SECTION 12.5 AIRCRAFT MAINTENANCE LOGBOOK AND OTHER MAINTENANCE RECORDS

12.5.1 LOGBOOKS

An Aircraft Maintenance Logbook will usually be provided by the aircraft or aircraft kit manufacturer. Alternatively, an aircraft maintenance logbook is available from RAAus or CASA. Home-grown aircraft logbooks may also be used.

As a minimum the aircraft maintenance logbook must contain:

a) Aircraft Identification. Registration Number and Specifications page.

b) A logbook statement identifying the system of maintenance to be used when maintaining the aircraft.

c) Maintenance Record pages.

d) Modification and Components Record.

e) Summary of Empty Weight Changes.

f) Summary of Airworthiness Directive/Service Bulletin/Service Direction/Notices pages, applicable to the aircraft, engine, propellor and other accessories.

The following information must be entered as soon as possible after the maintenance event:

a) The maintenance carried out and the standard it complies with, for example "… carried out in accordance with the Evektor Sportstar maintenance manual."

b) The date the maintenance was conducted

c) The airframe/engine hours at which time the maintenance was conducted

d) Parts used

e) Modifications made

f) Components changed

g) Action taken with respect to Special inspections, Service Bulletins, Airworthiness Directions, and the results of those inspections.

12.5.2 ENTRIES

All entries in any aircraft logbook are to include:

a) the date the work was completed; and

b) a list of all work completed; and

c) the name of the person who completed the work (in block letters), their Maintenance Authority Level and their signature. If not a RAAus member, the entry must be countersigned by the aircraft owner/ operator.

See section 12.6.1 for further guidance.

12.5.3 LOSS OF AIRCRAFT MAINTENANCE LOGBOOK(s)

Circumstances may arise where a logbook is lost or destroyed. In such a case, the aircraft owner must:

a) notify the HAM as soon as it is known that the logbook has been lost or destroyed, and

b) Prepare a new logbook clearly marked "REPLACEMENT", and

c) Inside the cover (or in another location near the front of the logbook) detail the circumstances leading to the raising of the replacement book (i.e. loss or destruction of the original), and

d) Complete all known and discoverable details regarding the aircraft's history. Details might be found in other records or receipts retained, work performed by an RAAus L2, the RAAus aircraft file, expired MRs

etc. Where insufficient history can be found, a Statutory Declaration may be useful, attesting to the current maintenance status of the aircraft recalled and that the current and continuing airworthiness requirements are up to date and being met.

NOTE: The replacement logbook must be maintained such that each page of the logbook is sequentially numbered and bound or held together in such a way that the page is protected from inadvertent misplacement, loss or removal.

Circumstances may also arise where the loss of all aircraft maintenance records is unrecoverable. In such a case, the aircraft owner must, in addition to the requirements listed in 3.1 (a) to (d) above:

a) reconstruct them by establishing the total time in service of the airframe. This can be done by reference to other records that reflect the time in service; research of records maintained by repair facilities and reference to records maintained by individual service providers or maintainers, etc.

b) When these things have been done and the record is still incomplete, the owner/operator may make a Statutory Declaration (logbook statement) notarised by a Justice of the Peace in the new logbook describing the loss and establishing the time in service based on the research and the best estimate of time in service.

c) The status of applicable SBs and ADs and airframe time in service will require a detailed inspection by an RAAus authorised maintenance person to establish that the applicable manufacture SBs, applicable ADs and the replacement of time lifed components have been complied with. This inspection must be performed by or supervised by an RAAus Independent L2 or higher maintainer and the findings must be recorded using RAAus Tech Form 013 – Recreational Aircraft Condition Report (All Aircraft). The aircraft inspection and validation process may also require the CoR holder to engage the services of a CASA authorised subpart 21 M person.

This process may result in considerable time, expense, and in some instances, might require the SBs or ADs to be performed again and the aircraft being reweighed to establish compliance. Other items such as the status of life-limited parts, time since last overhaul, current inspection status, and current list of major alterations, will also present problems.

The loss of an aircraft's maintenance records is troublesome, costly and time consuming. Safekeeping of the aircraft's maintenance records is an integral part of a good recordkeeping system and the responsibility of the CoR holder.

12.5.4 AIRCRAFT SALE

If the aircraft is sold all aircraft maintenance documents including current and expired MRs if used, aircraft logbook and other technical drawings and data forms part of that sale and must be handed over to the new owner.

In the event that the engine or propeller is removed and sold, engine or propeller logbooks (if existing separately) or full copies of the aircraft logbook must be supplied to the new owner.

12.5.5 OTHER MAINTENANCE RECORDS

If any other document is available regarding a particular maintenance matter, (such as a repair certificate or release note, a certificate of compliance for aircraft instrument or transponder checks, a MARAP approval or a manufacturer Letter of Approval etc.) that document is part of the maintenance records and must be retained with the maintenance logbook. The document or documents must be affixed to the relevant page of the logbook concerning the maintenance matter in such a way that the document is protected from inadvertent misplacement, loss or removal.

The RAAus MR if used and any other form of Daily Flight Record also forms part of the maintenance records and must be retained. Refer to Section 11.1 Maintenance Policy, subsection 2.4.

L2 and L4 Maintenance Authority holders must keep their maintenance logbooks and all paperwork actioned, for a period of at least 5 years. Originals of documents (eg pre-flight inspections) should be kept, and only copies need to be sent to RAAus office as required.

12.5.6 LOGBOOK STATEMENTS FOR AMATEUR BUILT AIRCRAFT

Certain statements should be made when you commence filling out a brand new Logbook. These are primarily to "introduce" this new aircraft to the world, to explain briefly on how it came to be, what it's fitted with, to outline what has been done to it in preparation for its new working life as an aircraft, and to specify what requirements or specifications it must be maintained to.

Some basic suggestions (in no particular order) are shown on the following pages. You could copy and cut out these blocks from this document, fill them out and paste them into your logbook.

Introductory statement

"I hereby certify that the Amateur Built aircraft registered number _____ identified as a with serial number_____, has been manufactured in accordance with good aeronautical practices and complies with the drawings, instructions and specifications supplied as kit number/plans set number_____"

Construction commenced_____/_____/_____ and was completed on_____/_____/_____
Builder Name _____
Signed_____RAAus_____Date_____/_____/
_____

Chosen Maintenance Program:
Each aircraft must have a maintenance program identified in the aircraft logbook.

Airworthiness Notice, Service Bulletin, Service Letter etc Compliances:
List all the specific items identified as applicable to your aircraft and complied with thus far.

Engine Fitment:

Engine installation carried out in accordance with the relevant construction manuals, drawingsand using good aeronautical practices.

MAKE_____MODEL _____

SERIAL No_____ NEW MANUFACTURED DATE_____/_____/____

T.S.N_____ If Part Life: T.S.O _____

Signed_____ Date_____/_____/_____

Inspection of cable operated control systems carried out for correct installation, full and freetravel, correct sense and the locking of all systems.

Initial Inspection by _____

Signed_____RAAus_____Date_____/_____/_____

Independent Inspection by _____

Signed_____RAAus_____Date_____/_____/_____

Propeller Fitment:

Propeller installation carried out using the prescribed manuals, drawings and using goodaeronautical practices, IAW with _____

MAKE_____ MODEL _____

SERIAL No_____ MFG DATE _____

T.S.N_____ If Part Life: T.S.O _____

Signed_____RAAus_____Date_____/_____/_____

Instrument Fitment:

Compass calibration carried out IAW AWB 34-008

at _____ on_____/_____/_____

Results:

030	060	090	120	150	180	210	240	270	300	330	360

Signed_____RAAus_____Date_____/_____/_____

Harnesses:

Safety Harnesses fitted in accordance with the appropriate aircraft construction manual,drawings, and good aeronautical practices.

MAKE_____ MODEL _____

SERIAL No _____

Signed_____RAAus_____Date_____/_____/_____

Weight and Balance:

Aircraft weight and balance carried out IAW Technical Manual Section 10.The full reports are.

located in _____

Signed_____RAAus_____Date_____/_____/_____

Fuel System:

Fuel quantity calibrations. One chart required for each tank.

Name of this tank: _____

Total capacity of this tank, including unusable fuel is_____litres

Quantity of unusable fuel in this tank when the gauge reads ZERO or EMPTY is_____litres

Major Graduations On G gauge								
Measured quantity of useable fuel (litres)								

Signed_____RAAus_____Date_____/_____/_____

Electrical System:

Electrical system installation carried out in accordance with the appropriate aircraft constructionmanuals, drawings, FAA AC 43-13-1B chapter 11 and good aeronautical practices.

A copy of the aircraft circuit diagram is located in: _____

Signed_____RAAus_____Date_____/_____/_____

Flight Controls Inspection:

Flight control systems (pitch, roll, yaw) inspection carried out to ensure construction has been carried out in accordance with the appropriate construction manuals, drawings and good aeronautical practices.

Results:
(for all deflections, note whether in degrees, inches or mm)

PORT AILERON	UP	DOWN
STBD AILERON	UP	DOWN
PORT FLAP	UP	DOWN
STBD FLAP	UP	DOWN
PORT ELEVATOR	UP	DOWN
STBD ELEVATOR	UP	DOWN
RUDDER	LEFT	RIGHT

Add additional sections for any flight control trims available.

Inspection of control systems carried out for correct installation, full and free travel, correct sense, and the locking of all systems.

Initial Inspection by _____

Signed_____RAAus_____Date_____/_____/_____

Independent Inspection by _____

Signed_____RAAus_____Date_____/_____/_____

Some examples of the wording of Logbook entries:
Making logbook entries does not need to be complicated. Here are some basic rules for success:Logbook entries should:

a) Describe what was done and why (no need to skimp on detail either)
"Worn spark plugs replaced following rough running."

b) Describe any significant parts fitted (by number)
"8 new correctly gapped NGK D9EA spark plugs fitted."

c) Describe the Maintenance Data used (by name, section, chapter etc.)
IAW Section 66 of Jabiru Maintenance Manual 2200 engine"

d) Include your name, the date, your signature, your RAAus number:IVA FASTPLAIN 4/5/2015. Iva Fastplain RAAus 654321.

e) Describe by what authority you have done this work:
"RAAus Level 1 Maintainer."

General advice is to:

a) Include too much information rather than not enough.

b) Specify precisely what you have done, the TTIS of the aircraft or component on the dayyou performed the work.

c) Specify to what Service Manual or bulletin (etc) your work is addressing.

d) Specify when any time-lifed components require replacing.

e) Specify on the daily flight record (Tech Form 121) when the next inspection or service is due to be performed.

A well written and comprehensive record of maintenance is required and will remove doubt about when it was that a required inspection or service was last performed.

The Certificate of Registration (COR) holder (unless a Maintenance Controller has been appointed for a flying school aircraft) is legally responsible for the record keeping and scheduled maintenance of your aircraft, regardless of whether you do the work yourself or you have a RAAus accredited L2 do it.

12.5.7 DIRECTIONS RELATING TO AIRCRAFT MAINTENANCE RECORDS

RAAus may, for the purpose of ensuring compliance with the requirements of this Technical Manual, give directions in relation to an aircraft listed with RAAus with respect to:

a) the retention and transfer of aircraft maintenance records and parts of aircraft maintenance records; and the making and keeping of copies of aircraft maintenance records and parts of aircraft maintenance records, and

b) delete or strike an entry from an aircraft maintenance logbook.

A person required by subsection 12.6 of this TM (including by a direction under subsection 7.1) to keep or retain a maintenance record must make the maintenance record available for inspection by RAAus, CASA, or an authorised person at the request of RAAus, CASA or the authorised person.