Mike Goulian Aviation
Pro Tip of the Month
By: Sean Brodeur, CSIP

Emergency procedures can be challenging and stressful for pilots of all experience levels. Regular study and practice can help reduce anxiety and help maintain familiarity. Additionally, effective use of automation can allow the pilot to focus more energy on assessment of the situation and completion of appropriate checklists.

With any aircraft emergency, we want to adhere to these four basic actions:

- Maintain Aircraft Control
- Analyze the Situation
- Take Appropriate Action
- Land as soon as Conditions Permit

As an example, we can apply these principles to an Engine Failure in Flight.

Maintain Aircraft Control

- Establish Best Glide Speed
- Select a Suitable Landing Place and aim for it
- Set the Altitude Select knob to 2000' AGL. Use the GAGL feature to estimate it.
- Engage the autopilot in FLC mode and set to Best Glide Speed.

Analyze the Situation

- Take a quick look at the Engine Indication System to see if there are any abnormal indications.
- Make an assessment of whether an airport can be reached for a forced landing. The selected altitude arc "banana bar" or glide range ring can help us quickly determine if any airports are within range. If there are no airports within glide range, a CAPS pull is likely the best course of action.
- Continue to analyze the situation to determine if another course of action is necessary.

Take Appropriate Action

- Complete the memory items of the Engine Failure in Flight checklist.
- Use of the heading bug to adjust the aircraft flight path to stay in position for a landing.

Land as soon as Conditions Permit

- If landing at an airport, complete the Emergency Landing Without Engine Power checklist (if time permits).
- If an off airport landing seems a certainty, prepare the cockpit for CAPS deployment.
- If the engine has been restarted, consider making a precautionary landing at the nearest suitable airport with services available.

Emergency procedures can often be very dynamic situations. Use of automation in an emergency situation can greatly reduce workload, allowing the pilot to focus on continuously evaluating all available information. This can improve the chances of a successful outcome.