

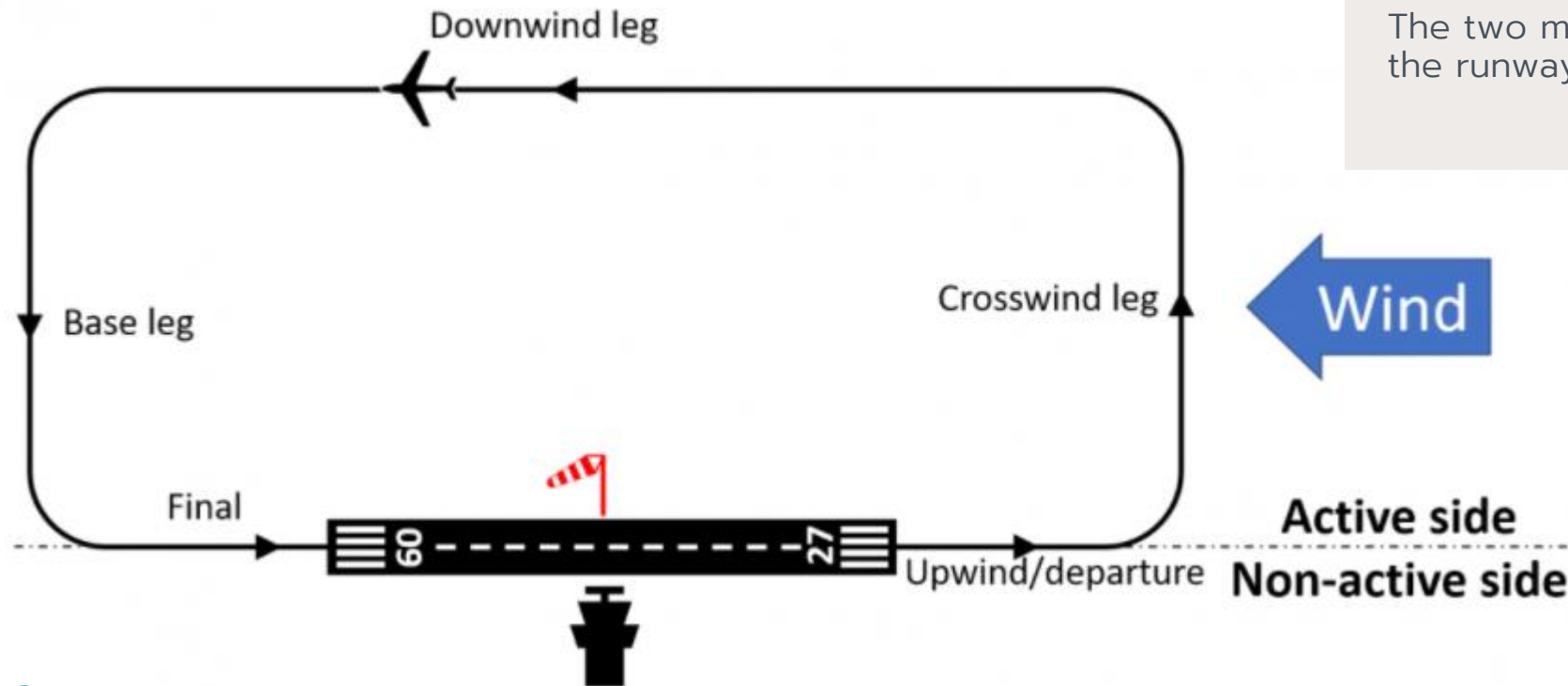


Light Aircraft - Circuit Flights

The Aerodrome Traffic Circuit

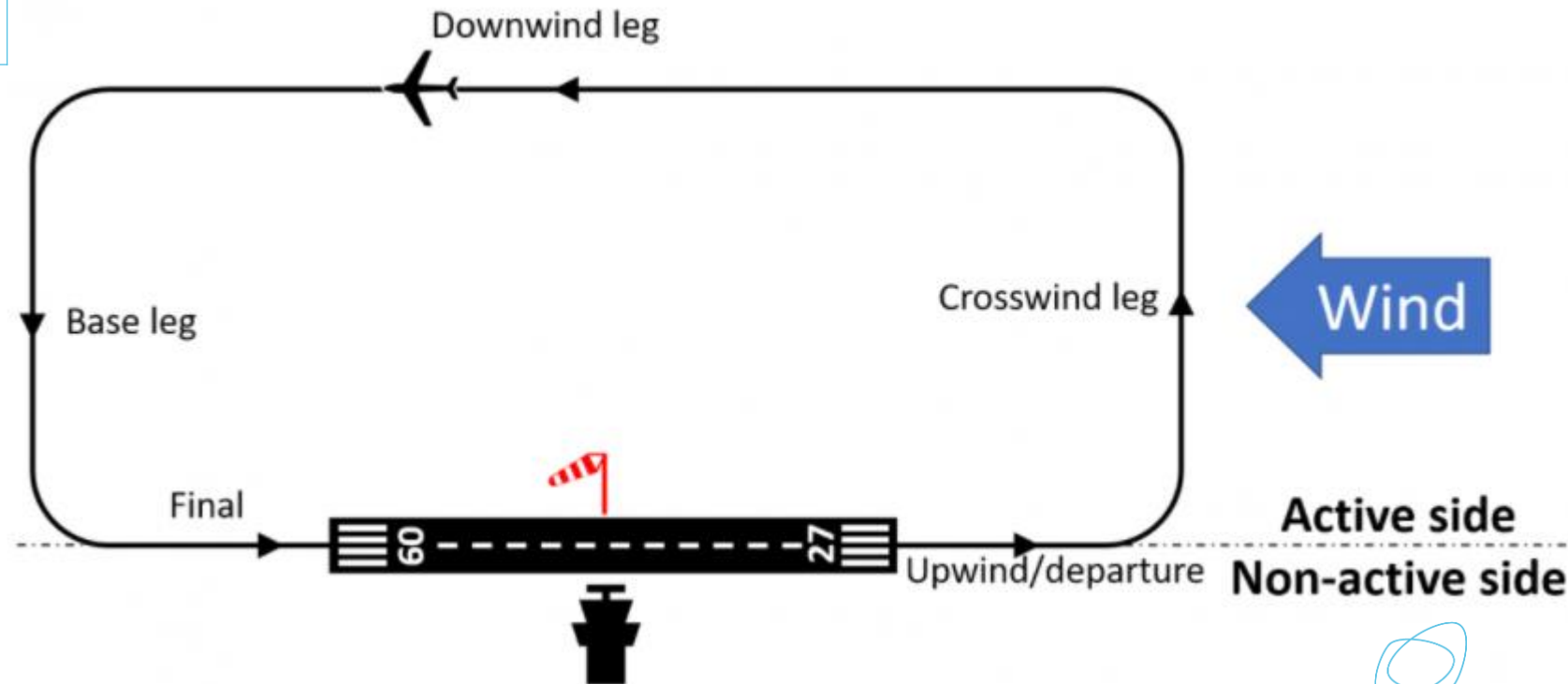
The aerodrome traffic circuit consists of five segments and four turns (see picture below). While not explicitly stated in the definition, it is normally used by aircraft flying with visual reference to the ground.

The two main features defining the circuit are the runway and the turn direction.

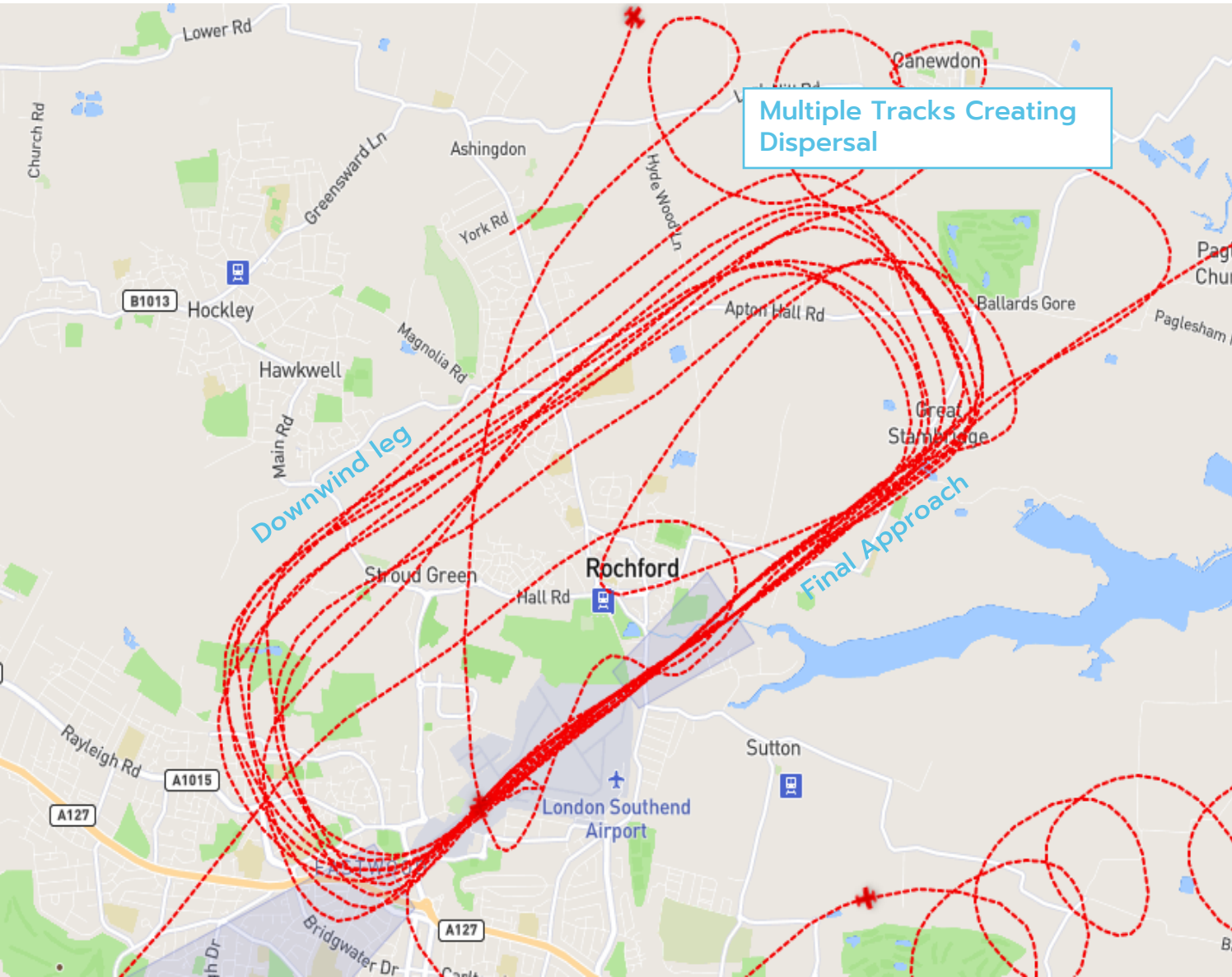


Why are circuits flown?

The Aerodrome Traffic Circuit is a crucial part of pilot training as it teaches everything a pilot needs to know about the process of flying a plane from takeoff to landing, giving the pilot chance to rehearse and hone their skills over and over again in a short period of time.



Circuit Procedures



Circuit procedures

Between 0630-2300 the circuit altitude is 1000ft by day and 1500ft at night. Clearances will be passed as 'not above' the stated circuit levels.

Between the hours of 2300-0630 circuit traffic will only be approved if the pilot can fly at 1500ft or above.

In order to minimise noise nuisance, normal circuit directions should be left-hand on runway 05 and right-hand on runway 23.

To comply with the NPRs, aircraft over 5700kg shall fly the circuit at 1500ft or above. More than 4 consecutive circuits for this weight category are to be approved by the Senior Controller on Duty and notified by email to the accountable manager and the LSA community team.



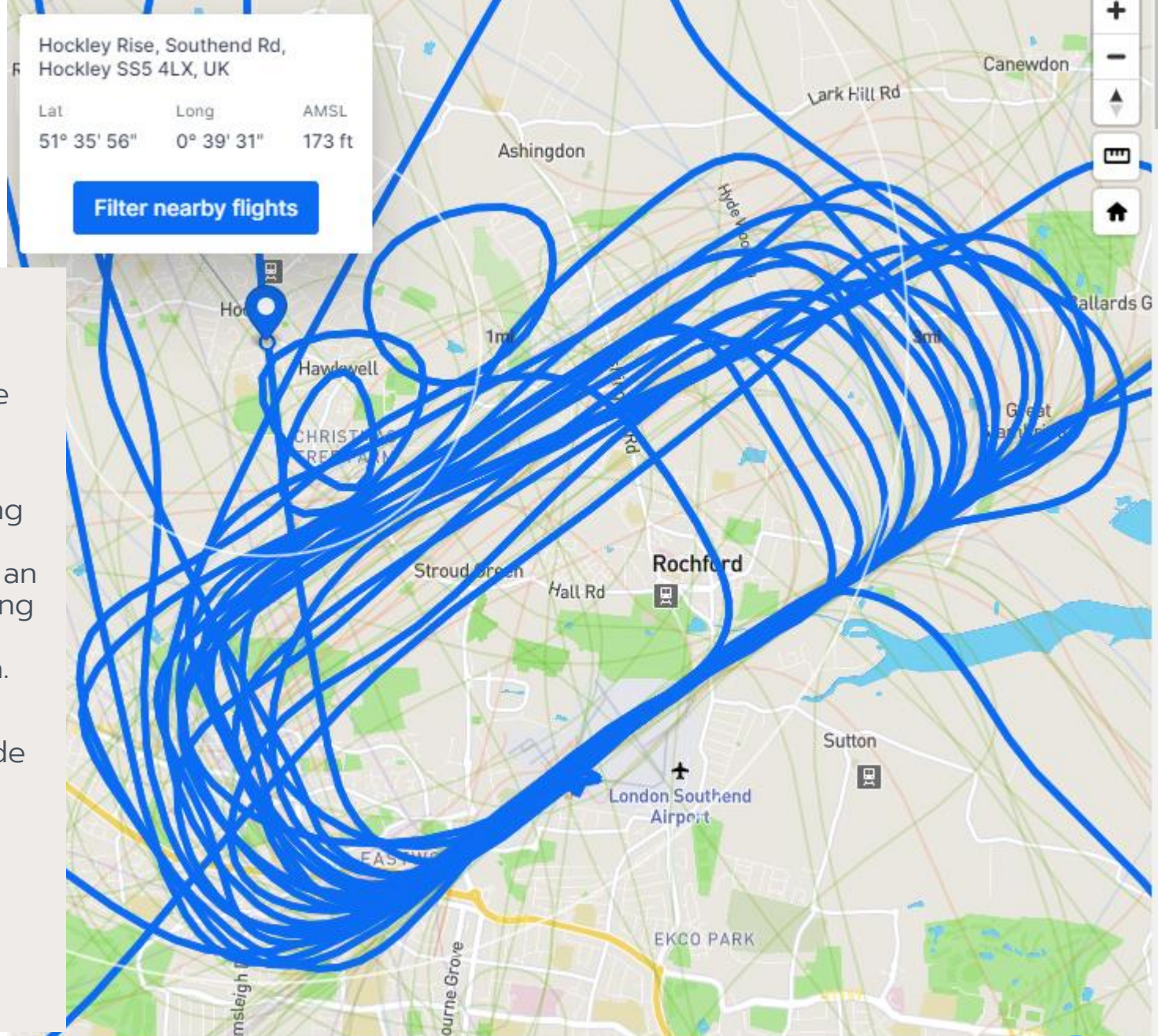
What does this mean?

Circuit Direction

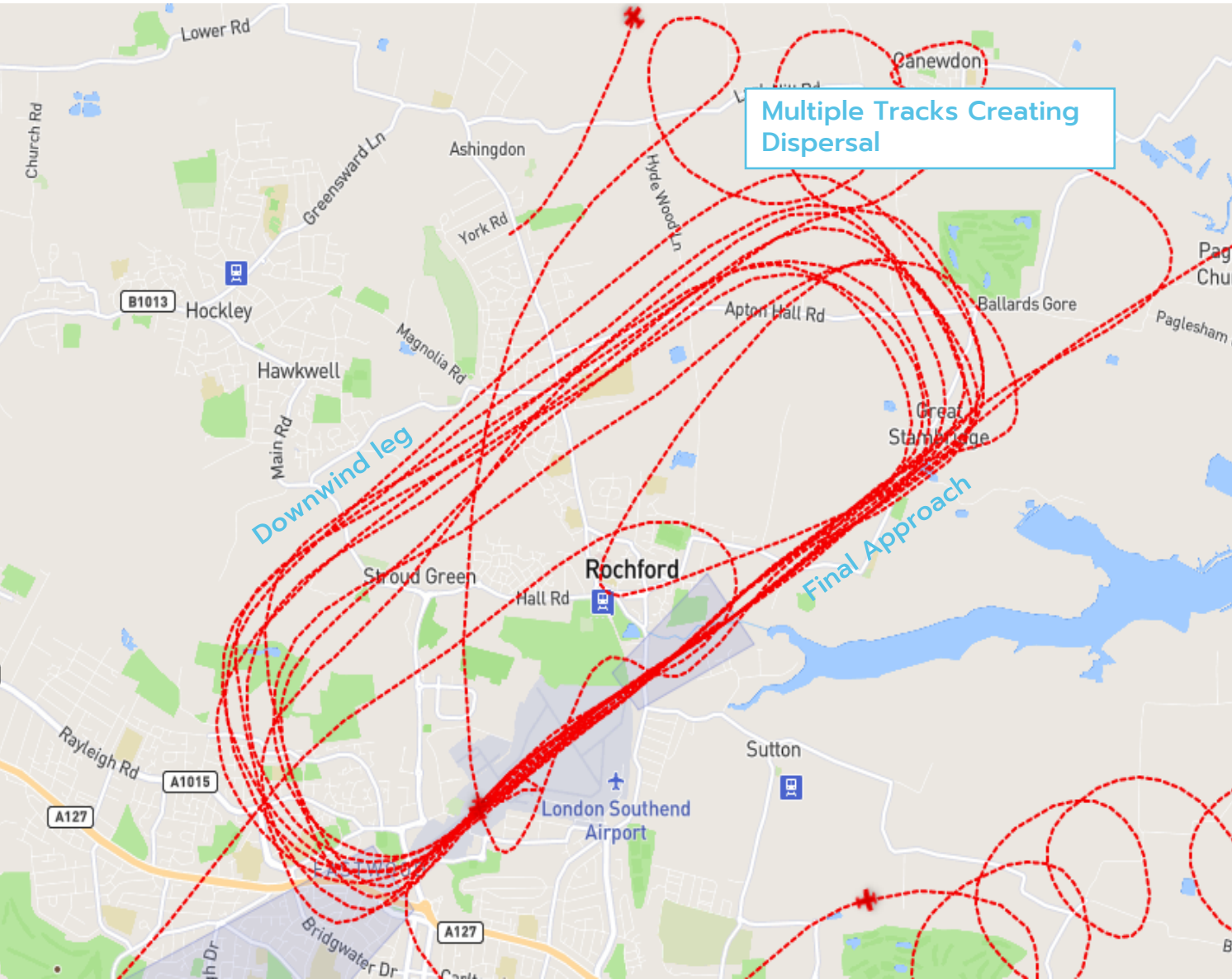
The preferred circuit direction is nominally to the north of the runway, in order to avoid overflying the built up areas to the south of the runway.

The rationale for this is twofold, it minimises noise nuisance for a greater percentage of the surrounding community and is a safer option in the event of an engine failure. A single engine light aircraft that has an engine failure and cannot make an emergency landing back at the airfield will look for a field to ditch into, which is not as easy when flying over an urban area.

ATC tactically approve circuits to the south of the runway during busy training days, in order to provide some rest bite for our residents to the north. The decision to do this is made tactically with consideration to our actual, scheduled and forecast (booked) traffic on the day.



Circuit Track and Height



Circuit Track

The track to be flown over the ground when flying circuits is not published i.e. a standard circuit pattern as per the air navigation order is flown. This provides noise dispersal to local communities as no two tracks are completely identical.

Circuits are principally flown using the aerodrome QNH, a pressure setting which will indicate altitude (height above mean sea level). This is owing to the constraints of our airspace, whereby the published hold is overhead the airfield, and as such flying circuits on QNH (using altitude) as opposed to QFE (using height) allows the maximum operational efficiency of the airspace we have today.



Circuit Procedures

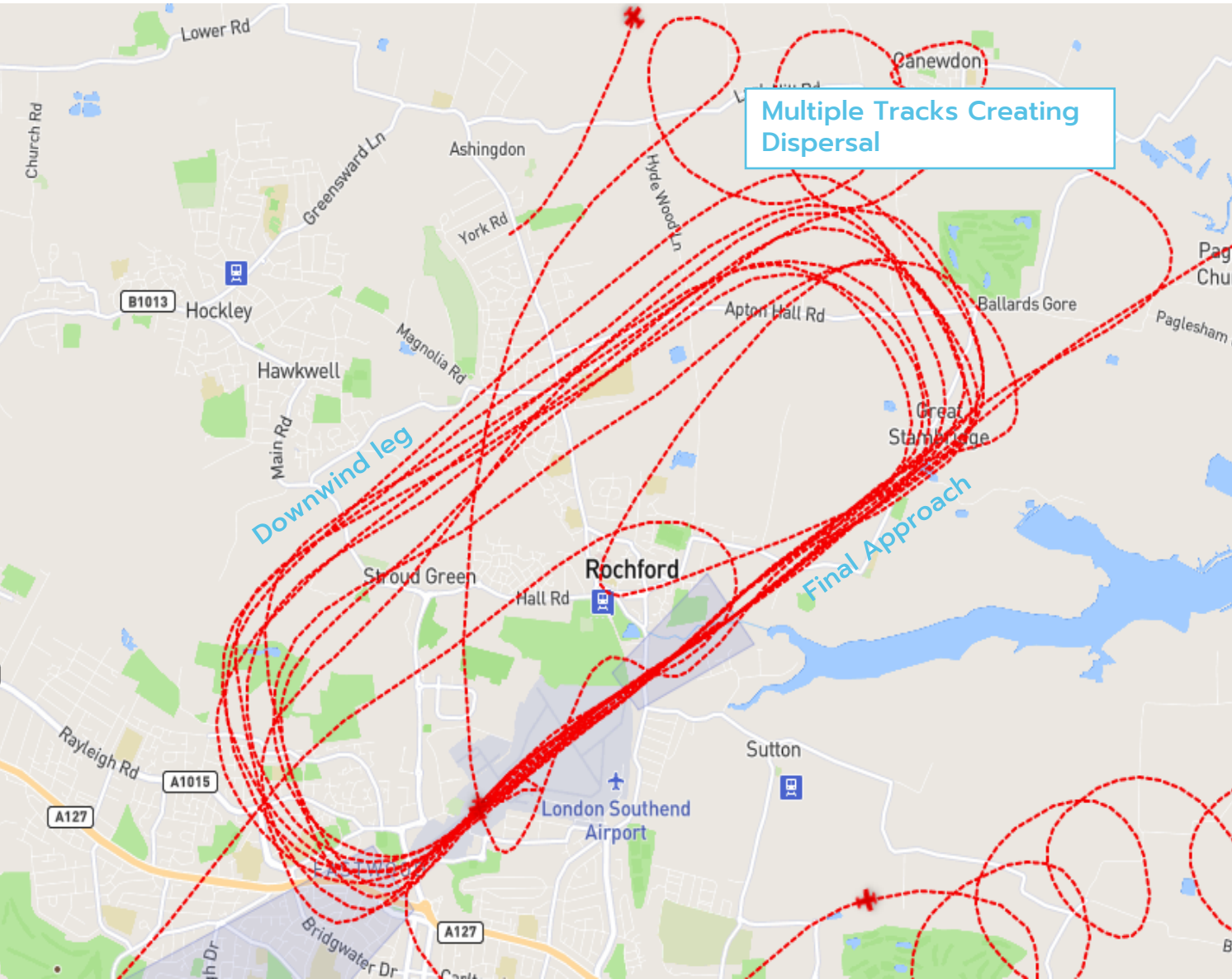


Points of Note

- All flights operating into, out of, or training with London Southend Airport are under positive control by the air traffic control team i.e., they are provided with positive instructions in accordance with our published procedures.
- The aerodrome controller handles flights on the airfield and in the immediate vicinity.
- Working from the visual control room, the aerodrome controller has a direct line of sight to each and every aircraft in receipt of a service. This visual confirmation, is supported by the aerodrome traffic monitor (a feed from our radar) which enables the aerodrome controller to, among other things, confirm that the initial track of a departing aircraft conforms with the clearance issued.



Some Examples - A



1000' QNH:

QNH, a pressure setting which will indicate altitude (height above mean sea level).

- When flying downwind in the circuit
- Aircraft that have been instructed to orbit downwind due to other traffic inbound ahead.

Greater than 1000' QNH:

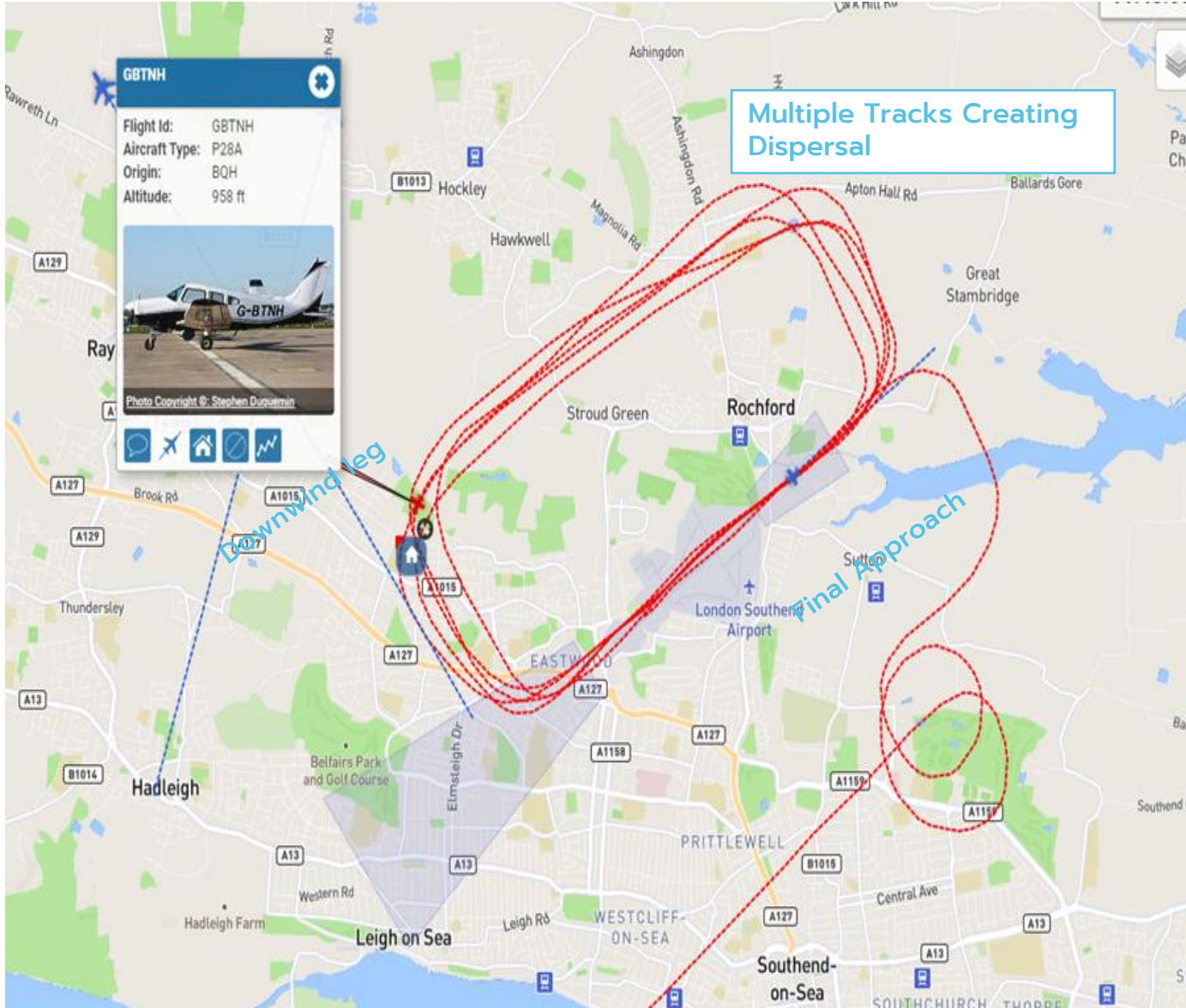
- Transit aircraft routing through Southend's airspace will typically not be below 1500ft to remain clear of circuit traffic .
- Departing aircraft leaving controlled airspace via South Woodham Ferrers may pass in the vicinity whilst climbing.

Below 1000' QNH;

- Bad weather circuits may be flown at 600 – 800ft.



Example - B



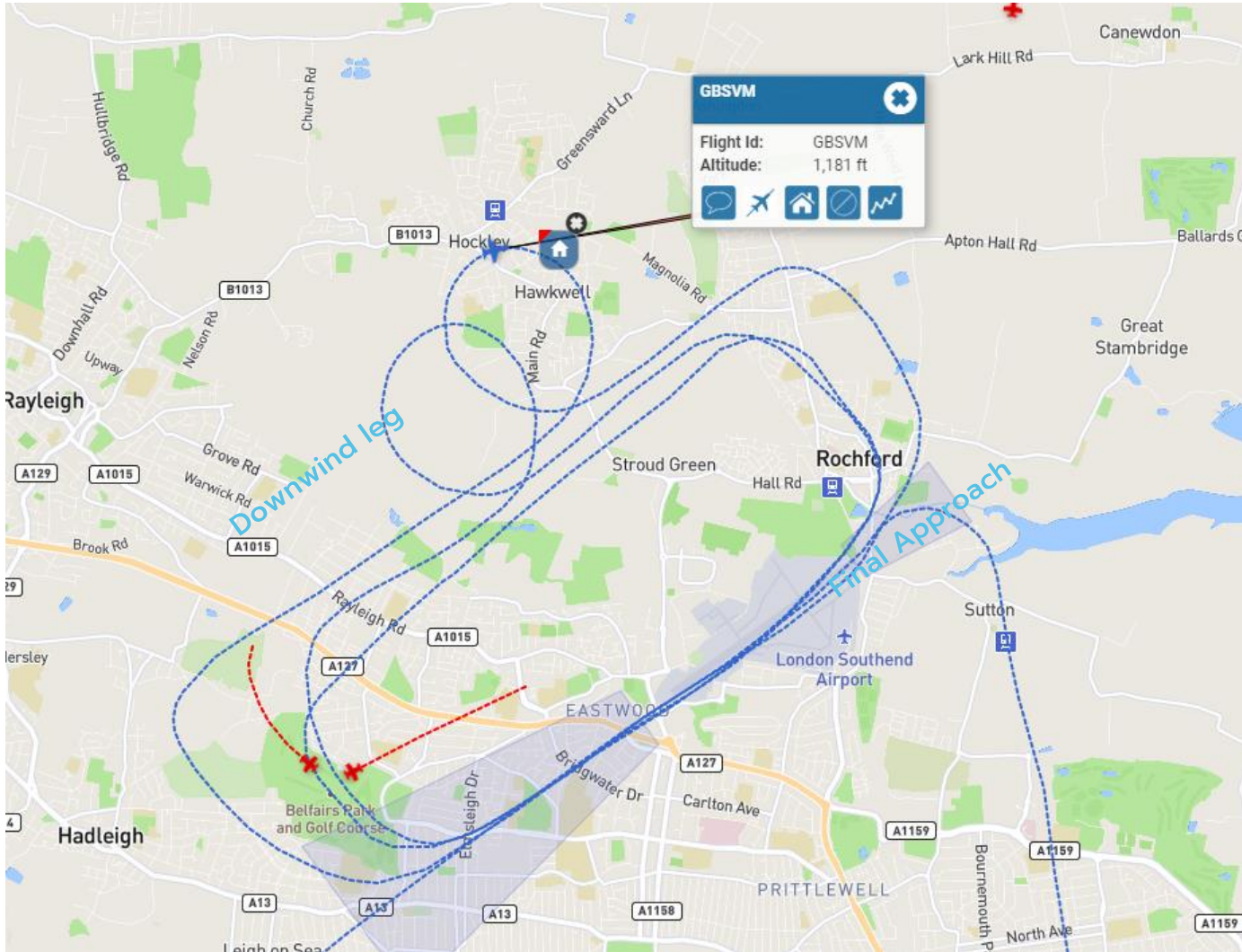
Circuit Traffic:

Circuits are usually flown at 1000' QNH, a pressure setting which will indicate altitude (height above mean sea level).

- GBTNH can be seen turning downwind in the circuit
- Circuits are training flights and therefore variation in altitude (+/- 200ft) is expected.
- In this example the aircraft is no lower than 758ft above ground level in the turn onto the downwind leg.



Example - C



Circuit Traffic:

Circuits are usually flown at 1000' QNH, a pressure setting which will indicate altitude (height above mean sea level).

- GBSVM can be seen flying an orbit downwind in the circuit at 1181ft.
- Circuits are training flights and therefore variation in altitude (+/- 200ft) is expected.
- In this example the aircraft is no lower than 1008ft above ground level over Hockley.



Exceptions

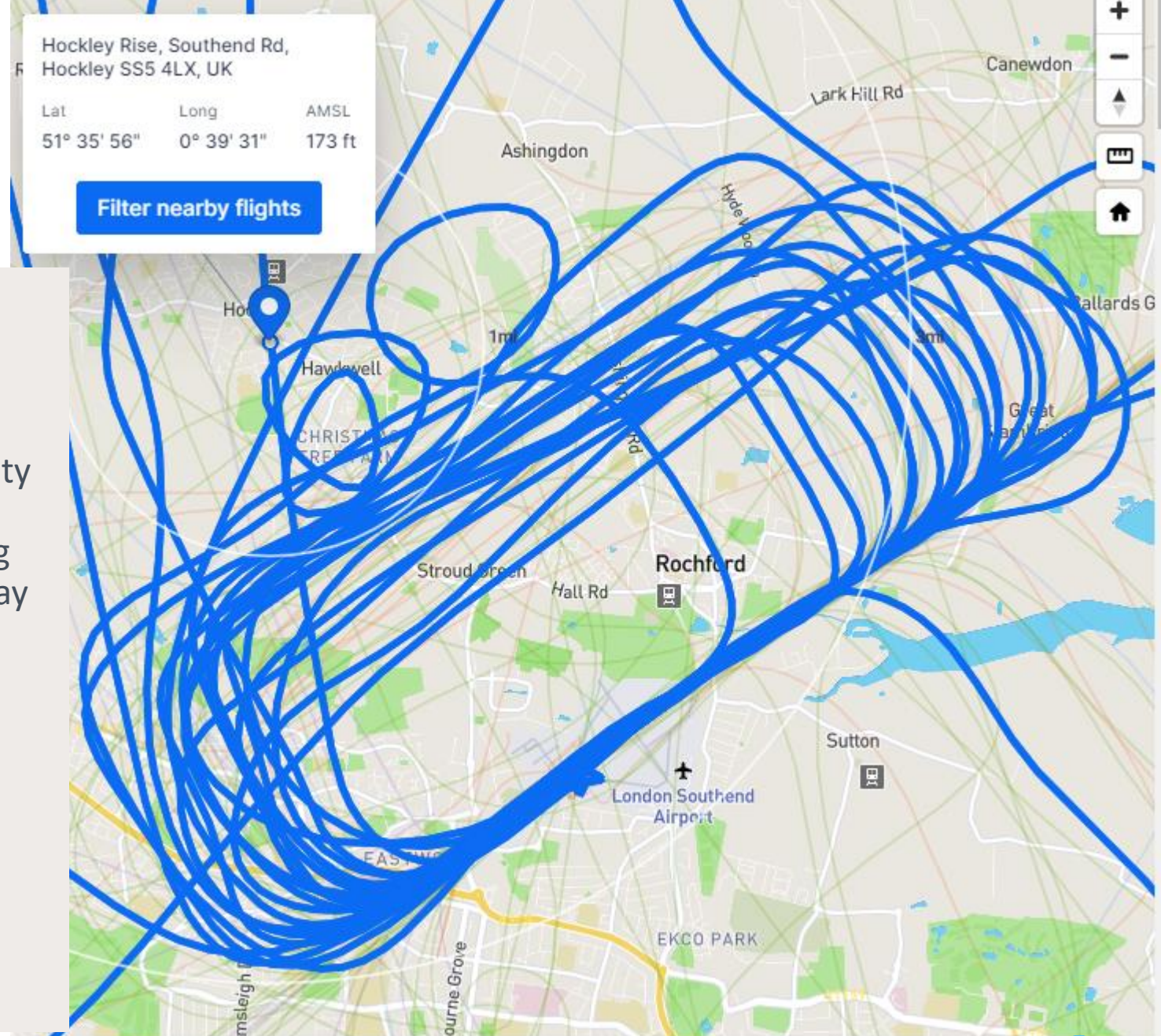
Helicopters:

Could take a direct routing when tactically required.

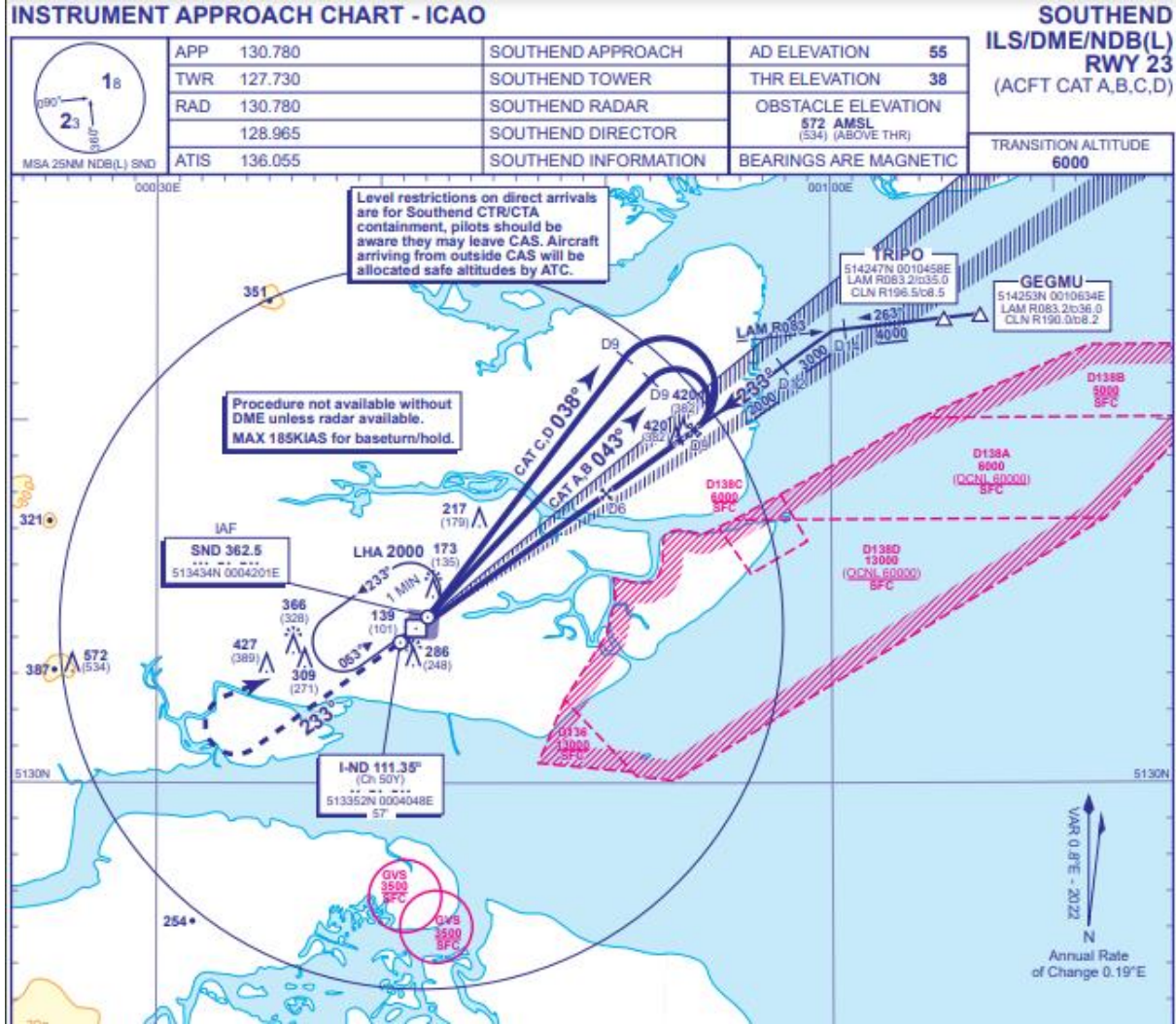
Some helicopters are afforded higher flight priority such as: Powerline surveys, Search and Rescue, Police and Helimed helicopters landing/operating at private sites in the vicinity of Southend and may be at a lower level due to nature of ops and requirement to position/land.

Pressure Settings:

Considerations for pressure settings used by aircraft QNH/QFE and the local topography may cause actual heights/altitude differences.



Instrument Training Flights



Flying instrument approach procedures is a key part of commercial pilot training whereby the aircraft is flown without visual reference to the ground, using guidance from ground and/or satellite-based navigation aids.

Pilot training, from ab-initio, through type-rating, recurrent and upgrade, is strictly detailed, to ensure that regulatory requirements are met and conditions of the Pilot's Licence are maintained.



Advantages to LSA



Controller Currency

All controllers shall perform a minimum of 90 hours exercising the privileges of their rating(s) within a rolling 3 month period.

Controllers should ensure they are getting exposure to a variety of traffic situations at different times of the day.



Controller Competency

The Unit Competence Scheme (UCS) is in place to ensure controllers are monitored and regularly tested for the purpose of maintaining their competence and to support controllers in their currency requirements. The scheme is based on operational experience and a competence checking system.

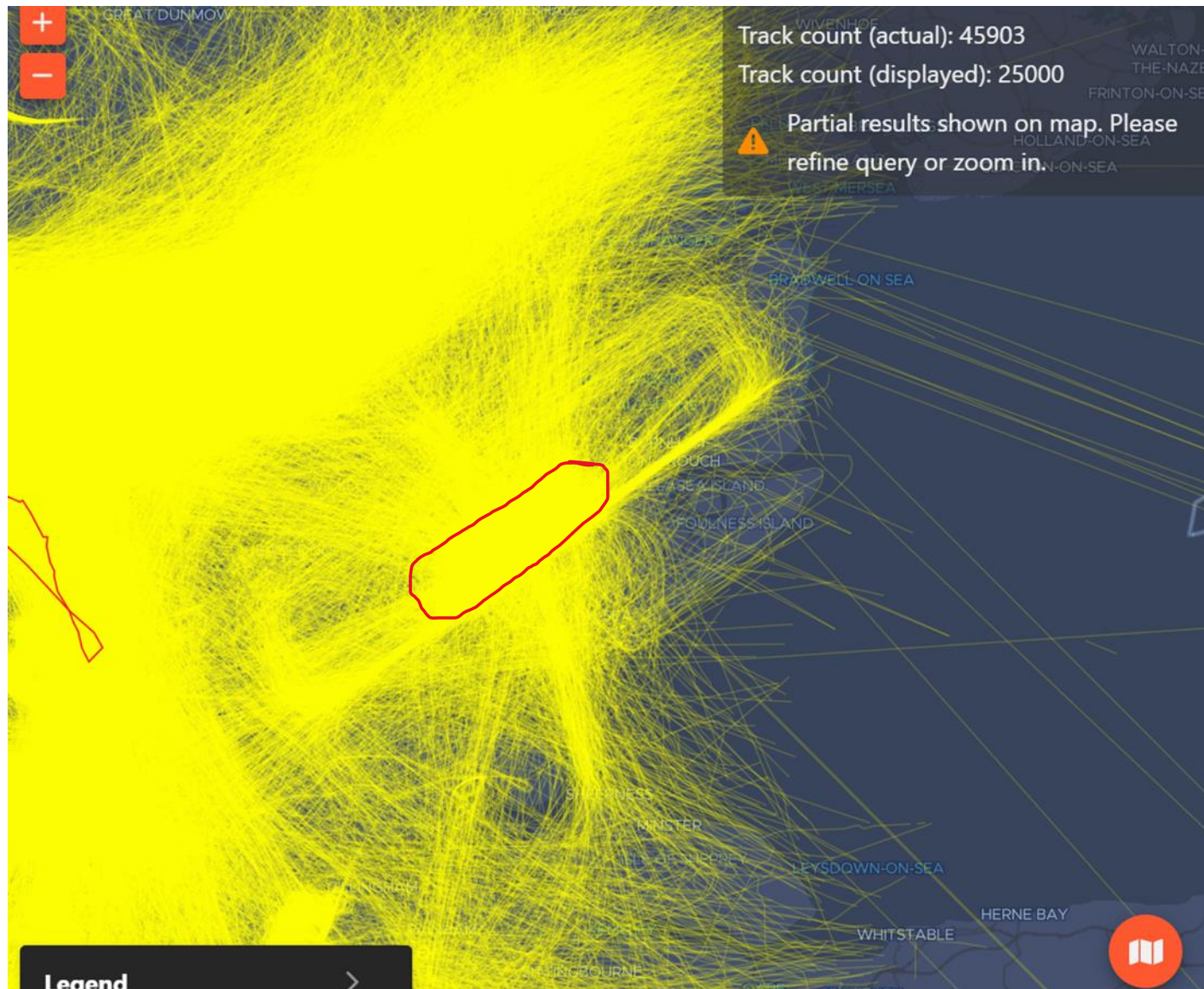


Controller Training

The HoATS will ensure all controllers are appropriately licensed and meet the experience requirements as detailed in CAP1251 before allowing the controller to perform his new duties.



Map showing 6 months of aircraft tracks



You can see the outline of the dense circuit tracks (shown in red) and how most other air traffic has routed around Southend's Controlled Airspace.



