

T-44 Emergency Phrases

Getting through emergency procedures requires fluency in the speech portion, which directs the appropriate actions. Something typed in *italics* indicates something that is *happening*, or that you should be *doing*. The phrases in quotes are to be spoken... say all of it, and say it accurately.

**** NOTE:** The following procedures are for engine failures and fires. If it's a fuel leak, begin with the condition lever. For non-memory emergency procedures (like uncontrollable power), refer to the appropriate checklist. Propeller malfunctions are different, and are detailed at the end of this document. ******

Dynamic Engine Cut or Case 1

After rotate, when the engine fails.....

PF: "Power as required, landing gear up, airspeed 102/110."

****** Do not verbalize "Power up, rudder up, clean up", verbalize the engine failure after takeoff procedure ******

PF: "This will be an emergency shutdown of the left/right engine."

PF: "Left/Right power lever idle, concur?"

PM: "Concur."

PF: "Left/Right prop lever feather, concur?"

PM: "Concur/Simulate."

PF: "Left/Right condition lever fuel cut off, concur?"

PM: "Concur/Simulate."

Pull props to 1900 RPM, adjust power and rudder

PF: "Did the prop feather?" : If yes: Start crosswind turn

If no: Alternate prop feathering checklist. Start crosswind turn once feathered.

Continue checklist as time permits. Waiting until wings level on downwind may improve airwork.

PF: "Is it a fire or fuel leak?"

If YES:

PF: "Left/Right firewall valve close, concur?"

PM: "Concur/Simulate."

PF: "Left fire extinguisher discharge, concur?"

PM: "Concur/Simulate."

or

LS: "Discharge the right fire extinguisher."

RS: "Right fire extinguisher discharge, concur?"

LS: "Concur."

or

PF: "Fire extinguisher not required. Concur?"

PM: "Concur."

LS: "Close the left/right bleed air valve."

RS: "Left/Right bleed air valve close, concur?"

LS: "Concur."

PF: "Hold the checklist, you have the comms, declare an emergency, this will be an SSE full-stop."

Continue climb at 102/110 KIAS, accelerate to 120kts in the downwind.

If NO:

PF: "Hold the checklist, you have the comms, declare an emergency, this will be an SSE full-stop."

Continue climb at 102/110 KIAS, accelerate to 120kts in the downwind.

Case 2 Power Loss

Roll out of turn, increase power on operating engine to maintain 110kts if climbing or 120kts if at pattern altitude, apply proper rudder, clean up

[As a technique, PF may verbalize “Power up, rudder up, clean up” in coordination with making the proper inputs, however you must still call for landing gear and flaps up by name]

PF: “Landing gear up, flaps up.”

Roll back into turn; checklist may be continued either in the downwind or once stable in the crosswind turn

PF: “This will be an emergency shutdown of the left/right engine.”

PF: “Left/Right power lever idle, concur?”

PM: “Concur.”

PF: “Left/Right prop lever feather, concur?”

PM: “Concur/Simulate.”

PF: “Left/Right condition lever fuel cut off, concur?”

PM: “Concur/Simulate.”

PF: “Is it a fire or fuel leak?”

If YES:

PF: “Left/Right firewall valve close, concur?”

PM: “Concur/Simulate.”

PF: “Left fire extinguisher discharge, concur?”

PM: “Concur/Simulate.”

or

LS: “Discharge the right fire extinguisher.”

RS: “Right fire extinguisher discharge, concur?”

LS: “Concur.”

or

PF: “Fire extinguisher not required. Concur?”

PM: “Concur.”

LS: “Close the left/right bleed air valve.”

RS: “Left/Right bleed air valve close, concur?”

LS: “Concur.”

PF: “Hold the checklist, you have the comms, declare an emergency, this will be an SSE full-stop.”

If NO:

PF: “Hold the checklist, you have the comms, declare an emergency, this will be an SSE full-stop.”

Approaching the 180...

PF: “Speed checks, flaps approach.”

PM: “Speed checks, flaps approach.”

PF: “Speed checks, landing gear down, landing checklist.”

PM: “Speed checks, landing gear down, landing checklist.”

Case 2 Non-Power Loss

Continue the crosswind turn. Clean up if an engine will be secured or a prop will be feathered.

PF: "Landing gear up, flaps up." (if required)

Once wings level on downwind...

PF: "This will be an emergency shutdown of the left/right engine."

PF: "Left/Right power lever idle, concur?"

PM: "Concur."

PF: "Left/Right prop lever feather, concur?"

PM: "Concur/Simulate."

PF: "Left/Right condition lever fuel cut off, concur?"

PM: "Concur/Simulate."

PF: "Is it a fire or fuel leak?"

If YES:

PF: "Left/Right firewall valve close, concur?"

PM: "Concur/Simulate."

PF: "Left fire extinguisher discharge, concur?"

PM: "Concur/Simulate."

or

LS: "Discharge the right fire extinguisher."

RS: "Right fire extinguisher discharge, concur?"

LS: "Concur."

or

PF: "Fire extinguisher not required. Concur?"

PM: "Concur."

LS: "Close the left/right bleed air valve."

RS: "Left/Right bleed air valve close, concur?"

LS: "Concur."

PF: "Hold the checklist, you have the comms, declare an emergency, this will be an SSE full-stop."

If NO:

PF: "Hold the checklist, you have the comms, declare an emergency, this will be an SSE full-stop."

Approaching the 180...

PF: "Speed checks, flaps approach."

PM: "Speed checks, flaps approach."

PF: "Speed checks, landing gear down, landing checklist."

PM: "Speed checks, landing gear down, landing checklist."

Case 3

Increase power on operative engine, apply proper rudder, clean up (if necessary)

[As a technique, PF may verbalize “Power up, rudder up, clean up” in coordination with making the proper inputs, however you must still call for landing gear and flaps up by name]

PF: “Landing gear up, flaps up.” *(If unable to maintain altitude and airspeed, or prior to midfield in accordance with FTI)*

PF: “This will be an emergency shutdown of the left/right engine.”

Everything else is the same. If you can get to the 180 at 800 feet and 120 KIAS with the landing gear down and flaps at approach, you don’t have to clean up. From midfield downwind it generally works, but usually requires that you immediately go to max power on the operative engine. Chances are, you won’t be able to hold parameters in the case of a deep downwind power loss (i.e. you were extended upwind). In this case, it’s a safer bet to just clean up to avoid dropping below 120KIAS, but should be dictated by your ability to hold 800’ and 120KIAS.

Approaching the 180...

PF: “Speed checks, flaps approach.”

PM: “Speed checks, flaps approach.”

PF: “Speed checks, landing gear down, landing checklist.”

PM: “Speed checks, landing gear down, landing checklist.”

Case 4

Increase power as required to maintain at least 110KIAS, Apply proper rudder, Do not clean up

[As a technique, the PF may verbalize “Power up, rudder up, not going to clean up” in coordination with making the proper inputs]

PF: “This will be an emergency engine shutdown of the left/right engine.”

PF: “Left/Right prop lever feather, concur?”

PM: “Concur/Simulate.”

PF: “Left/Right condition lever fuel cut off, concur?”

PM: “Concur/Simulate.”

PF: “Is it a fire or fuel leak?”

The FTI only requires you to complete through step 3 of the shutdown. Do not attempt to complete further steps at the expense of airwork and normal procedures, focus on the landing.

If YES:

PF: “Hold the checklist, we’ll handle the rest of the EP on the deck. You have the comms, declare an emergency, this will be an SSE full stop.

If you waveoff, return to steps 4-6 on the checklist as time permits.

On the deck, execute the emergency shutdown on the deck, down the fire/fuel leak decision tree.

If NO:

PF: “Hold the checklist, you have the comms, declare an emergency, this will be an SSE full stop.”

Case 5

Increase power as required to maintain at least 110KIAS, Apply proper rudder, Do not clean up
 [As a technique, the PF may verbalize “Power up, rudder up, not going to clean up” in coordination with making the proper inputs]

PF: “We’ll handle the EP on the deck. You have the comms. declare an emergency, this will be a full stop.”

The FTI does not require you to complete any of the steps of the shutdown. If you waveoff, do not forget the shutdown after the waveoff. Do not attempt to complete any steps of the shutdown at the expense of airwork and normal procedures (i.e. Props - Full Forward).

Prop Malfunctions

Prop malfunctions are usually simulated by the IP pushing a prop lever forward to 2200, but may be announced verbally, or presented otherwise. NATOPS strongly discourages that you not land with an overspeeding propeller. In the contact phase it will be expected that you comply with this advice, meaning wave off if necessary, and then feather the prop.

PF: “What is it reading and can I adjust it?”

If the prop is reading anything over 2200 RPM and cannot be adjusted then an OVERSPEED condition exists:

You are about to lose thrust on an operable engine. Anticipate this by increasing power on the good engine, applying rudder as necessary, and cleaning-up based on normal Case 1-5 guidelines.

PF: “Left/Right power lever idle concur?”

PM: “Concur.”

PF: “Left/Right prop lever feather concur?”

PM: “Concur/Simulate.”

PF: “Did the prop feather?”

If YES:

PF: “Alternate prop feathering checklist not required.”

PF: “Land as soon as possible. You have the comms, declare an emergency; this will be an SSE full stop landing.”

If NO:

PF: “Alternate prop feathering checklist.”

When complete

PF: “Land as soon as possible. You have the comms, declare an emergency; this will be an SSE full stop landing.”

The prop is reading 1900 or 2200 RPM, and cannot be adjusted.
Prop Linkage Malfunction:

PF: “Prop linkage failure checklist.”

If 1900:

Match the prop levers IAW checklist.

PF: “This will be a full-stop landing without reverse”

If 2200:

Match the prop levers IAW checklist.

PF: “This will be a full-stop landing with reverse.”