

VFR

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VMC

Altitude Band	Airspace Class	Minimum Flight Visibility	Minimum Distance from Clouds	Additional Control Zone Requirement
At and above 3050m or 10000ft AMSL	A, B, C, D, E, F, G	8 km	1500 m horizontally, 300 m or 1000 ft vertically	5 km ground visibility & ceiling at or above 1500ft in control zones
Below 3050m or 10000ft AMSL and above 900m or 3000ft AMSL or, 300m or 1000ft above terrain, whichever is the higher	A, B, C, D, E, F, G	5 km	1500 m horizontally, 300 m or 1000 ft vertically	5 km ground visibility & ceiling at or above 1500ft in control zones
At or below 900m or 3000ft AMSL or, 300m or 1000ft above terrain, whichever is the higher	A, B, C, D, E	5 km	1500 m horizontally, 300 m or 1000 ft vertically	5 km ground visibility & ceiling at or above 1500ft in control zones
At or below 900m or 3000ft AMSL or, 300m or 1000ft above terrain, whichever is the higher	F, G	5 km (*)	Clear of cloud and with the surface in sight	5 km ground visibility & ceiling at or above 1500ft in control zones

Remarks

- Where flight visibility has been reduced to not less than 1500m, flights may be permitted at speeds that give adequate opportunity to observe other traffic or any obstacles in time to avoid collision (dependent on the country regulations).
- Helicopters may be permitted to operate in less than 1500m flight visibility if they can observe other traffic and any obstacles in time to avoid collision (depends on country regulations).
- The VMC minima in **Class A airspace** are included for guidance to pilots and do not imply acceptance of **VFR flights in Class A airspace** automatically.

Transition Altitude Consideration

⚠ **When the height of the transition altitude is lower than 3050m or 10000ft AMSL, FL100 (flight level) should be used.**

Initial Clearance/Clearance To or Out of the Zone

VFR Operations: Entry, Exit & Transit

Visual Flight Rules (VFR) flights primarily navigate using visual references such as roads, rivers, and landmarks. Specific **VFR charts** provide essential guidance, including entry/exit routes, compulsory reporting points, and designated holding patterns for controlled airspace operations.

Key Considerations:

- VFR aircraft **are not provided separation** from other traffic by ATC but must be given **traffic advisories**.
- Pilots must self-separate and comply with ATC instructions for control zone entry and exit.
- **Wake turbulence separation** applies to VFR departures following larger aircraft.
- When necessary, ATC may delay VFR movements to integrate them efficiently with IFR operations.

VFR Entry & Exit Procedures

Designated entry and exit routes allow VFR traffic to safely enter and depart controlled airspace. These routes:

- Lead aircraft between the aerodrome and uncontrolled airspace.
- Require **position reports** at compulsory reporting points.
- May have restrictions depending on runway configurations or traffic patterns.

Entry Procedure:

1. The pilot requests entry via a published route.
2. ATC provides **QNH, active runway, and entry clearance**.
3. The pilot reports passing each **mandatory reporting point**.
4. If no further instructions are given, the pilot follows the designated holding pattern before entering the circuit.

Exit Procedure:

1. The controller issues departure clearance via a designated route.
2. The pilot follows the assigned route, reporting their position at the last compulsory point before exiting controlled airspace.
3. ATC releases the pilot from frequency once outside controlled airspace.

Note: Any turns after takeoff, particularly right turns, require explicit ATC authorization to avoid conflicting with other traffic.

VFR Phraseology

Scenario	English	French
Request Entry	<i>Tower, XYZ123, Cessna 172, VFR from Tangier, 10 minutes south of Sierra, 1800 feet, requesting entry.</i>	<i>Tour XYZ123, Cessna 172, VFR de Tanger, 10 minutes au sud de Sierra, 1800 pieds, demande d'entrée.</i>
Entry Clearance	<i>XYZ123, enter control zone via Sierra, active runway 32, QNH 1025.</i>	<i>XYZ123, entrez en zone de contrôle via Sierra, piste active 32, QNH 1025.</i>
Position Report	<i>XYZ123, Sierra 1, 1800 feet.</i>	<i>XYZ123, Sierra 1, 1800 pieds.</i>
Circuit Entry	<i>XYZ123, join downwind runway 32.</i>	<i>XYZ123, rejoignez vent arrière piste 32.</i>
Landing Clearance	<i>XYZ123, wind 340 degrees, 11 knots, runway 32, cleared to land.</i>	<i>XYZ123, vent 340 degrés, 11 nœuds, piste 32, autorisé à atterrir.</i>
Request Taxi for Departure	<i>Tower, XYZ123, C172, Apron 2, two persons, information Hotel, VFR via Echo, request taxi.</i>	<i>Tour XYZ123, C172, Apron 2, deux personnes, information Hotel, VFR via Echo, demande roulage.</i>
Taxi Clearance	<i>XYZ123, taxi to holding point runway 14 via I and D, QNH 1019.</i>	<i>XYZ123, roulez au point d'arrêt piste 14 via I et D, QNH 1019.</i>
Takeoff Clearance	<i>XYZ123, leave control zone via Echo, wind 180 degrees, 2 knots, runway 14, cleared for takeoff.</i>	<i>XYZ123, quittez zone de contrôle via Echo, vent 180 degrés, 2 nœuds, piste 14, autorisé au décollage.</i>
Exit Report	<i>XYZ123, Echo 1, 2000 feet.</i>	<i>XYZ123, Echo 1, 2000 pieds.</i>
Frequency Change Approval	<i>XYZ123, frequency change approved, have a good flight.</i>	<i>XYZ123, changement de fréquence approuvé, bon vol.</i>

VFR Transit Through Controlled Airspace

VFR pilots may request clearance to **transit** a control zone without landing. Handling of these flights follows a similar process as entries, with additional emphasis on separation from other aircraft.

1. The pilot requests **transit clearance**, specifying routing and altitude.
2. ATC provides a **transit route and altitude restriction**.
3. The pilot follows the assigned route and exits controlled airspace as directed.
4. ATC **releases the aircraft from frequency** upon exit.

VFR Aerodrome Circuit Operations

VFR pilots often conduct repeated training circuits within a control zone. These circuits include:

Touch-and-Go

- The aircraft lands briefly and immediately takes off again.
- Treated as a **landing until touchdown**, then as a **departure**.

Low Approach

- The aircraft flies **over the runway at a low altitude** without touching down.
- Considered an **approach until threshold**, then a **departure**.

“ **Note:** ATC must provide routing instructions before issuing clearance for **touch-and-go** or **low approaches**.

VFR Traffic Information in Controlled Airspace

In Class D airspace, VFR flights are **not separated** by ATC but must receive **traffic advisories**:

1. VFR-VFR Traffic Information

- *Example:* “**XYZ123, traffic 2 o’clock, 3 miles, Cessna 172, 2000 feet, in circuit.**”

2. VFR-IFR Traffic Information

- *Example:* “**XYZ123, traffic on final, Boeing 737, 4 NM, expect wake turbulence.**”

Situations Where Traffic Information is Mandatory:

- IFR aircraft **on final approach** (within 4NM of runway).
- VFR departures and arrivals **on the same route**.
- VFR aircraft following another VFR aircraft **at a higher speed**.
- IFR departures near **VFR circuit traffic**.

If ATC **cannot ensure traffic advisories**, they may deny VFR entry or instruct aircraft to land or exit controlled airspace.

Traffic circuit

VFR Traffic Circuit Operations

A **traffic circuit** (or traffic pattern) is a standard flight path used by aircraft operating at uncontrolled airfields and some controlled aerodromes. The circuit provides a structured approach and departure system that enhances **safety, situational awareness, and collision avoidance**. It is also an essential training tool for pilots, allowing them to practice takeoffs and landings efficiently.

Traffic circuits are typically flown at **1000 feet above ground level (AGL)** unless otherwise specified. At major controlled airports, standard circuits may not be published, and ATC provides instructions for circuit operations based on traffic conditions.

Circuit Components

The traffic circuit consists of the following key segments:

Departure (Upwind)

- Aircraft climbs out after takeoff, completing essential post-takeoff procedures (e.g., retracting gear/flaps, setting climb power).
- ATC may issue specific departure instructions based on airspace constraints.

Crosswind

- After reaching a safe altitude, the aircraft turns **90 degrees** to the crosswind leg.
- By this point, the aircraft should be nearing the **circuit altitude**.

Downwind

- The aircraft flies parallel to the runway but in the **opposite direction** of landing.
- This is where **position reports** are typically made to inform ATC and other traffic of the aircraft's location.
- Pilots conduct pre-landing checks, adjusting speed and altitude as needed.

Base Leg

- A **90-degree turn** positions the aircraft perpendicular to the runway.
- Descent is initiated, and the **final landing configuration** (flaps, gear) is established.
- Pilots confirm approach clearance (if required) before turning onto final.

Final Approach

- 1. The aircraft aligns with the runway centerline and descends for landing.
- 2. ATC provides final **wind and clearance information** at controlled aerodromes.
- 3. Minimal radio transmissions should occur at this stage to allow the pilot to focus on landing.

Standard traffic circuits are typically flown with **left turns** unless otherwise specified. If right-hand circuits are in use, all references should include “right” (e.g., **right downwind, right base**).

Circuit Phraseology

Scenario	English	French
Requesting Traffic Circuit	Tower, XYZ123, C172, Apron 2, one person, information Golf, for VFR traffic circuit, request taxi.	Tour XYZ123, C172, Apron 2, une personne, information Golf, pour circuit VFR, demande roulage.
Taxi Clearance	XYZ123, taxi to holding point runway 32 via A and B, cross runway 06, QNH 1018.	XYZ123, roulez au point d’arrêt piste 32 via A et B, traversez piste 06, QNH 1018.
Holding Point Report	XYZ123, holding point runway 32, ready for departure.	XYZ123, point d’arrêt piste 32, prêt au décollage.
Takeoff Clearance	XYZ123, join right downwind runway 32, wind 310 degrees, 10 knots, runway 32, cleared for takeoff.	XYZ123, rejoignez vent arrière droit piste 32, vent 310 degrés, 10 nœuds, piste 32, autorisé au décollage.
Downwind Report	XYZ123, right downwind runway 32, for landing.	XYZ123, vent arrière droit piste 32, pour atterrissage.
Landing Clearance	XYZ123, wind 310 degrees, 10 knots, runway 32, cleared to land.	XYZ123, vent 310 degrés, 10 nœuds, piste 32, autorisé à atterrir.
Taxi to Apron	XYZ123, taxi to Apron 2 via D and I.	XYZ123, roulez au parking 2 via D et I.

Right-Hand Circuits & Special Considerations

- **Standard circuits** use **left turns** unless otherwise published.
- If a **right-hand circuit** is required, ATC must explicitly instruct the pilot (e.g., “**join right downwind**”).
- Turns after takeoff, especially **right turns**, require **explicit ATC clearance** to prevent airspace conflicts.

E.g. If departing from **runway 32 via an eastern exit route**, ATC should approve a right turn to avoid a long left turn over the airport.

Circuit Operations at Controlled Airports

At larger controlled airports, standard traffic circuits may not exist due to:

- The variety of aircraft types (from small aircraft to large airliners).
- The need for flexible ATC separation.

At these airports, pilots may be given customized **departure and arrival instructions** instead of following a published circuit.

Traffic Circuit Delays & ATC Management

When integrating VFR circuits into busy airspace, ATC may use various **delay techniques**:

1. **Extending the Downwind**

- ATC instructs pilots to **continue downwind** past the normal turning point.
- Used to create spacing for IFR arrivals or departing traffic.

2. **360-Degree Orbits**

- A pilot may be instructed to **orbit** at a safe location within the circuit.
- Typically used when ATC needs additional time to manage runway operations.

3. **Holding at a Reporting Point**

- ATC may direct pilots to **hold at a designated reporting point** before joining the circuit.
- Ensures orderly sequencing of multiple VFR arrivals.

If a pilot is cleared for one segment of a circuit (e.g., downwind), they **automatically continue** through base and final unless further ATC instructions are given. Controllers must use delaying techniques proactively if separation is required.

Delay techniques

VFR Holding

Air Traffic Control (ATC) may require VFR aircraft to **hold over a specific area** due to congestion or sequencing issues. The term "**ORBIT**" is used to instruct aircraft to circle a designated point until further notice. Pilots must remain in the orbit until cleared to continue.

ATC Holding Instructions Format:

“ [Aircraft Call Sign], ORBIT [Direction] OF [Location], [Turn Direction], [Expected Duration/Number of Orbits].

Example:

“ Cessna 45X, ORBIT EAST OF CITY BRIDGE, LEFT TURNS, EXPECT FURTHER INSTRUCTIONS IN 5 MINUTES.

In this case, the aircraft must maintain left turns east of the **City Bridge** until ATC provides further instructions.

ATC Holding Instructions	English	French
N123X, orbit left.	Orbit left.	Orbitez à gauche.
N123X, orbit abeam threshold.	Orbit abeam threshold.	Orbitez au seuil de piste.
N123X, make a right 360.	Make a right three-sixty.	Effectuez un trois-six zéro à droite.

Remaining Outside Controlled Airspace

Before entering **Class D airspace**, VFR aircraft must establish communication with ATC. Due to traffic congestion, ATC may instruct the pilot to remain **outside the controlled airspace** until further notice.

ATC Instruction Example:

“ [Aircraft Call Sign], REMAIN OUTSIDE THE CONTROLLED AIRSPACE UNTIL FURTHER NOTICE.

[Aircraft Call Sign], REMAIN OUTSIDE CLASS D AIRSPACE, STANDBY.

Example:

“ Skyhawk 82B, REMAIN OUTSIDE CLASS D AIRSPACE, STANDBY.

The pilot must remain clear of Class D airspace and await further instructions from ATC.

ATC Instruction	English	French
Remain outside Class D airspace.	Remain outside Class D airspace.	Restez en dehors de l’espace aérien de classe D.

Delaying Techniques for VFR Aircraft

VFR aircraft generally operate at **lower speeds** compared to commercial traffic. To ensure efficient traffic flow, ATC may need to **create adequate spacing** between VFR and IFR arrivals. A **gap of 7 to 9 NM** is typically required between a slow VFR aircraft and faster IFR traffic on approach.

To optimize sequencing and minimize delays, ATC can employ several delaying techniques.

Orbits (360-Degree Turns)

Orbits are used to **keep VFR traffic within a confined area** while awaiting clearance to continue. These are particularly useful when delaying traffic near the airport without significantly affecting approach sequencing.

- A standard **360-degree turn** takes approximately **2 minutes** at a standard rate of **3° per second**.

Orbit Instructions	English	French
N123X, orbit left.	Orbit left.	Orbitez à gauche.
N123X, orbit abeam threshold.	Orbit abeam threshold.	Orbitez au seuil de piste.
N123X, make a right 360.	Make a right three-sixty.	Effectuez un trois-six zéro à droite.

Landing Sequence

If multiple aircraft are approaching the airfield, ATC may issue **landing sequence instructions** to VFR aircraft. The pilot is assigned a position in sequence and is responsible for maintaining safe spacing from the preceding aircraft.

Landing Sequence Instructions	English	French
N567P, number two, follow Boeing 737, 4 NM final, report traffic in sight.	Number two, follow Boeing 737, 4 NM final, report traffic in sight.	Numéro deux, suivez le Boeing 737, finale 4 NM, signalez le trafic en vue.
N432B, number three, follow Cessna 172 on downwind.	Number three, follow Cessna 172 on downwind.	Numéro trois, suivez le Cessna 172 en vent arrière.

Extended Downwind

Extending downwind is another delaying technique where a VFR aircraft remains on **downwind leg** longer than usual before turning onto base and final approach.

- **This technique is useful for spacing VFR aircraft between IFR arrivals.**
- **A longer downwind leg requires larger gaps between IFR traffic.**

Extended Downwind Instructions	English	French
N123B, extend downwind.	Extend downwind.	Prolongez vent arrière.
N567X, extend downwind, I will call your base.	Extend downwind, I will call your base.	Prolongez vent arrière, j'appellerai votre base.

Summary of ATC Delaying Techniques

Technique	Purpose	Example Instruction (English/French)
Orbits	Keep VFR traffic within a defined area.	<i>Cessna 34X, ORBIT RIGHT OVER HILLTOP. / Cessna 34X, ORBITEZ À DROITE AU-DESSUS DE LA COLLINE.</i>
Landing Sequence	Assign landing order and spacing.	<i>Cessna 34X, NUMBER TWO, FOLLOW 737, REPORT TRAFFIC IN SIGHT. / Cessna 34X, NUMÉRO DEUX, SUIVEZ 737, SIGNALEZ LE TRAFIC EN VUE.</i>
Extended Downwind	Delay VFR approach by increasing downwind length.	<i>Cessna 34X, EXTEND DOWNWIND, I WILL CALL YOUR BASE. / Cessna 34X, PROLONGEZ VENT ARRIÈRE, J'APPELLERAI VOTRE BASE.</i>

Practice approach/area

Practice Area Position Report

A **good practice area position report** ensures that other pilots operating in the same vicinity can accurately visualize your location and movements.

Best Practices for Position Reporting:

- Before entering a practice area, **inquire whether it is already occupied**.
 - Once inside, **define the boundaries** of your operational space using **easily recognizable landmarks**.
 - Specify your **altitude** or **altitude block**.
 - Only make **subsequent reports when necessary**, such as:
 - When another aircraft is approaching or moving into an adjacent area.
 - When you are **changing location or altitude**.
- Avoid unnecessary radio calls** to prevent frequency congestion and reduce distractions for pilots receiving instructions.

Practice Approach VFR

The **VFR Practice Approach** allows pilots to practice different approach procedures under visual flight conditions.

- If the practice approach is conducted **within Class D airspace (CTR)**, the **tower** is responsible for handling the request.
- If the approach begins **within Class C or D**, the **approach or center** controller is responsible.

Important Considerations:

- The practice approach **must remain under VFR conditions**.
- The pilot must **comply with VMC minima**.
- All instructions from ATC are **recommendations only**.

Standard ATC Phraseology:

Language	Instruction
French	"Indicatif d'appel, maintenez VMC, toutes les instructions d'altitude et de cap sont des recommandations."

Language	Instruction
English	"Callsign, maintain VMC, all altitude and heading instructions are recommendations."

Vectoring Considerations

- If traffic volume is **high**, vector the aircraft **closer to final (5-7 NM)**.
- If time allows, **ask the pilot how many miles of final approach they prefer**.

“ **Alternative:** Instead of using **heading recommendations**, pilots may also be guided using **traffic circuit sections** leading to final approach.

Phraseology Example

Scenario	French	English
Initial Call	Tour de Marseille, F-GXYZ.	Marseille Tower, F-GXYZ.
ATC Acknowledgment	F-GXYZ, Tour de Marseille.	F-GXYZ, Marseille Tower.
Pilot Request	F-GXYZ, Cessna 172, 5 minutes au sud de Sierra, 3000 pieds, demande approche ILS d'entraînement VFR suivie d'un atterrissage complet.	F-GXYZ, Cessna 172, 5 minutes south of Sierra, 3000 feet, request ILS practice approach VFR followed by a full stop landing.
ATC Clearance	F-GXYZ, Squawk 7001, QNH 1022, piste 25.	F-GXYZ, Squawk 7001, QNH 1022, Runway 25.
Pilot Readback	F-GXYZ, Squawk 7001, QNH 1022, piste 25.	F-GXYZ, Squawk 7001, QNH 1022, Runway 25.
ATC Instructions	F-GXYZ, identifié, maintenez VMC, toutes les instructions d'altitude et de cap sont des recommandations, tournez à droite cap 040.	F-GXYZ, identified, maintain VMC, all altitude and heading instructions are recommendations, turn right heading 040.
Pilot Readback	F-GXYZ, maintiens VMC, tourne à droite cap 040.	F-GXYZ, maintaining VMC, turning right heading 040.
ATC Instructions	F-GXYZ, descendez à 1500 pieds, tournez à gauche cap 340.	F-GXYZ, descend 1500 feet, turn left heading 340.
Pilot Readback	F-GXYZ, descends à 1500 pieds, tourne à gauche cap 340.	F-GXYZ, descending 1500 feet, turning left heading 340.
ILS Clearance	F-GXYZ, tournez à gauche cap 280, approche ILS piste 25 d'entraînement VFR approuvée.	F-GXYZ, turn left heading 280, ILS runway 25 practice approach VFR approved.
Pilot Readback	F-GXYZ, tourne à gauche cap 280, approche ILS piste 25 d'entraînement VFR approuvée.	F-GXYZ, turning left heading 280, ILS runway 25 practice approach VFR approved.

Arrivals/Approach

Coordination and Entry into Controlled Airspace

When a **VFR aircraft** is approaching **controlled airspace (CTR)**, the responsible **ATS unit** must coordinate its arrival before handing it over. If the airspace is congested, ATC may **request adjustments** to the aircraft's **altitude or route** or, if necessary, **deny entry** to ensure safe traffic management.

For VFR flights arriving from **uncontrolled airspace**, ATC should initiate contact with the pilot approximately **2-5 minutes before they enter** controlled airspace by sending a **.contactme message** or other suitable notification.

Establishing Contact with a VFR Arrival

Upon initial contact, controllers must confirm the **intentions of the pilot**, such as:

- **Full-stop landing**
- **Touch-and-go**
- **Low approach**
- **Other special requests**

If a **squawk code** has not been assigned yet, ATC should provide one at this stage.

VFR Arrival Clearances

For VFR aircraft arriving via **designated VFR routes**, a **route clearance** should include:

- The assigned **VFR route**
- The **runway in use**
- The **QNH**
- A squawk code (if needed)
- A request to **report passing the last VRP (Visual Reporting Point)**

Example Phraseology:

“ [CALLSIGN], follow route X for runway XX, [QNH], [SQUAWK if necessary], report passing [REPORTING POINT]. ”

Example:

“ Cessna 45X, follow route 6 for runway 01, QNH 1005, report passing the Church.

For **arrivals not using a VFR route**, ATC should provide an appropriate clearance that includes:

- **Routing instructions** (e.g., direct entry, overhead join, downwind join, etc.)
- **Assigned altitude**
- **Local QNH**
- **Squawk code (if required)**

Example Phraseology:

“ [CALLSIGN], [ROUTING], [ALT], [QNH], [SQUAWK*].

(*Squawk may be omitted if already assigned.)

Traffic Management on Arrival

Before being cleared to land, VFR aircraft must establish **initial contact** with the appropriate controller. In high-traffic situations, ATC may instruct pilots to **hold outside the airspace** or **orbit at a specific point** until sequencing permits entry.

Once inside the circuit, ATC assigns a **sequence number**, which informs the pilot about their position in the landing order. For example:

“ "You are number three to land."

This indicates that **two aircraft are ahead**, and the pilot must maintain appropriate separation until cleared for final approach.

By following these structured VFR arrival procedures, controllers ensure a **safe, efficient, and predictable** flow of traffic into controlled airspace.

Transits & Other Flights

A **VFR transit** occurs when an aircraft enters a **control zone (CTR)** and crosses it without intending to land at any airport within the zone.

VFR transits are typically conducted along **designated VFR routes, exit/entry points, or directly on course**, subject to ATC approval and traffic conditions.

Handling a Single VFR Transit Aircraft

When a single **VFR aircraft** transits a CTR:

- The aircraft usually enters via or near a **published VFR entry point**.
- The pilot should establish contact with ATC **at least 2 minutes before reaching the entry point**.
- The **controller issues transit instructions**, ensuring traffic separation.

Example Phraseology

“
☐ Pilot: Tower, Cessna 172, 3000ft, 2 minutes to W, request transit to S, FGJNG.
☐ ATC: FGJNG, transit W, WA, overhead the field, and S, altitude 2000 feet, report WA.
☐ Pilot: Transiting W, WA, overhead the field, and S, altitude 2000 feet, will report WA, FGJNG.”

Transit Outside VFR Reporting Points

In some cases, pilots may request transit **outside of designated VFR entry/exit points** to shorten their route. The controller may approve or deny this request based on factors such as:

- **Weather conditions** (Special VFR requirements)
- **Night operations**
- **Existing traffic in the control zone**
- **Activity in the aerodrome circuit**

Example Phraseology

☐ ATC: FGJEL, transit WA, exit south-west of CTR, altitude 2000 feet, report leaving the control zone.

☐ ATC: FGJNG, transit direct S, altitude 2000 feet, report leaving the control zone.

Handling Multiple VFR Transits

When multiple **VFR aircraft** are transiting at the same time, **potential conflicts may arise**. The controller must:

- **Provide traffic information** to both aircraft.
- Ensure pilots **maintain visual separation**.

Example Phraseology

☐ ATC: FGJNG, traffic, Cessna 172, same altitude at your 9 o'clock, 4 miles, will cross your route left to right around WA, report in sight.

☐ Pilot: Traffic in sight, FGJNG.

☐ ATC: FGJEL, traffic, Cessna 172, same altitude at your 3 o'clock, 4 miles, will cross your route right to left around WA, report in sight.

☐ Pilot: Traffic in sight, FGJEL.

After acknowledging traffic, pilots are responsible for adjusting their **heading and altitude** as needed while maintaining visual separation.

VFR Transit and Aerodrome Circuit Operations

When a **VFR transit aircraft** crosses near an active **aerodrome circuit**, ATC should:

- Assign a **higher altitude** (typically **500-1000 feet above** the circuit) to ensure separation.
- Provide **traffic information** to both transit and circuit aircraft.

Example Phraseology

☐ Pilot: Tower, Cessna 172, 1000ft, 2 minutes to S, request transit to N, FGJEL.

☐ ATC: FGJEL, transit S, overhead the field, and N, altitude 1500 feet, report N.

☐ Pilot: Transiting S, overhead the field, and N, altitude 1500 feet, will report N,

FGJEL.

☐ ATC: FGJNG, traffic, Cessna 172 at your 12 o'clock, from S to overhead the field, 500 feet above.

☐ Pilot: Traffic in sight, FGJNG.

☐ ATC: FGJEL, traffic, Cessna 172 at your 12 o'clock, right-hand downwind runway 36, 500 feet below.

☐ Pilot: Traffic in sight, FGJEL.

Transit aircraft should **avoid directly overflying the runway at low altitude**, maintaining an **offset to free the runway axis** for arriving and departing traffic.

VFR Transit and IFR on Final Approach

When a **VFR transit aircraft** crosses near an **IFR arrival on final approach**, ATC should:

- Assign a transit altitude **higher than the circuit altitude**.
- Avoid **runway axis crossings at low altitude**.
- Provide **traffic information** to both aircraft.

VFR Contact

☐ Pilot: Tower, Cessna 172, 1000ft, at W, request transit to S, FGJEL.

☐ ATC: FGJEL, transit WA, overhead the field, then right-hand downwind runway 36 and S, altitude 2000 feet, report S.

☐ Pilot: Transiting WA, overhead the field, then right-hand downwind and S, altitude 2000 feet, will report S.

IFR Arrival Contact

☐ Pilot: Tower, on final runway 36, TUI411.

☐ ATC: TUI411, runway 36 cleared to land, winds 340° 6KT, traffic left to right at 2000ft, will cross overhead the field.

☐ Pilot: Runway 36 cleared to land, traffic in sight, TUI411.

Traffic Information to VFR Aircraft

- ATC: FGJEL, traffic information Boeing 757 on final runway 36, report traffic in sight.
- Pilot: Traffic in sight, FGJEL.

The **VFR aircraft** is responsible for maintaining safe separation from the IFR traffic, except in **Class C airspace**, where ATC must ensure separation.

If a **runway axis crossing is necessary**, ATC should consider possible IFR go-arounds. The transit should either be expedited or delayed **until the IFR traffic has landed**.

Summary of VFR Transit Best Practices

Scenario	ATC Best Practice
Single VFR Transit	Assign a defined VFR route or direct clearance with altitude.
Multiple VFR Transits	Issue traffic information and ensure pilots maintain visual separation.
Transit near Aerodrome Circuit	Maintain 500-1000 feet separation from circuit aircraft.
Transit near IFR Final Approach	Assign higher altitudes, provide traffic information, and avoid low-altitude runway crossings.

VFR in Airspace C/D

When a VFR aircraft requests to cross **Class C** or **Class D** airspace, the following conditions must be met:

1. **Aircraft Identification:** The aircraft must be assigned a squawk code.
2. **Routing & Altitude Considerations:** The aircraft's flight path should avoid direct passage through arrival and departure sectors.
3. **Clearance Requirements:** The pilot must receive **explicit entry and exit clearances** for the controlled airspace.

Separation Requirements:

- **Class C:** IFR-VFR separation is required. VFR flights receive **traffic information** about IFR and other VFR aircraft. **Traffic avoidance is provided upon request.**
- **Class D:** **Traffic information** is provided to both IFR and VFR flights; separation is not provided for VFR aircraft.

Traffic Management in the CTR

Managing traffic within the **Control Zone (CTR)** is a routine task for ATC. Although the CTR may appear small on radar, it provides ample space for maneuvering. By issuing **timely and accurate traffic information**, further ATC intervention is rarely needed.

Opposing-direction VFR traffic **may be cleared at the same altitude** (e.g., "*Maintain 2000 feet or below VFR*") if appropriate **traffic information** is issued to ensure situational awareness.

While no **minimum vertical separation** is mandated when separation is not required, a **400-500 ft margin** is recommended where feasible. Single-engine aircraft should not be forced too low due to **emergency landing considerations**. Always consider **terrain and weather conditions** when assigning altitude restrictions.

Crossing an **airport overhead** or **extended centerline** should be managed similarly to a **runway crossing** on the ground. Aircraft in **takeoff and landing phases** are in **high-workload situations**, making their trajectories less predictable. To enhance **situational awareness**, controllers should **use "Report in sight"** before issuing crossing clearances.

Overhead Crossings

If circuit traffic is **light**, directing aircraft to cross **overhead** simplifies coordination, keeping them **above wake turbulence** and on a **predictable flight path**. If circuits are **busy**, alternative routes should be used:

CNBOB, maintain VFR between 1500 and 2000 feet, cross runway 35 overhead direct KOSAD.

“ CNBOB, route south, remain east of the centerline and right-hand circuit for runway 35.

Approach Path Crossings

Crossing near the **extended centerline** further from the airport requires **additional caution**:

“ CNBOB, traffic A320 five miles final, report in sight.

“ CNBOB, cross runway 35 centerline behind the A320. Caution wake turbulence.

Notify the **landing aircraft**:

“ RAM123, traffic information: Light aircraft three miles east, crossing centerline behind you. They have you in sight.

Operations Below the Glide Path

For aircraft needing to **cross beyond 4-5NM** from the airport, **staying below the approach path** may be an option:

“ CNBOB, cleared to operate south of Berrechid, five miles out or greater, maintain 1700 feet or below VFR. Traffic: continuous IFR arrivals on the ILS 35, caution wake turbulence.

Notify IFR arrivals:

“ RAM123, traffic information: Light aircraft operating at least 500 feet below the glide path, continue approach, runway 35L cleared to land.

Maintaining a **500 ft buffer below the glide path** generally prevents **TCAS Resolution Advisories (RA)**. However, pilots should receive **frequent traffic updates** to ensure **situational awareness** and a **safe operating environment**.

VFR Phraseology for Airspace Clearance

Clearance Type	French	English
Crossing Clearance	TRAVERSÉE [DE L'ESPACE AÉRIEN CHARLIE (ou DELTA)] AUTORISÉE VIA (route) (altitude)	CROSSING [OF AIRSPACE CHARLIE (or DELTA)] APPROVED VIA (route) (altitude).
Proceeding on a Radial	PROCEDEZ SUR LE RADIAL (trois chiffres) DE (nom du VOR) JUSQU'À (point significatif)	PROCEED ON RADIAL (three digits) OF (name of VOR) TO (significant point).
Exiting Controlled Airspace	QUITTER L'ESPACE AÉRIEN CHARLIE (ou DELTA) DIRECTION (ou CAP (trois chiffres), ou À (altitude)) [(raison)]	LEAVE AIRSPACE CHARLIE (or DELTA) DIRECTION (or HEADING (three digits), or AT (altitude)) [(reason)].

Class C Airspace Crossing Example

Pilot: Approach, [Callsign], 5 miles north of [VFR waypoint], VFR at 3400 feet, request crossing Class C airspace via [route], 4000 feet.

ATC: [Callsign], squawk 4133.

Pilot: Squawk 4133, [Callsign].

ATC: [Callsign], identified at 3400 feet. Crossing approved via [route], maintain flight level 60.

Pilot: Crossing approved via [route], maintaining flight level 60, [Callsign].

ATC: [Callsign], you are entering Class C airspace.

Pilot: Roger, [Callsign].

ATC: [Callsign], you are leaving Class C airspace. Frequency change approved, squawk VFR, goodbye.

Pilot: Frequency change approved, squawk VFR, [Callsign].

Class D Airspace Crossing Example (Non-CTR)

Pilot: Approach, [Callsign], 5 miles west of [VFR waypoint], VFR at 3400 feet, request crossing Class D airspace southbound via [waypoints], 5000 feet.

ATC: [Callsign], squawk 4133.

Pilot: Squawk 4133, [Callsign].

ATC: [Callsign], identified at 3400 feet. Crossing approved via [waypoints], maintain block flight level 60 to flight level 70.

Pilot: Crossing approved via [waypoints], maintaining block flight level 60 to 70, [Callsign].

ATC: *[Callsign], you are entering Class D airspace.*

Pilot: *Roger, [Callsign].*

ATC: *[Callsign], you are leaving Class D airspace. Frequency change approved, squawk VFR, goodbye.*

Pilot: *Frequency change approved, squawk VFR, [Callsign].*

Explicit Airspace Exit Instruction (Due to Traffic)

“**ATC:** *[Callsign], leave Class C airspace heading 180 at 2500 feet or below due to traffic.*

Pilot: *Leaving Class C airspace heading 180, at 2500 feet or below, [Callsign].*

Flight Plans

Filing a VFR Flight Plan

A **VFR flight plan** is required for:

- All **VFR flights entering controlled airspace** (including departures and arrivals at controlled aerodromes).
- All **VFR flights at night**.

VFR flight plans are filed using **ICAO-standard flight plan submission forms**. Alternatively, for flights operating only within a **specific terminal control area (TMA)**, pilots may file their flight plans **via voice**.

Required Information for a VFR Flight Plan

The following details are mandatory when filing a **VFR flight plan**:

- **Callsign** (aircraft registration or designated flight ID)
- **Route of flight** (departure, route, and destination)
- **Estimated enroute time**
- **Endurance** (fuel endurance in hours and minutes)
- **Pilot-in-command (PIC) name** and **number of persons on board (POB)**

Example of Filing a VFR Flight Plan via Voice

A pilot may file their flight plan verbally when operating within a designated terminal area.

Example Phraseology:

“☐☐✈ (TF-)FFL, requesting VFR flight plan: Departure [Airport], enroute to [Destination] via [Route/Area], estimated time enroute [EET], endurance [Fuel], PIC [Pilot Name], [Number of Persons on Board].”

Example:

“☐☐✈ Alpha Bravo Charlie, requesting VFR flight plan: Departure Casablanca, enroute to Marrakech via coastal route, estimated time enroute 1 hour 20”

minutes, endurance 4 hours, PIC John Doe, 2 persons on board.

Entering a Flight Plan in ATC Systems

For controllers, flight plans filed via voice can be manually entered into **ATC systems** such as **Euroscope** or other radar client software.

Flight Plan Entry Steps in Euroscope:

1. **Select the aircraft:** Click on the callsign or type it and press NUMPAD +.
2. **Open the flight plan menu:** Press F1.
3. **Create a flight plan:** Press A, then NUMPAD +.
4. **Alternatively**, use specific functions in **TopSky or other ATC plugins** (refer to the user manual for details).

SVFR and NVFR

Night VFR (NVFR) refers to **visual flight operations conducted at night**. The applicable period is from the **beginning of civil twilight to the end of civil dawn**. Accurate timing for these periods can be referenced in published tables.

Key Considerations for Controllers

Controllers managing NVFR traffic must be aware of two primary aspects:

Continuous Radio Communication Requirement

For **safety reasons**, NVFR pilots must maintain **continuous two-way radio communication** throughout their flight.

- NVFR aircraft departing a **controlled aerodrome** must be **handed off** from the tower controller to the appropriate **radar (approach or center) controller**.
- NVFR aircraft departing from an **uncontrolled aerodrome (AFIS station)** must **self-transfer** to the relevant **radar frequency**.
- Unlike standard VFR flights, pilots **must not be allowed to leave the frequency** when reaching the **outer reporting point**. Instead, they must be transferred to the **appropriate radar controller**.

Flight Plan Requirement for NVFR Flights

- **A flight plan is mandatory** when an NVFR aircraft leaves the immediate vicinity of the departure aerodrome.
- Pilots are responsible for ensuring their **NVFR flight plan is filed and activated** before departure.

Myth: NVFR Clearance

A common **misconception** is that a **“Night VFR clearance”** exists, similar to a **Special VFR (SVFR) clearance**.

Clarification:

- There is **no separate NVFR clearance**.
- NVFR flights **follow standard VFR entry, exit, and routing procedures**, with the additional requirement of continuous **radio contact** and a **filed flight plan** when leaving the airport vicinity.

Phraseology Example

Handoff from Tower to Radar Controller

“ [CALLSIGN], CONTACT [RADAR UNIT] ON [FREQUENCY].

Example:

“ Cessna 45X, contact Approach on 123.450.

Flight Plan Confirmation

“ [CALLSIGN], CONFIRM FLIGHT PLAN FILED FOR NIGHT VFR.

Example:

“ Piper 67Y, confirm flight plan filed for Night VFR.

Operational Summary

Requirement	Standard VFR	Night VFR (NVFR)
Continuous Radio Contact	Not always required	Mandatory
Flight Plan Required	Only for cross-border flights	Required when leaving aerodrome vicinity
Handoff to Radar	Not always required	Mandatory
Clearance Type	VFR clearance	No separate NVFR clearance

By adhering to these procedures, **controllers can ensure safe and efficient handling of NVFR operations**, maintaining proper separation and communication with all aircraft operating under night visual flight rules.

Helicopters

Helicopters operate under **Visual Flight Rules (VFR)** and, in some cases, **Instrument Flight Rules (IFR)**, though IFR operations are less common. While they follow many of the same procedures as fixed-wing aircraft, there are key differences due to their ability to hover, air-taxi, and land at non-airport locations.

Controller Responsibilities for Helicopter Operations

- **VFR Arrivals/Departures:** Handled similarly to fixed-wing aircraft.
- **Traffic Patterns & Practice Approaches:** Managed with consideration for helicopter-specific maneuvering capabilities.
- **Operational Flexibility:** Helicopters may request direct routing, off-field landings, and alternative taxi procedures.

Helicopter Callsigns

Helicopter callsigns vary based on their operator and purpose:

- **Private & Corporate Flights:** Use standard registration callsigns.
- **Rescue Helicopters:** Use specialized callsigns and may add "RESCUE" when operating on a priority mission.
- **Police Helicopters:** Use law enforcement identifiers.

Ground Movements & Air-Taxiing

Unlike fixed-wing aircraft, most helicopters do not taxi conventionally. Instead, they **air-taxi** at approximately **3 meters (10 feet) AGL**.

- **Controllers should issue "air-taxi" clearances** instead of standard taxi instructions.
- Some helicopters have wheels and may perform limited ground taxiing.
- Helicopters can **depart from intersections, helipads, or designated airport positions**, subject to clearance.

Example Phraseology

Scenario	French	English
Request for Air-Taxi	Tour, F-HABC, demande de déplacement en vol stationnaire	Tower, F-HABC, request air-taxi

Scenario	French	English
Air-Taxi Clearance	F-HABC, tour, déplacement en vol stationnaire vers le point d'attente piste 18 intersection S via Y7, Y5 et S, rappelez prêt au départ.	F-HABC, Tower, air-taxi to holding point runway 18 intersection S via Y7, Y5, and S, report ready.

Helicopter Takeoff & Landing Procedures

Helipad Takeoff & Landing

Scenario	French	English
Cleared for Takeoff from a Helipad	F-HABC, vent 210 degrés, 5 nœuds, autorisé au décollage depuis l'hélipad.	F-HABC, wind 210 degrees, 5 knots, cleared for takeoff from helipad.
Cleared to Land at a Helipad	F-HABC, vent 210 degrés, 5 nœuds, autorisé à l'atterrissage sur l'hélipad.	F-HABC, wind 210 degrees, 5 knots, cleared to land helipad.

Runway Takeoff & Landing Considerations

- Helicopters may depart **vertically** or use **rolling takeoff techniques**.
- They may land on **designated helicopter landing sites** or a **runway**, subject to clearance.
- **Standard runway separation applies** to helicopters using runways.

CTR Crossing & Direct Routing Requests

Helicopters often request **direct routes** or **control zone (CTR) crossings** due to their operational flexibility.

Example Phraseology

Scenario	French	English
Request for CTR Crossing	Tour, F-HABC, demande traversée du CTR pour destination Lyon.	Tower, F-HABC, request to cross CTR en route to Lyon.
CTR Crossing Approval	F-HABC, QNH 1006, pistes en service 25 et 18, traversez comme demandé.	F-HABC, QNH 1006, runways 25 and 18, proceed as requested.
Traffic Advisory	F-HABC, trafic, Boeing 737 en finale 3 NM piste 25L, signalez en vue.	F-HABC, traffic, Boeing 737 on 3-mile final runway 25L, report traffic in sight.
Crossing Instruction	F-HABC, croisez derrière le trafic mentionné au sud, attention aux turbulences de sillage.	F-HABC, cross behind mentioned traffic to the south, caution wake turbulence.

Off-Airport Landings & Takeoffs

General Considerations

- Helicopters may request **off-airport landings** for **rescue, police, or private operations**.
- Controllers **do not issue landing/takeoff clearances** for off-field operations but provide flight following if necessary.

Example Phraseology

Scenario	French	English
Off-Field Landing Request	<i>F-HABC, approche de l'hôpital, demande de quitter la fréquence.</i>	<i>F-HABC, approaching hospital, request to leave frequency.</i>
Frequency Change Approval	<i>F-HABC, (vent 210 degrés, 17 nœuds), fréquence quittée approuvée, rappelez avant de redécoller.*</i>	<i>F-HABC, (wind 210 degrees, 17 knots), approved to leave frequency, report prior airborne again.*</i>

Scenario	French	English
Off-Field Takeoff Request	<i>Tour, F-HABC, à nouveau en vol à Casablanca, demande route directe vers l'hôpital.</i>	<i>Tower, F-HABC, airborne again at Casablanca, request direct route to hospital.</i>
Routing Approval	<i>F-HABC, QNH 1006, pistes en service 25 et 18, poursuivez comme demandé.</i>	<i>F-HABC, QNH 1006, runways 25 and 18, proceed as requested.</i>

Priority Missions & ATC Considerations

Helicopters engaged in **medical, law enforcement, or emergency response** flights may request priority handling. While **ATC should accommodate direct routing requests when feasible**, priority cannot be **demande**d under standard procedures.

- **Emergency flights** may require direct routing through airport approach paths.
- **Holding or delay vectors** may be issued if required for traffic sequencing.
- **Coordination with pilots** ensures efficient integration into controlled airspace.

“ **Note:** On VATSIM, per the Code of Conduct, no flight has an automatic right to priority. Controllers may accommodate priority requests but are not obligated to do so if it disrupts other operations.