
Transport Canada and Canadian Owners and Pilots Association

Terms of Reference

Angle of Attack Working Group

GENERAL AVIATION SAFETY CAMPAIGN



Transport
Canada

Transports
Canada

Canada

1.0 Introduction

1.1 Background

General aviation (GA) represents an important part of the aviation sector, with 350,000 aircrafts and 700,000 pilots worldwide. In Canada, GA operations provide 36,000 full time jobs and contribute \$9.3 billion in economic output nationally. The Canadian Owners and Pilots Association (COPA) represents over 17,000 pilots and owners across Canada. As such an important part of the aviation sector, GA and its safety is a priority for Transport Canada (TC).

For the purposes of this campaign, GA is defined as all recreational aircraft, including helicopters, gliders, ultra-lights, amateur built and flight training aircraft (406 Operators). But excludes aircraft flown by 604 Operators, as well as aircraft being flown under any of the 700 Operations

The General Aviation Safety Campaign (GASC) was launched in 2017 to address GA safety issues as well as share the lessons learned from fatal accidents, as well as to address the Transportation Safety Board's (TSB) findings through promotional tools and educational materials.

The Angle of Attack Working Group is one of many GA working groups that has been established in consultation with the Focus Group, and is based on safety data analysis and a review of other international GA programs.

1.2 Interpretation

In this Terms of Reference,

Deliverable means a tangible product or output to be produced and provided to the Safety Initiatives Team (SIT) by the Working Group

Objective means a goal to be achieved by the Working Group

Mandate means a directive issued by the Focus Group through the SIT

Task means an action required and/or to be undertaken by a member(s) of the Working Group to achieve the objective(s)

1.3 Mandate

The Angle of Attack Working Group has the following mandate:

- 1. To develop further awareness of the factors that lead to a stall through promotional and educational material*
- 2. To increase awareness of the benefits of Angle of Attack systems as they relate to stalls, and encourage their use in the general aviation community.*

1.4 Objectives

The Angle of Attack Working Group was established to achieve the following objectives:

- Bring awareness to CAR standard 571 which outlines the installation of minor modifications (of which Angle of Attack systems are considered to be).
- Increase the number of Angle of Attack indicators installed in general aviation aircraft
- Develop awareness and educational materials to promote the installation and use of Angle of Attack indicators on GA aircraft

1.5 Tasks

The Angle of Attack Working Group has been assigned the following tasks:

- Review FAA Safety Enhancement 01 and use related material with the potential to adapt it to a Canadian context.
- Review CAR Standard 571 and issue a plain language guideline for the installation of Angle of Attack indicator systems
- Develop Stall/ Angle of Attack indicator awareness training
- Draft awareness, educational and promotional material with respect to Loss of Control – In flight, particularly stall / spin scenarios

1.6 Deliverables

The Angle of Attack Working Group will develop and submit a report to the SIT, which will include recommendations and implementation strategies on the following items:

- Provide a list of Angle of Attack indicator manufacturers and recommended Angle of Attack Indicator Systems
- Drafted awareness, educational and promotional materials with respect to stall / spin scenarios
- Drafted awareness, educational and promotional materials with respect to the benefits of Angle of Attack indicator systems and their proper use.

2.0 Membership, Roles and Responsibilities

The Angle of Attack Working Group consists of key external and internal subject matter experts. The following section defines the roles and responsibilities of all members involved in the participation and outcome of the Working Group. An organizational chart can be found in Annex A.

2.1 Focus Group

The Focus Group consists of general aviation safety partners who will provide valuable input to guide the campaign towards a successful outcome. All working group changes concerning the General Aviation Safety Campaign's scope require Focus Group support and TC management approval. Members of the Focus Group are responsible for:

- Attending and participating in focus group meetings.
- Contributing to the development of the GASC by sharing applicable resources and information
- Being involved in consultation and/or review of new publications/products.

2.2 Safety Initiative Team

The Safety Initiative Team (SIT) consists of TC and COPA personnel and will serve as a guiding body for the Working Groups. The SIT is responsible for the coordination and management of the Working Groups, as well as following through on the deliverables provided by the Working Groups.

The SIT will maintain a record of all deliverables and once implemented will evaluate effectiveness through defined performance criteria specific to each deliverable.

2.3 Working Group Lead

The Working Group Lead is responsible for leading the Working Group. The lead is responsible for, but not limited to, assigning tasks, arranging meetings, liaising with industry partners and liaising with the SIT.

The Working Group Lead will ensure that the Working Group is working within the scope of its mandate, the objectives are being met and that the required deliverable(s) are provided to the SIT within the assigned time frames.

The Working Group Lead reports directly to the SIT.

2.4 Working Group members

A variety of internal and external maintenance expertise will be invaluable to the Angle of Attack Working Group. Specifically, those who have:

- experience working directly, or indirectly, with general aviation
- experience with and/or knowledge of Angle of Attack Indicators
- an interest and/or in-depth knowledge of Angle of Attack and stalls and their impact on general aviation flight
- the ability to research, engage and gather information from manufacturers, regulators and the GA community

Per the mandate of the Working Group, the members are responsible for:

- researching, reviewing and identifying safety concerns as they relate to Angle of Attack and Angle of Attack Indicator systems
- reviewing non-regulatory subject matter and tools related to Angle of Attack Indicator systems
- Members fulfill their roles through their integrity, expertise, experience, and openness to the dialogue and deliberation

On occasion, other member responsibilities may include being available and prepared to participate in meetings, including Internet-based meetings, email exchanges, conference calls, and videoconferencing.

3.0 Meeting Administration

3.1 Frequency of Meetings

Frequency of Meetings

The working group will meet to discuss and review safety subject matter as it applies to Angle of Attack and the mandate of the campaign.

The Angle of Attack working group will meet as necessary via teleconference, video conference, or in person, depending on the location and availability of members.

Ad hoc meetings can also be planned based on business needs. Communications outside meetings will be conducted and centralized through Headquarters email list.

3.2 Recording of Working Group progress

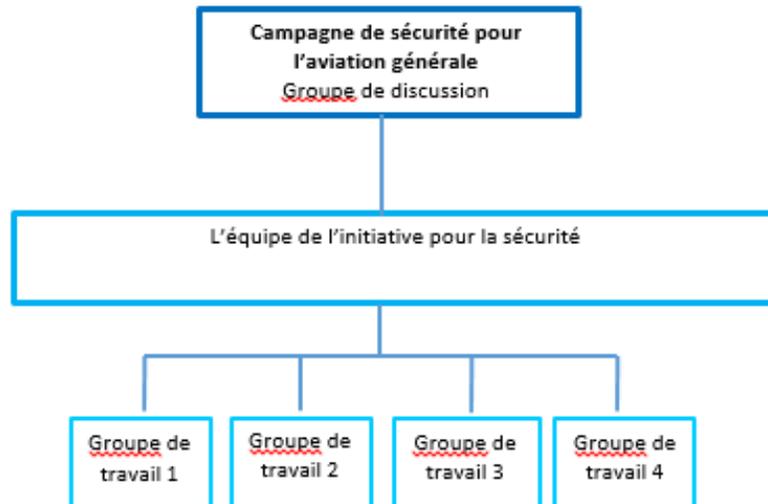
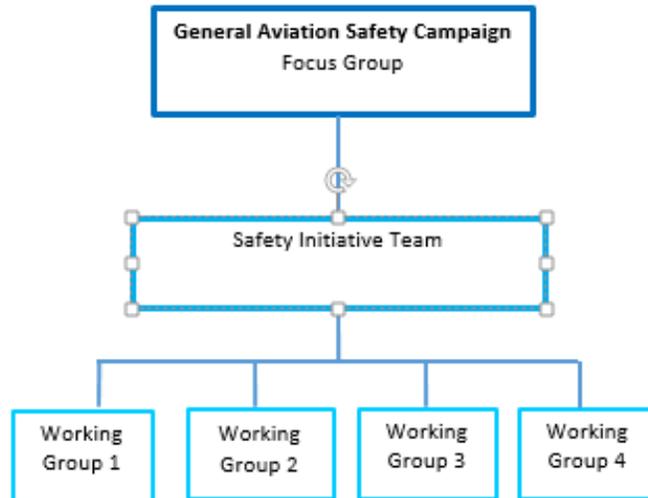
Documentation of each Working Group meeting will be shared with the Working Group members as well as the SIT.

4.0 Evaluation

Safety promotional material will be reviewed and evaluated for effectiveness to establish whether or not the safety objectives were achieved.

Once implemented, deliverables will be evaluated for effectiveness through defined performance criteria specific to each deliverable.

Annex A



Annex B

Activity	Audience	OPI	Target Date	Notes
Initial Launch		FS & TPEC	June 2018	At COPA convention
Kickoff meeting		Working Group lead	September 2018	SIT member to introduce the group and review Terms of Reference
Begin work			Fall 2018	
Status update			Spring 2018	To be provided to focus group