



S2 Position Overview

October 2026

Position Overview

The Tower position (TWR) is responsible for all aircraft movements at the airport and within its Control Zone (CTR). This includes push-back and start-up, taxi, take-offs and landings, runway crossings, and all VFR traffic in the Control Zone. Tower ensures safe sequencing and separation between departing and arriving aircraft, and also covers all of Delivery's responsibilities when Delivery is offline.

This guide focuses on Sofia Tower, however most core concepts are valid for all Tower positions within LBSR FIR. In addition to all aircraft on the ground, VFR aircraft within Sofia Control Zone, which extends from the ground surface up to 8500 ft, are Tower's responsibility as well. Departing IFR aircraft are handed over to Sofia Approach once airborne.

Runway in use

Tower is the primary position which decides which runway is in use, in coordination with Approach and Delivery, and based on wind, SOPs, NOTAMs, and operational constraints. At LBSF, **runway 27 is preferred** up to a maximum tailwind component of 5 knots.

When coming online, Tower should select the runway in use in the *Active Airport/Runway Selector* dialog in EuroScope and coordinate it with other online positions.

ATIS

Whenever Tower is online, Tower must always hold the ATIS. Tower takes precedence over all other positions in holding the ATIS, and must not delegate it to anyone else. The ATIS is connected using vATIS.

CDM

When Delivery is online, Delivery handles CDM for all departures and is set as airport master. Tower must still respect the CDM times: start-up may only be approved within the aircraft's **TSAT window**, and any **CTOT** must always be followed. Delivery will only send aircraft to Tower once they are within their start-up window.

When Delivery is offline, Tower becomes the lowest controller at the airport and must set itself as **airport master** in the CDM airport panel. Tower then handles the full CDM flow itself, in accordance with the *BGvACC CDM Plugin Controller Guide*. CDM does not apply to VFR aircraft.

Duties and Procedures

Start-up and push-back

Departing aircraft contact Tower for start-up once they have received their clearance and are within their start-up window. Start-up approval always includes the current QNH. If the aircraft needs to push back, Tower also approves the push-back and its direction.

A standard push-back and start-up exchange:

Pilot: Sofia Tower, hello, LZB972, request push-back and start-up

ATC: LZB972, Sofia Tower, hello, push-back and start-up approved, facing east, QNH 1023

Pilot: Push-back and start-up approved, facing east, QNH 1023, LZB972

Tower must verify that the apron area behind the aircraft is clear of other traffic before approving push-back.

At the start of each session, Tower may allow Delivery to approve start-up for IFR aircraft. This is always Tower's decision, and must be coordinated for every session. When this is the case, aircraft that have been given start-up by Delivery will contact Tower when ready for push-back or taxi. **Push-back is always approved by Tower** and cannot be delegated to Delivery. Delivery may always approve start-up for VFR aircraft, with no coordination required.

An aircraft that has received start-up from Delivery:

Pilot: Sofia Tower, hello, LZB972, request push-back

ATC: LZB972, Sofia Tower, hello, push-back approved, facing east

Pilot: Push-back approved, facing east, LZB972

Taxi

Once the pilot reports ready for taxi, Tower issues taxi instructions to the holding point of the departure runway, or an intermediate location such as a de-icing pad. This should be done using the most efficient routing available while maintaining adequate separation between aircraft.

A standard taxi exchange:

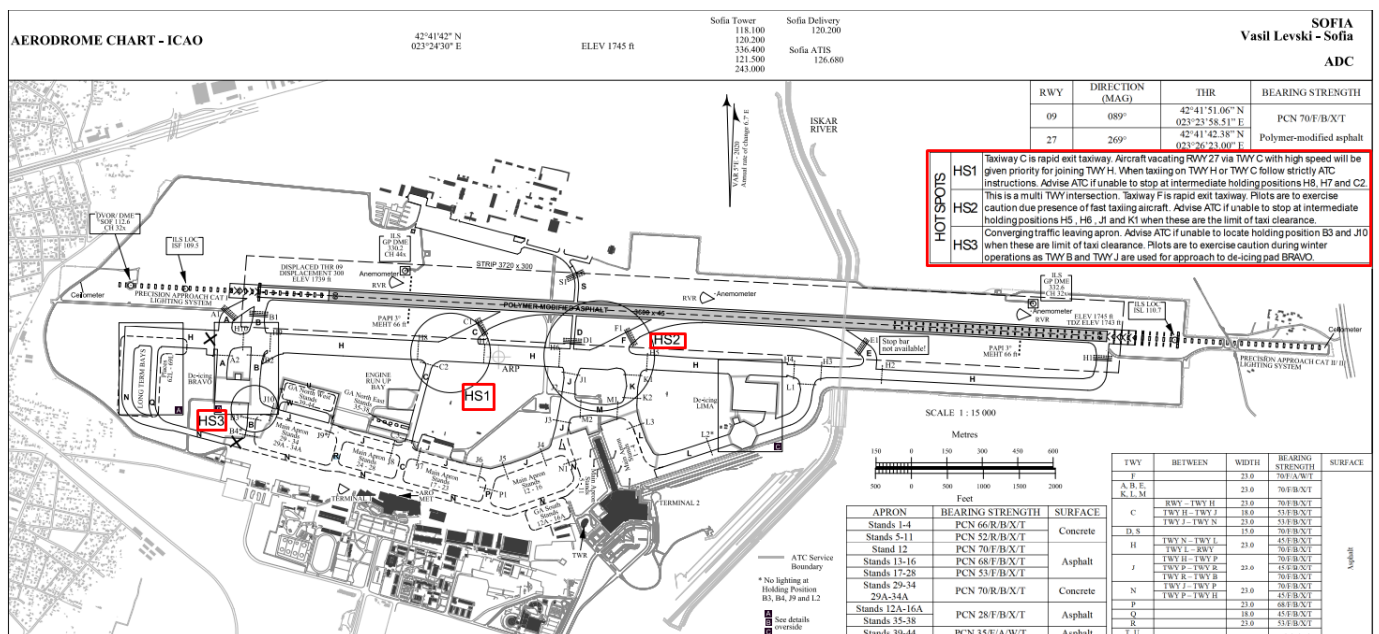
Pilot: Sofia Tower, LZB972, ready for taxi

ATC: LZB972, taxi to holding point RWY 27 via N, J, and H

Pilot: Taxi to holding point RWY 27 via N, J, and H, LZB972

Taxi instructions must be clear and concise, and the controller must monitor all aircraft movements to prevent conflicts, particularly near runway crossings and intersections, also known as **Hotspots (HS)**. Tower may issue additional instructions such as “hold position,” “give way to traffic,” or “continue taxi via” as required to maintain separation.

Hotspots are labelled on the aerodrome chart with a circle, with each one explained in detail. Below is the chart for LBSF as an example:



Departures

Each departure must be coordinated with Approach before the aircraft is allowed onto the runway. This procedure may be suspended with prior coordination. Any specific instructions (e.g. a heading or a different climb) should also be passed on to the aircraft before departure.

No aircraft may be cleared to land or take-off until any other aircraft has fully passed the holding point line (as illustrated below).



Once the runway and final approach are clear, Tower issues the take-off clearance with the wind and the next frequency:

ATC: LZB972, wind 240 degrees 3 knots, RWY 27, cleared for take-off, when airborne contact Sofia Approach 123.705

Pilot: Cleared for take-off, RWY 27, when airborne contact Sofia Approach 123.705, LZB972

Important note: The phrase “take-off” is only used in the clearance itself. In all other cases, the word “departure” is used.

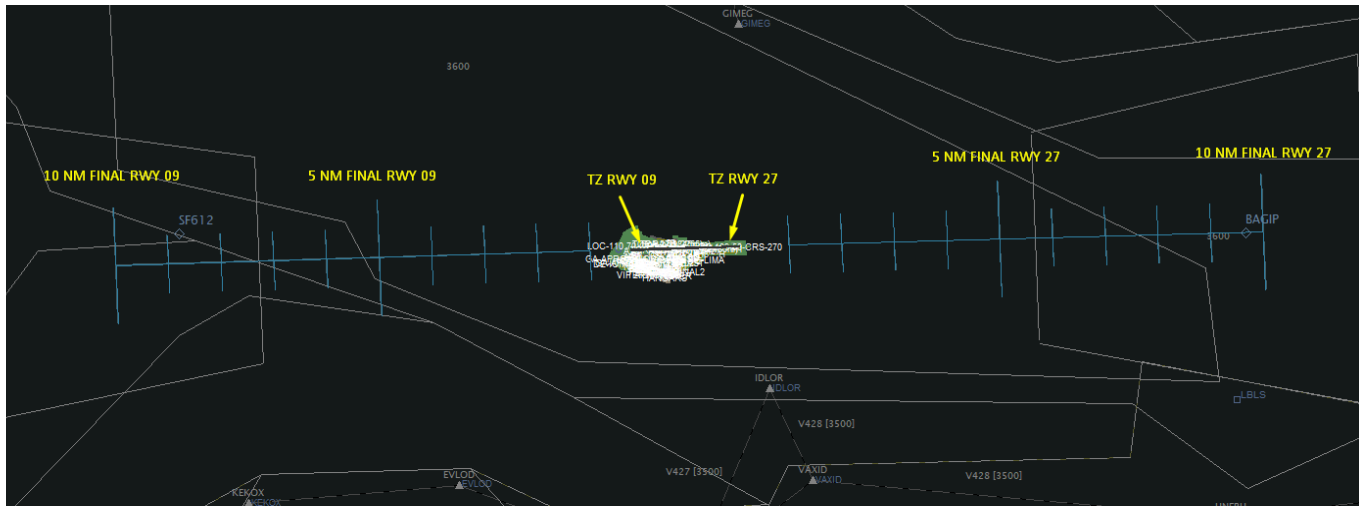
Separation must always be applied between successive departures. The minimum separation between two departing aircraft is **90 seconds**. Where wake turbulence requires it, this separation increases in accordance with ICAO regulations:

- **2 minutes** for a light or medium aircraft departing behind a heavy, and for a light aircraft departing behind a medium (increasing to **3 minutes** in case the following aircraft departs from an intersection)
- **2 minutes** for a heavy and **3 minutes** for a light or medium aircraft departing behind an A380 (super)

Take extra care with slow-moving aircraft. If a faster aircraft departs behind a slower one, the standard separation may not be enough to keep them separated shortly after take-off, within the TMA. In such cases, increased separation and/or coordination with Approach may be required.

Arrivals

Arriving aircraft contact Tower when established on final approach, usually no later than a 5 NM final. Tower must monitor spacing on final and ensure that the runway is clear before issuing a landing clearance.



Final approach markers on the radar view

A standard landing clearance:

ATC: LZB421, wind 270 degrees 4 knots, RWY 27, cleared to land

If a landing clearance cannot be given yet, Tower instructs the aircraft to “continue approach” and the reason, such as “number two” (when there is another landing aircraft ahead) or “one departure ahead.” If necessary, Tower may also instruct aircraft to “reduce to final approach speed.” If spacing is insufficient or a landing clearance is not possible, Tower must instruct the aircraft to go around. The words “go around” can be repeated twice if necessary for clarity and/or urgency.

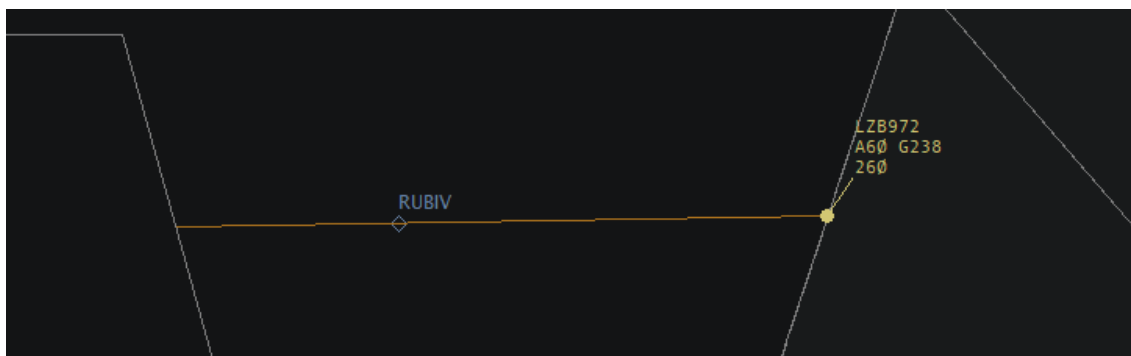
ATC: LZB421, go around, standard missed approach procedure, contact Sofia
Approach 123.705

After landing, Tower provides taxi instructions to an appropriate stand, usually automatically assigned by the Ground Radar plugin. The controller must ensure that the aircraft has fully vacated the runway before clearing another aircraft for take-off or landing.

Departures between arrivals

When traffic requires it, Tower must judge whether a departure can be fitted in before the next arrival. Two key rules help keep operations as efficient as possible:

Use the leader line to judge timing. Each arrival on the radar screen has a 1-minute leader line, which shows where the aircraft will be one minute from now. Combined with the final approach markers (see above), this lets Tower estimate how much time is left before the arrival lands (*Note: GRP has a Time-to-Threshold list which has a similar function*). Tower can then decide whether there is time for one departure, or for two departures with the required separation between them (90 seconds, 2 min, etc.), before the arrival.



1-minute leader line for LZB972

Clear departures before 3 NM final. A departing aircraft must have received its take-off clearance, and should ideally be rolling or about to roll, by the time the arrival reaches a **3 NM final**. Any later, and the departure may still be on the runway when the arrival needs its landing clearance. Tower may then be unable to clear the arrival to land, forcing a go-around, and end up with two airborne aircraft without enough separation.

Note: If in doubt, do not squeeze the departure in. Holding a departure at the holding point for one more arrival is always better than forcing a go-around.

VFR Traffic

Sofia Tower is responsible for all VFR traffic within the Sofia Control Zone (CTR). This includes aircraft departing from or arriving at LBSF, as well as aircraft transiting the CTR between other aerodromes. All VFR flights must establish two-way communication with Tower and obtain a clearance before entering, leaving, or transiting the CTR.

Sofia Control Zone is Class C airspace and extends from the surface up to 8500 ft AMSL. Although VFR aircraft may in principle fly up to the top of the CTR, this should be avoided, as such flights can conflict with IFR traffic that is being handled by Approach. Sofia Tower must separate VFR from IFR aircraft, as well as give out traffic information where necessary.

VFR departures

VFR departures from LBSF normally receive their clearance and start-up from Delivery, and contact Tower when ready for taxi. All standard VFR climbs at LBSF are 2300 ft. As the controller responsible for Sofia CTR, Tower may amend this altitude as needed, either before or after the VFR clearance has been given. For examples of a VFR clearance see the S1 Position Overview.

Once airborne, the aircraft remains on the Tower frequency until leaving the Control Zone. Tower keeps track of VFR aircraft within their airspace using position reports. Aircraft leaving the Control Zone must be asked to report passing the exit point, and are then handed over to Sofia Approach (123.705).

If the aircraft plans to stay below controlled airspace upon leaving the CTR, and with permission from Sofia Approach, they can be told to monitor advisory instead.

VFR arrivals and transits

Aircraft entering the Control Zone must request a clearance before entry. The clearance includes the entry route, altitude restriction, QNH, and any other relevant information.

A standard entry clearance:

ATC: LZKPR, cleared to enter Sofia Control Zone via V428 airway, not above 3500 ft, QNH 1023, expect left base RWY 27

VFR traffic circuit

The visual traffic circuit at LBSF is located north of the aerodrome. It is right-hand for RWY 27 and left-hand for RWY 09, at 2300 ft AMSL or below. Pilots are expected to report on downwind and on final, stating their intentions (full stop, touch-and-go, low pass, etc.). If circuit traffic needs to be delayed, Tower may issue instructions such as “extend downwind” or “make one left/right orbit.”

