BE-76 Normal Procedures

Normal Approach and Landing

Downwind:
1) Power to 18" MP, 2300 RPM- 120KIAS
2) Prelanding Check

(GUMPFS)
Gas – selectors, pumps, pressure
Undercarriage – gear down, 3 green
Mixtures – full rich
Props – on final
Flaps – 10°
Seatbelts & switches – on
Abeam:
1) Throttles – 15" MP
2) Flaps – 10° (if not already)
3) Airspeed – 90 KIAS

Base:
1) Second GUMPFS check
2) Flaps – 20°
3) Airspeed – 85 KIAS (blueline on base)

Final:
1) Final GUMPFS check
2) Props – full forward
3) Flaps – 35° (with runway made)
4) Airspeed – 80 KIAS, 76 on short final

Single Engine Approach and Landing

Downwind:
1) Power – 22"-24", 2500 RPM – 120 KIAS
2) Prelanding check – GUMPFS

Abeam:
1) Throttle – 15" MP
2) Flaps – 10° (If not already)
3) Airspeed – 95 KIAS

Base:
1) Second GUMPFS check
2) Flaps – 20°
3) Airspeed – 90 KIAS

Final:
1) Final GUMPFS check
2) Props – full forward
3) Flaps – 35° (If needed)
4) Airspeed – 85 KIAS, 80 on short final

Go Around Procedures (Normal)

1) Power up (mixture, props, throttles)
2) Flaps – retract
3) Pitch for Vy (85 KIAS)
4) Positive rate – Gear up

Single Engine Go Around

1) Power up (mixture, prop, throttle)
2) Flaps – retract
3) Positive rate – Gear up
4) Pitch for Vyse (85 KIAS)

NOTE: In the BE-76, after full flaps are selected on a single engine approach, Go around is no longer an option. You are committed to land!

Instrument Approach Procedures

Normal:
1) Landing checklist complete prior to FAF
2) When established – 18" MP, 2300 RPM, – 110 KIAS
3) FAF inbound – 10° flaps, 14"- 17" MP, gear down- 100 KIAS
4) 18" MP to level off at MDA

Single Engine:

1) Landing checklist complete prior to FAF
2) When established – 22"- 24" MP, 2500 RPM
3) FAF inbound – Flaps stay up!, 13"- 15" MP, gear down – 100KIAS
4) 24" MP to level off at MDA

NOTE: After breaking out and landing is assured, final GUMPFS check for props. Do not introduce flaps until landing is assured!!

NOTE: If circling to land, gear stays down unless you can't hold altitude.

BE-76 Normal Procedures

All maneuvers will start with a pre-maneuver flow. The basic idea of this flow is configure the airplane for the maneuver, mainly to get slow enough to be able move the propeller controls to full forward. It would be to the applicant's benefit to practice this flow and become very proficient with it. Also, note that all maneuvers will start from slow cruise (20" MP, 2300 RPM). Furthermore, maneuvers can be classified as "clean" (gear up, flaps up) or "dirty" (gear down, flaps down). "Clean" maneuvers are Power-on (departure) stall, accelerated stall, Vmc demo, drag demo (MEI only), and steep turns. "Dirty" maneuvers are slow flight and power-off (approach) stall.

Pre-maneuver Flow – "Clean Maneuvers"

1. Clearing turns complete
2. Throttles – 15" MP
3. Aux pumps – On
4. Fuel selectors – On
5. Cowl flaps – Open
6. Carb heat – Off
7. Mixtures – Rich
8. When at 100 KIAS – Props forward

Power-on (departure) stall

1. Pre-maneuver flow complete
2. Airspeed – slow to 85 KIAS
3. Throttles – 20" MP
4. Pitch – 20° nose up
5. Recover at first indication
    a. Pitch – reduce
    b. Throttles – full forward
    c. Airspeed – 85 KIAS
6. Power – Cruise (20", 2300 RPM)

Steep Turns

1. Pre-maneuver flow complete
2. Throttles – 20" MP
3. Airspeed – 120 KIAS
4. Bank – 50°
5. Maintain altitude +/- 100'
6. Rollout – +/- 10° heading
7. Roll directly into opposite turn.
8. When complete – Power back to cruise

Accelerated Stall

1. Pre-maneuver flow complete
2. Airspeed – 85 KIAS
3. Bank – 45°
4. Add back pressure to induce stall indication
5. Recover at first indication, simultaneously:
    a. Bank – level wings
    b. Pitch – level
    c. Throttles – full forward
    d. Airspeed – at least 85 KIAS
6. Power – Cruise (20", 2300 RPM)

Vmc Demonstration

1. Pre-maneuver flow complete
2. Airspeed – 85 KIAS
3. Props – full forward
4. Throttle – one to full, one to idle
5. Pitch – to lose 1 knot/second
6. Recover at loss of directional control
    a. Throttle – idle
    b. Pitch – reduce
    c. Regain control & airspeed
    d. Throttle – full on good engine
    e. Airspeed – Maintain 85 KIAS
7. Warm up "dead" engine – 15"/2000 RPM

Drag Demonstration (MEI Only)

1. Pre-maneuver flow complete
2. Throttle – one to idle, one to full
3. Airspeed – 85 KIAS, note VSI
4. Failed engine – simulate feather
5. Airspeed – 85 KIAS, note VSI
6. Flaps – down
7. Airspeed – 85 KIAS, note VSI
8. Gear – down
9. Airspeed – 85 KIAS, note VSI
10. Recover – gear & flaps up incrementally
11. Warm up "dead" engine – 15"/2000 RPM

BE-76 Normal Procedures

Pre-maneuver Flow – "Dirty" Maneuvers

1. Clearing turns complete
2. Throttles – 15" MP
3. Gear – down, below 140 KIAS
4. Aux pumps – on
5. Fuel selectors – on
6. Cowl flaps – open
7. Carb heat – off
8. Flaps – full down, below 120 KIAS
9. Mixtures – rich
10. When at 100 KIAS – props full forward

Slow Flight

1. Pre-maneuver flow complete
2. Airspeed – Maintain 71 KIAS
3. Throttles – As required to maintain altitude
4. Recovery
    a. Throttles – full
    b. Altitude – maintain
    c. Flaps – up
    d. Gear – up
5. Power – cruise (20", 2300 RPM)

Power-off (Approach) Stall

1. Pre-maneuver flow complete
2. Throttles – idle
3. Pitch – slowly raise
4. Recover at first indication
    a. Throttles – full
    b. Pitch – lower
    c. Flaps – up
    d. Pitch – for 85 KIAS
    e. Gear – at positive rate- up
    f. Level off
5. Power – cruise (20", 2300 RPM)

Emergency Descent

1. Throttles – idle
2. Props – full forward
3. Bank – 30°
4. Pitch – lower
5. Gear – down
6. Airspeed – 135 KIAS
7. Recovery
    a. Bank – level wings
    b. Pitch – slight climb
    c. Gear – below 112 KIAS- up
8. Power – cruise (20", 2300 RPM)

Engine failure on Takeoff Roll

1. Throttles – idle
2. Brakes – maximum braking
3. Maintain directional control

Engine Failure at Low Altitude

1. **Pitch** for 85 KIAS
2. **Power up** – mixtures, props, throttles full
3. **Clean up** – gear up, flaps up, pumps on
4. **Identify** – "Dead foot, Dead engine
5. **Verify** – cautiously retard to idle
6. **Secure** – feather prop.
7. **Airspeed** – Maintain 85 KIAS or greater
8. Return for landing

Some maneuvers will require a simulated engine failure. After you have run through the procedure, you will have to simulate the engine being feathered. This is called zero thrust.

Zero Thrust

1. Throttle on failed engine set to 10" MP
2. Prop lever on failed engine set to feather detent.