NATIONAL TRANSPORTATION SAFETY BOARD
Investigative Hearing
Alaska Airlines Flight 1282
Boeing 737-9, N704AL
Left Mid Exit Door Plug Separation in Portland, OR
January 5, 2024

Docket No.	SA-543
EXHIBIT	
2E	

Operational Factors Group Chairman's Factual Report – Attachment 4 – Alaska Airlines Checklists

(8 Pages)

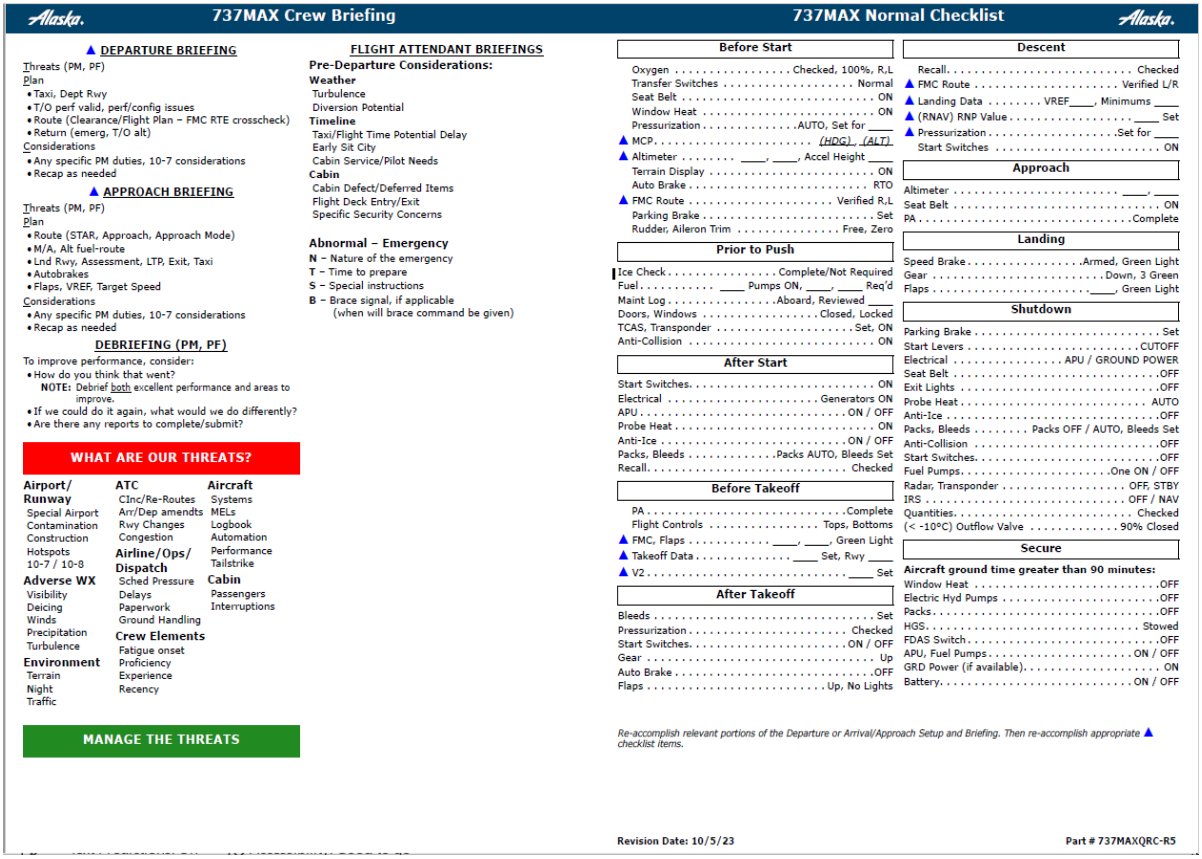
DCA24MA063

OPERATIONAL FACTORS

Attachment 4

Alaska Airlines Checklists

April 17, 2024



Alaska. 737MAX Crew Briefing

▲ DEPARTURE BRIEFING

Threats (PM, PF)
Plan
- Taxi, Dept Rwy
- T/O perf valid, perf/config issues
- Route (Clearance/Flight Plan – FMC RTE crosscheck)
- Return (emerg, T/O alt)

Considerations
- Any specific PM duties, 10-7 considerations
- Recap as needed

▲ APPROACH BRIEFING

Threats (PM, PF)
Plan
- Route (STAR, Approach, Approach Mode)
- M/A, Alt fuel-route
- Lnd Rwy, Assessment, LTP, Exit, Taxi
- Autobrakes
- Flaps, VREF, Target Speed

Considerations
- Any specific PM duties, 10-7 considerations
- Recap as needed

DEBRIEFING (PM, PF)

To improve performance, consider:
- How do you think that went?
  NOTE: Debrief both excellent performance and areas to improve.
- If we could do it again, what would we do differently?
- Are there any reports to complete/submit?

WHAT ARE OUR THREATS?

Airport/ Runway
Special Airport
Contamination
Construction
Hotspots
10-7 / 10-8

Adverse WX
Visibility
Deicing
Winds
Precipitation
Turbulence

Environment
Terrain
Night
Traffic

ATC
CInc/Re-Routes
Arr/Dep amendts
Rwy Changes
Congestion

Airline/Ops/ Dispatch
Sched Pressure
Delays
Paperwork
Ground Handling

Crew Elements
Fatigue onset
Proficiency
Experience
Recency

Aircraft
Systems
MELs
Logbook
Automation
Performance
Tailstrike

Cabin
Passengers
Interruptions

MANAGE THE THREATS

FLIGHT ATTENDANT BRIEFINGS

Pre-Departure Considerations:
Weather
Turbulence
Diversion Potential
Timeline
Taxi/Flight Time Potential Delay
Early Sit City
Cabin Service/Pilot Needs
Cabin
Cabin Defect/Deferred Items
Flight Deck Entry/Exit
Specific Security Concerns

Abnormal – Emergency
N – Nature of the emergency
T – Time to prepare
S – Special instructions
B – Brace signal, if applicable
(when will brace command be given)

737MAX Normal Checklist Alaska.

Before Start
Oxygen . . . Checked, 100%, R,L
Transfer Switches . . . Normal
Seat Belt . . . ON
Window Heat . . . ON
Pressurization . . . AUTO, Set for ____
▲ MCP . . . (HDG) (ALT)
▲ Altimeter . . . ____, ____, Accel Height ____
Terrain Display . . . ON
Auto Brake . . . RTO
▲ FMC Route . . . Verified R,L
Parking Brake . . . Set
Rudder, Aileron Trim . . . Free, Zero

Prior to Push
Ice Check . . . Complete/Not Required
Fuel . . . ____ Pumps ON, ____, ____ Req'd
Maint Log . . . Aboard, Reviewed ____
Doors, Windows . . . Closed, Locked
TCAS, Transponder . . . Set, ON
Anti-Collision . . . ON

After Start
Start Switches . . . ON
Electrical . . . Generators ON
APU . . . ON / OFF
Probe Heat . . . ON
Anti-Ice . . . ON / OFF
Packs, Bleeds . . . Packs AUTO, Bleeds Set
Recall . . . Checked

Before Takeoff
PA . . . Complete
Flight Controls . . . Tops, Bottoms
▲ FMC, Flaps . . . ____, ____, Green Light
▲ Takeoff Data . . . ____ Set, Rwy ____
▲ V2 . . . ____ Set

After Takeoff
Bleeds . . . Set
Pressurization . . . Checked
Start Switches . . . ON / OFF
Gear . . . Up
Auto Brake . . . OFF
Flaps . . . Up, No Lights

Descent
Recall . . . Checked
▲ FMC Route . . . Verified L/R
▲ Landing Data . . . VREF____, Minimums ____
▲ (RNAV) RNP Value . . . ____ Set
▲ Pressurization . . . Set for ____
Start Switches . . . ON

Approach
Altimeter . . . ____, ____
Seat Belt . . . ON
PA . . . Complete

Landing
Speed Brake . . . Armed, Green Light
Gear . . . Down, 3 Green
Flaps . . . ____, Green Light

Shutdown
Parking Brake . . . Set
Start Levers . . . CUTOFF
Electrical . . . APU / GROUND POWER
Seat Belt . . . OFF
Exit Lights . . . OFF
Probe Heat . . . AUTO
Anti-Ice . . . OFF
Packs, Bleeds . . . Packs OFF / AUTO, Bleeds Set
Anti-Collision . . . OFF
Start Switches . . . OFF
Fuel Pumps . . . One ON / OFF
Radar, Transponder . . . OFF, STBY
IRS . . . OFF / NAV
Quantities . . . Checked
(< -10°C) Outflow Valve . . . 90% Closed

Secure
Aircraft ground time greater than 90 minutes:
Window Heat . . . OFF
Electric Hyd Pumps . . . OFF
Packs . . . OFF
HGS . . . Stowed
FDAS Switch . . . OFF
APU, Fuel Pumps . . . ON / OFF
GRD Power (if available) . . . ON
Battery . . . ON / OFF

Re-accomplish relevant portions of the Departure or Arrival/Approach Setup and Briefing. Then re-accomplish appropriate ▲ checklist items.

Revision Date: 10/5/23 Part # 737MAXQRC-R5

Figure 1. Normal Checklist

DEBRIEF GUIDANCE TEMPLATE
Check status of crew and passengers
Have the crew describe the event
If event is an accident or incident confirm CVR/FDR CBs have been pulled in accordance with FOM 11.200.
Contributing factors (wx, comms, guidance, etc.)
Did the crew use a checklist?
Did the crew contact other resources (Dispatch, Maintenance, Scheduling, etc.)
Remind crew to file any reports (IR, ASAP)
Is the crew aware of any adverse pax reaction or photos, videos
Is there anything else the crew needs that the FODO can help them with.
Any other pertinent information?

Figure 2. FODO and Dispatch Debrief Checklist

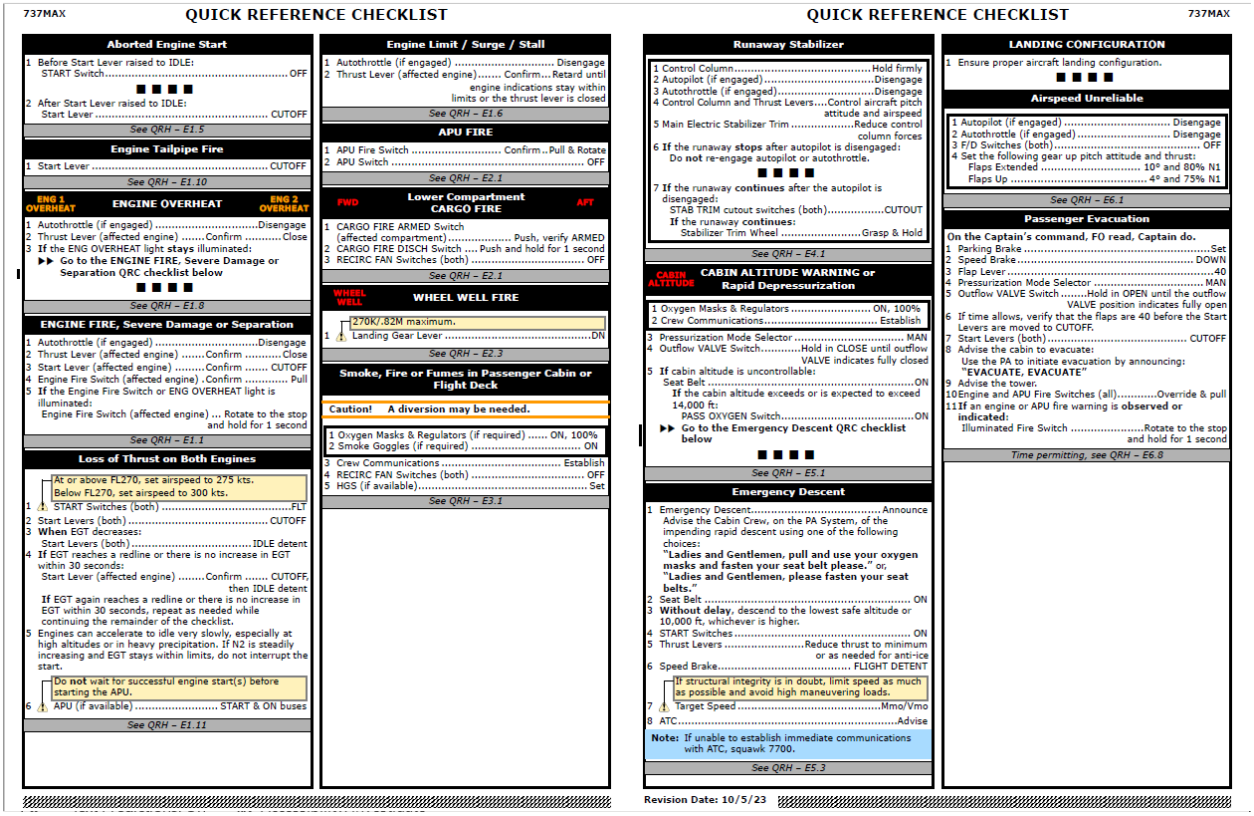


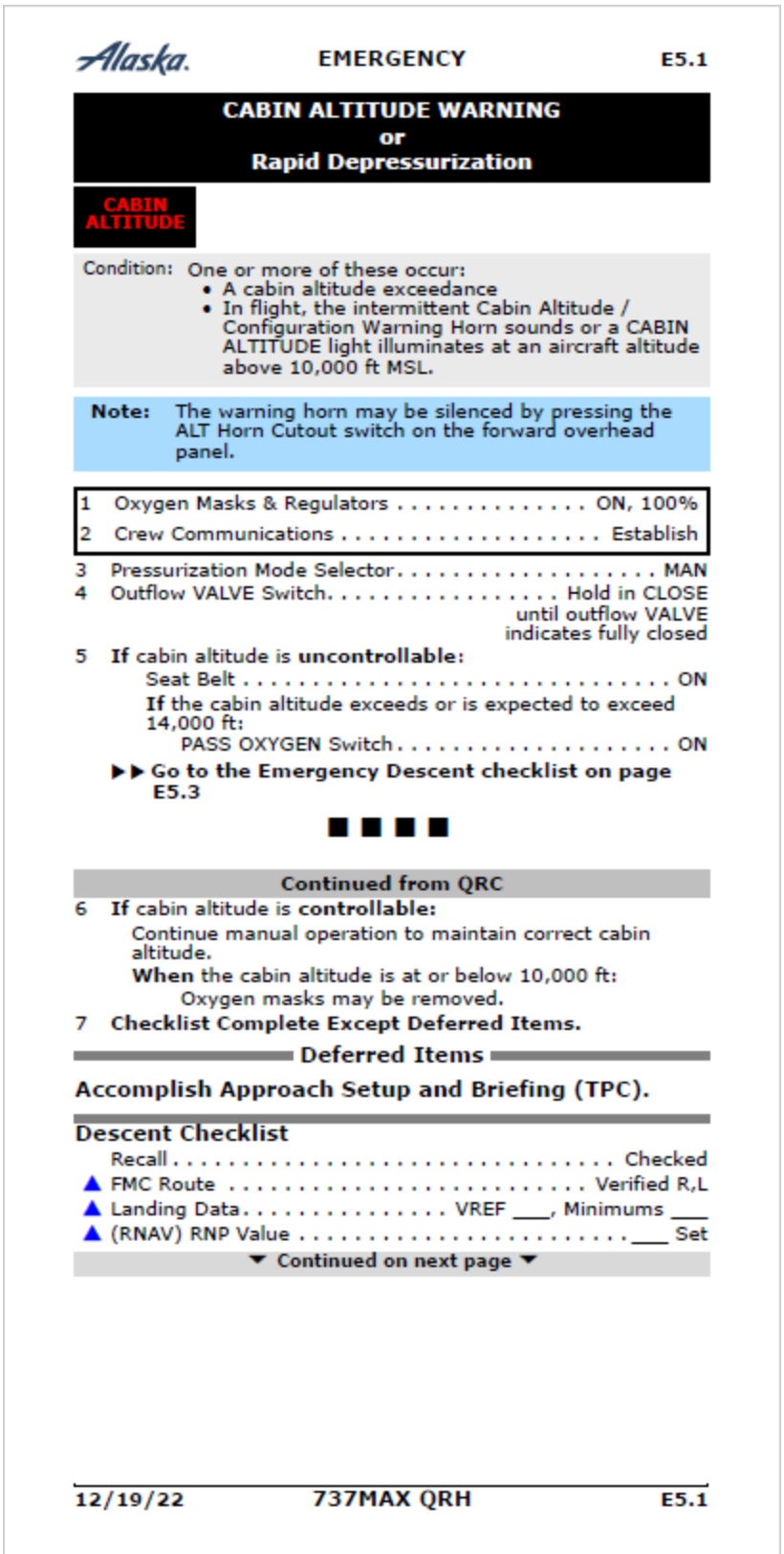
Figure 3. Quick Reference Checklist

CB.12 CB LIST Alaska

C/B Nomenclature	Panel	Grid
TE Flaps Pos Snsr & Ind Right	P6-2	A11
Temp Cont Valve Close Left	P6-4	A1
Temp Cont Valve Close Right	P6-4	B1
Temp Indicator	P6-4	D8
Temp Probe Heat	P18-3	C2
Terrain Display	P18-1	A7
Thrsh Lt	E&E P91	C1
Thrust Rev Cont - Engine 1	P18-2	B5
Thrust Rev Cont - Engine 2	P6-2	C7
Thrust Rev Ind - Engine 1	P18-2	B4
Thrust Rev Ind - Engine 2	P6-2	C8
Thrust Rev Intlk - Engine 1	P18-2	B6
Thrust Rev Intlk - Engine 2	P6-2	C6
Thrust Rev Sync Lock - Engine 1	P18-2	B7
Thrust Rev Sync Lock - Engine 2	P6-2	C5
TR3 DC Indicator	P6-5	C3
TR3 Xfer Relay Cont	P6-4	E11
Trim Air Press	P6-4	D9
TRU 1	E&E P91	A6
TRU 2	E&E P92	A4
TRU 3	E&E P92	A6
TRU 3 Altn	E&E P91	A4
V		
Vacuum Outlet Aft	E&E P92	E9
Vacuum Outlet Fwd	E&E P92	E8
Vacuum Waste	P18-3	D19
Vacuum Waste Blower	E&E P91	F2
Vacuum Waste Cont	E&E P91	C11
VHF 1	P18-2	D11
VHF 2	P6-1	C3
VHF 3	P18-2	D12
Voice Recorder	P18-2	D7
Voice RCRDR Relay	P18-2	C7
Voice RCRDR/RIPS	P18-2	D6
VOR / Mkr Bcn 1	P18-1	A1
VOR 2	P6-1	A12
W		
Waste Water Line Heat	P18-3	D18
Water Qty Ind	E&E P91	C9
Weather Radar Rt	P6-1	D13
Wheel Well Lt	E&E P92	C2
Window Heat Control Left Front AC	P18-3	E1
Window Heat Control Left Side AC	P18-3	D2
Window Heat Control Right Front AC	P18-3	D1
Window Heat Control Right Side AC	P18-3	E2

CB.12 737MAX QRH 4/30/24

Figure 4. Circuit Breaker List



Alaska. EMERGENCY E5.1

CABIN ALTITUDE WARNING or Rapid Depressurization

CABIN ALTITUDE

Condition: One or more of these occur:
- A cabin altitude exceedance
- In flight, the intermittent Cabin Altitude / Configuration Warning Horn sounds or a CABIN ALTITUDE light illuminates at an aircraft altitude above 10,000 ft MSL.

Note: The warning horn may be silenced by pressing the ALT Horn Cutout switch on the forward overhead panel.

1 Oxygen Masks & Regulators . . . . . ON, 100%
2 Crew Communications . . . . . Establish
3 Pressurization Mode Selector . . . . . MAN
4 Outflow VALVE Switch . . . . . Hold in CLOSE until outflow VALVE indicates fully closed
5 **If** cabin altitude is **uncontrollable:**
Seat Belt . . . . . ON
If the cabin altitude exceeds or is expected to exceed 14,000 ft:
PASS OXYGEN Switch . . . . . ON
▶▶ **Go to the Emergency Descent checklist on page E5.3**

■ ■ ■ ■

Continued from QRC

6 **If** cabin altitude is **controllable:**
Continue manual operation to maintain correct cabin altitude.
When the cabin altitude is at or below 10,000 ft:
Oxygen masks may be removed.
7 **Checklist Complete Except Deferred Items.**

Deferred Items

Accomplish Approach Setup and Briefing (TPC).

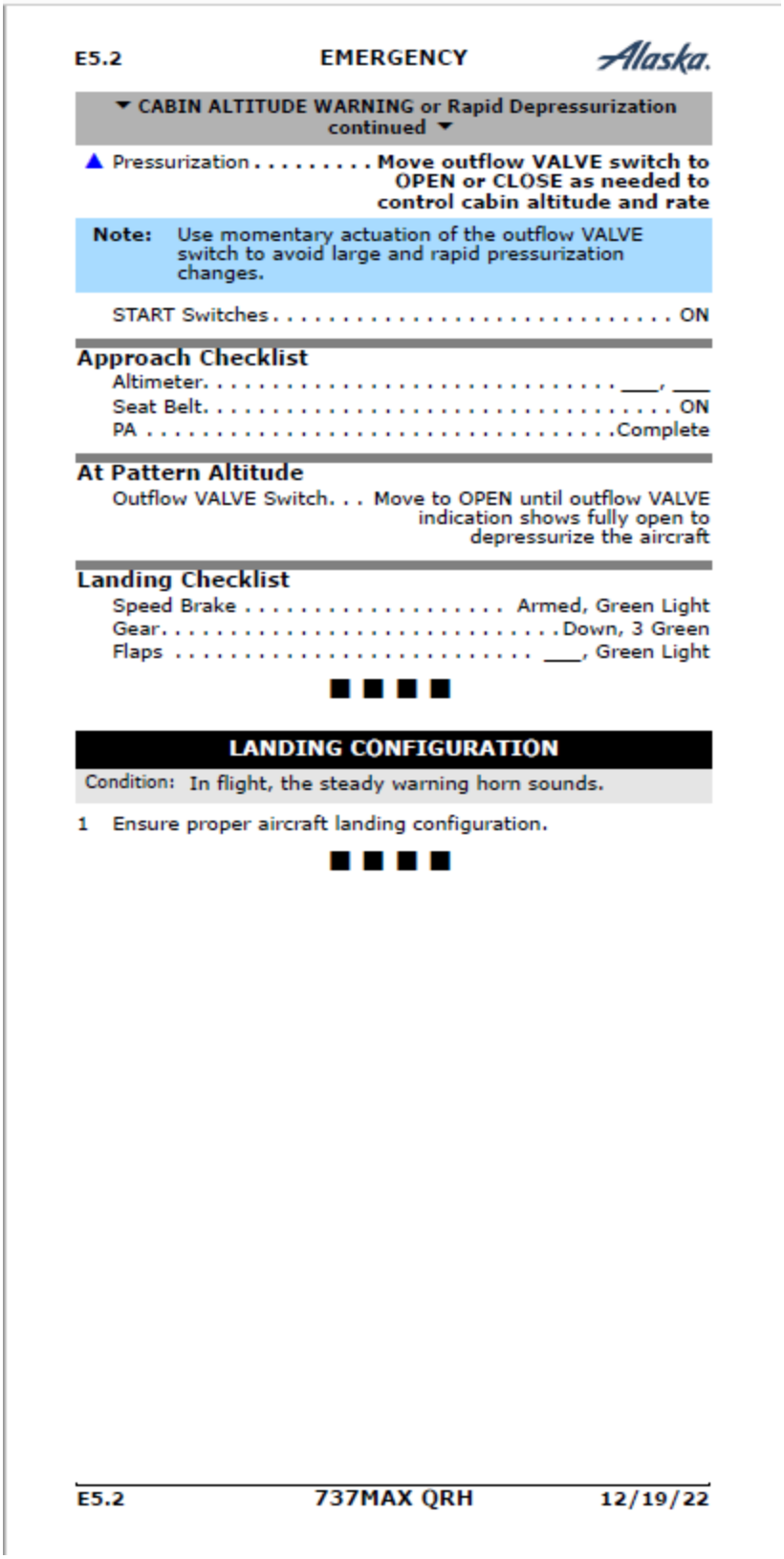
Descent Checklist

Recall . . . . . Checked
▲ FMC Route . . . . . Verified R,L
▲ Landing Data . . . . . VREF ___, Minimums ___
▲ (RNAV) RNP Value . . . . . ___ Set

▼ Continued on next page ▼

12/19/22 737MAX QRH E5.1

Figure 5. Rapid Depressurization Quick Reference Handbook



E5.2 EMERGENCY Alaska.

▼ CABIN ALTITUDE WARNING or Rapid Depressurization continued ▼

▲ Pressurization . . . . . **Move outflow VALVE switch to OPEN or CLOSE as needed to control cabin altitude and rate**

Note: Use momentary actuation of the outflow VALVE switch to avoid large and rapid pressurization changes.

START Switches . . . . . ON

Approach Checklist

Altimeter . . . . . ___, ___
Seat Belt . . . . . ON
PA . . . . . Complete

At Pattern Altitude

Outflow VALVE Switch . . . Move to OPEN until outflow VALVE indication shows fully open to depressurize the aircraft

Landing Checklist

Speed Brake . . . . . Armed, Green Light
Gear . . . . . Down, 3 Green
Flaps . . . . . ___, Green Light

■ ■ ■ ■

LANDING CONFIGURATION

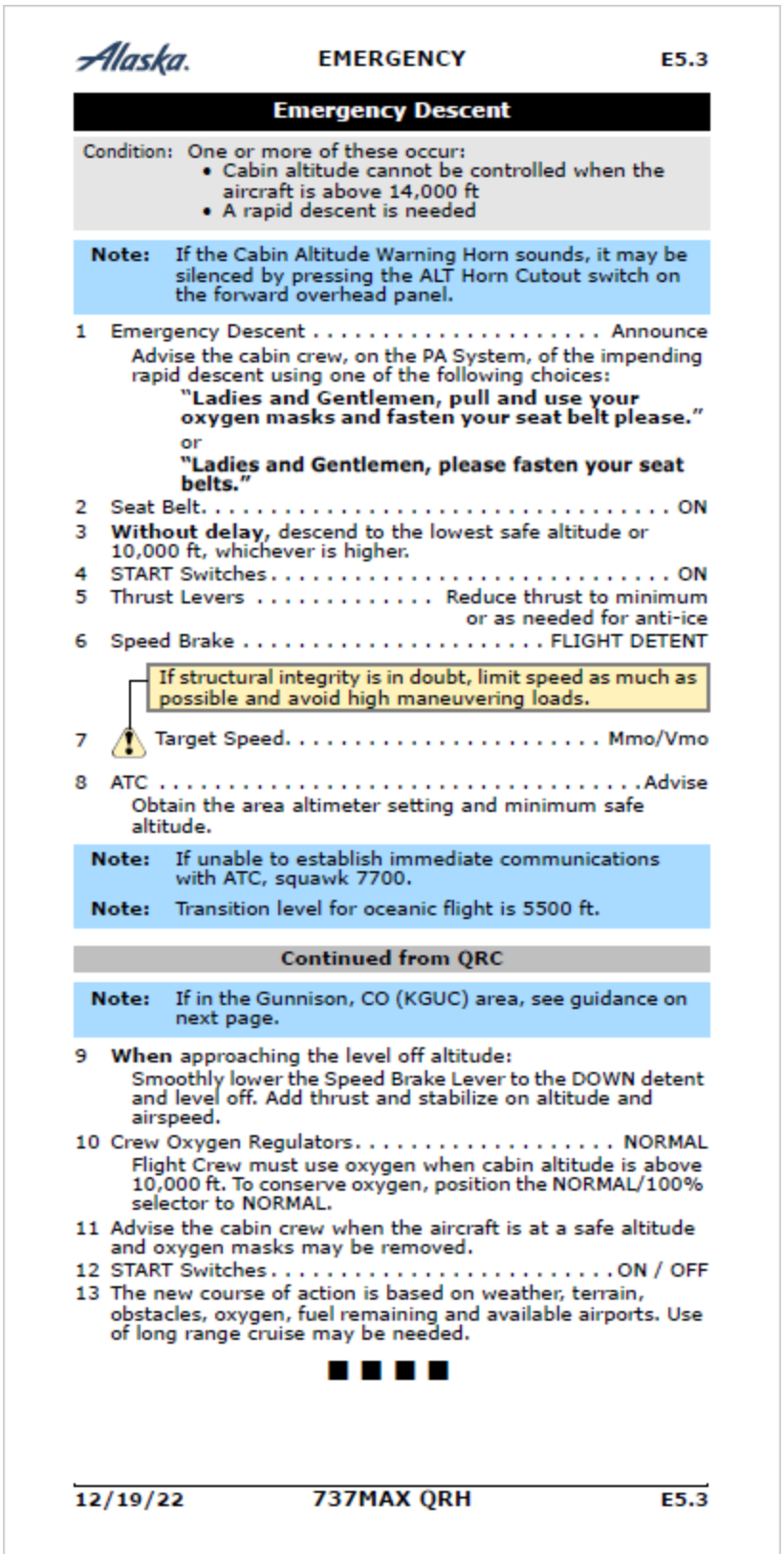
Condition: In flight, the steady warning horn sounds.

1 Ensure proper aircraft landing configuration.

■ ■ ■ ■

E5.2 737MAX QRH 12/19/22

Rapid Depressurization Quick Reference Handbook (continued)



Alaska. EMERGENCY E5.3

Emergency Descent

Condition: One or more of these occur:
- Cabin altitude cannot be controlled when the aircraft is above 14,000 ft
- A rapid descent is needed

Note: If the Cabin Altitude Warning Horn sounds, it may be silenced by pressing the ALT Horn Cutout switch on the forward overhead panel.

1 Emergency Descent . . . . . Announce
Advise the cabin crew, on the PA System, of the impending rapid descent using one of the following choices:
"Ladies and Gentlemen, pull and use your oxygen masks and fasten your seat belt please."
or
"Ladies and Gentlemen, please fasten your seat belts."

2 Seat Belt. . . . . ON

3 **Without delay,** descend to the lowest safe altitude or 10,000 ft, whichever is higher.

4 START Switches. . . . . ON

5 Thrust Levers . . . . . Reduce thrust to minimum or as needed for anti-ice

6 Speed Brake . . . . . FLIGHT DETENT

If structural integrity is in doubt, limit speed as much as possible and avoid high maneuvering loads.

7 Target Speed. . . . . Mmo/Vmo

8 ATC . . . . . .Advise
Obtain the area altimeter setting and minimum safe altitude.

Note: If unable to establish immediate communications with ATC, squawk 7700.

Note: Transition level for oceanic flight is 5500 ft.

Continued from QRC

Note: If in the Gunnison, CO (KGUC) area, see guidance on next page.

9 **When** approaching the level off altitude:
Smoothly lower the Speed Brake Lever to the DOWN detent and level off. Add thrust and stabilize on altitude and airspeed.

10 Crew Oxygen Regulators. . . . . NORMAL
Flight Crew must use oxygen when cabin altitude is above 10,000 ft. To conserve oxygen, position the NORMAL/100% selector to NORMAL.

11 Advise the cabin crew when the aircraft is at a safe altitude and oxygen masks may be removed.

12 START Switches. . . . . .ON / OFF

13 The new course of action is based on weather, terrain, obstacles, oxygen, fuel remaining and available airports. Use of long range cruise may be needed.

■ ■ ■ ■

12/19/22 737MAX QRH E5.3

Rapid Depressurization Quick Reference Handbook (continued)