MAINTENANCE PROGRAMME

OO-XXX Piper PA-19 (Army L-18C)

AIRCRAFT CONFIGURATION

OO-XXX	AIRCRAFT	ENGINE	PROPELLER
Manufacturer	Piper Aircraft Corporation	Continental	Sensenich
Model	PA-19 (Army L-18C)	C90-12F	M76AM-2
Serial number	18-XXXX	XXX	K XXXXX
Type certificate Data Sheet/ Aircraft specifications / Type Approval Data Sheet (*)	FAA Aircraft Spec. 1A2 At latest revision	FAA TCDS E-XXX At latest revision	FAA TCDS P-XX At latest revision
Reference of STC's and approved modifications resulting on additional maintenance tasks	- None		
Operation Characteristics	Private aviation - Training - Aerial Work - Display - VFR Day (**)		
(*) If Applicable *(**) Mention ONLY what is applicable*			

Owner of the maintenance programme :

Owner References:

Name :
Address :

Phone :

Mobile :

mail :

Website :

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LIST OF EFFECTIVE PAGES, Status of the EDITION AND REVISIONS

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Update of the Maintenance Programme

Any proposed changes to the content of the maintenance programme will be a new revision. For any new revision, amended paragraphs (deleted, added, and modified) are identified in the summary table above. A new edition is issued when all pages are renewed. The edition and revision number is reported on every page.

The initial and any new edition and revision of the maintenance programme must, prior to its implementation, be submitted to the BCAA for approval.

NOTA: 1- The list of approved effective pages, will be returned by the BCAA to the holder of the maintenance programme as approval of the maintenance programme.
2- "LA/T-AIR/N/ AMP issue 2023-01" is the reference of the BCAA template and must not be changed.
Change only registration mark in head and date in the foot page.
3- A revision in a foot page changes the reference of all. In the table, indicate which page(s) is (are) affected by the revision.

Approval BCAA:

N°: LA/T-AIR/N/AMP/

Date :

Name: **Signature :**

SECTION 1

GENERAL INSTRUCTIONS

This maintenance programme is drafted according to the BCAA Circular CIR/AIRW-09, in relation with the Ministerial decree of August 2, 1990, and

☐ In relation with the Royal decree of September 24, 2017 (*)

(*) cross if applicable

1.1 - Engagement

I, undersigned *declare*

that I will maintain the aircraft identified above in an airworthy condition according to this maintenance programme which provides a view of all maintenance practices and procedures applied on this aircraft, in order to maintain its airworthiness under the standards, instructions, developments specified in the type certificate holder's instructions (or in the absence of a TC Holder, in the instructions of the manufacturer), and according to the instructions of the BCAA.

Place: **Date:**

Name:

Signature (of the Owner)

1.2 - Maintenance definition

The maintenance of the aircraft identified is composed of the whole of the scheduled maintenance operations and preventive or corrective actions, with aim to maintain this aircraft and its components on an acceptable level of safety. The different kind of inspection are established to maintain the airworthiness condition of this aircraft and its components in relation with documentation of the TC holders / manufacturers and of the BCAA.

- The inspections : Visual inspection or functional test of the aircraft, its components or systems to ensure their airworthiness condition.
- The periodic replacement of components : replacement of components with a “time between overhaul” or a life limit;
- Corrective actions : correction of defects discovered during the use of this aircraft, making this aircraft or its systems unairworthy.

In this context, the maintenance programme is a document which describes maintenance operations required to maintain the ability of this aircraft to be operated. This programme is not intended to replace the documentation of the TC Holder(s) / manufacturer(s), which remain applicable in all cases regarding the methods and procedures which are described there.

1.3 - Abbreviations *(see definition in BCAA circular CIR/AIRW-09)*

A/C	Aircraft
AD	Airworthiness Directive
AFM	Airplane Flight Manual
AI	Annual Inspection
AMM	Aircraft Maintenance Manual
BCAA	Belgium Civil Aviation Authority
BT	Bench Test
CHC	State Check
COM	Communication
CA	Calibration
DI	Detailed Inspection
EMM	Engine Maintenance Manual
IDPI	Independent Inspection
IPC	Illustrated Parts Catalogue
IR	Inspection Report
LL	Life Limit
NDI	Non Destructive Inspection
DPI	Dye Penetrant Inspection
MPD	Mandatory Permit Directive
MM	Maintenance manual
OC	On Condition
OH	Overhaul
OT	Operational Test
POH	Pilot Operation Handbook
RI	Routine Inspection
SB	Service Bulletin
SI	Service Information/Service Instruction
SL	Service Letter
SM	Service Manual
STC	Supplemental Type Certificate
TBO	Time Between Overhaul
TC	Type Certificate
TO	Technical Order
TST	Test
VI	Visual Inspection

1.4 - Reference of the TC Holder / Manufacturer maintenance data

TYPE OF PUBLICATION	REFERENCE	REVISION	DATE
Piper Inspection Report	P/N 230-202	.	July 24, 2018
Piper Aircraft Flight Manual	Piper Report nr 623	.	December 21, 1949

1.5 - Hours Recording

The recording and calculation of the hours determining the periodicity of the maintenance operations is based on a clock recording the hours of operation of the engine (engine ON-OFF).

In the absence of such a clock, the recording of the hours is counted in hours block to block (the total time from the moment when the airplane begins to move for the purpose of taking off until the moment where it is turned off and stops at the end of the flight). These hours are those which are recorded in the aircraft journey logbook.

ICAO Annex 6 "Operation of Aircraft", Chapter 1: Definitions "Flight Time - aeroplane"
"The total time from the moment an aeroplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight "

Note : Flight time as here defined is synonymous with the term "block to block" time or "chock to chock" time in general usage which is measured from the time an aeroplane first moves for the purpose of taking off until it finally stops at the end of the flight

The content of this maintenance programme is based on an anticipated utilisation of flight hours by year.

If the yearly aircraft utilisation will vary of more than 25%, the content of this maintenance programme shall be reviewed and updated if necessary.

Where utilisation cannot be anticipated, calendar time limits should also be included.

If pertinent, landing cycles are also entered for some components.

SECTION 2

SCHEDULED INSPECTIONS AND WEIGHT & BALANCE

2.1 - Scheduled Maintenance

Inspections can be performed with the tolerances indicated below, which allows more flexibility for maintenance.

Permitted variations to maintenance intervals are not cumulative
(If A 100 Hours inspection is due at 100h A/C and is performed at 110h A/C, next 100 Hours inspection will be due at 200h A/C (maintenance after 90h A/C operation !)

OPERATION	PERIODICITY	TOLERANCE
Inspection	50h	5h
Annual inspection	100 h /12 months	10h / 1 month
Inspection	500h	50h
Inspection	1000h	50h
Lubrication	100h/ 12 months	10h / 1 month
Other		

Note:
NO tolerance is permitted on maintenance intervals required by Airworthiness Limitations, Life Limits and Airworthiness Directives.

2.2 - Weight and Balance

- A weight and balance with calculation of CG will be conducted following the guidelines of the circular CIR/AIRW-50 of the BCAA at its latest edition and of § NCO.POL.105 of the regulation (EU) Nr 965/2012.
- The aircraft shall be reweighed if the effect of modifications on the mass and balance is not accurately known.

A record of weighing with an equipment list will be established.

SECTION 3

METHODES OF MAINTENANCE, USE AND STORAGE OF COMPONENTS AND EQUIPMENT

3.1 - Periodicity

This part is what is called the "CARDEX", i.e. the list of components / equipment with their respective maintenance intervention type, periodicity and their life limits (if any), outside the periodicity of the operations identified in § 2.1

NOTA: Refer to the latest revision of the reference documents.

Note: The table below is an example and is not limiting.

Item / Subject	Mark	MFG doc Ref.	Type intervention (see § 1.3)		Observation remark
			Action	Limit/ periodicity	
Engine	Continental	M-0	OH	2160h	iaw BCAA Cir.Airw-08
Propeller	Sensenich	SB R-17	OH	2000h	No Calendar Time
Propeller Bolts			NDI	2000h	@ propeller OH or repair, i.a.w. BCAA Cir.Airw-13
Alternator/ Generator	Plane Power	SM supplement doc. 11-0001	OH	2160h	
			RI	Annual/ 100h	i.a.w. Plane Power instructions
			DI brushes	500h	i.a.w. Plane Power instructions
Starter	Prestolite		OH	2160h	
			DI brushes	500h	i.a.w. MFG instructions
Vacuum Pump	Tempest	SL-08	CHK	First 600, then every 100h	i.a.w. MFG instructions
			OC	When worn out	
Carburettor	Marvel Schebler		OH	2160h	i.a.w. MFG instructions
Fuel Pump	Facet		OH	10y	i.a.w. MFG instructions
Magneto(s)	Slick	L-1363F	DI/CHK/BT	500h / 10y	i.a.w. BCAA TN 92-01 R2

Item / Subject	Mark	MFG doc Ref.	Type intervention (see § 1.3)		Observation remark
			Action	Limit/ periodicity	
Oil Cooler	Stewart Warner		Flush	2160h	@ Engine OH i.a.w. BCAA Cir.Airw-08
AIRFRAME	Fuel		LL	10y	i.a.w. BCAA TN 89-01 R3
Flexible pressure hoses	Oil		LL	10y	
	Brakes		LL	10y	
ENGINE	Fuel		LL/CHK	10y	i.a.w. BCAA TN 89-01 R3
Flexible pressure hoses	Oil		LL/CHK	10y	
Pitot & Static Hoses				OC	No MFG instructions
Static pressure system			DI/TST	48m	i.a.w. BCAA Cir.Equip-04
Transponder	Garmin		TST	24m	i.a.w. BCAA Cir.Equip-04
Encoder	ACK		TST	48m	i.a.w. BCAA Cir.Equip-04
Altimeter(s)	United Instruments		TST	48m	i.a.w. BCAA Cir.Equip-04

3.2 - Operation for extended storage

The following provisions will be applied *(Servicing, cleaning, lubrication and inspection).*

3.2.1. Aircraft

A. Aircraft storage maximum 30 days (before and after)

B. Aircraft storage maximum 90 days (before and after)

C. Aircraft stored for an indefinite period (before and after)

3.2.2. Engine

3.2.3. Propeller

3.3 - Safety Equipment

Emergency Kit	VI/LL	1 year / date
Fire Extinguisher	VI/CHK/LL	1 year / date
ELT battery	CHK/LL	1 year / date
FLARM	CHK (update)	1 year

3.4 - List of Airworthiness Directives (AD / CdN / LTA / MPD / TO).

(*) (Airframe, Engine, Propeller and Accessories)

REFERENCE	ITEM (*)	MAINTENANCE TASK	OCURRENCE
FAA AD 68-05-01	**Exhaust Muffler**	**DI**	**50h**
FAA AD 2015-08-04 (AMOC BCAA COM 2)	**Wing lift strut** **Wing lift struts forks** **Wing lift struts forks**	**DI** **NDI (MPI)** **LL**	**2 years** **500h** **2000h**
FAA AD 84-26-02	**Paper Induction air Filter**	**Replacement**	**500h**
LBA LTA 89-018/3	**Tost Towing Hook**	**OH**	**2000 starts**

SECTION 4

UNSCHEDULED MAINTENANCE

NATURE	REFERENCE
Exceeding the limitations of engine or propeller	**Continental Standard Practice Maintenance Manual M-0**
Operations after storage	**To determine**
➢ Engine	**To determine**
➢ Propeller	**To determine**
➢ Other equipment	**To determine**
Operation after device immobilization of ➢ 1 to 3 months ➢ > 3 months	**To determine**
Prop Strike, Sudden Stoppage	**Continental Standard Practice Maintenance Manual M-0** **Continental SB 96-11B**
Hard Landing, or in overweight or on unserved field	**No instruction from the MFG**
Flight in excessive turbulence conditions	**No instruction from the MFG**
Lightning strike	**Continental Standard Practice Maintenance Manual M-0**
Flight in hail	**No instruction from the MFG**
Exceeded gust of wind and gusts at ground	**No instruction from the MFG**
Exceeding limits of speed and acceleration	**No instruction from the MFG**
Immersion	**No instruction from the MFG**
Non approved fuel, fuel starving	**Continental Standard Practice Maintenance Manual M-0**
Ingestion of dry powder extinguishing agent	**No instruction from the MFG**

NOTA :
In the demonstrated absence to recommendation of the manufacturer / TC holder, the aircraft having experienced an exceptional event will be considered unfit for the flight and a procedure of inspection for the release to service must be filed and approved by the BCAA and carried out before any flight.

SECTION 5

CHECK FLIGHTS

Check flights must be performed at the end of the performance of certain maintenance operations. The case when a check flight is required and the terms of his execution are defined below.

5.1 - In Case Of :

1.1. Complete check flight:

A complete check flight includes :

- General verification of the performance of the aircraft listed in the flight manual (take-off, climb, level) and the correct operation of the various systems, and,
  execution of procedures not usually applied in operation (especially emergency procedures).

A complete check flight is required :

- After an overhaul, or
- After a major repair following on an accident, unless if an approval has been obtained during the approval of the repair.

1.2. Reduced check flight

A reduced check flight only includes the verification of certain functions of the aircraft systems which are related directly or indirectly to the work carried out

A reduced check flight is required when, at the end of a maintenance operation, checks on the ground do not allow to ensure the satisfactory operation of the aircraft, including :

- during intervention on flight controls, except after exemption foreseen in the maintenance programme accepted by the BCAA, or
- After engine replacement or relocation (*) or,
- After a modification or repair of the aircraft, the need to perform a check flight is specified in approved modification or repair data, or
- For the radio installations, after a scheduled maintenance operation which required removal and a bench test of the equipment, or during a periodic maintenance by the method known as "global test".

(*) "Replacement" concerns the removal of an engine followed by the installation of another engine, and "relocation", the removal and refitting of an engine to its original position when no major action, such as the replacement of module, is performed on this engine.

5.2 - Check Flight conditions

The detailed programme of the check flight is given below in section 6.

The check flight can be carried out only under the following conditions:

- The weather conditions in the circuit and close environment of the concerned aerodrome must be greater than the operational minima for VMC, and it must remain for the whole duration of the check flight. If weather conditions become less than these minima during flight, the check flight must be interrupted, or cancelled.
  All flight controlled manoeuvres (manoeuvrability, stability, performance, etc.) must be performed in VMC conditions.
- The take-off weight for a check flight will be lower or at the most equal to the maximum landing weight.
- The representatives of the BCAA can participate/assist the check flight(s).

Check flights should be carried out in day VMC and with a well-defined visible horizon since good attitude awareness may be necessary for precise control and in the remote event of extreme attitudes being reached, e.g. an unexpected and pronounced wing drop at the stall. In addition ensure that there is sufficient vertical clearance from cloud for any recovery to be completed visually.

The aircraft must be flown in day VFR conditions. However for flights in a type where a type-qualified person cannot be carried in a second seat (with appropriate flying controls), more stringent weather limits should be applied. For tail wheel propeller aircraft, the crosswind should be kept to a minimum and , depending on the type, may be as little as 5 knots. Tailwinds must be avoided. Runway length is also a large consideration on any first flight in an unfamiliar aircraft and should always allow a significant margin over and above the national minimum requirements.
Be aware of grass strips; some aircraft need them but when damp, take-off and landing runs can be considerably lengthened. However, some are particularly sensitive to wet runways and the consequent increase in landing distance. A general rule for the first type flight should be a dry runway with a length where possible of double the AFM landing distance figure.

SECTION 6

MAINTENANCE SCHEDULE AND CHECK FLIGHT PROGRAMME

Copy or attach below the schedule(s) for maintenance & periodic inspections defined in § 2.1 and check flight programme defined in § 5.2

(Piper Inspection Report P/N 230.202)

(Plane Power Aircraft Manual Supplement Doc. 11-0001)