

# **FT MEADE FLIGHT ACTIVITY, INC.**

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# **OPERATIONS MANUAL**

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**FT MEADE FLIGHT ACTIVITY, INC.**  
**OPERATIONS MANUAL**

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# **Part 1 ADMINISTRATIVE MATTERS**

## **1-0 MISSION STATEMENT**

FT MEADE FLIGHT ACTIVITY, INC.'s ("FMFA") mission is to provide its members of varying experience and skill levels with safe and economical access to general aviation aircraft in order to further their personal aviation goals.

## **1-1 MANAGER AND BOARD OF ADVISORS**

- a) The Manager or Co-Managers (hereafter referred to solely or collectively as "The Manager") of FT MEADE FLIGHT ACTIVITY, INC. ("FMFA") is under the supervision of the Club President and Chief Flight Instructor of NAFC Inc. The Manager is responsible for day-to-day operation of the FMFA and is authorized to take any actions necessary for safe and efficient operations. S/he establishes procedures to ensure compliance with Federal Aviation Regulations and the best safety and business practices.
- b) A Board of Advisors ("The Board") supports The Manager. It comprises The Manager, Operations Officer, Safety Officer, Maintenance Officer, Chief Pilot, and one or more Members-at-Large (who are selected by The Manager and serve at his/her discretion). The Manager may add or subtract positions to the Board as s/he deems necessary. Meetings of the Board are held quarterly, with ad hoc sessions as needed.

## **1-2 MEMBERSHIP APPLICATION**

- a) General eligibility requirements for membership in FMFA are determined by The Board and may be changed from time-to-time. Membership is open to all at the discretion of The Board. The Manager or The Board may refuse membership to any person for any reason at any time, if they believe it is in the best interest of FMFA.
- b) Prospective members appear in person at the FMFA office (or by other means at the discretion of the Board), at which time their application for membership is completed, required documents are checked, and a one-time initiation fee is paid. The initiation fee may be waived in some circumstances at the discretion of The Manager.
- c) Members must be at least 16-years old.

There are no additional limitations, other than current requirements under U.S. Law and TSA regulations, on foreign nationals (who are otherwise eligible for membership) as regards joining, exercising existing pilot privileges, or acting as an Instructor in FMFA aircraft.

## **1-3 MEMBER'S PERSONNEL FOLDER or FSP**

A folder is created for each new member that contains the following documents. If FSP allows scanned copies of these documents should be uploaded to FSP instead of the



hardcopy folder. (When possible, we prefer the latter as part of our effort to reduce paper generation.)

- member's completed application form
- copy of member's pilot certificate(s)
- copy of member's current medical certificate
- signed and dated RELEASE, ASSUMPTION OF RISK AND INDEMNITY AGREEMENT and any other required releases, e.g., related to the COVID virus.
- most recent FMFA Pilot Checkout Form (initial or annual, instrument, night and FMFA aircraft checkouts)
- copies of the written tests taken for the initial or annual FMFA flight reviews
- copy of logbook entry of pilot's last FAA flight review
- copy of member's last instrument proficiency check (if applicable)
- copy of driver's license or other government-issued identification containing the member's photograph
- proof of citizenship per TSA requirements or appropriate TSA approval forms for foreign nationals
- copy of renter's insurance policy (If uploading to FSP, only the binder page showing coverages is required.)
- other documents as requested by The Board

Members are responsible for ensuring that the above items are in the member's personal folder or FSP and that every item is accurate and up-to-date. Members are responsible for ensuring timely updates to all documentation including emergency notification, home address, telephone numbers and email addresses.

#### **1-4 DUES and INITIATION FEE**

Dues are assessed for all members, and are payable monthly (by Electronic Funds Transfer or Automatic Credit Card Payment) or annually.

- a) Initiation fee and dues rates are set by The Board. As of April 1, 2021 these were:
- b) The one-time initiation fee is \$150 payable at time of membership application.
- c) Membership dues are \$25 per month or \$300 per year if paid in advance. The family rate is \$37.50 per month or \$450 per year if paid in advance.

#### **1-5 DISHONORED CHECKS**

A penalty, set by The Board, is assessed for any dishonored check. All FMFA privileges are denied until the dishonored check is made good and FMFA is reimbursed for any penalties assessed by the dishonoring institution. Repeated return of dishonored checks results in termination of membership and recourse to legal action.

## **1-6 DELINQUENT ACCOUNTS**

- a) Management notifies members who have accounts delinquent over 30-days. If the member does not pay when alerted, his/her membership is terminated and is not reinstated until all arrears are paid. Payment of another Initiation Fee may be required.
- b) Any account which is found to be delinquent a second time is closed and the member is prohibited from rejoining the FMFA for six-months.

## **1-7 RELEASE, ASSUMPTION OF RISK AND INDEMNITY AGREEMENT**

Upon joining FMFA, and before flying in any FMFA aircraft, members sign and date a

- a) GENERAL RELEASE - INCLUDING COMMUNICABLE DISEASES, which is valid indefinitely, and any other required releases, e.g., related to the COVID virus. The agreement(s) are retained permanently in the member's personnel folder. No flights are permitted if the document(s) are missing from the folder.

Non-member passengers on FMFA aircraft must sign and date a

- a) GENERAL RELEASE - INCLUDING COMMUNICABLE DISEASES and any other required releases, e.g., related to the COVID virus prior to any flight. The name of sponsoring member must be on the form(s). The agreement(s) are placed in the wooden box at the Administrator's desk. These non-member agreement(s) will then be filed with the sponsoring members' personnel folder.

## **1-8 INITIATION FEE, RESIGNATION, REINSTATEMENT AND TEMPORARY MEMBERSHIP**

- a) The new member initiation fee is \$150.
- b) To resign from FMFA, a written letter or e-mail of intent to resign must be received by the Manager or Administrator no later than two-weeks prior to the first of the month in which the resignation is to take effect. If this notice is not received by this deadline, dues will be forfeited for the month in which the resignation is to take effect.
- c) Members who are in good standing at the time of resignation and who remain eligible as members may be accepted for reinstatement upon payment of a \$60 fee.

## **1-9 SUSPENDED MEMBERSHIP**

Any active military member who is to be deployed on official TDY (Temporary Duty) or civilian member who is to be temporarily transferred by his/her employer to a location out of the local area for over 60-days may request, in writing, suspended membership. The member's personnel folder is flagged "inactive" and dues are suspended until the member returns to normal duty status. Personnel being sent to combat tours are not required to resign. Their membership also becomes inactive and their dues are suspended until they return to the local area.

## **1-10 AIRCRAFT SCHEDULING**

Aircraft scheduling is accomplished online via [www.flightschedulepro.com](http://www.flightschedulepro.com). Access to this system is set up upon joining the FMFA, when the membership application is accepted by the Manager or Administrator. A rolling 14-days ahead, 7 days-a-week schedule is currently permitted for members.

- a) Aircraft are scheduled on a first-come, first-served basis; however, a standby provision is incorporated into the system. If a desired block of time for an aircraft is already scheduled, the member may still enter a reservation, but it will be recorded as “standby.” If the originally scheduled member cancels the reservation, the standby member’s schedule request automatically becomes the scheduled user.
- b) The Manager, Chief Pilot, Operations Officer, and Administrator have the authority to change the flight schedule for optimum utilization of aircraft. Therefore, a member may not get the exact aircraft originally reserved. Every effort is made to accommodate member’s preferences, but circumstances such as unscheduled maintenance, flight checks, and last minute cross-country flights, may require a change to another aircraft.
- c) Cancellations are permitted up to 24-hour-hours before the scheduled flight. Any member who cancels or fails to appear for his/her flight after that time will be assessed a fine equivalent to 1-hour flying time in the respective aircraft, to defray loss of revenue to FMFA and in fairness to other members who might wish to schedule that aircraft. The exceptions to this rule are limited to unacceptable weather conditions, aircraft maintenance, illness, family emergencies, work emergencies, or special situations as determined by The Manager.
- d) Flights should be planned to ensure a minimum of 15-minutes of ground time between flights (for refueling and tie-down).
- e) For as long as The Board deems necessary, COVID protocols may be in place and extra time should be scheduled for aircraft decontamination, etc.

## **1-11 SCHEDULING LIMITS**

The following limits for scheduling of FMFA aircraft apply:

- a) Reservations of 6-hours duration or less may be scheduled 14-days in advance.
- b) Reservations for more than 6-hours must be submitted as Advanced Reservation Requests and are subject to the minimum rental rates described in section 1-13, below.
- c) The Manager or Operations Officer may approve reservations for more than 6-hours on an ad hoc basis.
- d) Reservations for overnight flights must be submitted as Advanced Reservation Requests through the link found in [fmfa.org](http://fmfa.org) under “Pilot Lounge”, “Aircraft Scheduling”. Reservations are subject to the minimum rental rates described in section 1-13, below.

- e) FAA Practical Test Flights must be scheduled as Advanced Reservation Requests, but they may only be submitted after the test has been scheduled with the examiner. Since these flights are dependent upon the examiner's schedule, they have priority over all others, and may require other members to give up an aircraft which they had already scheduled. However, it is preferred that this scheduling, when possible, be made outside the normal 2-week scheduling window in order to lessen negative impacts on other members and their existing reservations. Whenever possible, those members may be switched to another aircraft, but this cannot be guaranteed. Members who do lose their reservation to a Practical Test Flight will be informed by telephone or e-mail.

Exceptions to the above may be made only by the Manager, Operations Officer, Chief Pilot or Administrator.

### **1-12 AIRCRAFT RENTAL RATES**

Rental rates for FMFA aircraft are based on maintenance, depreciation, and operating costs and are established by the NAFC Management and administered by The FMFA Board. Current rates are posted in the FMFA website and are subject to change.

- a) Charges for aircraft rental are computed from the Hobbs meter. Hobbs readings are recorded before starting the engine and after shutting it down. If the tenths digit of the Hobbs meter has moved from the off-center position in preparation for rolling over to the next digit, the higher reading is used. The Manager is notified if there are gaps between the initial Hobbs reading and the last entry in the FSP system. If the Hobbs meter malfunctions, aircraft rental is computed at 1.2 times the tachometer reading.
- b) Rental charges are payable at the time they are incurred, i.e., when the flight is finished. Payment may be made by personal check, cash, or Master/Visa Card. Checks are made payable to **FMFA Inc.**

### **1-13 MINIMUM RENTAL RATES**

To ensure that aircraft scheduled for extended periods are actually flown, thereby preventing loss of income to the FMFA and inconvenience to other members, minimum rental rates for scheduled flights have been established. Flights scheduled for:

- a) 2-hours or less require the member to pay for at least 1/2 -hour of rental of the aircraft.
- b) more than 2-hours, but less than or equal to 3-hours, require the member to pay for at least 1-hour of rental of the aircraft.
- c) more than 3-hours, but less than or equal to 4-hours, require the member to pay for at least 1.5 -hours of rental of the aircraft.
- d) more than 4-hours, but less than or equal to 5-hours, require the member to pay for at least 2 -hours of rental of the aircraft.

- e) more than 5 -hours require the member to pay a minimum of 3 -hours of rental of the aircraft for each 24-hour period or fraction thereof. (For example, a member who schedules the aircraft for 30 -hours will pay at least 6 -hours of rental of the aircraft.)
- f) The manager may set aside the requirements of a) thru e) on a case-by-case basis at his/her discretion.

### **1-14 BLOCK TIME**

- a) “Block time” allows members may pre-pay for flight time by depositing funds with FMFA Inc. in advance. Members are encouraged to participate by giving them a bonus of 5% for qualifying deposits.
- b) The minimum qualifying deposit amount to earn the bonus is subject to change; it is \$1,000.00 at this time. Deposits less than the minimum will not earn the bonus and will be deposited to the member’s account at face value.
- c) Deposits of \$1,000.00 or more made only by cash or check will earn a 5% bonus. Deposits made by credit card will earn a no bonus.
- d) Balances are viewable online in Flight Schedule Pro (FSP). The balances are updated automatically as new deposits and aircraft rentals are entered.
- e) No minimum balance is required, but members must monitor their accounts to ensure their balances do not go below zero. FMFA will not extend credit to anyone. In the unlikely event that a balance becomes negative, the amount to bring it to zero will be deducted from the next deposit. If the remainder of the deposit is less than the minimum amount (\$1,000.00), no bonus will be given.
- f) Members may close their block time accounts at any time, but the balance will not be refunded. Members who close their block time accounts may sell or give the balance to another member.

### **1-15 INSTRUCTOR FEES**

Flight Instructor fees are paid through FSP after each flight or ground lesson. Rates are posted on FMFA website. Instructor fees are set by The Board and may be changed from time-to-time. Instructor time consists of dual flight instruction, pre- and post-flight briefings, and ground instruction. Pre- and post-flight instruction is generally charged by the Instructor for time actually spent with the member.

### **1-16 FAILURE TO APPEAR**

- a) Pilots are expected to arrive at the FMFA in time to complete all flight planning and receive an Instructor’s pre-flight briefing (if required) before actually taking possession of their aircraft at the start of the time block.

- b) If a scheduled pilot does not arrive within the first 15 minutes of the time block, and he/she has not contacted the FMFA to explain the late arrival, the aircraft is released for rescheduling. Moreover, that pilot may be assessed a penalty as described above in section 1-10c for a canceled flight.

### **1-17 LATE RETURN OF AIRCRAFT**

The pilot-in-command must return the aircraft before the end of the scheduled time block. Returning an aircraft later than the time for which it was scheduled may result in punitive action if the late return was not due to circumstances beyond the pilot's control. For a first offense, a member may be grounded for 2-weeks; for a second offense the pilot may be grounded for 3-weeks and be assessed a penalty of 1-hour flight time for the aircraft being flown. A third offense may result in suspension or revocation of membership in FMFA.

### **1-18 DAMAGED AND UNUSABLE AIRCRAFT**

- a) If an aircraft is damaged while being operated by a member, whether or not the damage results in grounding of the aircraft, the Manager will request an investigation by the Safety Officer and/or Maintenance Officer to determine liability. The Safety Officer may enlist other officers and members to assist in the investigation.
- b) If an aircraft is rendered temporarily unusable as a result of actions (or inactions) by a member, the member may be assessed a fee to cover repairs and lost income to the FMFA. Such actions include, but are not limited to, leaving the master switch on (resulting in a dead battery), failing to return the aircraft key, or damaging a tire through improper braking.

### **1-19 EXPENSES INCURRED AWAY FROM TIPTON**

Fuel purchases, landing fees, tie-down fees, and storage fees at locations other than Tipton Airport are paid by the member, and are reimbursable only to the following extent:

- a) Fuel purchased away from Tipton Airport is reimbursed at the rate paid by FMFA to Tipton FBO for fuel. The rate is subject to change, and any cost above the posted rate must be paid by the member. A receipt for the fuel purchased must be attached to the dispatch sheet to justify the deduction.
- b) If a pilot hangars an aircraft to protect it from high winds, hail, or other natural hazards, the pilot is reimbursed the difference between the cost for hangar parking and normal outside tie-down. In this case, the pilot must provide a receipt which shows the hangar fees paid, the normal tie-down fee, and the circumstances which necessitated use of a hangar.
- c) If an aircraft must be grounded away from Tipton for reasons other than pilot error or negligence, the FMFA reimburses the member for storage or hangar fees, and the member shall not be liable for repair or return of the aircraft. However, if an aircraft is grounded because of pilot error or negligence, the member will be held

responsible for the costs of repair, storage, and return of the aircraft. In any case, the pilot is responsible for any personal expenses, such as food, travel, or lodging.

- d) If a member grounds an aircraft away from Tipton because of poor flight planning or for maintenance discrepancies not affecting the safety of flight, the member is responsible for costs of storage and return of the aircraft to Tipton. Notwithstanding this, the member must always put the safety of flight above all other considerations.

### **1-20 REPAIRS AWAY FROM TIPTON**

- a) Mechanical or avionics repairs away from Tipton, including emergency repairs, must be approved in advance by the Manager or Maintenance Officer. Members will not commit to any expenses without prior approval.
- b) In any situation requiring repairs members call the Manager or Maintenance Officer. If not available immediately, members report the problem to any board member and leave a telephone number where they can be reached.
- c) Once contact is made, the pilot-in-command briefs on the particulars of the problem, including estimated costs of repairs, the name of the repair facility, and whether the facility is FAA-certified.
- d) Once the Manager or Maintenance Officer has given authorization and instructions, the member obtains an invoice and receipt for payment. The member also requests a maintenance work order and log entry to put in the aircraft logbook, describing the repairs that were made.

### **1-21 AIRCRAFT HULL AND LIABILITY INSURANCE**

- a) The hull insurance carried by FMFA is designed to provide coverage for loss or damage to aircraft. However, a pilot may be held liable for damages caused by negligence. Examples of negligence include leaving the master on, dropping a dipstick in the fuel tank, striking an object while taxiing or parking, damaging a tire because of improper braking procedures, etc. If found to be negligent, a member may be required to pay for any deductible and other damages.
- b) Members are required to purchase separate renter's insurance that covers deductible, personal liability and loss of revenue to FMFA. At the time of this writing the deductible is \$10,000 which is subject to change. A copy of the member's current policy must be kept in the FMFA pilot's file or the binder page must be uploaded to FSP. Minimum required insurance will cover the items below:

#### **Liability Limits**

Accident Coverage -	\$ 250,000 per accident
Bodily Injury -	\$ 25,000 each person
Property Damage -	\$ 250,000 property
Aircraft Damage Liability -	\$ 10,000 each non-owned aircraft

## **1-22 SUSPENSION OF PILOTING PRIVILEGES (GROUNDING)**

- a) Members may be grounded (that is, forbidden to pilot FMFA aircraft) for the following reasons:
  - 1. Required items missing from Membership Folder
  - 2. Failure to attend a safety meeting in the preceding 90-days or to view a videotape recording or receive a briefing from an Instructor on that meeting
  - 3. Actions deemed by the Manager, the Safety Officer, the Operations Officer, or the Chief Pilot to be a significant infraction of FMFA or FAA rules or a threat to safety.
- b) The member's flight privileges may be restored when all the deficiencies for which the member was grounded have been corrected.

## **1-23 APPEALS**

Authority for imposing fees and penalties, and for approving reimbursements or credits rests with the Manager. A member may seek redress of a Manager's ruling by submitting a written appeal to the Board of Advisors.



## **Part 2 GENERAL OPERATIONS AND RULES OF FLIGHT**

### **2-1 OPERATIONS OFFICER**

In the event of an incident or accident involving Club aircraft, the Operations Officer or other designated Board Member as decided by the Manager serves as chairman of the investigating panel. The Operations Officer approves or disapproves advanced reservation requests for aircraft.

### **2-2 USE OF AIRCRAFT**

FMFA aircraft are used solely for bona fide recreational/instructional flights. They are not loaned or leased, or flown by non-FMFA members, except for a prospective buyer of an FMFA aircraft, an approved mechanic, or an FAA examiner. FMFA Instructors may give “Discovery or Intro Flights” to bona fide prospective members. FMFA aircraft are not operated for hire, do not participate in aerial displays, and are not used for towing or sport parachuting. They are not used to engage in formation flying, low-level buzzing, or any activity detrimental to safety.

### **2-3 PILOT-IN-COMMAND**

According to FAA regulations, the pilot-in-command (PIC) is the person responsible for the operation and safety of an aircraft throughout the flight. FMFA holds that, in addition, the PIC’s responsibility extends from the time the PIC accepts the Aircraft Book and aircraft key until both items are returned to the office. The PIC must comply with all FMFA and FAA operating rules.

### **2-4 PASSENGER BRIEFINGS**

The PIC briefs all occupants of the aircraft on items pertaining to safety. At a minimum, this includes the prohibition on smoking, use of seatbelts, location and use of fire extinguishers, operation of door and window locks, and emergency procedures.

### **2-5 USE OF BELTS AND HARNESSSES**

All occupants of FMFA aircraft must wear seatbelts throughout the flight. Shoulder harnesses must be worn, if available. Each seat belt is used by one person only, with the exception of infants under the age of 2-years.

### **2-6 USE OF CHECKLISTS**

A checklist is provided in each FMFA aircraft and its (or an electronic version’s) use is required for all phases of flight, including preflight inspection, taxiing, takeoff, landing, shutdown, and post-flight inspection. If the checklist is missing from the aircraft, an alternative checklist may be used, provided that it adequately covers all required items.

Members are encouraged to print, at home, their own copies of checklists from the club website for the aircraft they fly.

## **2-7 AIRCRAFT BOOK**

A black three-ring binder, known as the “Aircraft Black Book,” is maintained for each FMFA aircraft. It contains: keys to the aircraft, throttle lock (if applicable), and self-serve fueling facility credit card; emergency notification roster; and VOR calibration record. The Aircraft Book is carried in the aircraft for every flight and returned to the office afterward.

## **2-8 REQUIRED ITEMS AND EQUIPMENT**

- a) The PIC ensures that the Aircraft Book, current charts, and required flight publications are in the aircraft. If passenger airsickness is a possibility, the PIC must provide air sickness bags to protect the aircraft from being soiled.
- b) A checklist, control wheel lock, throttle control lock (if applicable), and fuel sample cup remain in the aircraft at all times.
- c) If the aircraft is operated at night, an operating flashlight must be carried on board.

## **2-9 FLIGHT MINIMUMS**

### **2-9.1 VFR WEATHER MINIMUMS**

	Day		Night	
Pilot	Ceiling	Visibility	Ceiling	Visibility
Certificated	1,500’ AGL	5 sm	2,500 AGL	5 sm
Student	2,500 AGL	5 sm	NO SOLO	NO SOLO

### **2-9.2 VFR ALTITUDE MINIMUMS**

- a) The minimum en route altitude for FMFA aircraft is 1500’ AGL, except when lower is required for operational reasons or to comply with ATC instructions
- b) Stalls, steep-bank turns, slow flight, unusual attitudes or any abrupt maneuvers are to be performed at an altitude that allows recovery at or above 1500’ AGL.

### **2-9.3 RUNWAY MINIMUMS**

The minimum acceptable *usable* length for runways used by FMFA aircraft is 2,000 ft. or the sum of the takeoff and landing rolls specified for the aircraft under existing conditions, whichever is greater. Minimum width is 45 ft. FMFA aircraft will be operated only from hard surface runways. Exceptions to these minimums may be granted by an FMFA Instructor when

he is flying with the member, the FMFA General Manager or FMFA Chief Pilot. Exception to these minimums is authorized in the case where there is an overriding safety consideration, e.g., excessive winds at all other nearby complying airports.

**2-9.4 MINIMUM FUEL REQUIREMENTS**

- a) Upon landing at the destination or intermediate airport on any VFR flight in an FMFA aircraft there must be sufficient fuel remaining in the tanks to fly for 1-hour at normal cruise power.
- b) Upon landing at the destination, intermediary airport or alternate on any IFR flight in an FMFA aircraft there must be sufficient fuel remaining in the tanks to fly for 1-hour at normal cruise power, or as required by the CFR 14, paragraph 91.167, whichever is greater.
- c) Any pilot who has a fuel exhaustion incident that was not the result of a mechanical failure will be terminated as an FMFA member immediately, and will be permanently barred from rejoining FMFA.
- d) For FMFA fuel planning purposes, all FMFA pilots shall use the following flight hours (takeoff to landing) for being on the ground for refueling: Cessna 150, N781FM Cessna 172, N782FM Cessna 172 – 3 flight hours; Cessna 172 N783FM, Arrow (fuel to “tabs”), Warrior (full fuel) – 4 flight hours.

**2-10 WIND LIMITATIONS**

Pilots operating FMFA aircraft observe the following limits for winds:

Pilot	C150		C172		Warrior		Arrow	
	Total	X-Wind	Total	X-Wind	Total	X-Wind	Total	X-Wind
Certificated	26	12	26	15	26	17	30	17
Student	10	6	15	8	15	8	NA	NA
Instructor	35	20	35	20	35	20	35	20

**2-11 SPECIAL VFR**

FMFA aircraft are not authorized to depart or land at any airport under special VFR unless all of the following conditions are met:

- 1) The PIC is instrument rated and instrument current in the aircraft.
- 2) The PIC has received a satisfactory FMFA instrument checkout in the aircraft by an authorized FMFA Instructor.

- 3) The PIC has received a satisfactory FMFA annual instrument check ride in the preceding 12 calendar months.

## **2-12 CROSS-COUNTRY FLIGHTS**

- a) For certificated pilots, cross-country flights in FMFA aircraft are defined as those which exceed 50 nautical miles from Tipton Airport. For students, cross-country flights are defined as those which exceed 25 nautical miles. (For logbook purposes, use the FAA specified distances.)
- b) For night cross-country flights, certificated pilots must be qualified in accordance with FAR 61.109, in addition to having a one-time FMFA night checkout.
- c) For student pilots, solo cross-country flight is limited to daylight-hours, and the distance of these flights is restricted to a radius of 125 nautical miles from Tipton Airport.
- d) All cross-country flights are restricted to the 48 contiguous states. Flights outside the US in FMFA aircraft are prohibited.
- e) Any exceptions to items c) through d) must be approved in advance by the Chief Pilot or FMFA Manager.

## **2-13 FLIGHT DISPATCHING AND CLEARANCES**

### **2-13.1 FLIGHT DISPATCHING**

To track aircraft usage, FMFA uses software developed by Flight Schedule Pro (<https://app.flightschedulepro.com/App>). Before flight, the member enters the FSP application either in the FMFA office or on a mobile device and clicks on the “Checkout” menu of this system and enters the required information. If the pilot is current and all the clearance boxes have been checked, the pilot and aircraft are released for flight. The member should record the beginning Hobbs and tach times in order to verify them against those in the aircraft. If the pilot is not current or all the clearance items have not been met, flight is disallowed until all the discrepancies have been corrected.

### **2-13.2 CLEARING PROCEDURES AT TIPTON**

Rated pilots with less than 200-hours must have their flight approved by a clearing authority. Instrument-rated pilots with less than 5-hours of actual flight in IMC must have their flight approved by a clearing authority if actual IMC is expected during the flight. A clearing authority is also required for all student flights.

- a) Clearing authorities include any FMFA certificated flight instructor or any FMFA Board member. They may be contacted in person, email or telephone. The name of the clearing authority must be entered in the comments field of the FSP reservation along with the pilot’s mobile phone number, intended route of flight and other pertinent details.

- b) The responsibility of a clearing authority is to:
1. Evaluate weather conditions and other operational considerations that could affect the safety of the flight.
  2. Obtain verbal assurance from the pilot that the flight can be conducted safely based on his/her experience and qualifications as regards the aircraft, currency requirements, and weather conditions.
  3. Advise the pilot that the flight may not be taken if weather conditions deteriorate significantly from earlier forecasts.
  4. Remind the pilot to properly dispatch the aircraft.
  5. Remind the pilot to close his/her flight plans upon arrival.

### **2-13.3 CLEARING PROCEDURES AWAY FROM TIPTON**

- a) For rated pilots with less than 200-hours or instrument-rated pilots with less than 5-hours of actual flight in IMC (if actual IMC is expected) on flights entailing one or more overnight stays, or on any cross-country trip where the weather forecast for the return leg has deteriorated from earlier forecasts, the pilot obtains verbal clearance to return to Tipton by telephoning any authorized FMFA Board member or Instructor.
- b) Student pilots who take off from airports more than 25-miles from Tipton first telephone their Instructors for clearance if their Instructors have not previously cleared them as part of their departure from Tipton.

### **2-14 FLIGHT PLANS**

- a) SFRA (Special Flight Rules Area) or IFR flight plans are filed with Flight Service or online prior to any flight to or from Tipton Airport. VFR/SAR (Search-and-Rescue) flight plans are required for VFR cross-country flights that go 50-nm or more from Tipton. The use of ATC Flight Following service is highly recommended when available. Pilots with less than 200-hours, student pilots, and instrument rated pilots with less than 5-hours of actual IMC who expect to encounter IMC include the name of the clearing authority for that flight in the FSP reservation. All other pilots should enter "self" for clearing authority in FSP.
- b) When departing Tipton on a cross-country trip, VFR/SAR flight plans are opened with the Leesburg Flight Service Station by radio or through the internet and closed upon landing at the destination airport.
- c) When returning to Tipton from a cross-country flight, a VFR/SAR or IFR flight plan is filed before taking off. If VFR/SAR, it is then opened in the air or online and closed upon landing at Tipton.
- d) Any flight plan filed with FSS must include the pilot's phone number (cell preferred). Should there be a problem with a flight plan, FSS will be able to contact the pilot.

## **2-15 OPERATIONS AT TIPTON AIRPORT**

### **2-15.1 FLIGHT PLANNING**

- a) The PIC arrives at Tipton at least 15 minutes before the start of the scheduled flight time.
- b) A full “standard” weather briefing is obtained by telephone from a Flight Service briefer or from an FAA official internet service such as Leidos [www.1800wxbrief.com](http://www.1800wxbrief.com). See FAA AC 91-92 Pilot’s Guide to a Preflight Briefing for further details.
- c) The PIC checks for any NOTAMs pertaining to the intended route of flight, especially as regards the Special Flight Rules Area and the P-40 Restricted Area. Special note should be made of any “pop-up” TFRs.

Non-member passengers, if any, sign and date a

- a) GENERAL RELEASE - INCLUDING COMMUNICABLE DISEASES, which is placed in the box on the Administrator’s desk.
- b) Weight and balance is calculated and a determination is made as to whether fuel must be drained from the aircraft tanks or other load adjustments made to remain within acceptable limits.
- c) Courses, altitudes, times, speeds, and fuel requirements for the flight are determined.
- d) Flight plan(s) are filed with Flight Service (AFSS) or online (SFRA, VFR/SAR, IFR).
- e) Flight dispatching, and clearing if appropriate, are accomplished as described in paragraph 2-13, above.
- f) The PIC calls Potomac TRACON (Terminal Radar Approach Control) to obtain a discrete transponder code and the communications frequency to be used for departure.

### **2-15.2 PREFLIGHT AND TAXIING**

- a) The windscreen and side windows are cleaned with a soft cloth and Plexiglas cleaner or a mixture of water with a little dishwasher detergent. Paper towels or commercial cleaners intended for glass are not used, since they can scratch the Plexiglas or cause it to craze.
- b) All preflight items are verified with the checklist kept in the aircraft.
- c) Fuel measuring dipsticks are in all C172P FMFA aircraft. In order to use the dipsticks, one must dip them in each wing fuel tank and correlate the observed fuel level. Note: Useable fuel for each wing of the C172P N781FM & N782FM is 20 gallons (standard tanks) versus C172P N783FM and C172N N4846G which is 25 gallons (long-range tanks). The C172 dipsticks in FMFA aircraft are made for a standard tank C172N which has 19 gallons in each wing.

- d) During bird nesting season (spring) be especially alert for nest-building in the cowls, empennages and other aircraft openings. Remove all nesting materials before flight.
- e) If tire pressures are low, the PIC uses the air tank from the maintenance hangar to fill the tires to the proper pressure.
- f) If an aircraft is temporarily left unattended on the ramp for any reason, ensure gusts locks are installed, doors are shut, and the aircraft is chocked. Push back into parking spot and chock. NEVER LEAVE KEYS IN AN UNATTENDED AIRCRAFT. Airport and TSA personnel may be inspecting the airport. Please do not give them cause to complain about unsecured aircraft.
- g) The aircraft beacon switch is turned on and the area in the vicinity of the propeller is cleared, by yelling "clear." Visually check both sides and to the rear/behind the aircraft before starting the engine
- h) Hand propping to start the engine is not permitted.
- i) Fire extinguishers are located in each aircraft. Should a fire occur during engine start-up and the blaze is not out of control, an attempt may be made to put out the flames.
- j) Prior to taxiing, the radio is turned on and tuned to Tipton's Common Traffic Advisory Frequency (CTAF), 123.05 MHz. The transponder, with the assigned code entered, is turned to ALT. (Note that the transponder should remain with the assigned code in the ALT position at all times including when on the ground.)
- k) A brake check is required prior to all flights. The brake check procedure is as follows: Apply minimal power sufficient to begin aircraft movement. Upon the start of movement immediately apply brakes. Reduce power to idle if brakes do not function.
- l) Taxiing is done at a speed roughly equal to the pace of a fast-walking person, i.e., <5 kts.
- m) Careful scanning is required, since aircraft may be traveling in either direction on the taxiway, or may be entering the taxiway from the fueling or tie-down areas, as well as from either end of the runway. Our parking positions on the east ramp have club and other aircraft parked around them. We need to be careful with the prop-wash from the engine at all times. Use the least power necessary to taxi out of the tie-down spot and whenever your prop-wash is directed at another airplane or person or might cause damage. Keep the airplane lined up with the taxiway alley centerline between the rows during the final run-up/shutdown. If you are able to maneuver the aircraft with the tow bar, park the aircraft from the point of shutdown. If unable to pull and push the aircraft that far, use the least power necessary to turn the aircraft into a push-back position before final shutdown.
- n) Except in windy conditions, taxiing is done with full back pressure on the yoke to reduce stress on the nose gear. In windy conditions, the control inputs specified in the Pilot's Operating Handbook are used.

### **2-15.3 RUN-UPS**

- a) Run-ups are done in the areas clear of the taxiway at either end of the runway. During the run-up the aircraft is pointed into the wind, if practical, with the nose wheel straight.
- b) The altimeter is set to 150' MSL in the eastern run-up area and to 120' MSL in the western, or to the current AWOS altimeter setting.
- c) Prior to takeoff, pilots (either VFR or IFR) will contact Potomac Approach via telephone at 866-429-5882 and obtain a squawk code and frequency or IFR clearance. Pilots remaining in the airport traffic pattern will only obtain a squawk code.
- d) Before taxiing onto the active runway, the pilot ensures that the takeoff checklist is completed, the transponder (with the assigned code entered) is set to "ALT", and makes a final scan of the entire traffic pattern.

### **2-15.4 TAKEOFF**

- a) The runway at Tipton is 3000' long by 75' wide. Aircraft depart to the west on Runway 28 and to the east on Runway 10. Runway 28 is the preferred runway in a no wind condition – traffic permitting.
- b) Departing aircraft never "taxi into position and hold" or "line-up and wait" on the runway, because lingering could force a go-around for aircraft attempting to land and presents a serious collision hazard.
- c) Climb-out is done at the airspeed specified in the Pilot's Operating Handbook. In hot weather, allowance is made for the degraded climb performance resulting from high density altitude. If there is any question at all, the needed take-off distance over any obstacles is conservatively calculated and the take-off is not attempted unless there is an adequate safety margin. A good rule-of-thumb is to require the calculated distance +50%.
- d) Pilots departing the Tipton traffic area take special care to avoid penetrating the nearby Class B airspace or the boundary of the Flight Restricted Zone (FRZ), the area lying approximately within a 15 nautical mile radius of the Washington VOR/DME.
- e) Pilots desiring to enter the WASH/BAL Class B airspace contact Potomac Approach on the assigned frequency as soon after takeoff as safety permits (but within 2 nm of FME). Then the pilot may request Class B clearance which may require a frequency change. Any rated pilots, and students who have received instruction in the rules for WASH/BAL Class B airspace and an Instructor endorsement, are authorized to fly in WASH/BAL Class B airspace. (Note that this endorsement is only valid for the WASH/BAL Class B airspace. Specific endorsements must be obtained for each Class B airspace.)



## **2-15.5 DESCENT & PATTERNS**

- a) Shock cooling an aircraft engine can cause cracks in engine cylinders, especially the forward cylinders. Pilots are cautioned against making quick power reductions to prevent shock cooling. Power reductions should be gradual. For example, a power setting of 2400 rpm should be reduced to 2200 rpm with mixture rich, maintained at 2200 for 15-20 seconds, then reduced to 2000 rpm for 15-20 seconds, and so on. Power should not be reduced abruptly at any time with leaned mixture. Mixture should always be full rich prior to reducing power to descend and land.
- b) Turns to the crosswind leg are made at 700' MSL unless traffic or operational considerations require otherwise.
- c) Turns from Runway 28 are made to the left; turns from Runway 10 are made to the right.
- d) Downwind is flown at 1000' MSL (850' AGL), the traffic pattern altitude for Tipton Airport.
- e) Pilots announce turns to crosswind, downwind, base and final.

## **2-15.6 LANDING**

- a) The Crofton drag strip, approximately 4.5 nm SE of FME, which points almost directly to Tipton, is a good checkpoint from which to announce approaches from the southeast.
- b) Aircraft approaching the Tipton traffic pattern for landing enter at a 45 degree angle to the downwind leg and at an altitude of 1000' MSL. Straight-in approaches to landing are not permitted unless on an instrument approach and winds and traffic allow.
- c) Turns to base and final for Runway 28 are made to the left; turns to base and final for Runway 10 are made to the right.
- d) Careful scanning for other traffic is required; helicopters operate frequently from Tipton and do not follow the same landing procedures as fixed wing aircraft.
- e) Pilots do not land until the active runway is completely clear of aircraft. If it is not clear, a go-around is initiated.
- f) Touchdowns are made with heels on the floor and toes on the bottom of the pedals.
- g) Heavy braking to make the mid-field turnoff results in blown tires. If the aircraft's speed is too high, the pilot continues to the end of the runway before turning off.
- h) Full back pressure on the yoke is maintained during the run-out in order to avoid undue pressure on the nose gear.
- i) For night landings, the runway lights at Tipton can be turned on by clicking the microphone button 5 times in 5 seconds while tuned to 123.05 MHz.
- j) For night landings, pilots are encouraged to perform a low approach to clear the runway of animals (deer have been spotted on the runway at night).

## **2-15.7 POST FLIGHT**

- a) Aircraft will be refueled after every flight. The high-wing aircraft will be fueled to one-inch below the top of the filler neck unless there is a specific reason to do otherwise. Low wing aircraft will be filled to the tabs unless there is a specific reason to do otherwise.
- b) After fueling, while taxiing back to the tie-downs, stop in the tie-down alley, with the tail pointed away from other aircraft and personnel, and perform a high-rpm run-up as follows: Prior to engine shut-down, the engine speed should be maintained between 1000 and 1200 RPM until the operating temperatures have stabilized, (about 30 to 60 sec. of taxing). At this time the engine speed should be increased to approximately 1800 RPM with the mixture leaned just to the point where RPM starts to drop for 15 to 20 seconds, then reduced to 1000 to 1200 RPM and shut-down immediately using the mixture control.
- c) Prior to shutting down the engine, at idle rpm, do a magneto grounding check by rapidly turning the magneto switch to OFF and then back to BOTH. There should be a momentary drop in rpm. Then shut the engine down using the mixture control.
- d) Use tow bars to maneuver aircraft in the parking areas. Do not push down on the empennage to align the aircraft with the tie-downs or for any other reason. This can bend ribs, loosen the skin, and cause serious damage. Any damage will be paid by the pilot causing it – such damage is considered negligence and will not be covered by insurance.
- e) When positioning aircraft into their parking slots, the preferred “push” techniques are the following:
  - For high-wing aircraft, if there are two persons available, one pushes low on a wing strut while the other guides with a tow bar attached to the nose wheel. If there is only one person, s/he pushes at the base of the propeller blades (just next to the spinner) while guiding with the tow bar.
  - Low-wing aircraft are also pushed at the base of the propeller blades while guiding with a tow bar attached to the nose wheel. If another person is available, s/he may push on the leading edge of the wing, near the wing root. Under no circumstances should anyone push on the spinner or anywhere higher up on the propeller blades.
- f) The gust lock, throttle lock, Pitot tube cover, cowling plugs and chocks are installed before leaving the aircraft.
- g) All air vents must be closed and the handbrake left OFF.
- h) On C172 aircraft, ensure the fuel selector is placed in the LEFT or RIGHT position to prevent fuel loss.
- i) A walk around the aircraft is done to inspect for any damage that may have occurred in flight or at other airports.
- j) A double check is made to ensure that the ignition and master switches are turned off.

- k) Pilots are required to lock all operable aircraft doors, including baggage doors, whenever and wherever parked.
- l) Fasten seat belts across front seats, but do not cinch tightly. Seat covers and padding have been ruined by tightly cinched belts.
- m) All pilots are responsible for the general cleanliness of the aircraft. Remove all trash, bottles, cans, empty oil containers, papers, bodily fluids and other personal items during post-flight inspection.
- n) Tie-down ropes are made secure with proper knots or tie-down devices.
- o) Aircraft with spinners must have the propeller parked in the vertical position when there is any chance of freezing temperatures. Liquid precipitation can drain from the spinner openings to avoid ice build-up inside the spinner. When temperatures are expected to remain above freezing, propellers should be parked at a 45-degree angle to discourage birds from sitting on them.
- p) The Hobbs meter and tachometer times, and fuel and oil amounts are entered into the FSP system. The member may elect to receive an email copy of the invoice/receipt for their personal records. On the gas receipt, print the pilot's name and invoice number from FSP, and then deposit the gas receipt in the safe on the Administrator's desk.

## **2-16 OPERATIONS IN THE SPECIAL FLIGHT RULES AREA**

- a) Tipton Airport is located within a Special Flight Rules Area (SFRA) which was established in February 2009. The SFRA comprises an area within a 30-nm radius centered on the Washington Reagan National Airport VORTAC, from the surface to 18,000 feet. It also includes a 60 nautical mile outer ring in which pilots must observe an airspeed limit. Special awareness training is required to operate within this 60 NM ring. FAASafety.gov has a satisfactory course here: <https://www.faasafety.gov/gslac/ALC/courseLanding.aspx?cID=405> Pilots are encouraged to retake this course annually in order to keep current on changes in the SFRA. It is strongly suggested that pilots carry a copy of the SFRA course certificate with them when flying, because the FAA and law enforcement have asked to see it during ramp checks.
- b) Prior to any flight from Tipton Airport, the PIC must file an SFRA or IFR flight plan with Flight Service or online. Prior to departure, the pilot contacts Potomac TRACON by telephone to obtain a discrete transponder code and the frequency to be used for communicating with Potomac TRACON when leaving the Tipton area. This action activates the SFRA flight plan. Alternatively the IFR pilot obtains his IFR clearance the same way and also obtains an IFR release prior to take-off.
- c) For flights restricted to the Tipton traffic area, or for flights to a practice area within the SFRA, and not involving a landing at another airfield, one flight plan is filed. The details of the flight and routing are entered in the FSP reservation comments field.

- d) When an aircraft lands at an airport other than Tipton within the SFRA, another SFRA flight plan must be filed. No “round-robin” flights or flights to multiple airports within the SFRA are permitted on a single flight plan.
- e) For flights conducted entirely in the Tipton traffic area, i.e., takeoff and landing practice, there is no need to establish communications with Potomac Approach, although it is still necessary to obtain a transponder code by telephone and the transponder must remain on “ALT” throughout the entire flight. (It is a good idea to “remind” Potomac that you are staying in the pattern when you call for your code.) At the end of the practice session the pilot contacts Potomac TRACON by phone on the designated number for this purpose to report that the flight is completed.
- f) For all flights departing the Tipton traffic area, the PIC contacts Potomac Approach as soon after takeoff as safety permits (but within 2 nm of FME) and follows all instructions. Two-way radio contact with Potomac Approach must be maintained at all times, and the assigned transponder code must be kept on until the aircraft has cleared the SFRA and permission has been granted to switch communications frequencies and change the transponder setting to 1200. This action means the outbound SFRA flight plan is closed.

Prior to re-entry the pilot obtains a new discrete transponder code from Potomac TRACON, thereby activating the return flight plan. Before actually re-entering the SFRA, the pilot establishes two-way communications with Potomac Approach and ensures that the aircraft is squawking the assigned transponder code. It is recommended that the pilot announce his squawk code to the controller. At this point the controller either permits the pilot to proceed or requests him/her to standby (usually in peak traffic periods). The pilot may not enter the SFRA until the controller says either “Beacon observed” or “Proceed on course.”

- g) For cross-country flights, the pilot must activate a VFR search-and-rescue flight plan in the air with the Leesburg Flight Service Station or through the internet just prior to takeoff. If done in the air, this is done usually immediately after exiting the SFRA and being released by the controller. Note that the activation time given to FSS should be the actual takeoff time from FME. This flight plan must be closed with Flight Service or online upon landing at the destination airport.

## **2-17 UNPLANNED LANDINGS**

- a) Any pilot landing at a location other than an airport listed in the FAA Chart Supplement must contact the Manager, Operations Officer, or Chief Pilot before taking off.
- b) Student pilots landing at airports other than those endorsed in their logbooks must telephone their Instructor for clearance before taking off.
- c) In the event of an off-field forced landing, the PIC will close the flight plan, report the location and nature of the problem to FMFA, and obtain qualified maintenance

personnel (after receiving permission from the Maintenance Officer) to determine/resolve the problem.

## **2-18 WHEN LANDING AT TIPTON IS NOT POSSIBLE**

If, upon returning to Tipton Airport, an FMFA pilot is unable to land due to a runway closure, weather conditions, or an emergency situation, the following applies:

- a) If flying IFR, or in rapidly deteriorating weather conditions, landing at BWI Airport or another suitable alternate is permissible.
- b) Under VFR conditions, members should land at one of the airfields in the local area, other than BWI, that is consistent with the pilot's skill and comfort levels.
- c) If a pilot chooses to land at BWI airport in VFR conditions or a non-emergency situation, he or she could be held responsible for landing and parking fees.
- d) In any of these situations, the pilot is responsible for retrieving the aircraft, or making arrangements for its retrieval, and notifying FMFA management as quickly as possible.

## **2-19 DAMAGES OCCURRING AWAY FROM TIPTON**

Any damage to an FMFA aircraft away from Tipton, even though they may not appear to be significant, are to be reported to the Manager and Maintenance Officer before the aircraft may be flown back to Tipton. Prop strikes, dents in the wing, and tire blow-outs may cause damage within the engine or airframe which is not discernible during a cursory inspection. In the event of damage to an FMFA aircraft away from Tipton, the following actions must be taken:

- a) The pilot contacts one of the following: Manager, Maintenance Officer, Safety Officer, Operations Officer, Chief Pilot. (Telephone numbers for these individuals are found in each Aircraft Book.) Student pilots also contact their Instructors. The person who is contacted then passes on the information to the other Board Members.
- b) The aircraft may not be flown until it is inspected by a certificated mechanic, preferably the FMFA Maintenance Officer. If he is not available, and if instructed to do so by the Manager or Maintenance Officer, the pilot may ask a certificated mechanic at that location to determine whether the aircraft can be flown safely. That information is conveyed to the Manager or Maintenance Officer, whose permission must be obtained before flying the aircraft back to Tipton. Upon return, the aircraft is grounded for further inspection before being released.
- c) Within 24-hours, the pilot submits a report to the Manager detailing the events which led to the damage.
- d) The pilot may be grounded until a Board of Inquiry (named by the Manager) is convened to determine the facts of the incident and to make its recommendations to the Manager.

## **2-20 REFUELING THE AIRCRAFT**

- a) At Tipton: The PIC is responsible for refueling the aircraft after each flight. Procedures for refueling at the self-service facility at Tipton Airport are detailed in Attachment 1 to this Operations Manual. Except for periods of maintenance or fuel deliveries, the facility is available 24-hours a day, seven days a week. The requirement to refuel may be waived if the next person on the schedule for that aircraft requests that tanks be left partially full.
- b) Away from Tipton: The PIC observes the same rules for safety at other airports as are in effect at Tipton. The PIC verifies that the fuel being pumped is 100 octane low-lead. Members must obtain a receipt for fuel purchased at other airports in order to be reimbursed at the FMFA Tipton rate.
- c) During refueling, the nozzle is never left unattended in the filler neck of the fuel tank or allowed to rest against the filler neck. The filler neck is easily damaged by excessive force from the nozzle. When refueling aircraft, support the pump nozzle in the center of the fuel filler neck. Do not let the nozzle touch the aircraft. If you need to set the nozzle down, remove it from the fuel filler neck and set it down on the ground gently. Do not let the nozzle and hose hang from the fuel filler neck. Aircraft fuel filler necks are not as robust as those on automobiles and cannot handle the stress of a hose hanging on them. (The past fuel leakage problems in the Cessna 172s and gas cap chain damage likely resulted from lack of care at the fuel nozzle-to-filler-hole merge. The stress of a nozzle hanging from the fill point will crack the seam where the filler neck joins the tank. These cracks require welding to repair -- if they are repairable at all -- and the work involves significant aircraft down time. New fuel tanks are very expensive.)
- d) When refueling our high-wing aircraft, a ladder must be used, if one is available. Pilots should avoid using the steps on the struts if at all possible.
- e) If for any reason the PIC is unable to fuel the aircraft, they must notify the Manager and the next scheduled reservation immediately. The PIC must report the amount of fuel burned, estimated fuel remaining in the tanks, and reason for not refueling the aircraft.

## **2-21 AIRCRAFT CLEANLINESS**

The PIC ensures that the aircraft's windscreen, windows, and interior are clean prior to flight. After the flight, the PIC leaves the aircraft clean for the next member. At a minimum this entails removing all trash or evidence of airsickness, and securing the seat belts. If the aircraft is splattered with mud or dirt during the flight, the PIC must arrange to wash it off at the earliest opportunity. **Animals are not allowed in FMFA aircraft at any time.**

## **2-22 AIRCRAFT DISCREPANCY REPORTING**

- a) The PIC reports any problems discovered during his/her flight in the aircraft write-ups (discrepancies or “squawks”) menu of the Flight Dispatch system. If the problem is significant or urgent or grounds the aircraft, the PIC immediately notifies the Manager briefly describing the problem.
- b) Descriptions of discrepancies should be concise, but specific. It is difficult for maintenance personnel to resolve a problem if technical details are lacking.

Previously reported discrepancies are not written up again, unless they were reported to have been corrected and the problem has reoccurred.

## **2-23 GROUNDING AN AIRCRAFT**

If the PIC believes that an aircraft is unsafe to fly, the aircraft must be grounded until the situation has been investigated and any necessary repairs have been made. The PIC describes the reasons for grounding in as much detail as possible in the dispatch system. The PIC then informs the Maintenance Officer, Manager or Operations Officer via phone, text message or email. Additionally, the PIC places the pink “grounded” slip in the aircraft window. The Aircraft Book is turned over to the Maintenance Officer as soon as possible. Follow-up actions to be taken by maintenance personnel are described in paragraph 5-4.

## **2-24 NIGHT FLIGHTS**

- a) To qualify for solo night flight in FMFA aircraft, certificated pilots must take a one-time night check ride with an Instructor, as detailed in Section 3-3.
- b) Night solo flight is prohibited for students.
- c) VFR minimums for night flight are ceiling 2,500’ AGL and visibility 5 statute miles.
- d) Night instrument practice requires the presence of a second pilot who has proper current certifications and has access to the controls.
- e) Navigation and anti-collision lights must be switched on while flying or taxiing on the ground from Sunset to Sunrise. (See paragraph (g), below.) Strobe lights may be off during taxiing in order not to “blind” other pilots.
- f) Night flight time may be logged when conducting flight operations from the end of Civil Twilight to the beginning of Civil Twilight. “Civil Twilight” begins in the morning and ends in the evening, when the center of the Sun is six degrees below the horizon. This is the limit at which Twilight illumination is sufficient for terrestrial objects to be clearly distinguished. Local Civil Twilight information, as computed by the U.S. Naval Observatory, is the source used by FMFA and may be found online..

- g) For the purpose of carrying passengers, night takeoffs and landings may be logged in the period from one-hour after Sunset to one-hour before Sunrise. “Sunrise” and “Sunset” are the times when the upper edge of the sun’s disk is on the horizon. Local Sunrise and Sunset information, as computed by the U.S. Naval Observatory, is the source used by FMFA and may be found online.

## **2-25 COLD WEATHER OPERATIONS**

- a) Prior to any flight when the outside temperature has remained below 32 degrees Fahrenheit for 4-hours or more, a preheater is used to warm the engine. Preheating should be applied for at least 15 minutes. Preheating should be done with cabin heat ON to allow for instruments to warm up. Do not use propane heaters or open flame in the cockpit. See Attachment 8 Jump/Preheater Cart Directions.
- b) All frost, ice or snow on the aircraft’s surfaces must be removed before flight. Club provided brooms and deicing fluids are the only acceptable methods. See paragraph c below for special instructions for windscreen and windows. Members are reminded that deicing fluid is only effective for approximately 30 minutes. Use brooms with caution to not scratch aircraft paint which protects from rust. Members found to have scratched the paint will be responsible for repairs. For environmental reasons, make every effort to minimize spillage of deicing fluid on the ground.
- c) Scrapers or credit cards are never used on the windscreen or side windows. Ambient heat or approved de-icing fluids are the only acceptable methods of removing frost from those surfaces. (Our wing deicing fluid is not suitable for the Plexiglas windows.) Turning the aircraft into the sun will speed up the thawing process.
- d) After any snowfall, special care is exercised while taxiing to prevent loose ice and snow from hitting the propeller, and to avoid running into drifts and icy patches.

## **2-26 SIMULATED EMERGENCY APPROACHES**

- a) Simulated emergency approaches which are not conducted at an airport are terminated at 600’ AGL.
- b) Pilots practice forced landings away from an authorized runway only when accompanied by an Instructor. Note that FMFA aircraft will be operated only from hard surface runways, except in a genuine emergency.

## **2-27 EVACUATION PROCEDURES**

- a) When severe weather conditions are predicted, FMFA officers attempt to find temporary hangar space at Tipton. The kinds of conditions which could justify evacuation are high winds, hurricanes, tornadoes, blizzards and floods.



- b) If no space is available, the Manager may direct evacuation of FMFA aircraft to a location where the threat of damage is reduced.

## **PART 3 FLIGHT CHECKS AND CURRENCY REQUIREMENTS**

### **3-1 FAA FLIGHT REVIEW**

The FAA mandates a flight review for all certificated pilots every 24-months.

- a) The FAA flight review may be combined with the FMFA ACR.
- b) The date of the successful completion of the FAA flight review is entered by the Instructor into the FSP.

### **3-2 INITIAL FLIGHT CHECKS AND WRITTEN EXAMS**

Pilots must receive an initial flight check with an FMFA Instructor in each make and model aircraft that they wish to fly (at present Cessna 150, 172; Piper Arrow, Warrior).

- a) Initial flight checks include, at a minimum, one-hour of flying time and three takeoffs and landings. This check will be done in accordance with the FMFA Pilot Checkout Form 128.
- b) Initial flight checks include a navigation problem conducted so as to ensure competence at least at the Private Pilot practical test standard level.
- c) An initial night checkout and instrument standardization flight must also be accomplished prior to exercising those privileges.
- d) Initial flight checks may be combined, e.g. aircraft, night and instrument.
- e) As part of the initial flight check, pilots must present to the Instructor completed test forms for the local flying area, Federal Aviation Regulations, and the type aircraft in which they are checking out (and Instrument and Instructor if appropriate). Passing score for each exam is 80 percent, corrected to 100 percent. Completed exams are retained in the member's personnel folder until the next ACR.
- f) Prior to initial flight checks the pilot will read the POH, manuals for installed avionics, e.g., Garmin 430W, G5, etc., and other relevant equipment. The FMFA Instructor will ensure that the pilot has adequate knowledge to operate the equipment correctly and safely. This also applies to annual flight reviews if new equipment has been added since the pilot's last flight review.
- g) The results of the initial flight check are recorded on FMFA Form 128 by the Flight Instructor and placed in the member's personnel folder. The date of the check is entered by the Instructor into the FSP dispatch system data base.

### **3-3 ANNUAL FLIGHT REVIEWS AND WRITTEN EXAMS**

All pilots must complete an annual flight review (also referred to as an annual standardization flight or annual check ride (ACR)) by one of three methods. The ACR expires at midnight on the last day of the month one-year after the day in which the ACR is completed. For example:

If the ACR is completed on April 15, 2021, it expires at midnight on April 30, 2022. This rule also applies to the Annual Instrument Check Ride and the Annual Instructor Check Ride.

### **3-3.1 Method One**

The first method is with an FMFA or NAFC Instructor in the most complex FMFA/NAFC aircraft the pilot flies. The descending order of complexity is Piper Arrow > Piper Warrior = Cessna 172 > Cessna 150. If pilots wish to fly FMFA aircraft IFR, they must also take an annual instrument check ride. The two check rides may be combined.

- a) The ACR must include at least 1-hour of flight time and three landings to a full stop.
- b) The ACR is conducted in accordance with FAR 91 flight review and FAA Airmen Certification Standards appropriate to the certificate and ratings held.
- c) Results are documented on FMFA Form 128 and filed in the member's personnel folder. The date of the ACR is entered by the Instructor into the FSP Dispatch System.
- d) As part of the ACR, pilots must present to the Instructor completed test forms for the local flying area, Federal Aviation Regulations, the type aircraft in which they are checking out and those of less complexity in which they were checked out previously (and Instructor and Instrument if appropriate). Passing score for each exam is 80 percent, corrected to 100 percent. Completed exams are retained in the member's personnel folder.

### **3-3.2 Method Two**

The second method requires completion of a phase of the FAA's Pilot Proficiency Awards (WINGS) program in accordance with the current version of FAA Advisory Circular 61-91, Pilot Proficiency Awards Program.

- a) Three flights within a twelve month period are required for a phase.
- b) The last of these three flights must be in an FMFA aircraft with an FMFA Instructor, in the most complex club aircraft in which the pilot is qualified, for a minimum of 1-hour and three (3) takeoffs and landings. Both of the other two flights may be in non-FMFA aircraft.
- c) In accordance with 14CFR § 61.56 Flight Review, if the FMFA pilot satisfactorily completes a phase, the pilot does not need to accomplish a flight review.
- d) The written tests specified in part 3-2.1 (above) are corrected by the FMFA Instructor who conducts the last of the three flights in accordance with the current version of FAA Advisory Circular 61-91. The Instructor completes a FMFA annual flight checkout form, bearing the same date as the last of the three flights and attaches a copy of the completed WINGS card and tests for submission.
- e) Instrument checks may also be completed in conjunction with the WINGS program. However, all of the required precision and non-precision approaches as well as

demonstration of holding procedures must be accomplished in an FMFA aircraft with an FMFA Instructor.

### **3-3.3 Method Three**

The third method allows pilots to use successful completion of an FAA Practical Test for a new certificate or rating in lieu of their club ACR. The member must provide a paper copy of his/her logbook entries and new certificate(s).

FMFA written tests (FAR, Local, Airplane, Instrument if so rated, Instructor if so rated) must be completed and corrected by an FMFA Instructor and submitted with a completed Pilot Checkout Form.

## **3-4 FLIGHT CURRENCY REQUIREMENTS**

To continue to fly FMFA aircraft solo or with passengers, members must maintain their proficiency.

- a) Certificated pilots with less than 200-hours logged must accomplish at least 1-hour of flight time and three takeoffs and landings every 60-days in the most complex aircraft in which they have been checked out. Descending order of complexity is Piper Arrow, Piper Warrior = Cessna 172, Cessna 150.
- b) Certificated pilots with more than 200-hours logged must accomplish at least 1-hour of flight time and three takeoffs and landings every 90-days in the most complex aircraft in which they have been checked out. See above for complexity order.
- c) Night currency requires three takeoffs and landings to a full stop within the time periods prescribed in a) and b) above. (See also 3-5.3 below.)
- d) Instrument currency is maintained in accordance with FAR 61.
- e) Pilots who are not current, as described in items a) through d) must take dual instruction to regain flying privileges.

## **3-5 ONE-TIME NIGHT FLIGHT CHECK AND NIGHT CURRENCY**

### **3-5.1 Night Check**

To qualify for solo night flight in FMFA aircraft, certificated (non-student) pilots must take a one-time night flight check ride, with a night-current FMFA Certificated Flight Instructor, in VFR conditions. The check flight will include at least:

- a) 1-hour of night flight. (Defined as that time between the end of local Civil Twilight and the beginning of local Civil Twilight. See Section 2-24 for details.)

- b) A minimum of 3 takeoffs and landings to a full stop. (These may be logged only in the period between 1-hour after local Sunset and 1-hour before local Sunrise. See Section 2-24 for details.) At least 2 of these takeoffs and landings must take place at Tipton. If conditions permit, each of them should be made from opposite ends of the Tipton runway. (i.e., one takeoff and landing from Runway 28 and one from Runway 10.)
- c) Approaches should be made from outside of the traffic pattern from the east and the west.
- d) No night flight training which is received while holding an Airplane Student Pilot Certificate may be included in meeting the night flight check requirement.
- e) This flight must be conducted in an FMFA aircraft. Exceptions to this rule may be made only at the discretion of the FMFA Manager or Chief Pilot.

### **3-5.2 Night Documentation**

Successful completion of the night flight check is documented on FMFA Form 128, and includes clearance to operate at night in the local area and cross-country. The date of the night flight check is entered by the Instructor into the FSP Dispatch System.

### **3-5.3 Night Currency**

In order to maintain night currency (including the ability to take passengers on night flights), every 90-days an FMFA pilot must execute at least 3 takeoffs and landings to a full stop between 1-hour after Sunset and 1-hour before Sunrise. If an FMFA pilot becomes non-current for night flight, the following applies:

- a) FMFA requires that pilots maintain night currency every 90-days, but FMFA allows an additional 30-day “grace period.” The “grace period” only applies if the pilot meets the other requirements of section 3-4 FLIGHT CURRENCY REQUIREMENTS. If a pilot intends to fly at night but is outside the 90-day window and inside the 120-day window, s/he can do so to maintain currency. In order to utilize the “grace period”, the pilot must request someone with administrative privileges (Manager, Administrator, Instructor) to make the appropriate entry in FSP to allow the dispatch. (Do this ahead of time, not when it is time to fly.) Pilots must still adhere to the FAA regulations regarding carrying passengers at night, etc.
- b) The pilot may fly with a night-current FMFA certificated flight instructor to meet the requirements stated above.
- c) In order to meet night currency requirements, pilots are allowed to count night flight time, takeoffs, and landings in single engine land aircraft that are not owned and operated by FMFA. These night takeoffs and landings must be reported to the Administrator or an FMFA Instructor who will enter them into FSP.

## Part 4 **INSTRUCTORS, TRAINING, AND STUDENT PILOTS**

### **4-1 CHIEF PILOT**

The Chief Pilot has primary responsibility for planning, conducting, and managing FMFA flight training programs, and for supervising the performance of Flight Instructors.

### **4-2 APPLICATION FOR INSTRUCTOR'S POSITION**

Any Certified Flight Instructor (CFI) wishing to instruct in FMFA submits a written application to FMFA. Upon acceptance of the application, an initial standardization flight check is taken with FMFA's Chief Pilot or designee, who determines the suitability of the applicant as an Instructor in FMFA.

- a) Upon successful completion of the applicant's initial flight check, in-processing, and tests, the Chief Pilot adds the applicant to the FMFA Instructor Roster.
- b) Every Instructor must be a member of FMFA, subject to all the strictures of this Operations Manual.

### **4-3 INSTRUCTORS' DUTIES**

#### **4-3.1 Duties regarding new members include:**

- a) Providing orientation, using an in-processing checklist. When all items on the checklist are completed, the instructor signs it and places it in the member's personnel folder.
- b) Explaining course curriculum, the FSP Dispatch System, Aircraft Books, Operations Manual, personnel folders, written tests, and this Operations Manual.
- c) Explaining scheduling, dispatching, and clearing authority procedures.
- d) Endorsing (if a student) the pilot's logbook with the certification of US citizenship required by the Transportation Security Administration. (see Attachment 7).

#### **4-3.2 Duties regarding training include:**

- a) Acting as a clearing authority.
- b) Maintaining training records, making appropriate logbook entries at the conclusion of each lesson, and placing required documents in the student training folder in the FMFA master file cabinet.
- c) Assisting students with refueling and tie-down until the Instructor is certain the student can accomplish these functions unaided.

- d) Keeping students informed of their progress and deficiencies, and notifying the Chief Pilot or Manager of unusual student training problems.
- e) Reporting hazardous or potentially hazardous flight training situations to the Manager or Chief Pilot.
- f) Verifying U.S. citizenship or nationality of student pilots and certificated pilots who are training to add an instrument or airplane rating to their certificate (unless the student is a foreign national specifically approved for training in FMFA aircraft); making the appropriate logbook endorsement and maintaining his/her own records of that endorsement for at least 5-years after the last training given to that student; and ensuring that a copy of the TSA (Transportation Security Administration)-required document showing citizenship or status as a U.S. national is in the student member's folder before any flight training is given.

#### **4-3.3 Duties regarding FAA Practical Flight Test include:**

- a) Informing the Manager of the impending FAA Practical Flight Test. This includes making arrangements for the test applicant to obtain airframe and engine logbooks to demonstrate to the examiner that the aircraft is airworthy.
- b) Ensuring that members have a copy of their RELEASE, ASSUMPTION OF RISK AND INDEMNITY AGREEMENT(S), current medical certificate and pilot's license in their personnel folder, prior to flight.
- c) Reviewing critical aeronautical knowledge and regulatory issues.
- d) Completing FMFA Form 128 (Pilot Checkout) and placing it in the member's personnel folder following the flight.
- e) Reviewing the required written exams and, following discussions with the member, correcting them to 100 percent.
- f) Verifying FAA "Wings" credit, as appropriate.
- g) Prior to being signed off for or scheduling a FAA Practical Test for any certificate or rating under FAA Part 61, the candidate must successfully complete a Final Stage Check, e.g., Stage 3 Check, conducted by the FMFA Chief Pilot or his designee. (At the discretion of the FMFA Chief Pilot, Part 61 Stage Checks other than the Final Stage Check may be conducted by FMFA Instructors other than the candidate's Primary Instructor.) Part 141 candidates must successfully complete a Final Stage Check, e.g., Stage 3 Check, conducted by the FMFA designated Part 141 Check Pilot.

#### **4-3.4 Duties regarding flight checks include:**

- a) Ensuring that members have a copy of their RELEASE, ASSUMPTION OF RISK AND INDEMNITY AGREEMENT(S), current medical certificate and pilot's license in their personnel folder, prior to flight.

- b) Reviewing critical aeronautical knowledge and regulatory issues.
- c) Completing FMFA Form 128 (Pilot Checkout) and placing it in the member's personnel folder following the flight.
- d) Reviewing the required written exams and, following discussions with the member, correcting them to 100 percent.
- e) Verifying FAA "Wings" credit, as appropriate

#### **4-3.5 Flight Prohibition by FMFA Instructors**

FMFA Flight Instructors have the responsibility to prohibit any member's flight in FMFA aircraft when the Instructor believes that such flight would not be safe for any reason, including but not limited to weather, mechanical issues, pilot experience, qualifications, or currency. The Instructor may also prohibit a flight if s/he believes the flight may not be consistent with FAA or FMFA regulations. This rule applies regardless of the member's certificates, ratings or experience, including the 200-hour rule. It also applies whether the Instructor is at Tipton or is called/emailed/texted, and whether or not the Instructor is asked to clear the flight. It also applies regardless of who is the member's regular Instructor.

#### **4-4 INSTRUCTORS' FLIGHT CHECKS AND CURRENCY REQUIREMENT**

- a) Instructors are subject to the same initial flight checks, annual flight checks, written tests, and currency required of all members.
- b) Instructors accomplish an annual flight check with the Chief Pilot or his designee in the most complex FMFA aircraft s/he flies. The annual flight check satisfies annual proficiency and instructor requirements.
- c) If an Instructor wishes to exercise instrument instruction privileges, the Instructor must also take an annual instrument instructor flight check with the Chief Pilot or his designee. The annual flight check and instrument flight check may be combined.
- d) Instructors complete an annual written instructor's test.
- e) Instructors complete the annual TSA-required instructor security awareness training, and provide a copy of the required documentation of that training to FMFA.
- f) FMFA funds half the rental price of the aircraft used for annual instructor flight checks (available once annually to each FMFA Instructor). Instructors receive a 15% discount for other flights required to maintain currency and proficiency.



## **4-5 TRAINING**

- a) All FAR 61 and 141 training is conducted using an approved syllabus. Standardized syllabuses for Private Pilot (Airplane), Instrument (Airplane), Commercial (Airplane), Transition, Night Checkout, Instructor, and CFII are available in the FMFA's office.
- b) Standard operating procedures for training at FMFA are detailed in Attachment 2 of this Operations Manual.
- c) FMFA's Piper Arrow III provides members with an opportunity to gain complex aircraft experience and to work on instrument, commercial and flight instructor ratings. To solo safely, this aircraft requires greater knowledge of systems and avionics, as well as greater piloting skills. Specific training requirements for the Arrow III are contained in Attachments 3 and 4.
- d) Members who are foreign nationals may be trained as initial students, or for additional ratings, in club aircraft only by an FMFA Instructor who is authorized by the TSA to train foreign nationals. Approval by the Manager must be granted before the prospective student applies to the TSA to train with that instructor.

## **4-6 STUDENT PILOT SOLO REQUIREMENTS**

- a) In accordance with FAA regulations, student pilots must be at least 16-years old in order to make solo flights.
- b) Student pilots must take the pre-solo written test prior to first solo. The exam is "open book" and a minimum score of 80 percent must be obtained, corrected to 100 percent by the reviewing Instructor.
- c) Students must have dual instruction every 30-days to maintain solo currency.
- d) First Solo Flights:
  - Immediately before the first solo flight, students will complete a minimum of three full stop landings before the Instructor leaves the aircraft. These will include at least one normal, one power off and one no flap landing.
  - Students will not attempt to turn off the runway at midfield. They will roll-out to the runway-end taxiway.
  - The Instructor will monitor the student's landings and determine whether the student should continue after each landing. If the instructor is going to be beyond the taxiway edge of the ramp for the first or any supervised solo, s/he
    - Will wear a high-visibility safety vest (available in the FMFA office).
    - Carry an operating handheld radio (available in the FMFA office) tuned to Tipton UNICOM frequency.
    - Will not walk or stand on any taxiway or runway.

- May stand on the grass median by the windsock.
  - (Note that these requirements are consistent with present Tipton Airport rules. If those rules change to more restrictive requirements, then we will abide by those more restrictive rules.)
- e) Subsequent Solo Flights:
- Until a Stage 1 check has been successfully completed, all of a student's solo flights will be treated as First Solo Flights.
  - Solo students are not permitted to make touch and go landings.
  - Solo students will not fly between the end of Civil Twilight and beginning of Civil Twilight (approximately 30 minutes after sunset to approximately 30 minutes before sunrise). Instructors will not endorse a student to fly club aircraft for solo night flight.
  - Students can dispatch themselves for unsupervised solos only after being explicitly cleared for that flight by their primary instructor. If the student's primary instructor cannot clear the student, then another instructor, The Manager, Administrator, or a club officer, may clear the student and note on the FSP reservation that the student's primary instructor authorized the flight. While it is preferred that the clearing authority be physically at the airport when clearing the student, if this is not practical, the clearing process may be done by phone, text message, email, etc. The clearing process must be done within 2-hours prior to the flight.
  - Clearing authorities will not clear students for a solo flight in their Instructor's absence if there is any doubt about their Instructor's approval of the flight.
- f) Before clearing a student, the clearing authority will verify that the student has correct and current endorsements permitting the planned flight and that the applicable FMFA and FAA weather minima are expected to exist for the duration of the flight.

#### **4-7 STUDENT PILOT RESTRICTIONS**

- a) In the Tipton local flying area, student solo flight is not conducted when ceilings are below 2,500 AGL and/or visibilities are less than 5 statute miles.
- b) In the Warrior or Cessna172, student solo flight is not conducted when surface winds exceed 15 knots or 8 knots for the crosswind component. In the Cessna 150 aircraft, student solo flight is not conducted when surface winds exceed 10 knots or 6 knots for the crosswind component. Student solo flights in the Piper Arrow are prohibited.
- c) Night solo flight is prohibited.
- d) Cross-country flights may be flown to airports that the student has not previously flown into with an Instructor only when the student pilot has:
  - met all dual cross-country requirements, and
  - completed 3-hours of solo cross-country flying into airfields to which the student has flown with his/her instructor.

- e) Solo cross-country flights are limited to daylight-hours, and the distance of these flights is restricted to a radius of 125 nautical miles from Tipton Airport.
- f) Any exceptions to the above must be approved in advance by the Chief Pilot or FMFA manager.
- g) Student pilots may not carry passengers.
- h) Student pilots may not serve as solo pilots for maintenance ferry flights.

## **Part 5 MAINTENANCE**

### **5-1 MAINTENANCE OFFICER**

The Maintenance Officer ensures that the inventory of FMFA aircraft is kept airworthy.

The Maintenance Officer:

- a) Establishes the 50-hour, 100-hour, and annual inspection plans, ensures the accuracy of maintenance documentation, orders and receives parts through the Manager, authorizes ferry flights, coordinates break-in flights for new engines and keeps the aircraft status in FSP up-to-date.
- b) May service some aircraft systems, as delineated in FAA regulations, and may assist an FAA- certificated mechanic when required. However, most repairs are accomplished by an appropriately rated mechanic.
- c) Regularly reviews the “squawks” section of the FSP system to determine which discrepancies require immediate action, and schedule other repairs as deemed necessary.
- d) Reports abuse of FMFA aircraft to the Manager for action.

### **5-2 AIRCRAFT INSPECTIONS**

#### **5-2.1 Inspections**

Inspections are carried out on FMFA aircraft at scheduled intervals to comply with all applicable regulations and to ensure safety. The primary recurring checks are the 50-hour, 100-hour, and annual inspections. In addition, certain systems require a check every 2-years. During these inspections, the aircraft are out of service for varying lengths of time.

- a) The 50-hour inspection:
  1. Is performed 50-hours from the last 100-hour or annual inspection.
  2. Includes, among other things, an oil change.
  3. May be performed by the Maintenance Officer on assigned aircraft.
- b) The 100-hour inspection:
  1. Is performed 100-hours from the last 100-hour or annual inspection.
  2. Is conducted by a certified airframe and power plant mechanic.
  3. Includes, among other things, an oil change, cleaning of the spark plugs, airframe inspection, and engine compression check.
- c) The annual inspection:
  1. Is performed no more than 12 calendar months from the preceding annual inspection.

2. Must be carried out by a certified airframe and power-plant mechanic with inspection authorization privileges.
  3. Entails essentially the same checks and maintenance as are performed during the 100-hour inspection, except that each aircraft is also treated with an approved anti-corrosive agent.
- d) Items requiring inspections every 2-years are the Pitot-static system, transponder, and emergency locator transmitter.

### **5-2.2 VFR Inspections**

Before any FMFA aircraft can be flown under VFR conditions, the annual, 100-hour, and transponder inspections must be current.

### **5-3 ENGINE CHANGES**

The Maintenance Officer is responsible for ensuring that regular analysis of engine performance is done by qualified personnel to determine safe life remaining in the engine in accordance with FAA regulations and manufacturer's specifications. The Maintenance Officer will indicate when an engine must be replaced. Engine change-outs may exceed the manufacturer's TBO. However, to do so, strict 50 hour checks including oil changes, including special engine checks will be conducted.

### **5-4 GROUNDED AIRCRAFT**

When any FMFA member judges that an aircraft is unsafe for flight and grounds it (see paragraph 2-21), the following measures are taken:

- a) The Maintenance Officer or a certified mechanic evaluates the nature and extent of the problem.
- b) The Maintenance Officer takes the necessary actions to un-ground the aircraft, including (but not limited to) scheduling of necessary repairs.
- c) Once the maintenance work has been performed, the proper documentation is annotated in the appropriate logbooks, the aircraft is returned to service, and the dispatch system is updated.

### **5-5 AUTHORIZATION FOR MAINTENANCE AND REPAIRS**

Only the Maintenance Officer, Manager or Administrator (under the direction of the Manager) may authorize maintenance and repairs for FMFA aircraft, whether the work is done at Tipton or elsewhere. The procedure to be followed in the event that an aircraft requires maintenance at another airfield is described in paragraph 1-21.

## **Part 6 SAFETY**

### **6-1 SAFETY OFFICER**

The Safety Officer promulgates safety information to the general membership through quarterly safety meetings, Operations Manual and e-mail. On matters concerning general aviation safety, the Safety Officer acts as liaison with the Federal Aviation Agency (FAA), the National Transportation Safety Board (NTSB), the Transportation Safety Administration (TSA) and the State of Maryland Aviation Administration. An additional duty is the development of physical security procedures, described in Part 7 of this manual.

### **6-2 SAFETY RESPONSIBILITIES**

Responsibility for avoiding injury to people and damage to property rests with each officer and member of FMFA.

- a) The Manager, Administrator, Board of Advisors Members, Operations Officer, Maintenance Officer, Safety Officer, and Chief Pilot continually review their particular activities to discover potential hazards, to alert the general membership through Ops Manual updates, and e-mail announcements, and to take whatever measures are necessary to eliminate threats to safety.
- b) Flight instructors foster safe operations by providing conscientious flight training and evaluation and by setting the proper example and tone for their students. They also reinforce safe piloting habits with members undergoing annual flight checks.
- c) Members strive constantly to develop and practice skill, judgment and prudence in flying. They follow all rules and regulations and know their own limitations.
- d) Unsafe equipment or practices, and pilots operating FMFA aircraft in a reckless or negligent matter, are reported immediately to the Manager or Safety Officer.

### **6-3 FLIGHT SAFETY**

- a) The goal of the FMFA safety effort is to have zero accidents.
- b) The vast majority of aircraft accidents are preventable, if pilots use proper procedures and techniques. These are emphasized to members during flight training and annual check rides, through quarterly safety meetings, and in currency practices that prevent non-proficient pilots from flying.
- c) Members are reminded at quarterly safety meetings that pilots develop their skills at different rates and that individual's need to set their own personal safety minimums for flight. This means that they fly when conditions are not merely legal, but are within each individual's range of competence and comfort.
- d) Pilots do not fly when they are on medication which induces drowsiness or negatively impacts flight safety in any way or are too tired to concentrate all their energies on the flight.

- e) As a primary safety consideration, and in accordance with insurance requirements, smoking is prohibited on board FMFA aircraft at all times.

## **6-4 GROUND SAFETY**

### **6-4.1 ROUTINE GROUND SAFETY PRACTICES:**

Prevention of injury to persons and damage to property is as important on the ground as in the air. A sampling of the practices that are integral to ground safety includes:

- a) Knowing fire extinguishers are in each aircraft.
- b) Walking behind aircraft on the flight line to avoid propellers.
- c) Never leaving a preheater unattended while in use.
- d) Not refueling when lightning is observed in the area.
- e) Ensuring that all passengers remain in the aircraft until engine shutdown is completed.
- f) Visually scanning the area in front, to the sides and rear of the aircraft before announcing “clear” and starting the engine.
- g) Treating the propeller as if the magneto switch were on at all times.
- h) Before pushing aircraft back ensuring the magneto switch is off and the keys are removed and placed in a secure location.
- i) Never hand-propping the engine to start.
- j) Never smoking in an aircraft, or anywhere on the flight line to include the area around the fuel pumps.
- k) Always inserting the control yoke gust lock before leaving the aircraft.
- l) Always installing the throttle lock in C150 and C172.
- m) Exercising special care at night to avoid obstacles during taxiing, refueling, and tie-down.

### **6-4.2 REMOVAL OF FLIGHT LINE HAZARDS:**

Items that present a potential hazard to aircraft and persons on the ground are removed immediately.

- a) Tow bars are placed back in the aircraft immediately after use, so that they are not run over or struck by a propeller.
- b) Trash and foreign objects in the tie-down area which might be sucked up or blown back by a whirling propeller are picked up and placed in the receptacles provided.

- c) Fuel and oil spills around aircraft tie-downs are properly cleaned up to reduce the possibility of fire or slippery spots on the tarmac.
- d) Any hazards which are not correctable by the member are reported to the Safety Officer or Manager.

### **6-5 SAFETY INFORMATION DISTRIBUTION**

- a) The Safety Officer obtains applicable safety-related publications, makes them available to the membership, and maintains a file or library of such publications.
- b) Items of particular interest are placed in the Operations Manual, and may also serve as points of discussion at a quarterly safety meeting.

### **6-6 SAFETY MEETINGS**

To operate FMFA aircraft, each member who flies as a pilot-in-command must have attended a safety meeting in the preceding 90-days. The following applies:

- a) Safety meetings are usually held on the first Wednesday in March, June, September, and December.
- b) The subjects of these meetings are germane to all aspects of flight safety, including, for example: seasonal flight hazards, wake turbulence, fuel management, spatial disorientation, hypoxia, survival, and weather.
- c) Members attending the safety meeting sign a roster or attendance is taken by other means. The Safety Officer or Manager retains the roster/attendance list for certification purposes, and the Administrator enters the date of the meeting attended in the “currency” file of the FSP System.
- d) The Safety Officer ensures that a video of the meeting is available to the general membership as soon as is practical.
- e) If a member is unable to attend a safety meeting because of legitimate reasons, the member may watch the video of the meeting in lieu of attendance and notify the Administrator of such.
- f) Members who fail to attend a meeting or watch the video are grounded. To regain pilot-in-command privileges, the member must view the videotape of the meeting or receive a briefing on it from a Flight Instructor.



## **6-7 ACCIDENTS AND INCIDENTS**

### **6-7.1 GENERAL**

The Aircraft Book which is carried on every flight contains a form for recording accident and incident information, and a list of FMFA officers to be notified. An “accident” is defined as an occurrence which results in death or injury and/or substantial damage to an aircraft; an “incident” is an occurrence which affects the safety of aircraft operations, such as flight control system failure, in-flight fire, etc.

### **6-7.2 NOTIFICATIONS**

In the event of an accident or incident, information must be disseminated to the applicable parties as soon as possible.

- a) The pilot-in-command notifies the Manager, Safety Officer, Maintenance Officer, and Operations Officer.
- b) The Manager notifies the insurance carrier, FAA and the National Transportation Safety Board (NTSB) field office if required.

### **6-7.3 INVESTIGATION**

- a) The Safety Officer assists any external investigative authority, as requested, in addition to conducting his own investigation.
- b) The Maintenance Officer collects the aircraft’s engine and airframe logbooks and maintenance history for access by the investigators.
- c) The Operations Officer, Manager or Administrator collects the pilot’s training file, logbooks, and flight plan for access by the investigators.

### **6-7.4 REPORTS**

The Safety Officer coordinates the filing of any required reports for the NTSB, through the Manager, within ten-days after an accident.

## **Part 7 SECURITY**

### **7-1 PHYSICAL SECURITY**

Development of procedures for physical security of FMFA assets is a part of the duties of the Safety Officer. Adherence to these procedures is the responsibility of every member.

### **7-2 CONTROLLED AREA PROCEDURES**

The FMFA office and the flight line where FMFA aircraft are tied down are controlled areas. All FMFA members are authorized access to these areas, but the following rules apply:

- a) Members will have a valid government-issued photo ID on their person at all times when in the controlled areas.
- b) Members must accompany all guests, including family members, at all times. Children under the age of 16 are never to be left alone on the flight line.

### **7-3 OFFICE SECURITY**

The last person leaving the FMFA's office is responsible for ensuring that the facility is secure. Actions to be taken include at least the following:

- a) Close and lock all windows.
- b) Turn off all overhead lights, except those intended to be left on overnight.
- c) Turn off large monitor(s).
- d) Ensure the air conditioning or heat is set to the level posted next to the control.
- e) Lock the exit door.

Contact the Safety Officer or Manager if any discrepancies are noted.

### **7-4 SUSPICIOUS OR NONCOMPLIANT PERSONS**

- a) Any suspicious persons, packages, activities or anything that might be a security concern should be reported immediately to the Airport Management first, the FMFA Manager or any member of The Board and if appropriate to police by phoning 911.
- b) Suspicious packages should not be approached and members should notify Airport Staff immediately.
- c) FMFA members are authorized to challenge unknown or suspicious looking people and to ask anyone to leave the controlled areas for disregarding airport security policies.
- d) In situations where a person refuses a request to leave, the police should be notified.

- e) In situations requiring police notification, the member will prepare a memorandum for the record which includes names, home addresses, and a statement of the facts. The memorandum must be signed and dated.

### **7-5 AIRCRAFT SECURITY**

- a) Throttle locks for C150 and C172 aircraft are secured in place as part of the post-flight check procedures.
- b) Control locks or straps are secured in place as part of the post-flight check procedures.
- c) Aircraft doors are locked (if possible) when departing the aircraft.
- d) Aircraft keys are never left in an unattended aircraft.
- e) Bird excluders, cowl plugs, pitot tube covers are installed, as appropriate

## Attachment 1 Tipton Airport Refueling Procedures

- a) Follow the yellow line around the fuel tank to level ground on the concrete beyond the black-top over the number “40” circle
- b) Extend grounding cable and attach to aircraft grounding point.
- c) Set fuel meter to zero.
- d) Extend fuel hose.
- e) Put ladder in place if fueling C150 and C172. Do not use the steps on the struts unless no ladder is available. (Not using the ladder can result in the individual losing his/her balancing and “falling into” the windscreen, resulting in cracking or crazing. It also puts the pilot at risk of serious injury.)
- f) Insert card in slot. (Cards are kept in pouch in the front of each Aircraft Book.)
- g) Enter requested information on keypad. (The PIN number is written on the key pouch in the Aircraft Book.) Begin pumping immediately; the pump will shut off 80-seconds after the last entry on keypad if fueling has not begun.
- h) Fuel aircraft as follows:-
  - C150 to 8 gallons per side.
  - C172 to approximately 1-inch below the bottom of filler neck.
  - Piper Arrow to the bottom of the tabs.
  - Piper Warrior to the bottom of the tabs.
  - The pump will shut off 80-seconds after completion of fueling or when the hose is partially retracted.
- i) Do NOT let the weight of the hose and nozzle hang on the filler neck while inserted into the fuel tank. This can and has caused cracks in the fuel tank resulting in removal of the tank for weld repairs.
- j) After fueling, retract fuel hose by pressing the black button near the hose reel. While reeling in the hose ensure it does not kink or twist on the reel. Do not let the fuel nozzle drag on the ground. Ensure you have replaced the rubber end cap before placing the nozzle in the holder.
- k) Retract grounding cable. Walk the cable back to the reel to prevent jamming.
- l) Return ladder to the side of the tank.
- m) Take fuel receipt, after verifying that it is for your aircraft.
- n) Write member name, aircraft number and invoice number on fuel receipt and place in the safe at the end of the flight.
- o) Ensure that fuel pump card is returned to pouch in Aircraft Book. A \$35 dollar fee will be assessed for loss of the card.

## ***SAFETY REMINDERS***

- a) Smoking is prohibited anywhere on the flight-line.
- b) Cell phones should not be used near fuel vapors.
- c) The fuel nozzle is not to be placed on the ground, and is not to be dragged on the ground during extension or retraction.
- d) The fuel nozzle is never left unattended in the filler neck of the fuel tank.
- e) HAZMAT materials located in the locker are used for minor spillage.
- f) In event of a spill, notify Tipton Operations (410-222-6815).
- g) In event of an emergency, call 911.

## Attachment 2 STANDARD TRAINING PROCEDURES

- a) The appropriate Jeppesen syllabus is utilized for all students working on a certificate or rating except for an Airline Transport Pilot certificate. Students will purchase and utilize the appropriate kit. Instructors ensure that ground and flight lessons are completed. Instruction is documented in the student logbook and Jeppesen or similar progress chart.
- b) For students not starting from scratch whose situation does not fit the syllabus, and for Airline Transport Pilot candidates, instructors create a training plan that satisfies the FAR Part 61 requirements and submit it to the Chief Pilot. Training will utilize Jeppesen or FAA training materials or, at the Instructor's discretion, the training materials with which the student began the training. Training is documented in the student logbook and a student progress chart or substitute. A copy of the plan and progress chart remains on file at the FMFA office.
- c) For certificated pilots accomplishing training not involving certificates or ratings, a purpose and plan is prepared in writing, unless it already exists in club documents (examples: complex aircraft training, IFR GPS training). Documentation in addition to the pilot logbook will be on FMFA Form 128. The Form 128 is filed in the membership folder upon completion and includes the purpose and success level.
- d) Instructors ensure that adequate, safe, and legal aeronautical knowledge exists. FMFA offers private pilot and instrument ground schools. Instructors may conduct ground lessons for trainees unable to attend a ground school. Instructors include aeronautical knowledge training in all flight training plans, and ensure by appropriate questions and discussions that the pilot's knowledge meets the relevant standard. Aeronautical knowledge training is documented in the pilot's logbook and the training progress chart or Form 128.
- e) Non-instrument rated pilots will not be endorsed to take commercial practical tests unless both instrument rating and commercial certificate are sought on the same practical test. Instructor training will not be offered to anyone not in possession of both an instrument rating and commercial certificate. Instructors are not obligated to offer advanced training to anyone they feel requires more experience prior to beginning that training.
- f) Instructors report all new student starts, graduations, and terminations to the Chief Pilot.
- g) Instructors who do not maintain a sufficient level of instructional activity may be removed from the list of authorized FMFA instructors.

# **Attachment 3 REQUIREMENTS FOR THE PIPER ARROW III**

## **1. PREREQUISITES FOR VFR SOLO:**

- a) Possession of an ASEL rating on an FAA pilot certificate, private pilot or greater.
- b) Familiarity with the Pilot's Operating Handbook and the weight and balance requirements for the Arrow III.
- c) Possession of a complex endorsement or the appropriate "grandfather" credentials.
- d) A minimum of 50-hours in airplanes, including at least 10-hours in complex airplanes.
- e) At least 2-hours in N780FM, with 10 takeoffs and landings.
- f) Completion of an FMFA-sponsored training session in the Arrow III aircraft systems and in VFR operation of the Garmin GNS430 Global Positioning System equipment. This training will include an indoctrination in the emergency gear down procedures and ability to recognize partial emergency gear switch deployment symptoms.
- g) Demonstrated proficiency in the Arrow III during day flight. Solo VFR sign-off readiness is determined by an authorized FMFA Flight Instructor.

## **2. PREREQUISITES FOR IFR SOLO:**

- a) Completion of all items required for VFR solo flight.
- b) Possession of an instrument rating.
- c) Completion of FMFA-sponsored training using the Garmin GNS430 for IFR operations.
- d) Completion of an instrument proficiency check by an FMFA CFII in the Arrow III.

## **3. OPERATIONAL REQUIREMENTS**

- a) The Arrow III will be operated only from hard surface runways.
- b) A "GUMPS" check will be done on downwind, and landing gear extension will always be accomplished prior to turning final. (Gas Undercarriage Mixture Prop Seat belts)
- c) If electrical power has been lost, gear is extended by placing the gear handle in the down position and pushing the emergency landing gear extension lever down
- d) If the landing gear does not retract, the gear is to be cycled and the emergency landing gear extension lever is to be held in the "up" position.
- e) The autopilot is to be disconnected on aircraft descent for landing prior to 200' AGL.

#### **4. LIMITATIONS**

- a) Pilots are limited in cross-country flights to the contiguous lower 48 states. Only the Manager or Chief Pilot may make exceptions.
- b) Dual instruction in the Arrow III is limited to the following:
  1. Flights for VFR or IFR solo flight privileges in the Arrow III.
  2. Flights for Arrow III Instructor privileges.
  3. Flights under the Jeppesen-Sanderson syllabus for single engine land instrument, commercial, ATP, Instructor or CFII privileges.
  4. Practical test flights with an FAA-designated examiner for instrument, commercial, ATP, Instructor, or CFII privileges.

#### **5. Arrow Pointers**

##### Cold Start

1. Master ON, Alternator ON, Fuel pump ON, Throttle ½ inch open
2. Mixture full rich until fuel flow is seen
3. Mixture full LEAN
4. Right hand on mixture control, crank engine with left hand until engine starts, keep cranking briefly to ensure prop momentum
5. Mixture to full RICH smoothly, adjust throttle to 1000 rpm as engine smooths out. If engine does not fire after 5 to 10 seconds repeat procedure.

##### Hot Start

1. Master ON, Alt ON, Fuel pump OFF, Throttle ½ inch open
2. Mixture full LEAN
3. Right hand on mixture control, crank engine with left hand until engine starts, keep cranking briefly to ensure prop momentum
4. Mixture to full RICH, adjust throttle to 1000 rpm as engine smooths.
5. If engine does not start successfully, throttle FULL open, Fuel Pump ON
6. Mixture RICH for 3 to 10 seconds until fuel flow shows >5 gph
7. Follow Flooded Start procedure.

##### Flooded Start

1. Master ON, Alt ON, Fuel pump OFF, Throttle FULL open



2. Mixture IDLE/CUTOFF
3. Right hand on mixture, crank with left hand until engine starts, keep cranking briefly to ensure prop momentum
4. Mixture full RICH, throttle to 1000 rpm as engine smooths.

#### 406 MHz ELT

Do not test the 406 MHz ELT! Any short burst will be detected by the satellite system, and the aircraft will be identified. FMFA will quickly receive a phone call from the Rescue Center. If the aircraft is not on the field, a search-and-rescue effort may be initiated. Only cycle the ELT switch if the green light next to the switch is ON.

## **Attachment 5 Requirements for Garmin GNS430 and other IFR-certified GPS-equipped FMFA Aircraft**

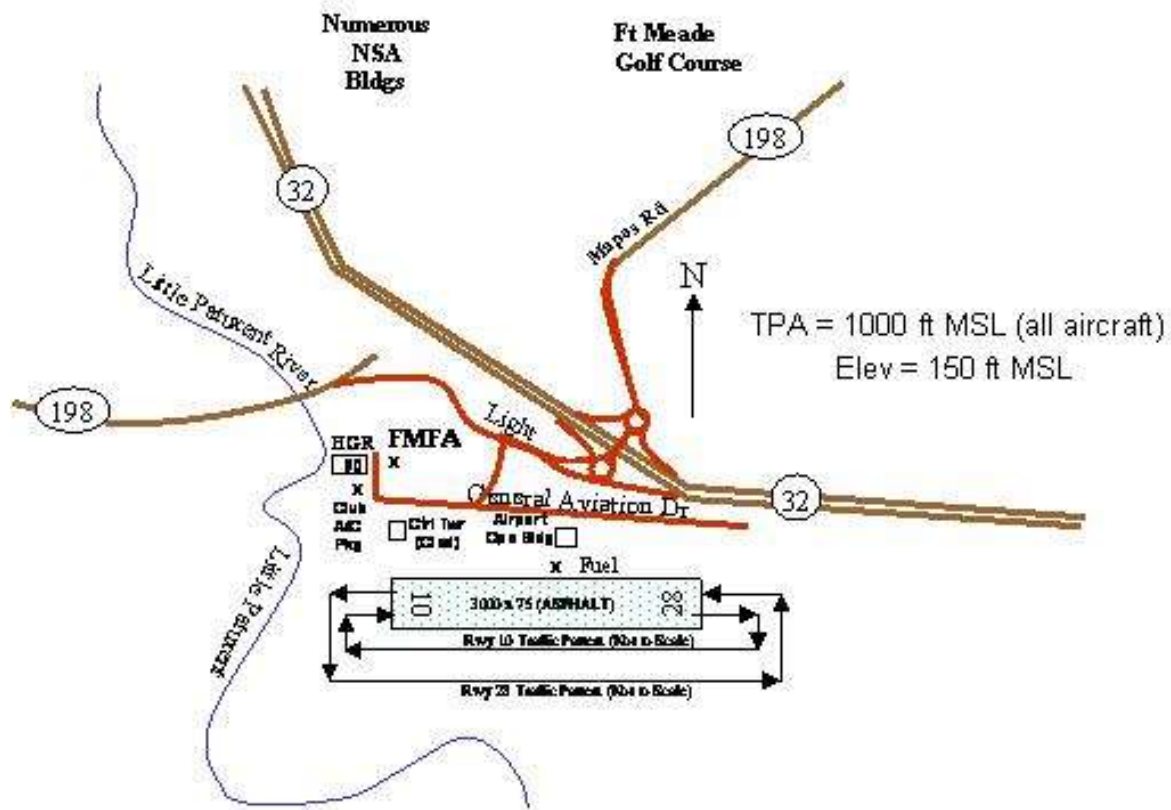
The IFR simulator and aircraft checkout for the Garmin GNS430 Global Positioning System (GPS) equipment in FMFA Garmin 430-equipped or other IFR-certified GPS-equipped aircraft will address at least the following points:

- a) Procedures: Instrument approach procedure charts, including terms, landing minimum data, applicable minimums, application of RNP levels; obtaining GPS NOTAMS from a Flight Service Station or online; performing a RAIM prediction in the aircraft with the GNS430; entering and activating a flight plan.
- b) Navigation: Transitioning from GPS navigation to Instrument Landing System (ILS); navigating to a waypoint using features of the STEC 55-x autopilot (Arrow); switching the CDI from GPS to VLOC; intercepting an ILS approach using features of the autopilot.
- c) Approaches: Hooded, full-panel, partial panel, full and missed approaches to airports such as Easton, Bay Bridge, and Lee; use of STARS and DP.
- d) Emergency: Use of the “Nearest Airport” feature.
- e) Communications: Using the GNS430 communications features.
- f) In compliance with latest FAA guidance, a WAAS LPV approach in Garmin 430W-equipped aircraft where the minimums are <300 feet AGL can be credited for a precision approach towards a full instrument check in lieu of the more traditional ILS approach.

## Attachment 6 Tipton (FME) Area Information

### *Map, Driving Directions and Communications Frequencies/Facilities*

A map of the local FME area is included below. The field elevation of the **3000x75** asphalt runway is 150 feet MSL and the fixed-wing traffic pattern is to the south of both runways (RWY 10 and RWY 28). (The helicopter traffic pattern is to the north of both runways but this is not always followed.) Effective on 17 MAR 05 UFN the traffic pattern altitude (TPA) is **1000 feet MSL (850 feet AGL)**.



### **FME Local Area**

1

#### **Driving Directions to FMFA From Washington, DC**

- From the Capital Beltway, take the Baltimore-Washington Parkway (MD Rte 295) North towards Baltimore.
- Exit on MD Rte 198 East toward Fort Meade.
- Follow Rte 198 over the Little Patuxent River to the first traffic light
- Turn right onto Airport Road.

- e) Proceed 1/10<sup>th</sup> mile to the Airport Gate and a stop sign.
- f) Turn left at this stop sign onto General Aviation Dr. The FMFA office is located in Hanger 80. Hanger 80 is the second building on your right.

### **From Baltimore**

- a) From the Baltimore Beltway, take the Baltimore-Washington Parkway (MD Rte 295) South toward Washington.
- b) Exit onto MD Rte 32 East toward Fort Meade.
- c) Proceed past several NSA Buildings, on your left, until you reach the MD Rte 198 overpass.
- d) Depart Rte 32, just prior to the overpass.
- e) Bear right on the subsequent traffic circle (1<sup>st</sup> right exit out of the circle)
- f) Immediately turn left onto Airport Road at the first traffic light.
- g) Proceed 1/10<sup>th</sup> mile to the Airport Gate and a stop sign.
- h) Turn left at this stop sign onto General Aviation Dr. The FMFA office is located in Hanger 80. Hanger 80 is the second building on your right.

No motor vehicle access to the FMFA flight line is allowed without specific Tipton Airport Manager permission. The pedestrian access gate to the FMFA flight line through the perimeter fence is secured by a cipher lock. The gate code will be given to you on orientation to FMFA operations by your instructor. Please report to FMFA club management and/or Tipton Operations anything unusual or people that do not belong. Howard and Anne Arundel County Police helicopters and cars are located on the same ramp as FMFA aircraft (In front of Hanger 85). All members should be aware of any HC or AA County Police activity, making sure to allow the County Officers to perform their jobs as efficiently and effectively as possible (Stay out of their way!).

## Communications

Communication frequencies pertinent to Tipton are given in the following table.

Type	Frequency	Comments
CTAF	123.05 MHz	
Pilot Controlled Lighting	123.05 MHz	click 5 times SS to SR
AWOS-3	123.925 MHz	Aviation Wxr Obs
BWI ATIS	127.8 & 115.1 MHz	
Leesburg FSS	122.2 MHz	Phone (800) WX-BRIEF
Potomac TRACON	119.7 MHz	Phone (866) 429-5882
Potomac TRACON SFRA VFR	132.775 MHz (part-time)	Phone (866) 429-5882
Potomac TRACON	Call to close Tipton pattern only flight activity	Phone (540) 351-6129

## Navigational Facilities Frequencies

Navigational facilities frequencies pertinent to Tipton are given in the following table.

Type	ID	Frequency	Radial (deg)	To (deg)	Distance (NM)	Location
VOR	BAL	115.1 MHz	233	053	06.8	BWI Airport
VOR	ADW	113.1 MHz	028	208	17.5	Andrews AFB
VOR	DCA	111.1 MHz	054	234	18.9	Reagan National Airport
VOR	EMI	117.9 MHz	168	348	26.6	Westminster, MD
VOR	AML	113.5 MHz	085	265	34.4	Dulles International Airport
VOR	FDK	109.0 MHz	135	315	34.7	Frederick, MD
VOR	MRB	112.1 MHz	120	300	53.9	Martinsburg, WV

## **Attachment 7 TSA Student Pilot Logbook Endorsement**

“I certify that [insert student’s full name] has presented to me a [insert type of document presented, such as a US birth certificate or US passport, and the relevant control or sequential number on the document, if any] establishing that [he or she] is a US citizen or national in accordance with 49 CFR 1552.3(h). [Insert date and instructor’s signature and Instructor number]”

## **Attachment 8 Jump/Preheater Cart Directions**

### **1 - PREHEATING**

Place hose(s) in nose of aircraft.

Turn on propane tank valve.

Turn on fan motor.

Depress gas button and hold down.

Depress igniter button as necessary to start flame.

Hold gas button down for 30 seconds, then release. If flame goes out, hold down gas button and press igniter again.

Preheat engine for 15 minutes.

Turn propane tank valve off.

Turn fan off when cool air is felt at end of hose.

**DO NOT CHANGE THE PREHEATER REGULATOR SETTING!**

It is set for 120-130 degrees F. Higher temperatures will damage the preheater and hose, and may cause serious burns to personnel and may damage aircraft parts.

### **2 - JUMP STARTS**

**TWO PERSONS ARE REQUIRED FOR THIS OPERATION!**

**VERIFY AIRCRAFT VOLTAGE BEFORE STARTING!**

12-volts: C150, C172N, Arrow and Warrior

24-volts: C152 and C172P

Make sure battery selector switch on cart is in OFF position.

Insert proper adapter into aircraft receptacle.

For Arrow and Warrior: insert special adapter and connect jumper cables to **CORRECT POSTS**.

Turn battery switch to correct voltage.

Start aircraft.

Turn battery switch on cart to OFF position.

Carefully remove cables from adapter or aircraft, remove adapter, close aircraft port.

**MOVE AWAY FROM AIRCRAFT CAUTIOUSLY!**

Make certain cart is clear before moving aircraft.

## Attachment 9 Valve Sticking and Spark Plug Contaminants

\*Procedure to help prevent valve sticking and spark plug contaminants\*  
(Reference: Lycoming service letter)

Valve sticking can be a problem caused by contaminants in the oil and combustion residues (fuel). These form deposits on the stem and guide that interfere with the stem's movements. If the valve cannot open or close properly, incomplete combustion will result. This in turn, can lead to the formation of more deposits and increased valve sticking. Another drawback is prolonged ground-running in that the engine does not reach operating temperatures and operates with a richer mixture than when flying.

The engine should be operated at engine speeds between 1000 and 1200 RPM after starting and during the initial warm-up period. Avoid prolonged closed throttle idle engine operation when possible. At engine speeds from 1000 to 1200 RPM, the spark plug core temperatures are hot enough to activate the lead scavenging agents contained in the fuel which retard the formation of the lead deposits on the spark plugs and exhaust valve stems. Avoid abrupt engine speed changes after start-up and use only the minimum power setting required to taxi. After startup and during taxing, leaning should be used; return to full rich for run-up and takeoff.

Prior to engine shut-down, the engine speed should be maintained between 1000 and 1200 RPM until the operating temperatures have stabilized, (about 30 to 60 sec. of taxing). At this time the engine speed should be increased to approximately 1800 RPM with the mixture leaned just to the point where RPM starts to drop for 15 to 20 seconds, then reduced to 1000 to 1200 RPM and shut-down immediately using the mixture control.



## Attachment 10 Oil Levels in FMFA Aircraft

### Oil Levels in FMFA Aircraft

Too much oil in the sump is just as bad as too little. Excess oil in the sump will result in higher than normal oil pressures in the engine casing, resulting in oil leaks and oil seal failures.

In order to prevent these conditions from arising, we have determined optimum\* oil levels for the engines of all FMFA aircraft.

The following optimum\* oil levels will be followed for FMFA aircraft:

1. C150                    4 - 4.5 qts
2. C172                    5 - 5.5 qts
3. Warrior                5 – 5.5 qts
4. ARROW                5 - 5.5 qts

\* No oil is to be added on pre-flight if the aircraft's oil level is at or above the optimum oil level except with the permission of the Manager

Extra quarts of club supplied oil should be carried for those aircraft involved in cross country flights where the pilot knows the oil level may be below the optimum level at stops along the way.

For student pilots, the supervising CFI will be responsible for monitoring his/her student's oil usage and insuring it is in accordance with the guidance above.

## **Change Log**

### **August 8, 2018**

Revised full document. Too many changes to list individually.

### **April 22, 2014**

Revised paragraphs 1-11 (lead time for cancellations increased from 2-hours to 24-hours, penalty increased from \$25.00/hour lost to \$50.00; 1-12 (affects rescheduling of aircraft for FAA check rides), and 1-16 (lead time for cancellations increased from 2-hours to 24-hours, penalty increased from \$25.00/hour lost to \$50.00)

### **November 11, 2009**

Inserted new subparagraphs 1-2 b), 2-12 e), 4-3.1 d), 4-3.2 f), 4-4 e), and 4-5 e).

Modified first sentence of section 6-6 regarding attendance at safety meetings.

Added Attachment 7; "TSA Student Pilot Logbook Endorsement".

### **July 10, 2009**

Updated section 2-13.3

### **March 10, 2009**

Changed all references to "Air Defense Identification Zone" and "ADIZ" to "Special Flight Rules Area" and "SFRA". Modified section 2-16 a) to describe SFRA.

### **March 2, 2006**

Modified section 2-13.2 Clearing Procedures at Tipton

### **October 29, 2006**

New section inserted as 2-19 When Landing at Tipton is Not Possible. Subsequent sections of part 2 renumbered.

### **July 15, 2006**

Modified paragraph 1-1 (b).

### **June 5, 2005**

New section inserted as 2-18 Damages Occurring Away From Tipton. Subsequent sections of part 2 renumbered.

### **April 4, 2005**

Operations manual updated. Content also edited for consistency of formatting

### **March 27, 2019**

Revised full document. Too many changes to list individually.

### **April 7, 2021**

Revised full document. Too many changes to list individually.

### **May 1, 2021**

Revised full document. Too many changes to list individually.

### **November 1, 2021**

Insurance requirements. Student solo clearing/dispatch requirements.

Other minor changes throughout document; too many to list individually.

### **November 10, 2021**

Many documents formerly kept in hardcopy form in the Pilot's Personal File may now be uploaded to FSP instead. NAFC checkrides are accepted in lieu of the comparable FMFA checkrides.

## **February 1, 2022**

2-14 FLIGHT PLANS

2-13.2 CLEARING PROCEDURES AT TIPTON

2-13.3 CLEARING PROCEDURES AWAY FROM TIPTON

3-1 INITIAL FLIGHT CHECKS AND WRITTEN EXAMS

## **December 5, 2022**

1-11 SCHEDULING LIMITS

2-7 AIRCRAFT BOOK

2-9.3 RUNWAY MINIMUMS

## **January 3, 2024**

1-2 MEMBERSHIP APPLICATION

1-8 INITIATION FEE, RESIGNATION, REINSTATEMENT AND TEMPORARY MEMBERSHIP

1-15 INSTRUCTOR FEES

3-4 FLIGHT CURRENCY REQUIREMENTS

3-5 ONE-TIME NIGHT FLIGHT CHECK AND NIGHT CURRENCY

4-6 STUDENT PILOT SOLO REQUIREMENTS

## **March 01, 2024**

2-9.3 RUNWAY MINIMUMS

2-15.4 TAKEOFF

4-3.3 g) STAGE CHECKS added

... and many minor tweaks throughout.