SECTION IX - CONDITIONAL PROCEDURES

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LIST OF FIGURES

PRESSURIZATION CONTROL

MANUAL CONTROL OF PRESSURIZATION

CABIN PREPARATION

1. Cabin Altitude..... DETERMINE 1/2

Use the following table and one of these procedures to find and record cabin altitude:

– Use red and blue lines to find out the cabin altitude that would correspond to the aircraft altitude if the automatic mode were used.

– Keep the cabin altitude in the allowed area.

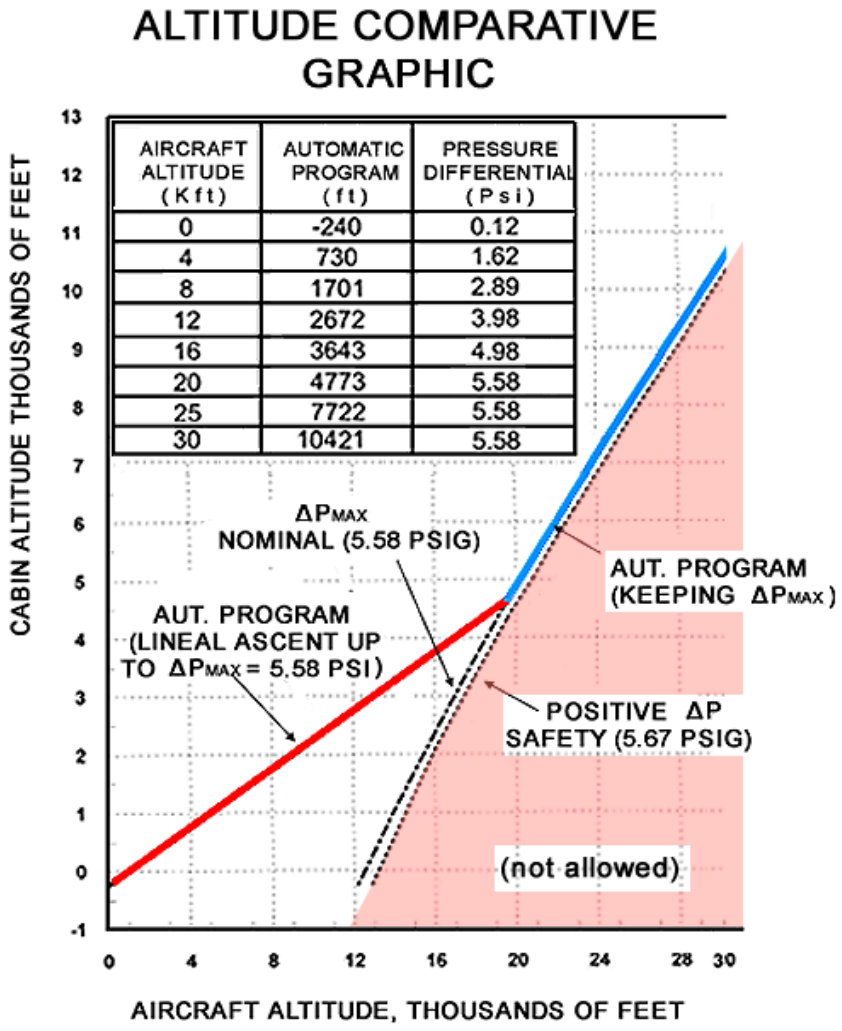

Figure 9-1 Altitude Comparative Graphic

2. Cabin Climb Rate ..... DETERMINE 1/2

On the bases of the time estimated for the aircraft climb, calculate the corresponding cabin rate of climb to reach the determined cabin altitude (from 1000 ft less than the take-off level) in the estimated time. Round this rate to the higher value register.

NOTE

If cabin climb rate were much higher than 600 fpm, it is recommended that the aircraft climb rate be restricted to allow cabin rate to be limited to this value.

3. Pressurization Mode Selector ..... MAN 2

4. Manual Cabin Rate of Change Knob ..... INCR 45º 2

Turn the knob fully to the left, then turn it 45º to the right (INCR).

5. PRESS DUMP Switch ..... ON 2

Lift selector guard and set on the PRESS DUMP switch.

AFTER START

1. Air Conditioning Packs ..... A.R. 2

To condition cockpit and cargo areas, if required, C/M-2 will set bleed switch one by one to ON, checking that the related magnetic indicator aligns.

BEFORE TAKE-OFF

1. Air Conditioning Packs (if connected) ..... OFF 2

Set bleed switches one by one to OFF and check magnetic indicators crossed.

2. PRESS DUMP Switch ..... OFF / UNDER GUARD 2

Set off the PRESS DUMP switch and lower the guard.

AFTER TAKE-OFF, AND CLIMB

1. Air Conditioning Packs ..... ON

Once the hydraulic pump have been turned off, set bleed switches, one by one to ON and check magnetic indicators aligned.

2. Manual Cabin Altitude Selector ..... HOLD UP

Keep the selector in UP position during the climb.

3. Pressure Indicators ..... CHECK

Check cabin rate of change and differential pressure indicators.

4. Manual Cabin Rate of Change Knob ..... A.R.

Adjust the manual cabin rate of change knob as required for cabin rate of climb.

NOTE

If differential pressure reaches 5.58 PSI, and the cabin cannot be held at 600 fpm, decrease the aircraft ft rate of climb as suitable.

Take advantage of any possible intermediate altitude holding to reduce the cabin rate of climb.

CRUISE

1. Manual Cabin Rate of Change Knob.....NEUTRAL

   Set knob to neutral position after reaching the cabin altitude corresponding to that of the aircraft (refer to previous graph and table).

2. Manual Cabin Altitude Selector .....A.R.

   Any significant change in cabin altitude may be corrected with the manual cabin altitude selector.

3. Pressurization Changes due to Level Changes .....PERFORMED

   Do all necessary adjustment with the manual cabin altitude selector, setting it as required and using the manual cabin rate of change knob as required as well.

PREPARATION FOR DESCENT

1. Point Of Descent..... CALCULATE

   Calculate the Point of Descent considering a low rate of cabin pressure descent to allow corrections due to variations and inaccuracies of the cabin pressure manual control, therefore is recommended to consider 400 fpm cabin rate. With a conservative profile, it will be possible to prevent unnecessary altitude holding (because the aircraft has "caught up" the cabin) or forced and excessive rates of descent.

2. Manual Cabin Rate of Change Knob..... INCR 45º

   Turn the knob fully to the left, then turn it 45º to the right (INCR).

3. Manual Cabin Altitude Selector (if required)..... HOLD DN

   If differential pressure is noticeably lower than 5.58 PSI (below FL 170), start cabin descent 2 or more minutes before lowering nose, to have a greater margin of operation of the cabin, taking special care not to exceed the differential pressure of 5.58 PSI. Keep selector to DN.

CAUTION

During descent, make sure that the aircraft altitude does not reach the cabin altitude. If the differential pressure indicator comes near 0, reduce the aircraft rate of descent.

NOTE

Every prior minute of cabin descent at 400 fpm means an increase of about 0.2 PSI in differential pressure. At FL 140, the priority may go up to 5 minutes.

DESCENT AND APPROACH

1. Manual Cabin Altitude Selector ..... HOLD DN

   Keep the selector in DN until cabin altitude is 1000 ft below field altitude.

2. Pressure Indicators ..... CHECK

   Check cabin rate of change and differential pressure indicators.

3. Manual Cabin Rate of Change Knob ..... A.R.

   Adjust the knob as required for cabin rate of descent.

   Take advantage of any possible intermediate altitude holding to reduce cabin rate of descent.

   – **At 500 ft AAL (Above Aerodrome Level):**

4. Air Conditioning Packs (one side) ..... OFF

   Set one of the bleed switches to OFF.

5. PRESS DUMP Switch ..... ON

   Check differential pressure indicator at or below 0.7 PSI, and then set on the PRESS DUMP switch.

   – **At around 200 ft RA (Radio Altimeter):**

6. Air Conditioning Packs (other side) ..... OFF

AFTER LANDING

When parking area is reached, open one of the cockpit windows to ensure the removal of any remaining differential pressure.

DEPRESSURIZATION

1. Air Conditioning Packs ..... A.R. 1/2

   The air conditioning packs can remain on, but they can also be disconnected to increase the depressurization rate.

2. Temperature Controls ..... A.R. 2

   If the air conditioning packs are remained on, set the temperature as required.

3. Oxygen Masks ..... A.R. ALL

   If cabin altitude is expected above 10000 feet while aircraft is depressurized, masks must be fitted, adjusted and oxygen supply is set as required. Then, each C/M presses-in the MASK pushbutton on his communications panel and, if the breathing noise is disturbing, disables INPH HOT and uses the PTT with the headphones or with the cockpit speakers.

A. *If manual procedure is going to be performed:*

4. Pressurization Mode Selector ..... MANUAL 1/2

5. Manual Cabin Rate of Change Knob ..... A.R. 1/2

6. Manual Cabin Altitude Selector .....HOLD UP 2

7. Continue with step 7, in part B.

B. *If automatic procedure is going to be performed:*

NOTE

At FL140 or below, automatic mode is available to fully depressurize the cabin.

NOTE

Above FL140, the automatic mode can be used to increase cabin altitude only up to 14000 ft. Then, to fully depressurize the cabin, the manual mode must be used.

4. Pressurization Mode Selector.....AUTO 1/2

5. A Knob .....ADJUST 1/2

Set the landing airfield altitude to, at least, the same of the airplane.

6. B Knob .....ADJUST 1/2

7. R Knob .....A.R. 1/2

8. Differential Pressure .....CHECK DECREASING 1/2

9. Cabin Altitude..... CHECK INCREASING 1/2

10. Cabin Rate of Change Indicator .....CHECK 1/2

NOTE

It is recommended to limit cabin climb rate to 600 fpm.

When differential pressure is below 0.7 PSI

NOTE

In emergency cases, press dump can be set on up to 1 PSI.

11. PRESS DUMP Switch..... ON 1/2

12. Differential Pressure .....CHECK 0 PSI 1/2

13. Air Conditioning Packs..... ON 1/2

After doors/ramp are opened, if packs were off, switch them on to alleviate ambient temperature.

RE-PRESSURIZATION

1. Doors.....CHECK CLOSED 1/2

2. Air Conditioning Packs.....OFF 1/2

Set bleed switches one by one to OFF, so that next operation is smooth.

3. PRESS DUMP Switch..... OFF / GUARDED 1/2

4. Air Conditioning Packs ..... ON 1/2

A. *If manual procedure is going to be performed:*

5. Pressurization Mode Selector ..... MANUAL 1/2

6. Manual Cabin Rate of Change Knob ..... ADJUST 2

NOTE

It is recommended to limit cabin descent rate to 400 fpm.

7. Manual Cabin Altitude Selector ..... HOLD DN 2

8. Differential Pressure ..... CHECK INCREASING 1/2

9. Cabin Altitude ..... CHECK DECREASING 1/2

10. Oxygen Masks ..... A.R. ALL

When cabin altitude is at or below 10000 feet, remove oxygen masks.

11. Continue flight in auto or manual mode, as required.

(END)

B. *If automatic procedure is going to be performed:*

NOTE

When pressure dump switch is off, the cabin rapidly re-pressurizes, at an uncontrolled rate, until reaching 15650 feet. Then, the automatic pressure controller resumes control of the outflow valves and sets the rate of pressurization to the selected value in R knob.

5. Pressurization Mode Selector ..... AUTO 1/2

6. A Knob ..... ADJUST 1/2

7. B Knob ..... ADJUST 1/2

8. R Knob ..... ADJUST 1/2

NOTE

It is recommended to limit cabin descent rate to 400 fpm.

9. Differential Pressure ..... CHECK INCREASING 1/2

10. Cabin Altitude ..... CHECK DECREASING 1/2

11. Oxygen Masks ..... A.R. ALL

When cabin altitude is at or below 10000 feet, remove oxygen masks.

FUEL

FUEL CROSSFEED

CAUTION

Before a fuel crossfeed is started, make sure that there are no fuel leaks.

NOTE

Occasionally the FUEL LOW caution may display when a cross feed is performed.

Avoid abrupt maneouvres, limit cross feed to the time necessary to correct any imbalance and if possible reduce power in one or both engines until the FUEL LOW caution goes off.

If displayed in the side with disconnected pump, additionally reconnect pump and never close XFEED valve until caution has gone off

A. *If both engine are to be fed from one main tank:*

NOTE

NH's in the engine being fed via crossfeed could reduce momentarily during the procedure.

1. XFEED Pushbutton ..... ON 2

   Press and check that horizontal indicator and ON light come on.

10 seconds later:

2. PUMPS Pushbutton (tank to be disconnected) .....OFF 2

   Press and check that OFF amber light comes on.

With fuel asymmetry corrected:

3. PUMPS Pushbutton (disconnected tank) ..... ON 2

   Press and check that OFF amber light goes off.

10 seconds later and only if "FUEL LOW" caution is off:

4. XFEED Pushbutton .....OFF 2

   Press and check that horizontal indicator and ON light go off.

B. *If the operative engine is to be fed from the opposite main tank*

NOTE

This procedure can momentarily cause or reduce fuel feed or transfer.

1. PUMPS Pushbutton (inoperative engine side) ..... ON 2

   Check OFF amber light is off. If not, press PUMPS pushbutton and check RUN light comes on.

10 seconds later:

2. XFEED Pushbutton ..... ON 2

   Press and check that horizontal indicator and ON light come on.

10 seconds later:

3. PUMPS Pushbutton (operative engine side) .....OFF 2

   Press and check that OFF amber light comes on.

With fuel asymmetry corrected:

4. PUMPS Pushbutton (operative engine side) ..... ON 2

   Press and check that OFF amber light goes off.