

	REPUBLIC OF SOUTH AFRICA CIVIL AVIATION AUTHORITY	CAA Private Bag x08 Waterkloof 0145
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OPERATION OF AIRCRAFT

SAFETY

FUEL SUPPLY SYSTEM AND ENGINE HANDLING DURING SIMULATED ENGINE FAILURE AND FORCED LANDINGS

- ∆ Indicates changes.
- ∆ This AIC replaces AIC 21A19 dated 94-03-15.
1. *Pilots and instructors are reminded that during simulated forced landings conducted in piston engined aircraft it is vitally important to assure that the engine is operating normally at all times by advancing the throttle and setting recommended climb power for at least five (5) seconds every five hundred (500) to one thousand (1 000) feet of descent. This action is required irrespective of type of fuel supply system i.e. carburettor or fuel injection.*
 2. *Apart from preventing excessive cooling of the engine and ancillary systems, it also ensures that there are no obstructions such as incorrectly positioned fuel selector valves, vapour locks or carburettor icing preventing adequate fuel supply thereby inhibiting normal engine operation.*
 3. *On some light aircraft engines the carburettor heat is taken off a small section of the exhaust system before the exhaust muffler and not from the muffler as in most cases, with the result, that during reduced power settings and especially during throttle closed operations, rapid cooling of the exhaust system occurs resulting in insufficient heat being available to take care of the onset of carburettor icing during the prescribed warm-up period. Pilots and especially instructors should familiarise themselves with the various carburettor heat source systems in order that any peculiar element can be taught to students and pilots when training is done on aircraft with such differences. Where applicable instructors should establish an acceptable procedure and include such procedure(s) in the appropriate operating manual.*
 4. *Pilots and instructors are advised to be well acquainted with knowledge about the operating procedures and limitations of the fuel supply systems of the equipment, which they operate. They must also ensure that whatever method is employed to simulate engine failure, it be the most efficient and safest for the required manoeuvre with due care to proficient engine handling.*

COMMISSIONER FOR CIVIL AVIATION