	SAAA CONTROLLED DOCUMENT	
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SAAA Sponsored Youth Aircraft Build & Fly Project Program

- Project Management Plan -

Revisions

Revision No:	Revision Date:	Comments
1	4-11-2019	Initial issue
2	31-1-2020	Increase youth contribution target; expand on liability & insurance matters

Contents

1. GOAL STATEMENTS

The SAAA Sponsored Youth Aircraft Build and Fly Project Program exists fundamentally to create an opportunity for SAAA and its Members to make a contribution to maintaining a pipeline of future Australian aviators.

Each project offers a very tangible and immersive experience for young persons ("students"), principally targeting those in school Years 11 & 12, to develop an understanding of the world of aviation and therefore create the possibility that young persons involved in a project may go on to develop careers in Australian aviation.

The principal elements of a project are:

1. To build a basic experimental category aircraft that is suitable for ab-initio pilot training, and where:
    a. The construction process relies on contributions from students at every stage of the build supported and supervised by SAAA Members as volunteers
    b. Major components of the aircraft will be built at a number of locations around the country and brought together for final assembly and flight testing
2. To offer flight experience and ab initio pilot training at highly subsidised cost for the students that is supported by SAAA Member flight instructors as volunteers and third-party flight schools
3. Overall management and technical oversight will be provided by SAAA

Each project should aim to meet or beat an 18-month timeline for the completion of an aircraft build (nominally 12 months) and the delivery of up to 200 hours ab-initio flight training (nominally over a 6-month period).

The beneficiaries of a project are:

1. The Students – gaining an insight into aviation, developing new skills (construction, flying, teamwork, organisation) and opportunities to acquire a pilot's licence at a highly subsidised cost
2. SAAA Members – keen for the opportunity to "give something back", assist students to explore aviation and career opportunities, and contribute to protecting and developing Australian aviation
3. Australian Aviation – profile through sponsorship and an enhanced pipeline of future aviators

2. MANAGEMENT TEAM

A Project Management Team (PMT) will comprise at minimum the following positions:

1. Project Sponsor
    a. Must be an SAAA National Councillor
    b. Responsible for:
        i. Overall project governance, financial, technical and operational oversight
        ii. Preparation of project budget

2. National Project Manager
    a. Must be an SAAA Member or staff person, and an experienced aviator with ideally both relevant construction and flight operations experience
    b. Responsible for:
        i. Aircraft type selection - with support from SAAA Mgr Flight Operations (MFO), SAAA Mgr Construction (MCM) and SAAA Technical Advisor Construction & Maintenance (TACM)
        ii. Defining aircraft component build and project integration locations and respective Component / Integration Project Manager
        iii. Build quality supervision processes sand procedures - with support from TACM
        iv. Development of an overall project schedule – with support from National Administration Co-Ordinator
        v. Technical guidance and support to Project Managers at all component build / integration locations
        vi. Logistics and overall OH&S planning
        vii. Delegation and resourcing of any tasks not specifically identified or addressed in this PMP

3. National Administration Co-Ordinator - NAC
    a. Must be an SAAA Member or staff person with strong administration, planning and organisational skills
    b. Responsible for:
        i. Maintaining and tracking an overall project schedule
        ii. Issuance of monthly overall project progress and financial reports to National Council (NC) and the PMT members
        iii. Maintaining a register of all project participants – school representatives, students, involved SAAA members / third parties and their roles, and where relevant ensuring suitable authorisations such as working with young persons have been obtained and maintained current
        iv. Developing a sponsorship program and seeking sponsorship contributions
        v. Marketing and schools engagement
        vi. Developing key documentation standard templates / forms / procedures as identified in this PMP

4. Regional (Component / Integration) Project Managers - RPM
    a. Must be SAAA Members with substantial build experience generally related to the selected project aircraft or various specialised technical aspects of the build (engine, electrical, avionics etc)
    b. Responsible for:
        i. Identification and establishment of the build site
        ii. Tooling (with SAAA HQ support as may be required)
        iii. Site OH&S
        iv. Building a team of SAAA Members to contribute to the build
        v. Identification of TCs to provide build quality oversight
        vi. A build schedule including nominated build periods where students build with SAAA Members

vii. Co-ordination of all building activities; build quality processes, inspections and records; and logistics
viii. Monthly progress reports that include identification of any technical and schedule issues that have potential to or will affect overall project integrity, budget or schedule

5. Other SAAA Technical and Administrative supporters available to support a project team, whom should be consulted where specifically identified in this PMP or on other occasions when any member of the PMT requires guidance or assistance:
    a. SAAA Mgr Flight Operations (MFO)
    b. SAAA Mgr Construction (MCM)
    c. SAAA Technical Advisor Construction & Maintenance (TACM)
    d. SAAA National Treasurer (MFIN)
    e. SAAA Accounts Manager
    f. SAAA Manager Safety (MS)

3. SCHOOL / EDUCATIONAL INSTITUTION PARTICIPATION

It will be somewhat of an iterative process to identify schools and other educational institutions to target as this will be highly dependent on where SAAA construction and flight training support groups / individuals / suitable facilities exist.

However, by and large, a Project Sponsor and appointed NPM will likely have a feel for the potential SAAA construction and flight training support groups / individuals for any given project. If not, then expressions of interest from amongst the SAAA community should be sought. This knowledge / response will naturally drive areas where school and other educational participation should be targeted.

Approaches to schools and other educational institutions should be made with at minimum a brief presentation of the SAAA Sponsored Youth Aircraft Build and Fly Project Program – essentially limited initially to the program goal statements, type of commitment and involvement required of the students, and overall timeline for construction and flight training. The target is to achieve 50% or more student contribution to total estimated build hours. This equates very roughly to the order of 20 build contact hours per student anticipated to occur over a 3 – 4 month period.

The schools and other educational institutions should be apprised of:

1. The practical limitations on numbers, which will as a general guide be in the order of a maximum of 20 students assigned to each build site (and up to a maximum of 5 students attending the build site at any one time)
2. By virtue of a student making a meaningful physical contribution to an aircraft build, a student will become legally entitled to receive flight training in that aircraft.
3. And further that, regards flight training, there will be some limitations on the number of students that could be offered flight training – and that these limitations would be largely a function of the extent of funds available closer to the time to subsidise costs (principally fuel and / or flight instructor out of pocket expenses, maintenance and flight operations costs etc); further subsidies or alternate funding arrangements may also be available from

industry sponsorship and / or a measure of contributions from the schools or other educational institutions or the students themselves
4. Students engaged in flight training would, in the absence of specific sponsorship or other funding, be expected to also cover costs of medicals, pilot licences, training materials etc.

Whilst there will be a limit on numbers of students that can be assigned to a build site, they may come from one of more schools or other educational institutions.

Should a school or other educational institution be interested in participation, they should be invited to complete a "Student Participation Proposal" that should include, but not be limited to the following information:

1. Name of school or institution
2. Point of contact – name / contact details
3. Number of students envisaged to be interested in participation:
    a. Total
    b. Those interested in construction only
    c. Those interested in construction and flight training
    d. Indicative age group profile
4. Likely days in the week / am / pm etc when student participation would be expected to fit with other student commitments
5. Likely interest in sponsorship / contribution to support
    a. Construction
    b. Flight training (fuel costs)

The Project Sponsor with support from NPM, NAC and RPMs will then select / develop a plan to equitably accommodate the respective school or other education institutions as a function of their respective levels of interest and expected numbers of interested students.

Offers of participation will then be delivered to the schools, including indicative numbers of students than can be accommodated. The schools will be invited to respond with a list of students and student supervisors with basic details such as name and age, collectively making up the Student / Student Supervisor Participant Register for a given project.

As the build project planning and flight training programs mature, the RPMs will work with the schools and other educational institutions to define project build attendance schedules, and flight training programs.

4. OH&S

A commonsense approach to a safe build site / workshop practice should be adopted, but should include but not be limited to:

1. Briefing to any student / student supervisor commencing activities at the build site that should include reference to:
    a. Wearing of suitable clothing and shoes

b. Awareness of aircraft components and tools that may present various risks (sharp, heavy, abrasive, corrosive etc objects, surfaces, tools, fluids etc)
c. Caution when lifting or manoeuvring heavy objects and need to seek assistance with objects exceeding 15kg in weight
d. Use of safety glasses when using any high-speed rotating tools (grinders, cutting tools, drills etc)
e. Use of glove when handling sharp, hot or other abrasive tools, objects, materials and fluids
f. Safe egress from building site / workshop areas

2. Ensure that at all times when the build site / workshop is active:
   a. A viable means of emergency services communication is available
   b. A first aid kit is available and complete
   c. An eye wash kit is available and complete

5. FINANCIAL

Standard SAAA AFE and financial management process are to be employed; for the avoidance of doubt, no financial commitment must be made unless prior financial approval for any commitment exists and that sufficient approved funds to cover any liability (commitment) are available. Accordingly, before any financial commitments are made, the SAAA Accounts Manager must be consulted to ensure adequate approved funds exist.

SAAA accounting services must be employed to track within a dedicated cost centre all income, donations and expenses including cost of capital related to a project. Cost of capital should be brought to account at the rate of 5% pa as applied to the net project income / expenses balance existing at the end of each financial quarter. In instances where elements of a project are donated in kind, then each item must be recorded in the accounts albeit with a zero assigned value.

The goal is to achieve at least a surplus on conclusion of a project net of all construction and flying activities and all other related project costs including cost of capital. Any surplus will be directed to the SAAA Scholarship Trust Fund.

In this respect, great care should be exercised in the aircraft type and specification selected for a project, defining optional equipment and ensuring a high build quality supported with complete staged project inspections and comprehensive build records so as to maximise the ultimate resale value of the completed project.

In the absence of an alternative plan to recover the SAAA's net cash investment in any project, the default plan is that aircraft must be sold on an arm's length basis on completion of the build and the planned scope of student ab-initio training. A Project Sponsor and NPM are at liberty to propose alternative solutions.

MFIN will provide advice with support through the Accounts Manager as required.

CONSTRUCTION

5.1. AIRCRAFT TYPE SELECTION

A number, at least two aircraft types, and optionally sub-type alternatives should be considered and ranked with consideration of the following factors:

1. Simplicity of aircraft build
    a. Methods
    b. Tooling
    c. Skill levels
2. Simplicity of aircraft systems
    a. Build
    b. Flight
3. Kit supplier
    a. Kit quality
    b. Technical support
    c. Opportunity for discount / sponsor support
4. Engine and propeller supplier support
    a. Quality
    b. Technical support
    c. Opportunity for discount / sponsor support
5. Sale value to cost margin
    a. Approx. total build budget – best guess
    b. Approx. fuel costs to deliver 200 hrs training
    c. Approx. margin
6. Suitability for ab initio training
7. Safety record

Relative rankings of 1, 2 or 3 should be ascribed to each factor where 3 is positive and 2 or 1 are progressively less positive; the same rankings can be ascribed to some or all options considered. The total of all rankings may be used to provide a direction but should not be considered binding.

5.2. BUILD SITES AND TEAMS

The NPM should seek expressions of interest from SAAA Chapters or other groups amongst SAAA membership to take on elements of an aircraft build. The NPM should consider the capability and experience of the SAAA members and their support networks to deliver; and should also consider the scope of opportunity to engage with nearby schools and other educational institutions; in this respect, NPM should work closely with NAC who has the principal responsibility to engage with schools and educational institutions.

Chapters or other groups should complete and provide to the PMP and NAC a Build Team Proposal that identifies:

1. Chapter / Group and location
2. Nominated RPM
3. Core team of members who will contribute to the build
4. For RPM and other core build team members, types of aircraft built by each

5. TC(s) to provide build quality oversight and staged inspections
6. Proposed build site
7. Scope of significant tooling and equipment not available amongst the proposed team
8. Proposed available total team build hours per week
9. Days in the week / am / pm etc available to work with students

It is recommended that the number of build sites be limited to no more than 5, comprising:

1. Component sites
    a. Hull
    b. Wings (one or two sites)
    c. Empennage
2. Integration

5.3. BUILD IMPLEMENTATION

Each build site and respective build activities will be managed directly by the respective Regional (Component / Integration) Project Manager - RPM.

As far as is practical, all components should be completed ready for paint and fitted out with equipment, electrical, avionics, fuel, hydraulics and other systems and services as relevant prior to delivery to the Integration site. The components should be delivered with all build records etc as specified elsewhere in this PMP.

The RPMs should liaise directly with the NPM and PAC as relevant in respect of:

1. Financial matters / requests for funding or materials, consumables, equipment, tools, services etc supply
2. Progress reporting – brief status description; estimates of % complete; build hours applied; and issues likely to effect budget and / or schedule
3. Engagement with schools and other student bodies
4. Packaging of component(s) for shipping to the project integration (completion) site location

All routine build practices, including support from TCs and Authorised Persons and use of the Risk Radar (RRAv) as the primary risk assessment tool must be employed.

6. FLIGHT TRAINING

Flight training arrangements will be developed by the NPM with support from MFO, NAC and RPMs.

Implementation will be managed by the RPMs with support from MFO.

All flight training must be delivered in accordance with the Pt 61 and related aviation regulations.

Arrangements should, as far as practical, be put in place to enable ab-initio training to be delivered to a selected group of students involved in the aircraft build project at each component / integration

site. This will inevitably involve multiple locations and several Pt 141 approved flight schools or individuals prepared to assist with the delivery of flight training to the students on a voluntary basis.

A project aircraft will need to be ferried by volunteer pilots between the various flight training locations.

A target of a minimum of 200 hours of ab-initio training should be considered and spread over a number of students, nominally in the order for 5 students, thus delivering sufficient hours for the selected students to obtain a VFR pilot's licence. The schools or other educational institutions will be responsible for selecting the students who will receive flight training. The NPM and respective RPMs should work with school and other educational institution representatives to define the scope of training, which may include reducing the numbers of hours delivered per student, or even extending the total number of hours under alternative (including financial if required) arrangements. All parties will also work together to determine the extent of subsidies, and hence net cost per instructional flight hour, available to cover in priority – flight instructor out of pocket expenses (accommodation, travel etc in accordance with the SAAA Policy & Procedure MGT 1.2.04 Expense Claims), and aircraft fuel costs. The flight instructors will offer their time at no cost to the students.

7. ADMINISTRATION

7.1. KEY DOCUMENTATION REQUIREMENTS

NAC is responsible for preparing, with input from NPM and other support as required, standard templates if not already in existence for each of the following:

- Aircraft type and sub-specification selection matrix and ranking (at least two types, and sub-types considered at the discretion of the NPM)
- Aircraft optional equipment specification
- AFE / budget proposal for selected aircraft and options – to include all envisaged construction and flight training costs / expenses, identified donations / sponsorship items / values, contingent allowances and resale value to arrive at the maximum SAAA cash exposure / project funding requirement and net project surplus
- Build Team Proposal and Participant Register
- Project Management Team and Key Technical Supporters Organogram indicating names of all appointed positions
- School / Educational Institution Proposal and Student / Student Supervisor Participant Register
- RPM Monthly Reports
- Project Monthly Management Reports
- Project Construction Logs and Inspection Reports
- Flight Instruction Records (substantially in the form of those required under the SAAA FTSM)

- Project master schedule indicating all major activity elements and associated responsible individuals, planned hours, % completion; to include activities, but not limited to:
    - Planning
        - Prepare PMP and documentation
        - Approval to proceed in principle
        - Aircraft type selection and options definition
        - Quotations and detailed budget preparation
            - Construction
            - Flight training
            - Logistics
            - Other costs
        - AFE and approval
        - Build team proposals and selection
        - Assignment of build component sites and integration site
    - Schools and other educational institutions engagement and agreements
    - Procurement
        - Seeking discount / sponsorship arrangements
        - Kit (Stage 1, 2, 3 etc as relevant)
        - Engine
        - Propeller
        - Instruments
        - Avionics
        - Electrical
        - Other airframe equipment
        - Tooling
    - Construction
        - Component build (Sites 1, 2, 3 etc as relevant)
        - Integration build site
            - Airframe
            - Painting / final assembly
            - System commissioning and testing
        - Documentation
        - Certificate of Airworthiness
    - Phase 1 flight operations
    - Flight training
        - Identify flight schools or individuals matched to build sites – voluntary (nil charge basis)
        - Develop student flight training program (who, where, hours, syllabus etc)
        - Delivery (Location 1, 2, 3 etc as relevant)
    - Aircraft sale

7.2. DOCUMENTATION MAINTENANCE

NAC is responsible for the delivery of the required documentation templates – created specifically or, where practical to do so, drawn from existing SAAA materials modified as required to suit the Youth Aircraft Build and Fly Project Program and per the requirements specified above.

NAC to track proper completion of the required documentation and store securely on the SAAA Server.

7.3. LIAIBILITY & INSURANCE

All persons involved with the management of and participating in a project must be SAAA Members in order for them to be covered under the various management liability and public liability insurances carried by SAAA. Further, by virtue of being a Member of the SAAA, all project participants will be bound by the standard SAAA Member Indemnity Agreement.

In respect of students and student supervisors, they must at either their own or at the school or institution cost become student Members of the SAAA.

In respect other persons who may offer assistance, such as flight instructors who may not be members or would not otherwise be members of the SAAA, they will receive SAAA membership paid for by each project.

Further, all persons involved with the management of and participating in a project must declare that they agree to the SAAA Member Indemnity Agreement.

It is expected that participating schools will have insurance policies in place to cover staff and students that extend to participation generally in an SAAA Sponsored Aircraft Build & Fly Project, or otherwise provide specific waivers for any activities that may not be covered under any prevailing policies.

7.4. PROJECT PROGRESS REPORTING

NAC will co-ordinate and issue routine monthly reports that principally provide a summary of activities, schedule status, budget status and issues which enhance the project overall position or present a threat to the project schedule and / or budget.

8. DEFINITIONS

TERM	DEFINITION
AFE	Authorisation for Expenditure
AP	SAAA authorised Person
MCM	SAAA Mgr Construction & Maintenance
MFIN	SAAA Mgr Finance (National Treasurer)
MFO	SAAA Mgr Flight Operations
MS	SAAA Mgr Safety
NAC	National Administration Co-ordinator
NC	SAAA National Council

NPM	National Project Manager
OH&S	Occupational Health & Safety
PMP	Project Management Plan
PMT	Project Management Team
RPM	Regional (Component / Integration) Project Manager
SAAA	Sport Aircraft Association of Australia Inc.
TACM	SAAA Technical Advisor Construction & Maintenance
TC	SAAA Technical Counsellor

9. REFERENCES

DOCUMENT NUMBER	TITLE
FO 1.01	Flight Training & Safety Manual (incl. FO 1.02 Appendix A)
FIN 1.0-01	SAAA AFE (Authorisation for Expenditure) - Template
MGT 1.2-04	Expense Claims (Policy & Procedure)