

**Distances from SFO procedure waypoints to CNDEL**

<b><u>Procedure</u></b>	<b><u>Waypoint</u></b>	<b><u>Type</u></b>	<b><u>Date</u></b>	<b><u>Distance from Centerline of airport in Nautical miles</u></b>
PORTE	SEPDY	Flyby	8.31.2015	4.0 nautical miles
SSTIK	SSTIK	Flyover	8.31.2015	3.6 nautical miles
New SSTIK	New SSTIK	Flyover	1.18.2018	3.5 nautical miles

**Comment:**

The first waypoint that flights from runways 1L and 1R turn over has been progressively moved closer to the airport. Moving the waypoint shifts noise. Any movement of the first waypoint closer to the airport moves the center of noise closer to the airport and makes more noise in Brisbane and less further north.

**Why has the waypoint been moved closer to the airport?**

This is complicated. Basically the procedures are designed for the least powerful planes. As the planes have gotten more powerful, the waypoint has been moved.

The complicated bit is the FAA justification: "The FAA does not support moving SSTIK north due to the close proximity to the Oakland procedure".

The FAA separation rules say that each plane needs a 3 nautical mile horizontal bubble around it. When planes are face to face, this is a 6 nautical mile separation. The original separation between PORTE and CNDEL was 6.0 miles

<b><u>Procedure</u></b>	<b><u>Waypoint</u></b>	<b><u>Type</u></b>	<b><u>Date</u></b>	<b><u>Distance from CNDEL to waypoint in Nautical miles</u></b>
PORTE	SEPDY	Flyby	8.31.2015	<b>6.0 nautical miles</b>
SSTIK	SSTIK	Flyover	8.31.2015	6.42 nautical miles
New SSTIK	New SSTIK	Flyover	1.18.2018	6.54 nautical miles

However if the FAA applied their same rules for New SSTIK as they did for SEPDY, the FAA could put New SSTIK 0.46 nautical miles closer to CNDEL and use more of the Bay to gain altitude and reduce noise over land.

What else could the FAA do to free up space in the Bay so that SFO departures can fly further over the Bay to gain altitude before turning west:

- Move CNDEL further north west.
  - o This frees up space in the Bay to place SSTIK
- Fly all south bound CNDEL flights through the Golden Gate.
  - o Additional benefit as it stops all separation problems with New SSTIK departures going south