires, shocks, obstructions)

2Use of checklist

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3Cockpit familiarity with controls, and switches

4Use of starters

5Instrument readings

6Engine monitoring

(c)Taxiing

1Engine monitoring before taxiing

2Lights, use of radio

3Brakes

4Use of power to aid turning

5Judgement of speed

6Stopping - nose gear steering, use of brakes

(d)Engine Run-up

1Normal

aUse of checklist

bWhat to look for

cMonitoring engines

dEmergency shut-down

eProper cool down

2Max Power

aClearance from other aircraft or obstructions

bNose gear

cUse of brakes

dMaximum time period of run-up

eSteady reduction of power

fProper Shut-down

(e)Electrical Systems

1Battery - location, removal, inspection, servicing, installation battery box, use of auxiliary power

2Primary Buss System - solenoids, lights, starter system, cables

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3Electrical motors - flaps, heaters, fuel pumps, boost pumps, landing gear

4Starter-Generators

5Lights and auxiliary system

6Switches and circuit breakers

7Indicating and monitoring systems

8Troubleshooting and repair

(f)Flight Controls and Steering

1Principals of operation

2Removal and installation

3Inspection

4Repairs

5Rigging

(g)Fuel Systems

1Fuel tanks - type, inspection, servicing, installation

2Valves, Pumps, Controls - inspection servicing, removal, installation, rigging, trouble-shooting, repairs

3Plumbing - inspection and repair, manufacturing, assembling and installation of lines

4Fuel gauges - inspection, removal, installation, troubleshooting, calibration

(h)Power Plants and Propellers

1General inspection and servicing

aEngine

bPropeller and governor

cIgnition system

dFuel system

eLubrication system

fAir induction

gAccessories

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2Removal, installation, rigging, adjustment

aEngines

bPropellers and governors

cFuel system

dIgnition

eEngine oil

fInduction

(i)Hydraulic System, landing gear, brakes, wheels, and struts

1Description and principals of operation

2Inspection

3Servicing

4Rigging

5Troubleshooting

6Removal, repair, and installation of components

(j)Environmental System

1Heating

aPrincipals of operation

bInspection

cServicing

dRigging

eTroubleshooting

fRemoval, repair, and installation of components

2Air Conditioning

aPrincipals of operation

bInspection

cServicing

dRigging

eTroubleshooting

fRemoval, repair, and installation of components

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(k)Anti-Ice and Deice System

1Propellers

aPrincipals of operation

bInspection

cServicing

dRigging

eTroubleshooting

fRemoval, repair,and replacement of components

2Windshields, Pitot, and stall warning detectors

aPrincipals of operation

bInspection

cServicing

dRigging

eTroubleshooting

fRemoval, repair,and replacement of components

3Pneumatic Systems

aPrincipals of operation

bInspection

cServicing

dRigging

eTroubleshooting

fRemoval, repair, and replacement of components

(l)Fire Protection

1Fire Detection

aPrincipals of operation

bInspection

cTesting

eTroubleshooting

fServicing

gRemoval, repair and replacement of components

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2Fire Extinguisher (engine)

aPrincipals of operation

bInspection

cTesting

eTroubleshooting

fRemoval, repair, and replacement of components

(m)Oxygen

1Principals of operation

2Inspection

3Testing

4Troubleshooting

5Removal, repair, and replacement of components

(n)Nickel Cadmium Batteries

1Theory of operation

2Installation and removal

3Preventive maintenance

4Battery repair

5Charging

6Troubleshooting

(o)Security

1See Chapter IX, page 1.1

(p)Hazardous Materials

1OSHA-Material Safety Data Sheets

2HMR 175-Transportation of Hazardous Materials aboard aircraft

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C.AVIONICS MAINTENANCE COURSE

(1)Objective: To provide the Avionics Technician with a thorough understanding of the avionics systems on the aircraft in the <your agency> fleet and the maintenance thereof.

(2)Course Outline:

(a)DATA INSTRUMENTS

Description and Operation

1 Air Data Computer

2Airspeed Indication

3Altimeter

4Mach/Airspeed

5True Airspeed

6Vertical Speed

(b)TEMPERATURE INDICATION

Description and Operation

1Total Air Temperature

2Total Air Temperature Probe

(c)AIRSPEED WARNING

Description and Operation

1Warning Horns

2Warning Switches

(c)ATTITUDE REFERENCE

Description and Operation

1Flight Director Indicator

2Horizontal Situation Indicator

3Roll and Pitch Servos and Amplifiers

4Vertical Gyro

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(d)AUTOMATIC DIRECTION FINDER

Description and Operation

1ADF Controls

2ADF Antennas

3ADF Receivers and Coupler

(e)LORAN SYSTEM

Description and Operation

1Control Panel

2Antenna and Coupler

3Indicator

4Receiver

(f)RADAR NAVIGATION AND WEATHER RADAR

Description and Operation

1Indicator

2Transmitter-Receiver

3Antenna and Wave Guide

4Accessory Unit

5Controls

(g)DME

Description and Operation

1Indicators

2Control Panel

3Antenna

4Interrogators

(h)RADIO NAVIGATION AND VOR/NAVIGATION

Description and Operation

1Attitude Director Indicator

2Control Panel

3Glide Slope

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4Horizontal Situation Indicator

5Navigation Unit

(i)POSITION COMPUTING AND FLIGHT DIRECTOR

Description and Operation

1Altitude Sensor

2Course Deviation Indicator

3Flight Director Computer

4Flight Director Indicator

5Flight Director Control Panel

(j)DOPPLER NAVIGATION

Description and Operation

(k)RADAR ALTIMETER

Description and Operation

1Indicator

2Receiver-Transmitter

3Antenna

4Controls

(l)TURN AND BANK

Description and Operation

(m)FLIGHT DIRECTOR

Description and Operation

1Course Deviation Indicator(CDI, RDI, PDI)

2Flight Director Control

3Flight Director Indicator (FDI, ADI, HDI)

4Instrument Amplifiers

5Progress Display Annunciator

6Servo-Amplifier - ILS Rack

7Steering Computer

8Vertical Gyro Switching

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D.SAMPLE TEST.

1. General Information Written Test. True or False - Circle the correct answer.

**T F (1)Chocks should be utilized for all engine starts unless aircraft is to be taxied.**

**T F (2)A fireguard is mandatory prior to engine starts.**

**T F (3)All landing gear safety pins should be removed prior to starting engines.**

**T F (4)Engine run-ups may be performed in any location.**

**T F (5)The minimum crew required to tow a multi-engine aircraft in a clear area is one person**

**T F (6)A flashing green light from the tower means to hold present position.**

**T F (7)A steady red light from the control tower means to stop and then return to starting position.**

**T F (8)Ground control should be called for any aircraft movement.**

**T F (9)Aircraft should be taxied fast due to better engine cooling.**

**T F (10)It is possible to over boost an engine on the ground.**

**T F (11)The person in the pilot's seat of the aircraft is in charge during towing operations.**

**T F (12)During night taxi and run-up operations the exterior lights should not be on unless the aircraft is on a designated taxiway.**

**T F (13)The ground APU must have the brakes set when parked near an aircraft**

**T F (14)Aircraft brakes need not be set for starting engines because the aircraft is difficult to start moving.**

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VII. AIRCRAFT AND GROUND EQUIPMENT SERVICING

1.FUELING PROCEDURES.

A.GENERAL.

The following standard practices and procedures shall be used in conjunction with the instructions contained in the aircraft maintenance manual for each specific type aircraft to be serviced.

(1)When aircraft are located and serviced at the <Your Agency> maintenance facility, an A&P certificated mechanic will be assigned to the servicing operation. For servicing away from the <Your Agency> maintenance facility and when an A&P certificated mechanic is not available, the pilot in command will have responsibility for servicing operations.

B.POSITIONING OF AIRCRAFT FUEL SERVICING VEHICLES.

(1)Position the servicing vehicle so that a path of egress from the aircraft is maintained. The fuel servicing vehicles shall not be positioned under the wing of the aircraft during over wing fueling. Fuel servicing vehicles shall not be positioned within a 10-foot radius of aircraft fuel system vent openings. Minimum distance between aircraft being serviced and other aircraft shall be as follow: For large aircraft such as Sabreliners, B727, etc., 20 feet; for small aircraft such as Cessna 310, Cessna 210, Cessna 185, Cessna Citation, etc., 10 feet.

(2)When approaching an aircraft to be fueled, the tank truck driver should approach the aircraft parallel to the wings, unless single point locations on the aircraft require a different approach.

NOTE: The servicing vehicle shall not be driven or parked under any portion of the aircraft.

(3)Position mobile fueling equipment so it can either be rapidly driven or towed away from the aircraft in the event of an emergency. Do not park ramp equipment where it will obstruct the movement of the fuel truck.

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C.BONDING.

(1)Prior to making any fueling connection to the aircraft, the fueling equipment shall be bonded to the aircraft by use of a cable, thus providing a conductive path to equalize electrical potential between the fueling equipment and aircraft. The bond shall be maintained until fueling connections have been removed.

(2)In addition to the above, when fueling over wing, the nozzle shall be bonded to a metallic component of the aircraft that is metallically connected to the tank filler port. The bond connection shall be made before the filler cap is removed. If there is no plug receptacle or means for attaching a clip, the operator shall touch the filler cap with the nozzle spout before removing the cap so as to equalize the electrical potential between the nozzle and the filler port. The spout shall be kept in contact with the filler neck until the fueling is completed.

(3)Bonding and fueling connections shall be disconnected in the reverse order of connection.

D.FIRE EXTINGUISHER.

(1)Position two dry chemical or CO2 fire extinguishes so they will be available in case of a fuel spill, or fire.

(2)Each aircraft fuel servicing vehicle shall have at least two fire extinguishes, each having a rating of 20B, one mounted on each side of the vehicle.

E.OPERATION OF APU WHILE FUELING AIRCRAFT.

(1)The APU can be operated during fueling of the B727 if the following precautions are taken.

(2)A minimum of one crewmember or properly trained maintenance personnel must be in the cockpit.

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NOTE: Except for aircraft equipped with an external APU control panel with APU shutdown controls.

(3)The APU shall be shut down immediately and fueling discontinued in the event of fuel spill, APU malfunction, and/or APU fire.

F.PREVENTION AND CONTROL OF SPILLS.

(1)Fuel servicing equipment will be maintained in safe operating condition. Leaking or malfunctioning equipment shall be removed from service.

(a)Fuel nozzles shall not be dragged along the ground.

(b)Pouring or gravity flow shall not be permitted from a container with a capacity of more than five gallons.

(c)When a spill is observed, the fuel servicing shall be stopped immediately by release of the dead man controls. In the event that a spill continues, the equipment emergency fuel shutoff shall be actuated. The supervisor shall be notified at once and the operation shall not be continued until the spill has been cleared and it is determined to be safe.

(d)The aircraft fire crew shall be notified if a spill is over 10 feet in any dimension or over 50 square feet in area, continues to flow, or is otherwise a hazard to persons or property. This spill shall be investigated to determine the cause, whether emergency procedures were properly carried out, and what corrective measures are required.

G.EMERGENCY FUEL SHUTOFF.

(1)Access to emergency fuel shutoff control shall be kept clear at all times.

(2)Emergency fuel shutoff devices shall be operationally check at least every 3 months.

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H.OPERATION OF AIRCRAFT ENGINES AND HEATERS.

(1)Fuel servicing shall not be done on an aircraft while the aircraft engines are operating.

Exception: In an emergency resulting from the failure of an onboard auxiliary power unit on a jet aircraft and in the absence of a suitable ground support equipment, a jet engine mounted at the rear of the aircraft or on the wing on the side opposite from the fueling point may be operated during fueling to provide power.

(2)Combustion heaters on aircraft (e.g., wing and tail surface heaters, integral cabin heaters) shall not be operated during fueling operations.

I.EQUIPMENT AROUND AIRCRAFT.

(1)Internal combustion engine powered equipment, other than those performing aircraft servicing functions, shall not be permitted within 50 feet of aircraft during fuel servicing operations.

(2)Equipment performing aircraft servicing functions shall not be positioned within a 10-foot radius of aircraft fuel system vent openings.

(3)During over wing aircraft fuel servicing where aircraft fuel system vents are located on the upper wing surface, equipment shall not be positioned under the trailing edge of the wing.

J.ELECTRICAL EQUIPMENT USED ON AIRCRAFT SERVICING RAMPS.

(1)Battery chargers shall not be connected, operated, or disconnected while fuel servicing is being done on the aircraft.

(2)Aircraft ground-power generators or other electrical ground-power supplies shall not be connected or disconnected while fuel servicing is being done on the aircraft.

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(3)Electric tools or similar tools likely to produce sparks or arcs shall not be used while fuel servicing is done on the aircraft.

(a)Photographic equipment shall not be used within 10 feet of fueling equipment or of the fill or vent points of aircraft fuel systems.

(b)Battery-powered vehicle equipment shall not be operated within 10 feet of fueling equipment or spills.

(c)Communication equipment used during aircraft fuel servicing operations within 10 feet of fueling equipment or of the fill or vent points of aircraft fuel systems shall be intrinsically safe (see ANSI/UL 913-1988).

K.OPEN FLAMES ON AIRCRAFT FUEL SERVICING RAMPS.

(1)Open flames on aircraft fuel servicing ramps or aprons within 50 feet of any aircraft fuel servicing operation or fueling equipment shall be prohibited.

(2)The category of open flames and lighted open-flame devices shall include, but not be limited to, the following:

(a)Lighted cigarettes, cigars, pipes.

(b)Exposed flame heaters, liquid, solid or gaseous devices, including portable and wheeled gasoline or kerosene heaters.

(c)Heat-producing, welding or cutting devices and blowtorches.

(3)Personnel shall not carry lighters or matches on their person while engaged in fuel servicing operations.

(4)Lighters or matches are prohibited on or in fueling equipment.

L.LIGHTNING PRECAUTIONS.

Fuel servicing operations shall be suspended when there are lightning flashes in the immediate vicinity of the airport.

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M.DEADMAN CONTROL MONITORING.

(1)The fueling operator shall monitor the panel of the fueling equipment and the aircraft control panel during pressure fueling or shall monitor the fill port during over wing fueling.

(2)Fuel flow shall be controlled by use of a dead man control device.

N.FUELING.

(1)Prior to starting fueling operations, a check will be made to ensure that the fuel in the tanker is the correct grade for the aircraft. Also verify that adequate procedures have been used to prevent water in the tanker from being serviced into the aircraft fuel system.

(a)Contamination Prevention

Contamination normally occurs when the aircraft is serviced with the wrong fuel. The following procedures will help eliminate this hazard. Always ascertain that the fuel delivered is the type recommended for the aircraft. If uncertain as to the type of fuel, take a sample of fuel from the refueling truck or station before refueling is started and compare with colors listed below. After refueling is complete, take another sample from the refueling source. Repeat the color check. Use a transparent plastic container that is impervious to fuel.

**CAUTION: DO NOT USE GLASS**

(b)Some aviation fuels can be identified by color. The following color list will be of value in monitoring fuel delivery.

(1)100LL-blue

(2)Jet fuels-wide range from water-white to amber.

NOTE: The color test is nullified whenever any two of the above are mixed, since the resultant mixture could be water-clear.

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(c)Reduce the rate of fuel flow as fuel nears the top of the tank to prevent fuel spill.

(2)When single point fueling, check fuel vents for obstructions, and that air is escaping when fuel is being pumped.

O.FUEL SPILLS.

The following actions are appropriate in the event of a fuel spill, although each spill will have to be treated individually because of such variables as: size of the spill, type of flammable or combustible liquid involved, wind and weather conditions, equipment arrangement, aircraft occupancy, emergency equipment, and personnel available. Refer to National Fire Protection Association (NFPA) 407 Standard for Aircraft Fuel Servicing for a thorough discussion of fuel spills.

(1)Terminate the fueling operation; stop the flow of fuel if possible.

(2)Halt any operations in progress until a determination is made they may be continued safely.

(3)Evaluate the aircraft if the spill is such as to pose a fire threat.

(4)Mobile fueling equipment and other mobile equipment should be withdrawn or left as is until the fuel spill is removed or made safe.

(5)Notify supervisory personnel and the airport fire crew if the spill presents a fire hazard.

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VII. AIRCRAFT AND GROUND EQUIPMENT SERVICING

2.DEFUELING PROCEDURES

A.GENERAL.

The following practices and procedures shall be used in conjunction with the instructions set out in the maintenance manual for each specific type aircraft to be serviced. It will be the responsibility of the person in charge to see the following safety practices are complied with.

B.POSITIONING DEFUEL TRUCK.

(1)When positioning an aircraft to be de-fueled, due consideration should be given to the wind to prevent fuel vapor from being carried downwind toward a course of ignition. Aircraft being de-fueled shall be positioned at least 25 feet from other aircraft and buildings.

(2)The tank truck driver will approach the aircraft parallel to the wings, unless single point locations on the aircraft require a different approach.

NOTE: Unless absolutely necessary, because of the type of aircraft involved, the servicing vehicle shall not be driven or parked under any portion of the aircraft.

(3)Position the de-fuel truck so it can either be driven or towed away from the aircraft in the event of an emergency. Do not park ramp equipment where it will obstruct the movement of the tank truck.

C.BONDING.

(1)Always make the correct bonding connections before de-fueling.

(2)Connect a bonding cable from the fuel tanker to the aircraft. Do not attach cable to propellers or radio antenna.

(3)Before removing any aircraft fuel tank filler cap, connect the bonding cable attached to the fuel hose nozzle to a metallic component of the aircraft.

(4)All containers used in de-fueling of aircraft will be grounded.

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D.FIRE EXTINGUISHER.

Portable fire extinguishes (dry chemical or CO2) shall be available on the ramp or apron in case of a fuel spill or fire to provide an immediate means of fire protection. The prominent and strategic positioning of fire extinguishes is essential so they may be of maximum value in the event of an emergency. In some situations it may be desirable to position an extinguisher near an aircraft. In this situation, locate the extinguisher upwind within 50 feet of the aircraft.

E.OPERATION OF APU WHILE DEFUELING AIRCRAFT.

The APU can be operated during single point de-fueling of the B727 to transfer fuel, if the following restrictions are taken.

(1)The APU shall not be operated if the wind velocity is less than 5 knots. This is to reduce any chance of vapor accumulation in the event of a fuel spill.

(2)One-crewmember or maintenance personnel must be in the cockpit.

NOTE: Except when the aircraft is equipped with an external APU control panel with APU shutdown controls.

(3)The APU shall be immediately shut down and de-fueling discontinued in the event of fuel spill, APU malfunction, and/or APU fire.

F.USE OF GROUND UNITS.

(1)Position ground power units upwind from the de-fueling operation as far distant as possible.

(2)Do not obstruct the path of the de-fuel truck.

G.DEFUELING.

(1)Prior to starting de-fueling operations, a check will be made to ensure that the fuel in the aircraft is the same grade as in the de-fuel truck.

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(2)Make certain storage tank, compartment, receptacle, etc., are clean and of sufficient capacity to hold the amount of fuel to be drained.

(a)Reduce rate of de-fueling as fuel nears top of storage container, to prevent overflow and subsequent hazardous fuel spillage.

(b)A second man will be required at the fuel truck to monitor tank level during de-fueling to prevent spillage.

(3)When single point de-fueling, check fuel vents for obstructions.

H.FUEL SPILLS.

The following actions are appropriate in the event of a fuel spill, although each spill will have to be treated individually because of such variables as: size of the spill, the flammable or combustible liquid involved, wind and weather conditions, equipment arrangement, aircraft occupancy, emergency equipment, and personnel available. Refer to National Fire Protection Association (NFPA) 407 Standard for Aircraft Fuel Servicing for a thorough discussion of fuel spills.

(1)Terminate the fueling operation; stop the flow of fuel if possible.

(2)Halt any operations in progress until a determination is made they may be continued safely.

(3)Evaluate the aircraft if the spill is such as to pose a fire threat.

(4)Mobile fueling equipment and other mobile equipment should be withdrawn or left as is until the fuel spill is removed or made safe.

(5)Notify supervisory personnel and the airport fire crew if the spill presents a fire hazard.

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3.FUEL TANK PURGING.

A.GENERAL.

The fuel tank purging procedures given in the various maintenance manuals all concur on several items:

(a)Safety precautions must not be compromised.

(b)During fuel tank purging, fuel vapor can be explosive.

(c)

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