ICAO: YBBN **IATA:** BNE **Airport:** Brisbane International Airport
City: Brisbane **State/Province:** Queensland
Country: Australia **Continent:** Oceania
YBBN METAR Weather: YBBN 072300Z 01005KT CAVOK 26/19 Q1018
YBBN ADS-B Flight Tracking **https://globe.adsbexchange.com/?airport=ybbn**
YBBN Flight Activity **http://flightaware.com/live/airport/YBBN** https://www.flightradar24.com/UTY8503/37717bf7

Name	Frequency	Internet Feed
YBBN Approach (North)	**124.700**	https://www.liveatc.net/hlisten.php?mount=ybbn2_app_n&icao=ybbn
YBBN Approach (South)	**125.600**	https://www.liveatc.net/hlisten.php?mount=ybbn2_app_s&icao=ybbn
YBBN Area Air-to-Air - Brisbane, Queensland, Australia	**124.700**	https://www.liveatc.net/hlisten.php?mount=ybbn2_a2a&icao=ybbn
YBBN ATIS	**125.500**	https://www.liveatc.net/hlisten.php?mount=ybbn2_atis&icao=ybbn
YBBN Brisbane Center	**128.600**	https://www.liveatc.net/hlisten.php?mount=yssy1_ctr_128600&icao=ybbn
Brisbane Center (East of Brisbane)	**134.300**	https://www.liveatc.net/hlisten.php?mount=ybbn9_ctr&icao=ybbn
Brisbane Center (Mount Glorious)	**123.000**	
Brisbane Center (Mount Glorious)	**129.000**	
YBBN Brisbane Center - Gold Coast	**119.500**	https://www.liveatc.net/hlisten.php?mount=ybbn2_ctr_gold&icao=ybbn
YBBN Brisbane Center 01	**125.700**	https://www.liveatc.net/hlisten.php?mount=ybbn2_ctr01&icao=ybbn

YBBN Departure (North)	**123.500**	https://www.liveatc.net/hlisten.php?mount=ybbn2_dep_n&icao=ybbn
YBBN Ground	**124.050**	https://www.liveatc.net/hlisten.php?mount=ybbn2_gnd&icao=ybbn
YBBN Tower (North)	**118.000**	https://www.liveatc.net/hlisten.php?mount=ybbn2_twr_n&icao=ybbn
YBBN Tower (South)	**120.500**	https://www.liveatc.net/hlisten.php?mount=ybbn2_twr_s&icao=ybbn
YBBN Twr/App/Dep	**Brisbane Approach 123.500** **Brisbane Approach/Departure (North) 124.700** **Brisbane Approach/Departure (South) 125.600** **Brisbane Departure 128.300** **Brisbane Departure 133.450** **Brisbane Tower 120.500**	https://www.liveatc.net/hlisten.php?mount=ybbn4&icao=ybbn

Air Traffic Control Speak

Air Traffic Control (ATC) uses a variety of standardized terms and phrases to ensure clear and concise communication with pilots. These terms are part of aviation phraseology to maintain safety and efficiency. Below are some common ATC terms:

1. Roger

- Meaning: "I have received your last transmission."
- Usage: It is not an acknowledgment of compliance or a confirmation of instructions, just a confirmation that the message was heard.

2. Wilco

- Meaning: "Will comply."
- Usage: Indicates that the pilot has received and understood the instruction and will follow it.

3. Affirmative / Negative

- Meaning: "Yes" (affirmative) or "No" (negative).
- Usage: Used instead of "yes" or "no" to avoid ambiguity over the radio.

4. Cleared for Takeoff / Cleared to Land

- Meaning: ATC gives the pilot permission to take off or land on the designated runway.
- Usage: For example, "Delta 123, cleared for takeoff runway 27."

5. Hold Short

- Meaning: Instructs the pilot not to enter the runway or taxiway.
- Usage: "United 789, hold short of runway 09."

6. Taxi to Runway

- Meaning: The aircraft is cleared to move to a specified runway, but not to enter it.
- Usage: "American 456, taxi to runway 18 via taxiway Bravo."

7. Squawk

- Meaning: Instructs the pilot to set a specific transponder code, which helps ATC identify the aircraft on radar.
- Usage: "Squawk 7500" is the transponder code for a hijacking emergency.

8. Pan-Pan / Mayday

- Meaning: Emergency calls. "Mayday" is used for life-threatening situations (e.g., an engine failure or imminent crash), while "Pan-Pan" is for urgent but not immediately life-threatening situations.
- Usage: "Mayday, Mayday, Mayday, Engine failure, Delta 123."

9. Go-Around

- Meaning: Instructs a pilot to abort the landing approach and climb back to a safe altitude for another attempt.
- Usage: "Delta 345, go around, runway not clear."

10. Line Up and Wait

- Meaning: The aircraft is instructed to enter the runway and wait for further instructions before taking off.
- Usage: "Southwest 789, line up and wait runway 24L."

11. Expedite

- Meaning: ATC wants the aircraft to move faster to avoid traffic conflicts.
- Usage: "American 456, expedite climb to flight level 250."

12. Flight Level

- Meaning: Refers to an aircraft's altitude when flying above 18,000 feet. Flight levels are expressed in hundreds of feet.
- Usage: "Climb to flight level 350" means to ascend to 35,000 feet.

13. Contact

- Meaning: Instructs the pilot to communicate with another ATC unit or frequency.
- Usage: "Delta 123, contact New York Center on 135.7."

14. Monitor

- Meaning: Instructs the pilot to listen to a frequency but not necessarily respond.
- Usage: "Monitor tower on 118.5."

15. VFR / IFR

- **VFR**: Visual Flight Rules, meaning the pilot is flying primarily by visual references.
- **IFR**: Instrument Flight Rules, meaning the flight is conducted using instruments, typically in poor weather conditions.
- Usage: "You are cleared for an IFR flight to Miami."

16. Heavy / Super

- Meaning: "Heavy" refers to large aircraft that generate significant wake turbulence. "Super" is reserved for the largest aircraft, like the Airbus A380.
- Usage: "Emirates 202 Super, descend to 3,000 feet."

17. Descend via STAR

- Meaning: The pilot is instructed to descend according to a Standard Terminal Arrival Route (STAR), which is a predefined flight path for landing.
- Usage: "United 123, descend via the Eagle 6 arrival."

18. Standby

- Meaning: Wait for further instructions or information.
- Usage: "United 789, standby for taxi clearance."

19. Clear of Conflict

- Meaning: The aircraft is no longer in potential conflict with another aircraft.
- Usage: Used after a Traffic Collision Avoidance System (TCAS) alert when the situation has been resolved.

20. Block Time

- Meaning: The time from when an aircraft pushes back from the gate to when it arrives at the destination gate.
- Usage: "Expect block time of 5 hours and 30 minutes."

These terms are part of aviation's standardized communication system to ensure that both ATC and pilots can interact efficiently and avoid misunderstandings.

Runway Designations

Runway designations are a critical aspect of airport operations, as they help pilots navigate and land safely. Each runway is assigned a numerical designation based on its magnetic heading, rounded to the nearest 10 degrees. Here's a breakdown of how it works:

1. **Magnetic Heading**:
    - Runways are oriented based on the Earth's magnetic north, and their numbers correspond to their compass heading.
    - For example, if a runway points in the direction of 270 degrees (west), it will be designated as Runway 27. If it points toward 90 degrees (east), it will be Runway 09.
2. **Two Designations per Runway**:
    - Since runways can be used in two opposite directions, each end of a runway gets a different number.
    - For example, a runway heading of 180 degrees on one side will be 36 on the opposite side (since 360 degrees is equivalent to 0 degrees in compass heading).
3. **Parallel Runways**:
    - At airports with multiple runways aligned in the same direction (parallel runways), they are distinguished by adding a letter.
    - For instance, if there are two parallel runways aligned to 09/27, they might be labeled 09L (left) and 09R (right) for the two parallel strips.

4. **Variation Due to Magnetic Drift**:
    - The Earth's magnetic field changes over time, and this can cause minor adjustments in runway designations over the years.
    - Airports periodically review and update runway numbers to reflect the most current magnetic headings.
5. **Crosswind Runways**:
    - Some airports have additional runways oriented at different angles to accommodate different wind conditions. These are often referred to as crosswind runways.

Understanding runway designations helps ensure pilots approach and land in alignment with the runway's direction for optimal safety.

What does Heavy Mean?

In Air Traffic Control (ATC) communications, the term "heavy" refers to a large aircraft that has a maximum takeoff weight (MTOW) of 300,000 pounds (136,000 kg) or more. It's used to warn controllers and other pilots about the aircraft's wake turbulence, which is more pronounced in heavier aircraft.

Why It's Important:

- **Wake turbulence**: Large aircraft, especially those in the "heavy" category, create significant air disturbances, or wake turbulence, which can affect smaller planes following too closely behind. This turbulence consists of swirling air (vortices) that can disrupt the flight path of smaller aircraft.
- **ATC awareness**: Controllers and pilots must be aware of a "heavy" aircraft's presence to ensure proper separation between it and other aircraft to prevent dangerous encounters with wake turbulence.

Example of Usage:

When a large aircraft, such as a Boeing 747, contacts ATC, it will identify itself with the term "heavy" at the end of its call sign. For instance:

- "United 123 Heavy" means the aircraft is large and requires additional separation.

This designation helps ATC prioritize safety by factoring in the wake turbulence effect when sequencing aircraft for takeoff, landing, or in-flight maneuvers.

There's also an even larger category called "super," primarily reserved for the Airbus A380, due to its extreme size and wake turbulence potential.

Weather information

1. METAR Reports:

- **METAR** is a coded weather report used by ATC and pilots, updated every hour, providing real-time weather conditions at airports.
- Example of a METAR:
    - **"METAR KJFK 151651Z 18012KT 10SM SCT020 BKN050 25/18 A3002"**
    - Decoded:
        - Wind: 180° at 12 knots.
        - Visibility: 10 statute miles.

- Clouds: Scattered at 2,000 feet, broken at 5,000 feet.
- Temperature: 25°C, Dewpoint: 18°C.
- Altimeter setting: 30.02 inHg.

2. ATIS (Automatic Terminal Information Service):

- ATIS is a continuous broadcast of recorded information at larger airports, which includes weather information like winds, visibility, sky condition, temperature, altimeter, and runway in use.
- Example: **"Boston Logan Information Alpha, 1500 Zulu weather. Wind 240 at 12, visibility 10, sky clear, temperature 20, altimeter 30.02. Runway 22L in use."**
- Pilots receive the ATIS prior to contacting ATC to reduce radio traffic.

3. Wind Reports:

- ATC frequently provides wind information, particularly during takeoff and landing, as wind direction and speed are crucial for safe flight operations.
- **Tower controller**: "Wind 250 at 15, cleared to land runway 27."
- ATC may also issue updates when significant wind shifts occur, especially with gusty or crosswinds.

4. Visibility Reports:

- Visibility is a major factor in aviation safety, and ATC may inform pilots about visibility at an airport, especially during poor weather conditions.
- Example: **"Visibility five miles with mist."**
- If visibility drops below a certain level, pilots may be restricted to Instrument Flight Rules (IFR).

5. Ceiling and Cloud Cover:

- Cloud conditions are communicated as a "ceiling," which refers to the height of the lowest layer of clouds reported as broken or overcast.
- ATC may advise pilots of cloud layers, which can affect approach and landing decisions.
- Example: **"Broken clouds at 3,000 feet, overcast at 5,000."**

6. Turbulence:

- ATC relays turbulence reports, either from their own data or based on pilot reports (PIREPs). This helps warn other pilots about rough air.
- Example: **"Moderate turbulence reported between flight levels 320 and 350."**
- Pilots encountering turbulence report it to ATC, who then relays this information to other aircraft in the area.

7. Wind Shear and Microbursts:

- Wind shear, a sudden change in wind speed or direction, can be dangerous during takeoff or landing. Microbursts are even more severe, causing rapid airspeed loss.
- ATC advises pilots of these conditions, often based on real-time radar or ground sensors.
- Example: **"Caution, wind shear reported on short final runway 22, wind 310 at 10 gusting to 25."**

8. Icing Conditions:

- Icing can occur in clouds or precipitation at cold temperatures, and ATC alerts pilots to potential icing conditions, particularly at higher altitudes.
- Example: **"Icing reported between 6,000 and 9,000 feet."**

9. Thunderstorms and Lightning:

- Thunderstorms are hazardous due to severe turbulence, lightning, hail, and wind shear. ATC may issue warnings to avoid areas of intense weather activity.
- Example: **"Thunderstorms reported 10 miles west of the airport, moving northeast at 20 knots."**
- ATC may also reroute aircraft to avoid large storm systems.

10. SIGMETs and AIRMETs:

- **SIGMETs (Significant Meteorological Information)**: Warnings for hazardous weather, including severe turbulence, thunderstorms, and volcanic ash.
- **AIRMETs (Airmen's Meteorological Information)**: Warnings for less severe weather like moderate turbulence, icing, or mountain obscuration.
- ATC passes along these warnings when relevant to a flight's path.

11. Surface Winds at Airports:

- ATC provides specific wind information during approaches or departures.
- Example: **"Winds are 230 at 10 knots, gusting to 18 knots."**
- Pilots use this information to adjust their landing approach or takeoff.

12. Pilot Reports (PIREPs):

- ATC often relays weather conditions experienced by other pilots, known as **PIREPs**, to aircraft in the same area.
- Example: **"Delta 123 reports moderate turbulence at 10,000 feet over Denver."**

13. Altimeter Setting:

- ATC frequently provides altimeter settings so that aircraft altimeters are correctly calibrated to the local pressure.
- Example: **"Altimeter 29.92."**

Example of an ATC Weather Advisory:

- **"Southwest 123, expect light turbulence on descent, reported at 7,000 feet. Winds 280 at 15 knots, gusting to 25. Visibility six miles, overcast at 1,500 feet, temperature 22 degrees Celsius, altimeter 30.05."**

This weather information is critical to pilots for maintaining safety, managing fuel consumption, and ensuring efficient flight operations.