

Previous TDA Background Information

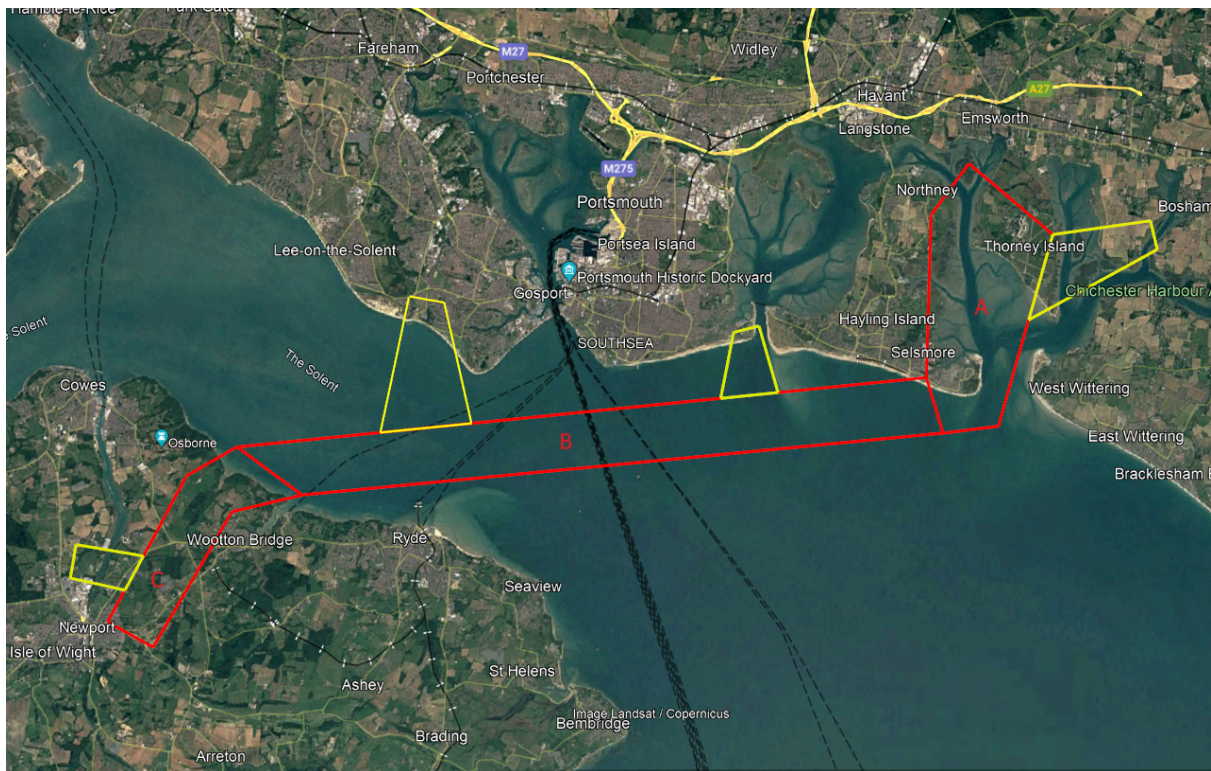
This ACP follows on from a previously approved Temporary Danger Area (TDA) application (ACP 2021-002). <https://airspacechange.caa.co.uk/PublicProposalArea?pid=335>

The previous trial operated from May to July 2022 and tested aircraft and supporting systems and procedures in flying direct from Thorney Island to a field next to St. Mary's Hospital. Dry Medication was flown on at least one test flight over the Solent. Live Chemotherapy drugs were flown in VLOS test flights at Thorney Island. A request was made to extend the trial from September to November 2022, but this request was withdrawn due to the heavy lift VTOL not meeting the endurance level required to cross the Solent.

Proposed Trial Airspace / TDA Information

ACP-2022-106 <https://airspacechange.caa.co.uk/PublicProposalArea?pid=525>

The image below shows the proposed airspace for Spring / Summer 2024 with stub examples.



The trial airspace intends to build upon the previous successful TDA in complexity and capacity for the benefit of UK PLC, by considering a wide range of features that affect the safety of segregated airspace.

The Civil Aviation Authority (CAA) has agreed to allow a TDA application to be the mechanism for which a trial airspace may be approved.

In addition to the previous TDA (2022), this application is to include:

- Operating multiple aircraft simultaneously within the TDA using procedural separation.
- Increase in altitude from 400 ft to 600 ft to allow greater altitude-based separation between the lanes, in support of multiple drones.
- The addition of several 'stubs' to allow VLOS entry and exit to the TDA from several designated points allowing for transition from Visual Line of Sight (VLOS) to Beyond Visual Line of Sight (BVLOS), creating crossing traffic.
- Removal of 3 mile buffer from the previous TDA surrounding St Mary's Hospital on the IOW to allow for complete End to End (E2E) BVLOS routing, removing the need for the final approach to be under VLOS rules.
- TDA space has been made wider to facilitate the VLOS entry and exit from stub locations.

Trial Aims:

To test as many of the following, as many times as practically possible where weather and availability of time & space allows:

- Build and test a comms and flight planning tool to successfully coordinate the live trials.
 - Introduce different forms of Unmanned Aircraft System Traffic Management (UTM), building on basic planning systems to a full booking and coordination system. Inclusion of visual / audio comms or both. Test and develop operational procedures, capturing lessons learned and enhancing risk mitigation throughout the trials.
- Introduce a sensor network in the Solent region for situational awareness of cooperative and non-cooperative air traffic, testing of sensors to determine network density for each sensor type.
- Increase the complexity of flying from single operator/ aircraft to multiple operators/ aircraft crossing the trial airspace and using VLOS entry and exit to the stubs. This scenario enables us to simulate safe approaches and departures.
- Human factors monitoring of loading and unloading cargo.

Operating Hours:

The trial will operate from June to November 2024. Flying will primarily happen during daylight hours, with the TDA expected to be active five days a week. All activations will be made via Notice to Aviation (NOTAM) with at least 24 hours' notice. The airspace is split into three portions, A, B & C with one, two or all three being activated per activity. This allows for the impact to be as minimal as possible.

It is anticipated there will be four return flights per day during the week but not every week.