



## **ALASKA AIRLINES FLIGHT 1282**



# Anatomy of the Incident with live traffic.

## AIRCRAFT

Boeing 737-9 Max

Registration Number N704AL

Call sign: ASA1282

Owner: Alaska Airlines

## WHAT HAPPENED?

**Alaska Airlines Flight 1282** was a scheduled U.S. domestic flight operated by [Alaska Airlines](#) from [Portland International Airport](#) in Oregon to [Ontario International Airport](#) in California. Shortly after takeoff on January 5, 2024, a door plug (a panel installed to replace an optional emergency exit door) on the [Boeing 737 MAX 9](#) aircraft blew out causing an [uncontrolled decompression](#) of the aircraft.

## WHY DID IT HAPPEN?

Federal investigators said that it was possible that the bolts that were supposed to keep a fuselage panel in place were never installed before the panel blew off an Alaska Airlines Boeing 737 Max 9

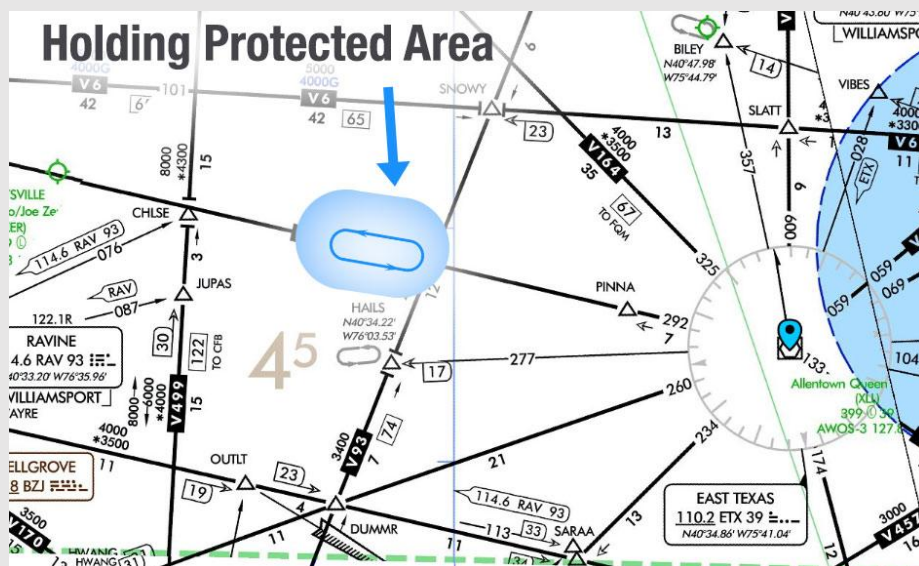


## GEOGRAPHICAL SITUATION WITH FLIGHT OF ASA1282

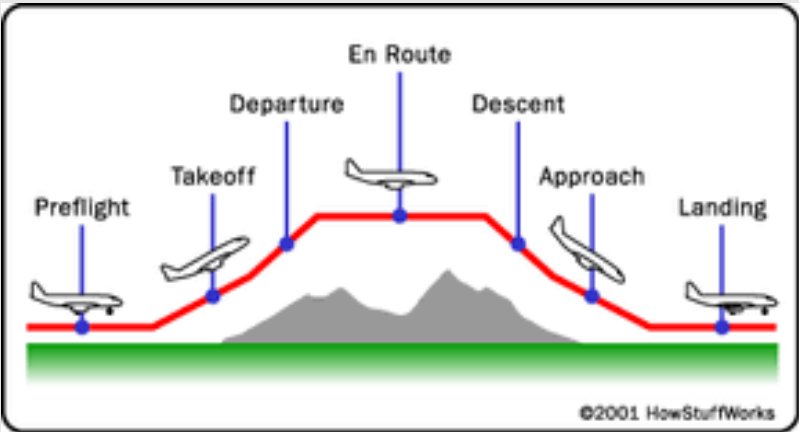


PST = pacific standard time

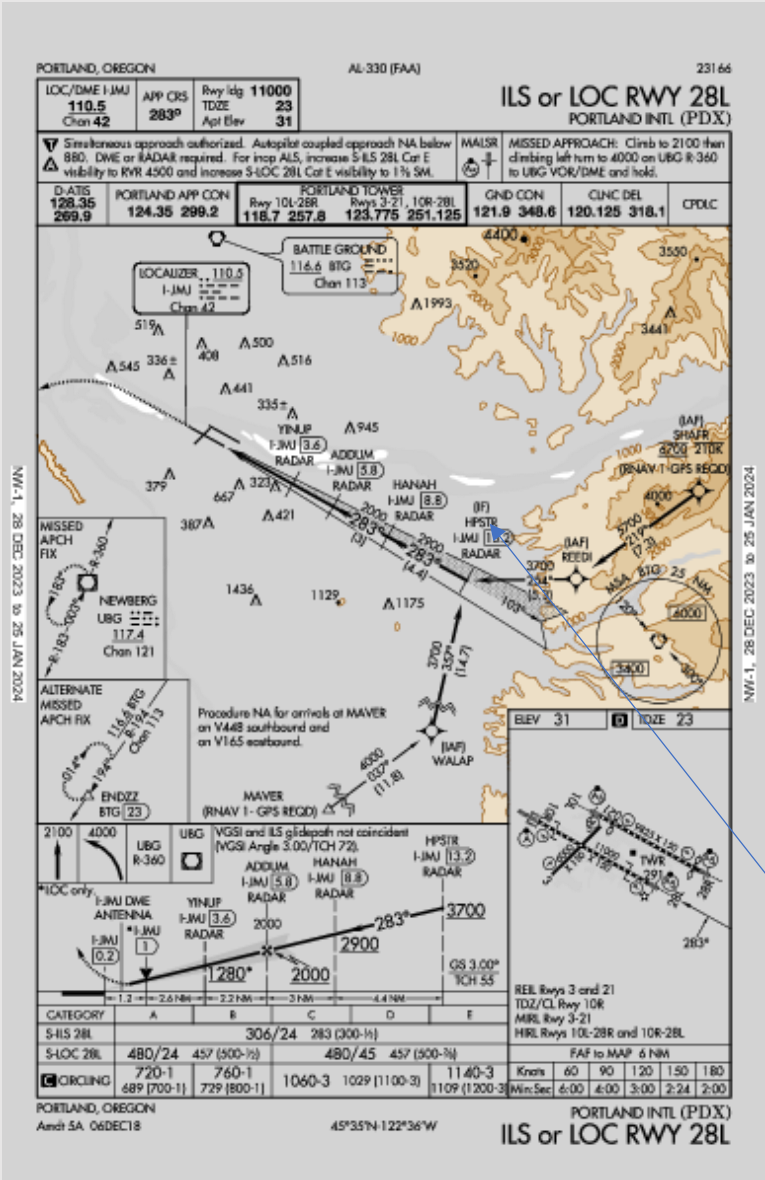
## HOLDING OR BOX PATTERN



TYPICAL FLIGHT PROFILE

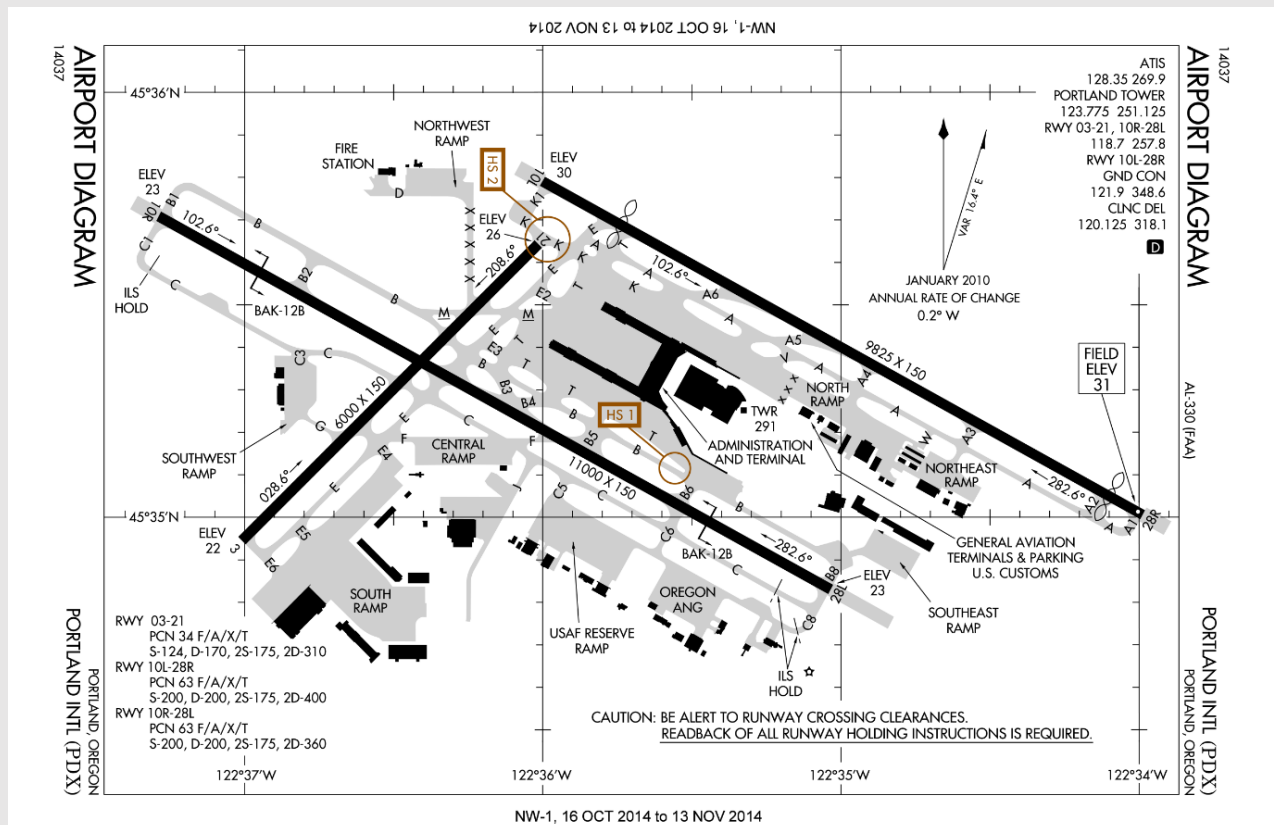


APPROACH CHART (LOCALIZER)





## AIRPORT RUNWAY CHART



## EVENTS WHICH HAPPENED DURING THE EMERGENCY

### DEPLOYMENT OF OXYGEN MASKS

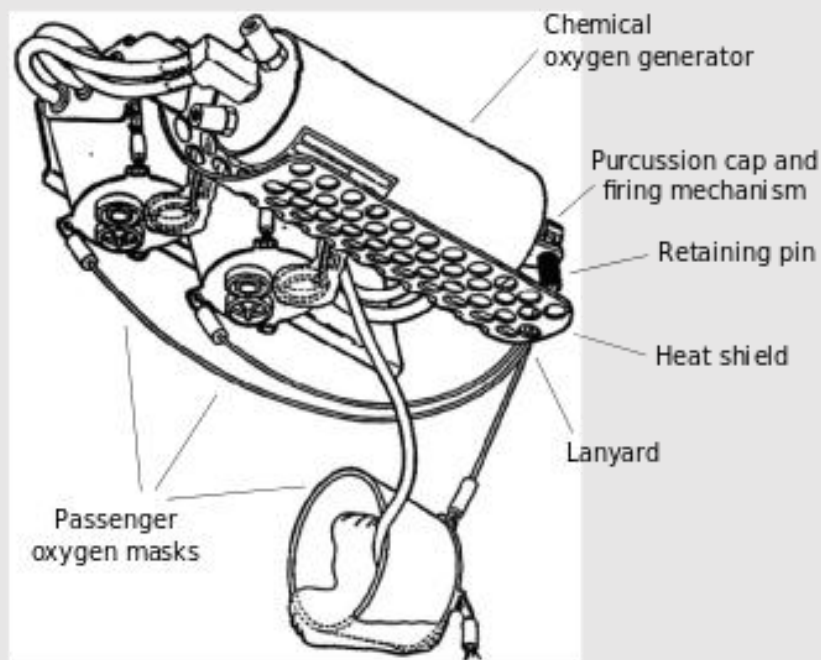
Passenger oxygen masks release **whenever there's a drop in cabin pressure**. Sometimes the flight crew might initiate the release. However, it usually triggers automatically when the cabin altitude gets to 14,000 feet.

Passenger oxygen masks are chemical operated oxygen masks and provide appx 14 minutes of oxygen

Does not apply to the flight crew

Note that oxygen masks do not deploy in the event of a fire

## CHEMICAL OXYGEN MASK



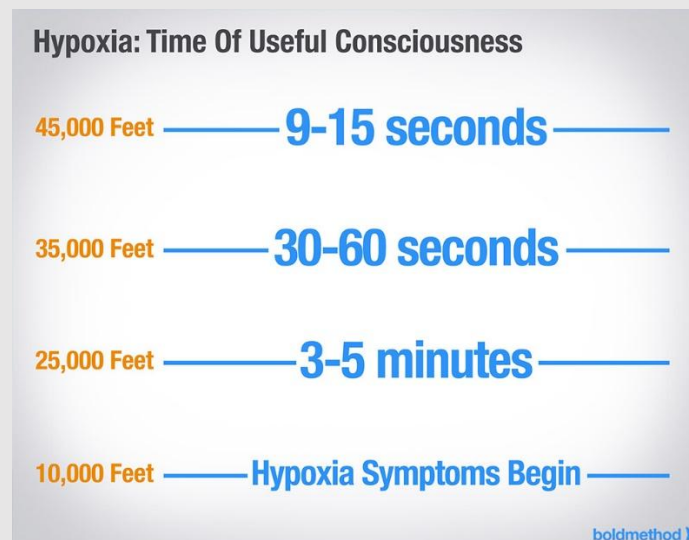
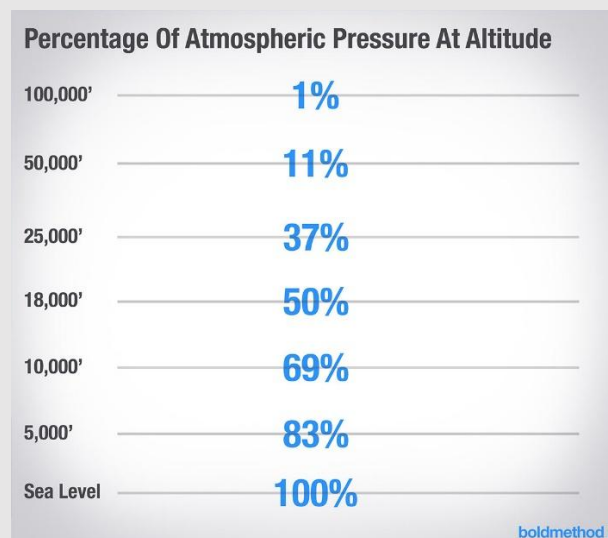
## DECOMPRESSION

If something large breaks the fuselage, this is what happens when a rapid decompression occurs within 1 to 10 seconds...

- Cabin Altitude = Flight Altitude
- Loud Bang and Wind Blast
- 3) Flying Debris
- 4) Sudden Temperature Drop
- 5) Fogging
- 6) Rapid Hypoxia Symptoms

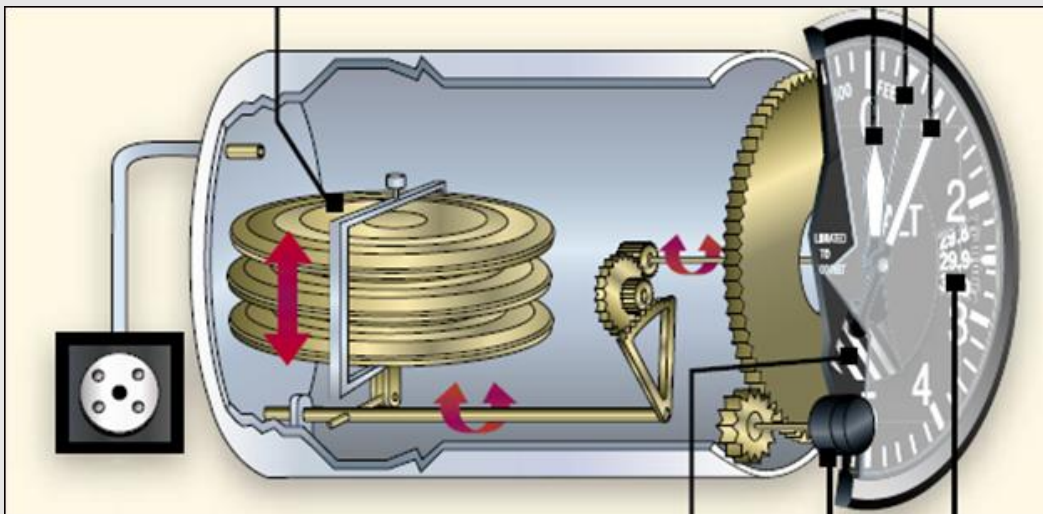
## Hypoxia Symptoms

- Restlessness.
- Headache.
- Confusion.
- Anxiety.
- Rapid heart rate (tachycardia).
- Rapid breathing (tachypnea).
- Difficulty breathing or shortness of breath (dyspnea).



The time of useful consciousness is the time in which the pilot must react before the pilot becomes incapacitated partially or completely.

## ALTIMETER



How does an altimeter work briefly?

A simple barometric altimeter includes a sealed metal chamber, a spring, and a pointer that shows altitude in meters or feet. **The chamber expands as air pressure decreases and contracts as it increases, bending the spring and moving the pointer.**



Classic altimeter with dials



Digital altimeter

## BAROMETRIC PRESSURE



**QNH:** QNH value is the pressure value measured at a location and reduced down to mean sea level.

**QFE:** QFE is the mean sea level pressure corrected for temperature and adjusted for a specific reference point of an airfield or the point needed.

More clearly when an aircraft sets QFE value to its altimeter it will Show ZERO ,“0” when it is on the runway

When QFE set to altimeter it will indicate the HEIGHT of the aircraft

**QNE :** The term refers when 1013.2mb (29.92Hg) is set in the altimeter.

The QNE is used when an aircraft flies into higher levels. Above transition altitude all aircraft sets 1013.2mb to provide a common datum for vertical measurement.

## TRANSPONDERS

| EMERGENCY SQUAWK CODE<br>CHEAT SHEET |                                   |
|--------------------------------------|-----------------------------------|
| Squawk                               | Emergency                         |
| 7500                                 | hijacked or unlawfully interfered |
| 7600                                 | lost communications               |
| 7700                                 | general emergency                 |

pilotsoftheworld.com



Radar Screen with EM in red = 7700

Radion Failure with CPMFAIL in red = 7600

The diagram illustrates the vertical structure of Class A, E, C, and G airspace around two airports, labeled C and D. The background is divided into horizontal layers: a red layer at the top labeled 'Class A', a yellow layer labeled 'Class E', and a white layer at the bottom labeled 'Class G'. Two airports are shown as black silhouettes with towers. Airport C is on the left, and Airport D is on the right. A blue rectangular area labeled 'Class C' is centered over Airport C, extending from 4500 ft to 8500 ft. A yellow rectangular area labeled 'Class E' is centered over Airport D, extending from 4500 ft to 8500 ft. The 'Class G' label is placed in the white area on both sides of the airports. The '8500 ft' and '4500 ft' labels are placed at the boundaries of the Class C and Class E areas.

The diagram illustrates the vertical and horizontal structure of airspace. Vertically, it is divided into three main sections: **AREA CONTROL** (top, blue), **APPROACH CONTROL** (middle, yellow), and **TOWER (Aerodrome Control)** (bottom, red). Key altitude markers on the left are 46,000 ft, 15,000 ft, 7,000 ft, and 3,000 ft. The **Airways Limit** is indicated by a dashed line at 7,000 ft. Horizontal boundaries are defined by radii from the ground level: 15 NM for Tower, 30 NM for Approach, and >200 NM for Area Control.

| Altitude              | Control Type              | Radius  |
|-----------------------|---------------------------|---------|
| 46,000 ft - 15,000 ft | AREA CONTROL              | >200 NM |
| 15,000 ft - 7,000 ft  | APPROACH CONTROL          | 30 NM   |
| 7,000 ft - 3,000 ft   | TOWER (Aerodrome Control) | 15 NM   |

**AIRSPACE DIVISION**

Department of Civil Aviation, Malaysia

## EN ROUTE SECTOR DIVISIONS IN FRANCE



## TYPICAL FREQUENCIES

GROUND  
TOWER  
APPROACH ( DEPARTURE /ARRIVALS)  
EN ROUTE CONTROL

**RADAR CONTACT IS WHEN THE TOWER CONTROLLER HAS POSITIVE IDENTIFICATION THE DEPARTING AIRCRAFT ON THE RADAR SCREEN**

## Automatic Terminal Information Service (ATIS)

The automatic provision of current, routine information to arriving and departing aircraft throughout 24 hrs or a specified portion thereof:

- Data link-automatic terminal information service (D-ATIS). The provision of ATIS via data link.
- Voice-automatic terminal information service (Voice-ATIS). The provision of ATIS by means of continued and repetitive voice broadcasts



ATIS sent to plane directly via a data link

Voice-ATIS broadcasts normally contain the following information in the order listed:

- Name of aerodrome;
- time of observation, if appropriate
- type of approach(es) to be expected
- the runway(s) in use; status of arresting system constituting a potential hazard
- significant runway surface conditions and, if appropriate, braking action
- transition level, if applicable;
- other essential operational information;
- surface wind direction (in degrees magnetic) and speed,
- visibility and, when applicable, RVR
- present weather;
- air temperature;
- dew point temperature;
- altimeter setting(s);
- specific ATIS instructions.

### **VOCABULARY:**

Persons on board = souls

Fuel remaining (in kg or tons)

### **VIDEO LINK:**

<https://youtube.com/watch?v=43W8IC3csRU>

