

New sequencing system and new routes

NAV Portugal advances with Airspace restructuring of Lisbon Terminal Area

- **Point Merge System comes into operation next dawn and brings a new arrival sequencing model with continuous descent profiles;**
- **The new model moves the start of aircraft "holding patterns" away from the most populous areas of the Lisbon region, also placing them at higher altitudes;**
- **The restructuring also involves creating new, more optimized routes for aircraft entry and exit, utilizing areas negotiated with the Air Force.**

NAV Portugal launches the Point Merge System (PMS) next dawn, a new sequencing model for arrivals at Lisbon Terminal Area, bringing greater flexibility and predictability in traffic management throughout the region. Besides the sequencing system, the changes implemented next dawn also entail a comprehensive redesign of aircraft entry and exit routes from Lisbon's airspace. This signifies the most extensive restructuring ever of Lisbon's airspace.

With the launch of the PMS, a result of a partnership with Eurocontrol, NAV will replace traditional arrival sequencing models, where trajectories increase according to delay needs, with linear sequencing, based on two arcs equidistant from the airport, regardless of the location of each aircraft within the arc.

According to Pedro Ângelo, CEO of NAV Portugal, “the Point Merge System will allow traffic flows to and from Lisbon Airport to be managed in a more optimized, predictable, and precise manner, which will enhance operational safety. This represents another positive contribution from NAV Portugal to improving the Lisbon airport system. It is also a moment of joy and gratitude for the teams and all individuals involved in this project's development. Congratulations to NAV Portugal”.

This paradigm shift comes after the realization that current traffic levels have rendered the traditional arrival sequencing model obsolete, necessitating increasingly frequent route adaptations and circular holding patterns to manage the entire arrival flow. These adaptations lead to uncertain and inconsistent arrival sequences, thus more



demanding in environmental terms, as well as increased workload for both air traffic control and crews.

The Point Merge System will enable NAV to offer a more intuitive, sequential, predictable, and adapted management to current and medium-term forecast traffic levels. With the launch of this sequencing model, NAV Portugal will provide optimized and continuous descent profiles to aircraft in the Lisbon Terminal Area, at controlled speeds and without intermediate levels, eliminating the scenario where circular patterns arise as a recurring response. This step will enable greater predictability in terms of arrival time and distances traveled by aircraft, as well as greater optimization of fuel, speed, and altitude management.

The launch of the PMS will also relocate the initial "holding pattern" areas of aircraft away from the most densely populated regions of the Lisbon area, placing them at higher altitudes, thereby reducing both the visual and noise impact of the system.

Airspace Reorganization and New Routes

The implementation of the Point Merge System in the Lisbon Terminal Area became possible after an agreement between NAV Portugal and the Portuguese Air Force to transfer part of the military airspace from Monte Real and Sintra for civilian traffic. With more airspace in the Lisbon region available for civilian traffic, NAV was able to proceed with the complete redesign of the predefined routes that aircraft must follow before landing or after taking off from the region.

Among the main changes made to these routes, notable is the creation of departure routes from Lisbon Airport to the West, allowing aircraft heading to these destinations to turn directly after takeoff, without further delay. Additionally, a second departure route is created for aircraft bound for Europe, providing two segregated departure routes.

About NAV:

NAV Portugal is the Air Navigation Service Provider in the airspace under Portugal's responsibility, which is divided into two regions: the Lisbon Flight Information Region (FIR), covering 671,000 km², encompassing Continental Portugal and the Madeira Archipelago; and the Santa Maria Flight Information Region, covering 5.18 million km², including a vast area of the North Atlantic Ocean and the Azores Archipelago.

NAV has a team of approximately 1,000 highly qualified technicians who ensure the safety of passengers and aircraft 24 hours a day, 365 days a year. In addition to the air traffic control centers in Lisbon and Santa Maria, NAV manages the Control Towers in Lisbon, Porto, Faro, Funchal, Porto Santo, Santa Maria, Ponta Delgada, Horta, Flores, and Cascais.

