



CESSNA 152

Quick Reference Handbook Version 1.0

ALL GREY SHADED AREAS
ARE MEMORY ITEMS

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Pre-Flight Check

COCKPIT

1. Control Wheel Lock REMOVED
2. Ignition Switch.....OFF
3. Master Switch ON
4. Fuel Quantity IndicatorsCHECK QUANTITY
5. Master SwitchOFF
6. Fuel Shutoff Valve ON

EMPENNAGE

1. Rudder Gust Lock..... REMOVE
2. Tail Tie-Down..... DISCONNECT
3. Control SurfacesCHECK FREEDOM OF
..... MOVEMENT & SECURITY

RIGHT WING

1. Aileron CHECK FREEDOM OF MOVEMENT & SECURITY
2. Wing Tie-Down DISCONNECT
3. Main wheel Tyre CHECK PROPER INFLATION
4. Fuel Drain CHECK QUALITY
5. Fuel QuantityCHECK VISUALLY
6. Fuel Filler Cap SECURE

NOSE

1. Engine Oil Level.....CHECK NOT LESS THAN 4 QUARTS
2. Fuel Strainer DRAINED and CHECK CLOSED
3. Propeller And Spinner..... CHECK FOR NICKS & SECURITY
4. Carburettor Air FilterCHECK FOR RESTRICTIONS
5. Landing Light(s)CHECK CONDITION AND CLEANLINESS
6. Nose Wheel Strut & Tyre CHECK PROPER INFLATION
7. Nose Tie-Down DISCONNECT
8. Static Source OpeningCHECK FOR STOPPAGE

LEFT WING

1. Main Wheel Tyre..... CHECK PROPER INFLATION
2. Fuel Drain CHECK QUALITY
3. Fuel QuantityCHECK VISUALLY
4. Fuel Filler Cap SECURE
5. Pitot Tube Cover..... REMOVE & CHECK FOR STOPPAGE
6. Stall Warning Opening CHECK
7. Fuel Tank Vent Opening.....CHECK FOR STOPPAGE
8. Wing tie down DISCONNECT
9. Aileron CHECK FREEDOM OF MOVEMENT & SECURITY

Before Starting Engine

1. Pre-flight Inspection COMPLETE
2. Flight Authorisation COMPLETE
3. M/R CHECKED & SIGNED
4. Passenger Briefing COMPLETE
5. Seats, Seat Belts, Shoulder Harnesses ADJUST and LOCK
6. Brakes TEST and SET
7. Circuit Breakers CHECK IN
8. Radios, Electrical Equipment OFF
9. Rotating Beacon ON
10. Fuel Shutoff Valve ON

Starting Engine

1. Prime AS REQUIRED (3 Cold, None Hot)
2. Carburettor Heat COLD
3. Throttle OPEN ½ INCH (CLOSED if engine is warm)
4. Mixture RICH
5. Propeller Area CLEAR
6. Master Switch ON
7. Ignition Switch START (release when engine starts)
8. Throttle ADJUST for 1000 RPM or less
9. Oil Pressure CHECK

Flooded Start

1. Mixture ICO
2. Throttle FULL OPEN
3. Starter CRANK ENGINE THROUGH
..... SEVERAL REVOLUTIONS

Repeat starting procedure without any additional priming.

After Start

1. Radios ON / SET / CHECKED
2. Intercom System.....CHECKED
3. Lights.....TAXI ON
4. Flaps..... RETRACTED
5. Mixture.....LEANED

Taxi Checks

1. BrakesCHECKED
2. Flight InstrumentsCHECKED

Before Takeoff

1. Parking Brake SET
2. Cabin Doors.....CLOSED and LATCHED
3. Flight Controls.....FREE & CORRECT
4. Flight InstrumentsCHECK and SET
5. Fuel Shutoff Valve CHECK ON
6. Mixture..... RICH (below 3000 feet)
7. Elevator Trim SET FOR TAKE OFF
8. Throttle 1700 RPM
9. Magnetos..... CHECK

RPM drop should not exceed 125 RPM on either magneto or 50 RPM differential between magnetos.

10. Carburettor Heat CHECK (for RPM drop)
11. Suction Gauge CHECK
12. Engine Instruments and Ammeter..... CHECK
13. Throttle CHECK SLOW IDLE
14. Throttle RESET 1000 RPM

15. Throttle Friction Lock ADJUSTED
16. Radios Nav aids and Avionics.....SET / CHECKED
17. Wing Flaps..... SET FOR TAKE OFF A/R
18. Departure Brief COMPLETE
19. Takeoff Safety Brief COMPLETE

Line Up

1. Pitot Heat.....A/R
2. Instruments.....CHECK ALIGNMENT
3. SwitchesLIGHTS/PUMPS A/R
4. Transponder/TrimALT/TAKE OFF
5. AltimeterWITHIN TOLERANCE

Rolling Checks

1. Power STATIC BETWEEN 2280-2380 RPM
2. Engine OIL TEMP AND PRESSURE GREEN
3. AirspeedALIVE

After Takeoff

1. Gear UP
2. Flaps..... RETRACTED
3. Power SET
4. Temperature and Pressure Indicators.....CHECKED
5. SwitchesOFF
6. Mixture.....LEANED A/R
7. CentrelineCHECKED

Enroute Climb

1. Airspeed 70 – 80 KIAS
2. Throttle FULL OPEN
3. Mixture..... RICH below 3000 feet,
..... LEANED above 3000 feet

Top of Climb

1. Fuel Log.....COMPLETE / CORRECT TANK
2. Mixture.....LEANED (AS PER POH)
3. QNH AREA
4. DI/Compass..... ALIGNED
5. Cowl Flaps..... AS REQUIRED
6. Aids/Audio TUNED/IDENTIFIED/TESTED
7. RadiosSET/CHECKED

Cruise

1. Power 1900 – 2550 RPM
2. Elevator Trim ADJUST
3. Mixture.....LEAN

Top of Descent

1. Fuel Log..... COMPLETE
2. Mixture..... AS REQUIRED
3. QNH LOCAL
4. DI/Compass..... ALIGNED
5. Cowl Flaps..... AS REQUIRED
6. Aids/Audio TUNED/IDENTIFIED/TESTED
7. RadiosSET/CHECKED

Descent

1. Carburettor Heat FULL HEAT A/R
2. Power AS DESIRED
3. Mixture.....ADJUST for smooth operation
..... FULL RICH for idle power

Pre-Landing Checks

1. BrakesPRESSURE CHECKED & OFF
2. UndercarriageDOWN AND LOCKED
3. Mixture..... RICH
4. Fuel ON & QUANTITY CHECKED
5. Instruments.....ALIGNED/WITHIN TOLERANCES
6. SwitchesLIGHTS/PUMPS A/R
7. Hatches & Harnesses SECURE
8. Pilot Activated Lighting..... A/R

Final Checks

1. PitchA/R
2. UndercarriageDOWN AND LOCKED (3 GREENS)
3. Flaps.....A/R
4. Carburettor Heat COLD
5. Check WindsockCHECKED
6. ClearanceOBTAINED

Baulked Landing

1. Throttle FULL OPEN
2. Carburettor HeatCOLD
3. Wing Flaps..... RETRACT to 20°
4. Airspeed55 KIAS
5. Wing Flaps..... RETRACT (ONE STAGE AT A TIME)

After Landing

1. Carburettor Heat..... COLD
2. Wing Flaps..... UP
3. Landing Light & Strokes..... OFF
4. Taxi Light..... ON
5. TransponderSTBY
6. Trim NEUTRAL
7. Mixture.....LEANED

Securing Aeroplane

1. Throttle 1000 RPM
2. Parking Brake SET
3. Electrical Equipment OFF (BEACON REMAINS ON)
4. Radios and Avionics OFF
5. Magnetos.....CHECKED
6. Mixture..... IDLE CUT-OFF (pull full out)
7. Ignition Switch..... OFF ONCE ENGINE STOPPED
..... & KEYS REMOVED
8. Master Switch OFF
9. Control Lock INSTALL
10. Tie Downs..... SECURE

Emergency Procedures

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Airspeeds for Emergency Operation

1. Engine Failure After Take off60 KIAS
2. Manoeuvring Speed at 1670 lbs 104 KIAS
1500 lbs.....98 KIAS
1350 lbs.....93 KIAS
3. Maximum Glide.....60 KIAS
4. Precautionary Landing With Engine Power55 KIAS
5. Landing Without Engine Power Wing flaps up 65 KIAS
.....Wing flaps down 60 KIAS

Engine Failures

ENGINE FAILURE DURING TAKE OFF ROLL

1. Throttle IDLE
2. Brakes APPLY
3. Wing Flaps..... RETRACT
4. Mixture..... IDLE CUT-OFF
5. Ignition Switch.....OFF
6. Master SwitchOFF

ENGINE FAILURE IMMEDIATELY AFTER TAKE OFF

1. Airspeed65 KIAS
2. Mixture IDLE CUT-OFF
3. Fuel Shutoff valveOFF
4. Ignition Switch.....OFF
5. Wing Flaps..... AS REQ
6. Master SwitchOFF

ENGINE FAILURE DURING FLIGHT (RESTART PROCEDURES)

1. Airspeed65 KIAS
2. Carburettor Heat..... ON
3. PrimerIN and LOCKED
4. Fuel Shutoff Valve ON
5. Mixture RICH
6. Ignition Switch..... BOTH (or Start if propeller stopped)

Forced Landings

EMERGENCY LANDING WITHOUT ENGINE POWER

1. Airspeed 65 KIAS (flaps UP)
..... 60 KIAS (flaps DOWN)
2. Mixture IDLE CUT-OFF
3. Fuel Shutoff valveOFF
4. Ignition Switch.....OFF
5. Wing Flaps..... AS REQUIRED (30° recommended)
6. Master SwitchOFF
7. Doors..... UNLATCH PRIOR TO TOUCHDOWN
8. Touchdown SLIGHTLY TAIL LOW
9. BrakesAPPLY HEAVILY

PRECAUTIONARY LANDING WITH ENGINE POWER

1. Airspeed60 KIAS
2. Wing Flaps 10°
3. Selected Field FLY OVER,
noting terrain and obstructions, then retract flaps upon reaching a safe
altitude and airspeed
4. Radio and Electrical SwitchesOFF
5. Wing Flaps..... 30° (on final approach)
6. Airspeed55 KIAS
7. Master SwitchOFF
8. Doors UNLATCH PRIOR TO TOUCHDOWN
9. Touchdown SLIGHTLY TAIL LOW
10. Ignition Switch.....OFF
11. BrakesAPPLY HEAVILY

DITCHING

1. Radio TRANSMIT MAYDAY
on 121.5 MHz, giving location and intentions and Squawk 7700 if
transponder is installed
2. Heavy objects SECURE OR JETTISON
3. Approach High Winds, Heavy Swells – INTO THE WIND
..... Light Winds, Heavy Swells – PARALLEL TO SWELLS
4. Wing Flaps..... 30°
5. Power ESTABLISH 300 FT/MIN DESCENT AT 55 KIAS
6. Cabin Doors..... UNLATCH
7. Touchdown LEVEL ATTITUDE AT 300 FT/MIN DESCENT
8. Face CUSHION at touchdown with folded coat
9. Aeroplane EVACUATE through cabin doors

If necessary, open windows and flood cabin to equalise pressure so
doors can be opened

10. Life Vests and Raft INFLATE

Fires

DURING START ON GROUND

1. Cranking CONTINUE, to get a start which would suck the flames and accumulated fuel through the carburettor and into the engine

If engine starts

1. Power 1700 RPM for a few minutes

2. Engine SHUTDOWN and inspect for damage

If engine fails to start:

1. Throttle FULL OPEN

2. Mixture IDLE CUT OFF

3. Cranking CONTINUE in an effort to obtain a start

4. Fire extinguisher OBTAIN

5. Engine SECURE

6. Master Switch OFF

7. Ignition Switch..... OFF

8. Fuel Shut Off Valve..... OFF

9. Fire EXTINGUISH

using fire extinguishers, wool blanket, or dirt

10. Fire damage INSPECT, repair damage or replace damaged components or wiring before conducting another flight

ENGINE FIRE IN FLIGHT

- 1. Mixture..... IDLE CUT-OFF
- 2. Fuel Shutoff ValveOFF
- 3. Master SwitchOFF
- 4. Cabin Heat and Air OFF (except wing root vents)
- 5. Airspeed85 KIAS

If fire is not extinguished, increase glide speed to find an airspeed which will provide an incombustible mixture.

- 6. Forced Landing..... EXECUTE
(as described in Emergency Landing Without Engine Power)

ELECTRICAL FIRE IN FLIGHT

- 1. Master SwitchOFF
- 2. All Other Switches OFF (except ignition switch)
- 3. Vents / Cabin Air / Heat CLOSED
- 4. Fire Extinguisher..... ACTIVATE

WARNING

After discharging an extinguisher within a closed cabin, ventilate cabin

If fire appears out and electrical power is necessary for continuation of flight:

- 1. Master Switch ON
- 2. Circuit Breakers CHECK for faulty circuit, do not reset
- 3. Radio/Electrical Switches..... ON one at a time, with delay after each until short circuit is localised
- 4. Vents / Cabin Air / HeatOPEN
when it is ascertained that fire is completely extinguished

CABIN FIRE

1. Master SwitchOFF
2. Vents / Cabin Air / HeatCLOSED (to avoid drafts)
3. Fire Extinguisher..... ACTIVATE

WARNING

After discharging an extinguisher within a closed cabin, ventilate the cabin

Land the aeroplane as soon as possible to inspect for damage

WING FIRE

1. Navigational Light SwitchOFF
2. Strobe Light SwitchOFF
3. Pitot Heat SwitchOFF

Abnormal Procedures

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Icing

1. Pitot Heat Switch ON (if installed)

Turn back or change altitude to obtain an outside air temperature that is less conducive to icing.

2. Cabin Heat ControlFULL OUT
3. ThrottleOPEN

Watch for signs of carburettor air filter ice and apply carburettor heat as required. Plan landing at nearest airport. With rapid ice build-up, select a suitable 'off airport' landing site.

4. Mixture.....LEAN FOR MAX RPM
5. Wing Flaps..... RETRACTED
6. Left WindowOPEN,
Scrape ice from windshield if practical

Land approach using forward slip for improved visibility. Approach at 65 to 75 KIAS depending on amount of ice accumulation. Perform a landing in level attitude.

Landing With A Flat Main Tyre

1. Wing Flaps..... AS DESIRED
2. ApproachNORMAL
3. Touchdown GOOD TYRE FIRST,
hold aeroplane off flat tyre as long as possible with aileron control

Landing Without Elevator Control

1. TrimSET
2. Airspeed55 KIAS
3. Flaps..... 20°
4. Power ADJUST,
use to control glide angle, **do not change elevator trim control**

Rough Engine Operation Or Loss Of Power

CARBURETTOR ICING

1. Throttle FULL
2. Carburettor Heat Knob.....PULL FULL OUT
3. Mixture.....LEAN for max RPM/as desired

NOTE

If conditions require the continued use of carburettor heat in cruise flight, use the minimum amount of heat necessary to prevent ice from forming.

SPARK PLUG FOULING

1. Ignition Switch.....TURN from BOTH to L or R
2. Mixture.....LEAN FOR CRUISE

If the problem persists:

3. Mixture..... RICH

If this does not solve the problem, land at the nearest airport for repairs using the BOTH position of the ignition switch unless extreme roughness dictates the use of a single ignition position.

MAGNETO MALFUNCTION

1. Ignition Switch.....TURN from BOTH to L or R
2. Mixture..... RICH

Land at nearest airport.

LOW OIL PRESSURE

1. Oil Pressure Gauge CHECK

If oil temperature rises, engine failure may be imminent.

2. PowerREDUCE

Land immediately.

Electrical Power Supply System Malfunctions

Ammeter Shows Excessive Rate Of Charge (Full Scale Deflection)

1. AlternatorOFF
2. Alternator Circuit Breaker.....PULL
3. Nonessential Electrical Equipment.....OFF
4. Flight..... TERMINATE as soon as practical

Low-Voltage Light Illuminates During Flight (Ammeter Indicates Discharge)

1. RadiosOFF
2. Alternator Circuit Breaker.....CHECK IN
3. Master Switch OFF (both sides)
4. Master Switch ON
5. Low-Voltage Light CHECK OFF
6. Radios ON

If low-voltage light illuminates again:

7. AlternatorOFF
8. Nonessential Radio and Electrical Equipment.....OFF
9. Flight..... TERMINATE as soon as practical

Supplemental Information

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Passenger Brief

- No smoking in aircraft
- Proper use and adjustment of seat belts
- Location and proper operation of emergency exits
- Location of life jackets, first aid kits and fire extinguishers, and if required, survival kits and life rafts.
- Requirement of a passenger occupying a control seat, not to interfere with the controls during the flight
- Operation of ventilation system
- Proper stowage of passengers' carry on items during critical phases of flight
- Seat backs must be upright for takeoff and landing
- Mobile phones and electronic devices must be off at all times

Takeoff Safety Brief

- If there is an engine failure, fire or abnormality whilst on the runway I will close the throttle and brake as required
- If there is an engine failure or major abnormality shortly after take-off with sufficient runway or overrun remaining, I will lower the nose, select full flap, land and brake as required
- If the engine fails with insufficient runway or overrun, I will lower the nose, maintain (...) knots (best glide speed), select a suitable field 30 degrees either side of the nose, extend flaps as required and land.

I will only turn back to the runway if I am at 1000 feet AGL or on the downwind leg

Departure and Approach

- Charts
- Terrain
- Weather
- Operational Considerations
- Any additional items you deem are threats

Sample Passenger Brief

"Welcome aboard your flight, my name is _____ your pilot. Today you'll be flying in a _____. Our airplane has _____ doors. You can close the door by _____ if you need to open the door, such as in the unlikely event of an emergency, you can open the door by _____. To adjust your seat, there will be a lever underneath the seat.

Each seat in the airplane is equipped with an adjustable seatbelt. Fasten your seatbelt by inserting the clasp into the buckle. Pull the shoulder harness over your shoulder and clip it on to the clasp. You can adjust the seatbelt at any time by pulling the strap. You can undo your seatbelt by lifting the flap. Please ensure that you wear your seatbelt throughout the flight. Please ensure that all bags or loose items are either placed on the rear seat or in the baggage compartment and secured. You can adjust the Ventilation Outlets and Controls by _____.

Please do not touch any part of the dashboard or controls and please keep your feet away from the pedals. Please note that smoking on board the airplane is not permitted at any time.

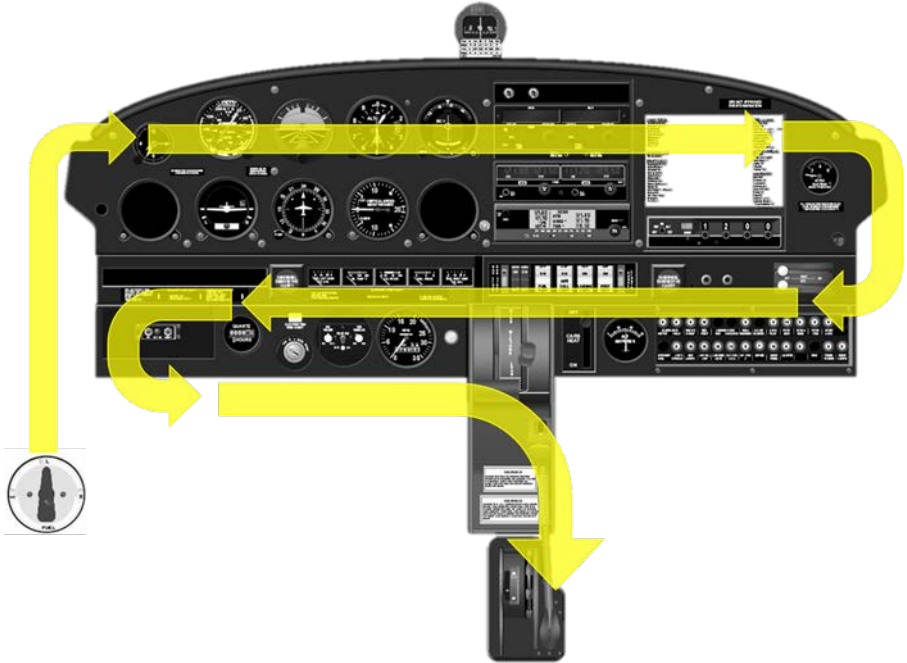
In the unlikely event of an emergency, please exit the airplane and leave any luggage behind. We will meet at the rear of the airplane." Where applicable – show use:

- Lift Vest
- Lift Raft
- ELT
- Oxygen

"Our destination for today's flight is _____ and our Estimated Time of Arrival is _____. The weather for our flight today is expected to be _____. Please sit back, relax and enjoy your flight."

Standard Flow Procedure

Below is an illustration of the standardised flow employed for *do and check* operations.



Abnormal and emergency procedures are conducted as a *check and do system*.

Aircraft Summary

For full details refer to the aircraft Flight Manual and/or the Pilot's Operating Handbook.

1. Engine Lycoming O-235-L2C 110 HP
2. Oil capacity 6 Quarts maximum
..... 4 Quarts minimum
3. Total capacity (long range tanks) 147 litres
4. Useable fuel (long range tanks) 142 litres
5. Fuel to tabs (and full standard tanks) 99 litres
6. Useable fuel (tabs and standard tanks)..... 93 litres
7. Best angle of climb 55 KIAS
8. Best rate of climb 65 KIAS
9. Cruise climb..... 75 KIAS
10. Maximum demonstrated crosswind..... 12 KNOTS
11. Maximum flap extension speed..... 85 KIAS
12. Never exceed speed..... 149 KIAS

THIS DATA APPLICABLE ONLY TO AIRPLANES WITH LYCOMING
O-235-L2C ENGINE. FOR AIRPLANES WITH ENGINE MODIFIED TO
O-235-N2C, REFER TO DATA IN SECTION 9 SUPPLEMENT.

SECTION 5 PERFORMANCE

CESSNA
MODEL 152

CRUISE PERFORMANCE

CONDITIONS:

1670 Pounds

Recommended Lean Mixture (See Section 4, Cruise)

NOTE:

Cruise speeds are shown for an airplane equipped with speed fairings which increase the speeds by approximately two knots.

PRESSURE ALTITUDE FT	RPM	20°C BELOW STANDARD TEMP			STANDARD TEMPERATURE			20°C ABOVE STANDARD TEMP		
		% BHP	KTAS	GPH	% BHP	KTAS	GPH	% BHP	KTAS	GPH
2000	2400	---	---	---	75	101	6.1	70	101	5.7
	2300	71	97	5.7	66	96	5.4	63	95	5.1
	2200	62	92	5.1	59	91	4.8	56	90	4.6
	2100	55	87	4.5	53	86	4.3	51	85	4.2
	2000	49	81	4.1	47	80	3.9	46	79	3.8
4000	2450	---	---	---	75	103	6.1	70	102	5.7
	2400	76	102	6.1	71	101	5.7	67	100	5.4
	2300	67	96	5.4	63	95	5.1	60	95	4.9
	2200	60	91	4.8	56	90	4.6	54	89	4.4
	2100	53	86	4.4	51	85	4.2	49	84	4.0
6000	2000	48	81	3.9	46	80	3.8	45	78	3.7
	2500	---	---	---	75	106	6.1	71	104	5.7
	2400	72	101	5.8	67	100	5.4	64	99	5.2
	2300	64	96	5.2	60	95	4.9	57	94	4.7
	2200	57	90	4.6	54	89	4.4	52	88	4.3
8000	2100	51	85	4.2	49	84	4.0	48	83	3.9
	2000	46	80	3.8	45	79	3.7	44	77	3.6
	2550	---	---	---	75	107	6.1	71	106	5.7
	2500	76	105	6.2	71	104	5.8	67	103	5.4
	2400	68	100	5.5	64	99	5.2	61	98	4.9
10,000	2300	61	95	5.0	58	94	4.7	55	93	4.5
	2200	55	90	4.5	52	89	4.3	51	87	4.2
	2100	49	84	4.1	48	83	3.9	46	82	3.8
	2600	72	105	5.8	68	103	5.5	64	103	5.2
	2400	65	99	5.3	61	98	5.0	58	97	4.8
12,000	2300	58	94	4.7	56	93	4.5	53	92	4.4
	2200	53	89	4.3	51	88	4.2	49	86	4.0
	2100	48	83	4.0	46	82	3.9	45	81	3.8
	2450	65	101	5.3	62	100	5.0	59	99	4.8
	2400	62	99	5.0	59	97	4.8	56	96	4.6
12,000	2300	56	93	4.6	54	92	4.4	52	91	4.3
	2200	51	88	4.2	49	87	4.1	48	85	4.0
	2100	47	82	3.9	45	81	3.8	44	79	3.7

Figure 5-7. Cruise Performance