

Paris – Charles de Gaulle

The need for increasing runway capacity

Eurocontrol Wake Vortex Workshop
Brétigny, 29 November 2005

Aéroports de Paris

Aéroports de Paris is now a limited liability company, which will be listed next year.

3 main airports operated :

- Paris-**CDG**, the intercontinental hub (51 Mp)
- Paris-**Orly**, the O & D European and Mediterranean airport (24 Mp)
- Paris-Le Bourget, the largest business aviation airport in Europe

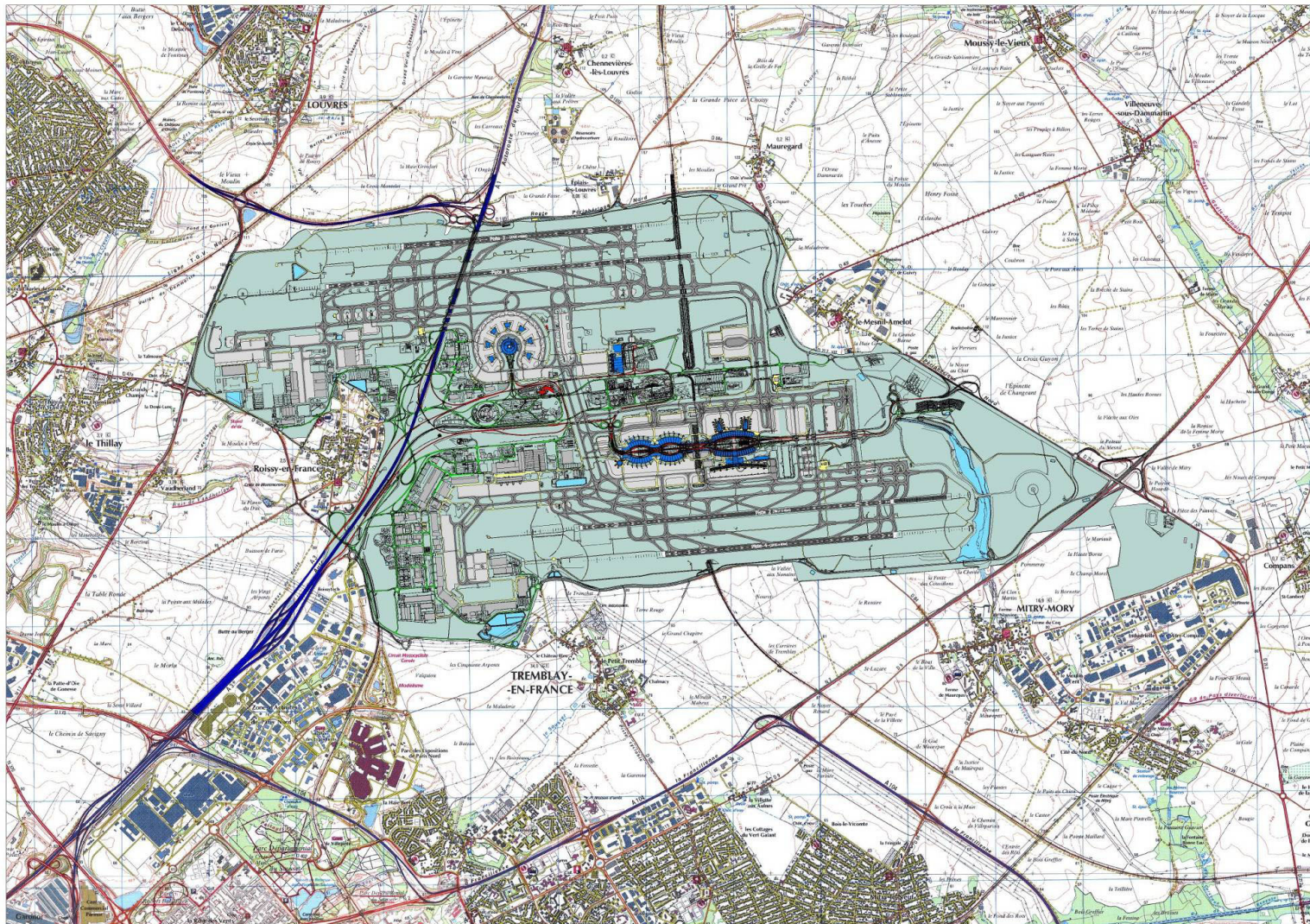
Most of the growth will take place at Paris-CDG

- The **SkyTeam hub** is there
- Paris-Orly is slot-capped

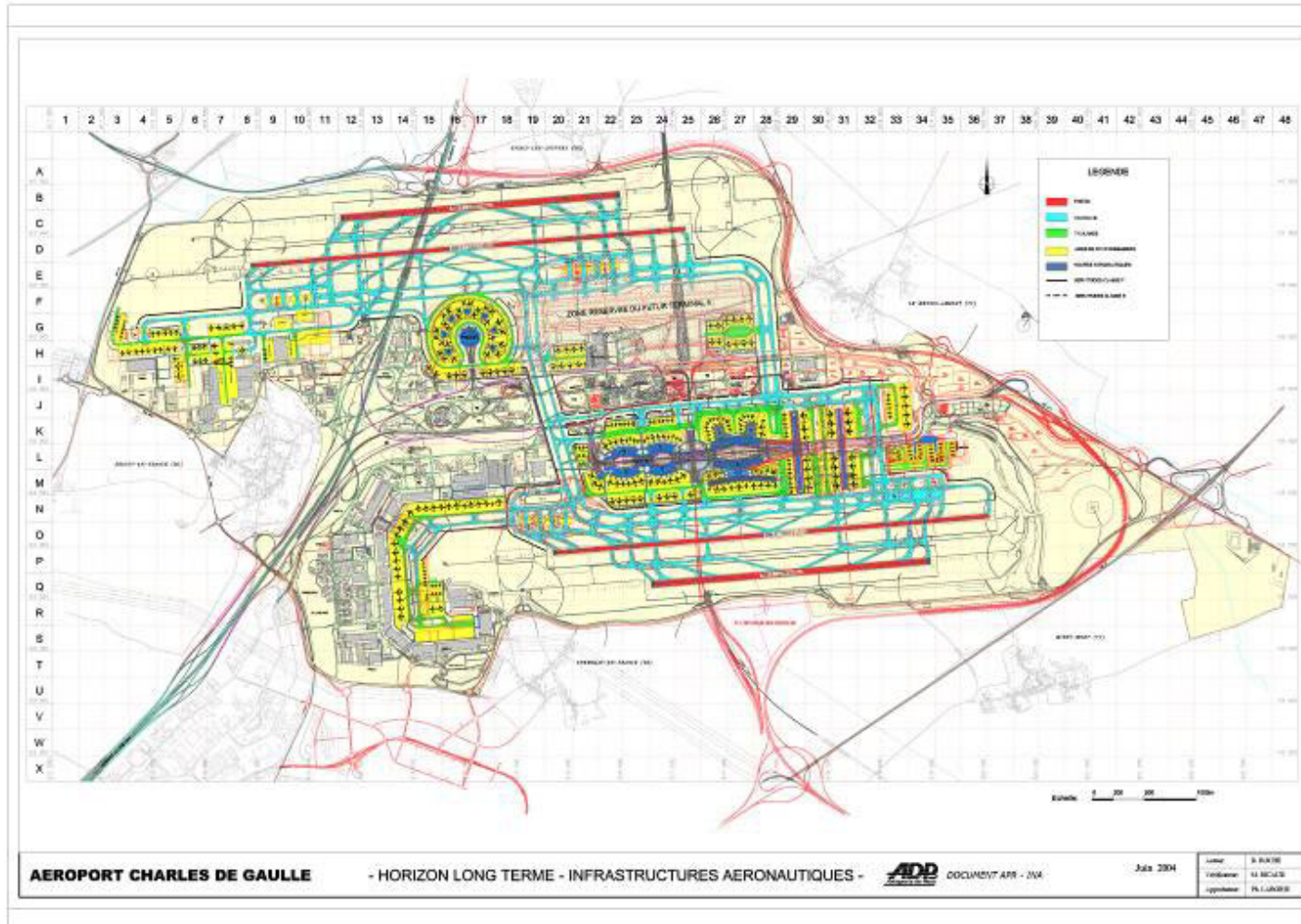
Paris-CDG traffic Forecast

	Passengers	Movements
2004	51.3 M	530 000
2010	64 M	600 000
2015	72 M	650 000
2020	80 M	680 000

CDG 2005



Paris-CDG long term layout

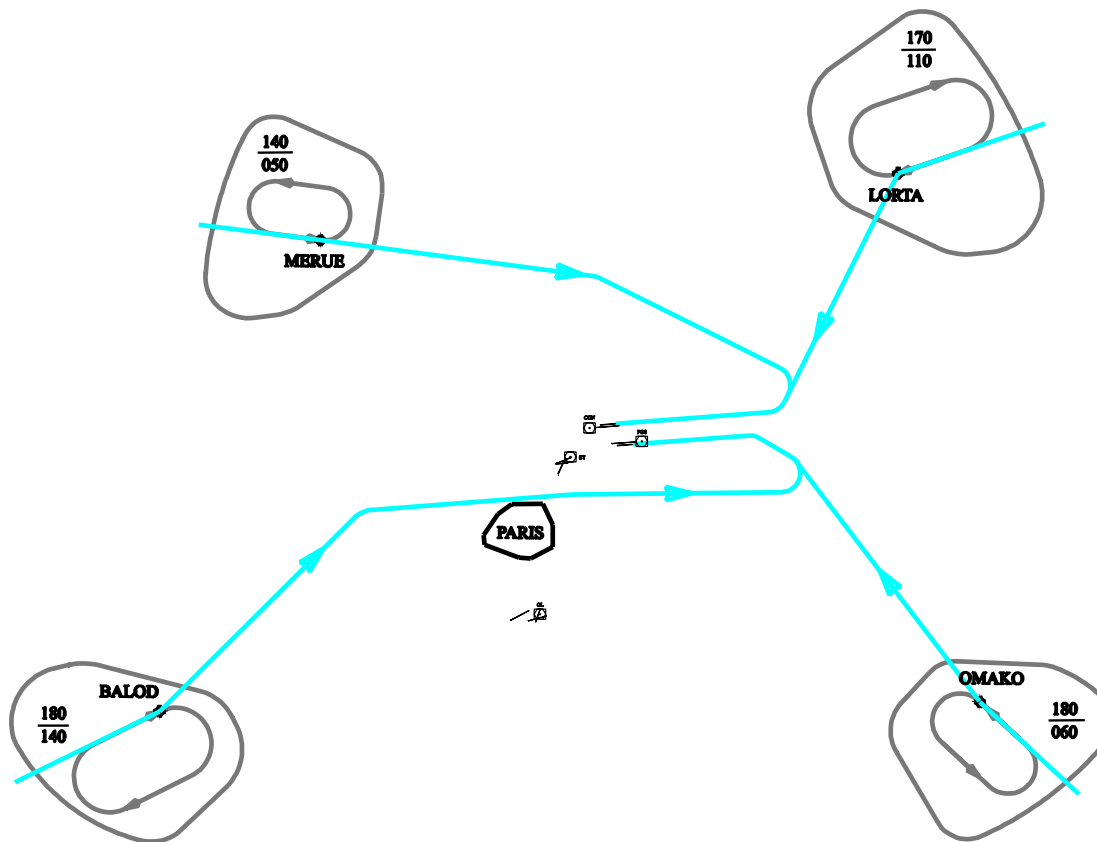


TMA Location in Airspace



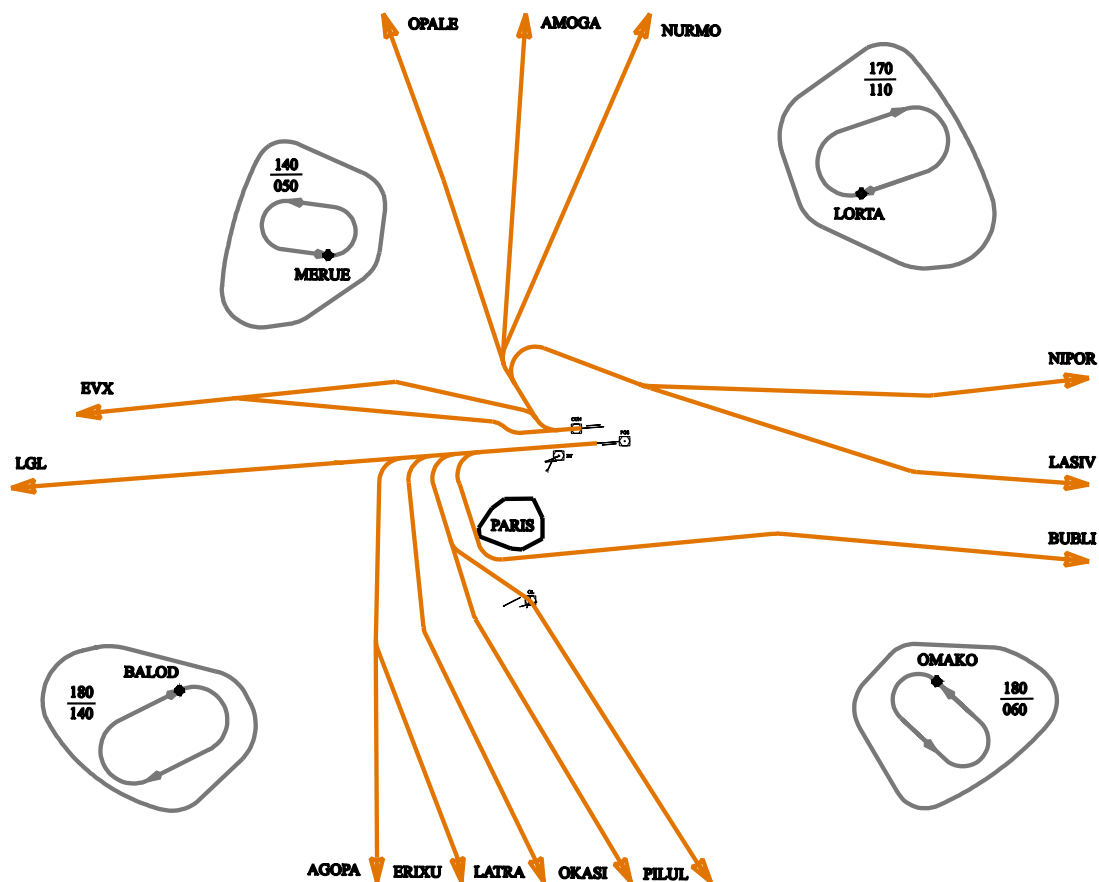
Airspace Improvement - Arrivals

4 entry points at NE, NW, SW and SE (March 2022)



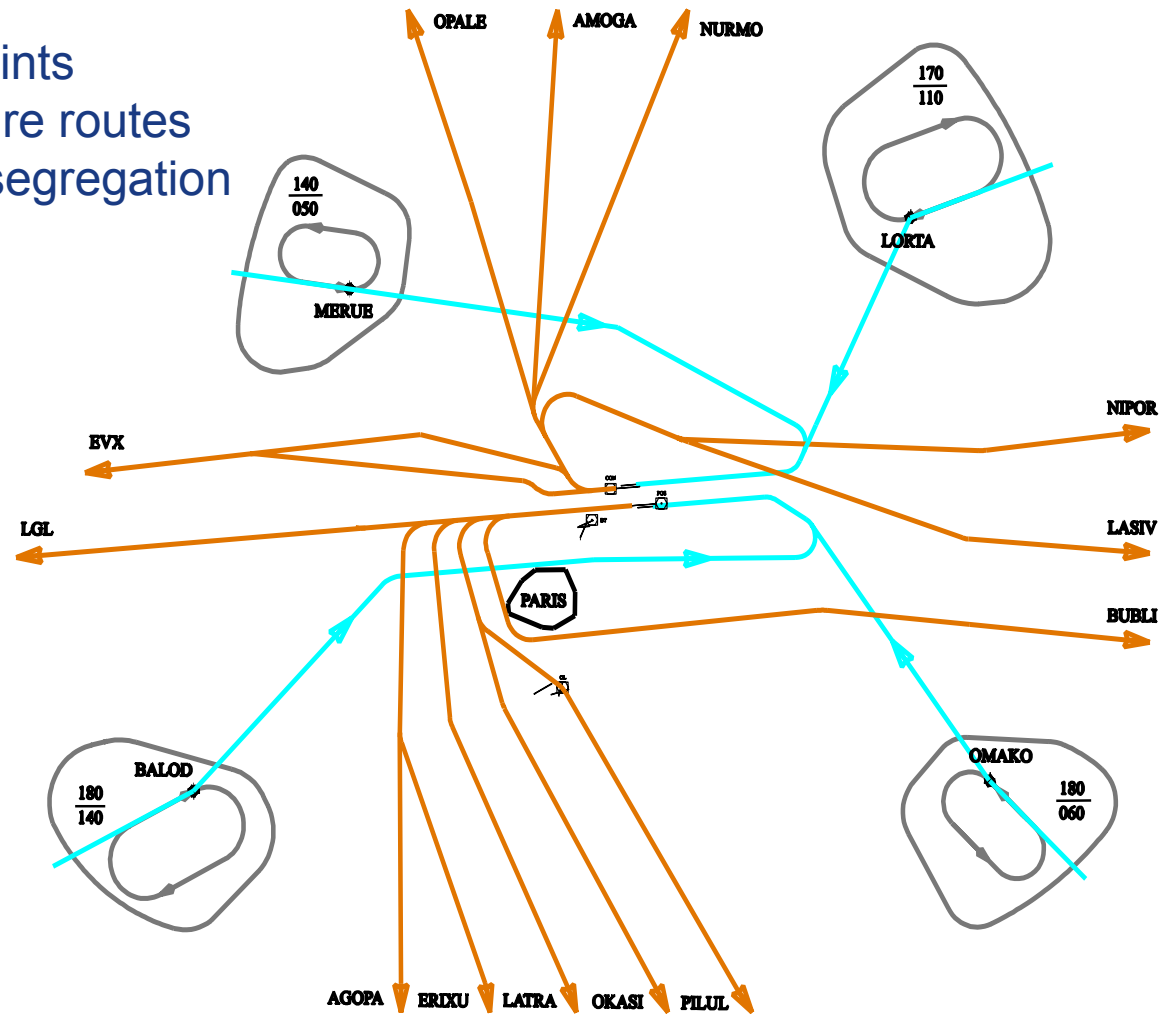
Airspace Improvement - Departures

Independent departure routes N (3), S (4), E (3) and W (2) (Feb 2005)



Airspace improvement : arrival + departures

- 4 entry points
- 12 departure routes
- strategic segregation



Current hourly Capacity

A. Operational capacity

Depending on :

- Weather (good weather, CAT1, CAT3, icy temperature, snow)
- Infrastructure availability
- CFMU regulation, when any

Today over **120** (max achieved capacity to date : 127)

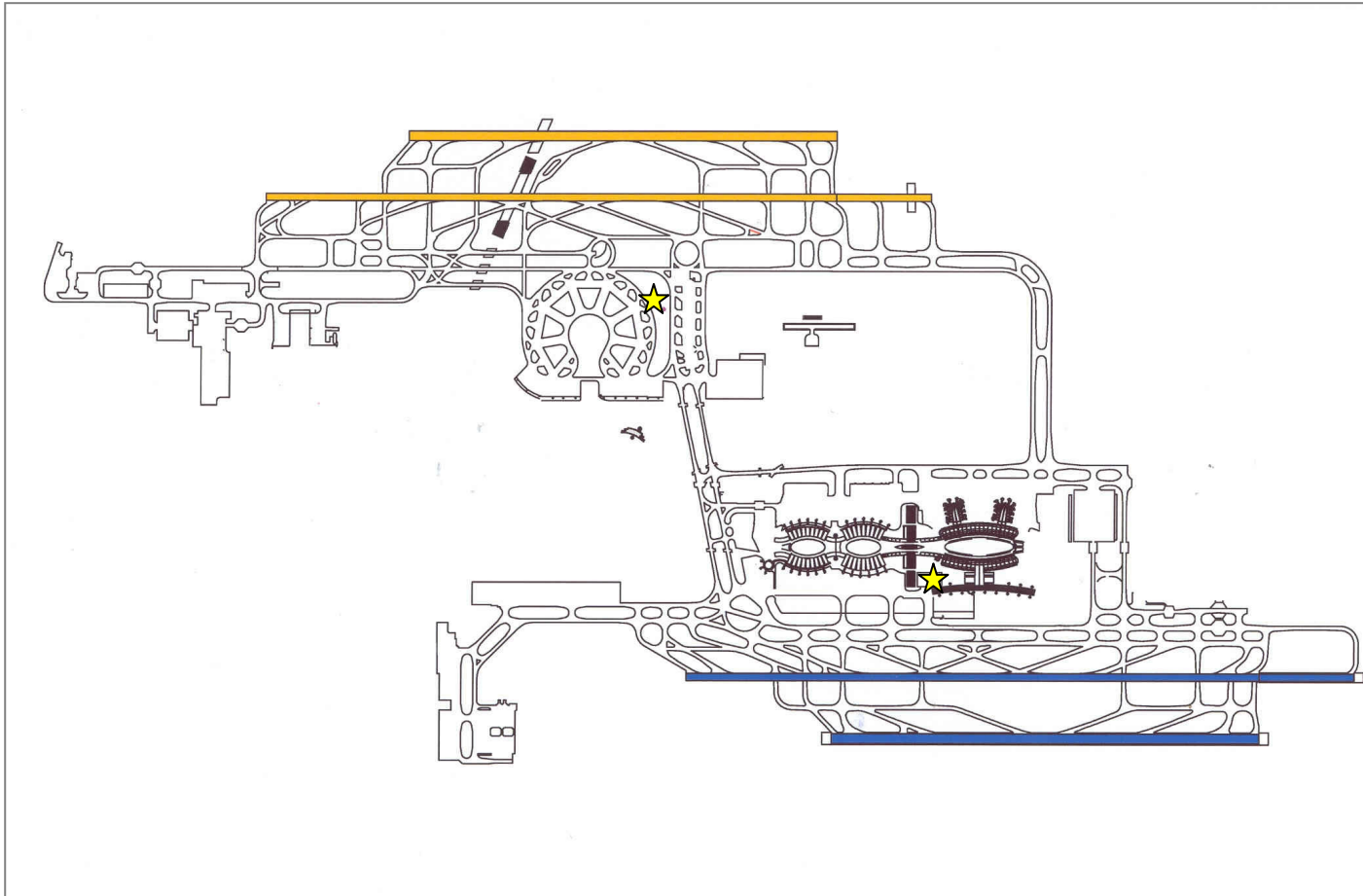
B. Declared scheduling capacity with 3 runways in operations :

- **105** Arr + Dep
- 70 Arr or 70 Dep

Will be increased shortly after opening of 4th runway.

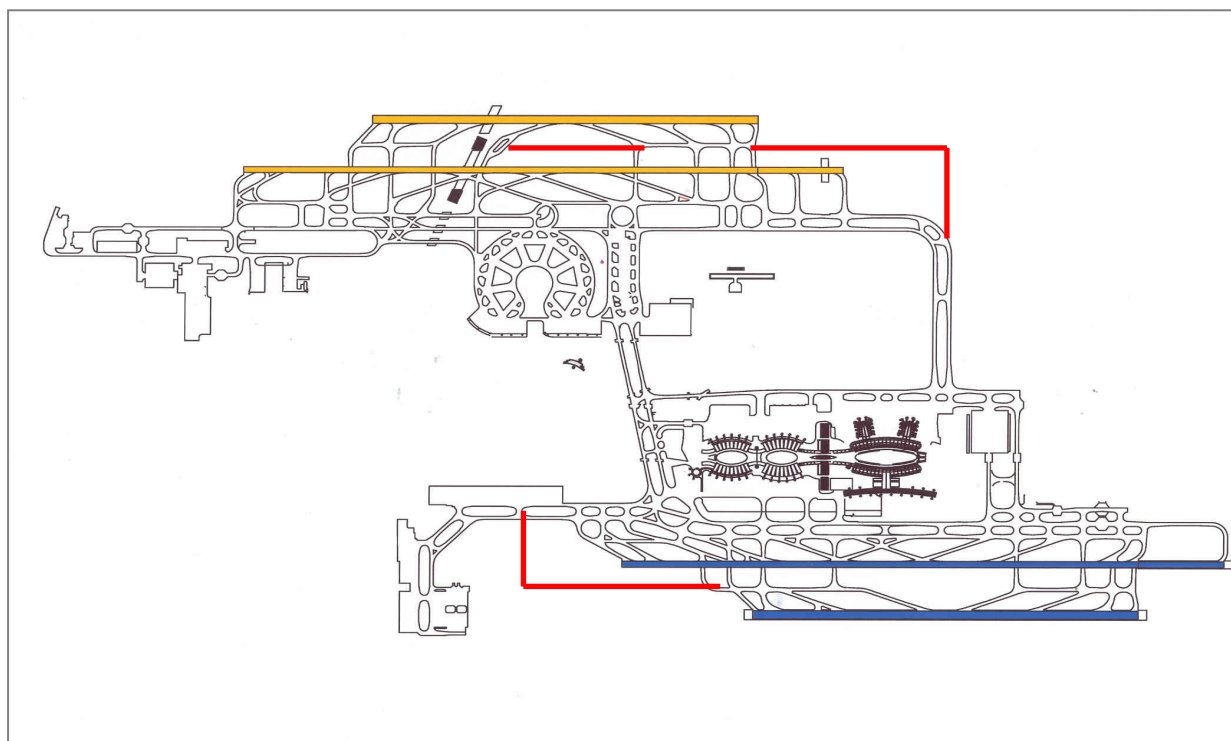
Current Runway Operations

- 4 runways in operations, all specialised (Nov 2005)
- Two ATCTs : South and North



Long Term Airfield Improvements

- A. No additional runway
- B. More de-icing pads : 4 pads per threshold, against 2 or 3 today
- C. Addition of perimeter taxiways for reduction of runway crossings and increase of departure throughput.



Long Term hourly Capacity

Operational capacity

After permanent entry into service of 4th runway and North ATCT, will progressively grow to more than **160** mvts / hour (Comparable configuration at Atlanta achieving 190-210 mvts /hour) :

- 50 for a take-off runway
- 40 to 45 for a landing runway, depending upon % of heavy aircraft

Declared schedule capacity

Usually a factor of 1.2 between operational and declared capacity, then will grow from 105 to **120** over the 2005-2009 period :

Long term target over **135** Arr + Dep, with a 5 000 ratio between annual movements (680 000) and hourly declared capacity

Airspace structure assumed to be convenient to cater for such flows.

Conclusion

- A. CDG runway capacity should be increased by 30% before 2020 through a corresponding increase in runway rates.
- B. Reduction of runway occupancy time will contribute, but not much as each runway is already fitted with 3 rapid exit taxiways
- C. Arrival and departure short sequencing will be the major contributor of additional capacity, as well as operational flexibility between close parallel runways
- D. For that purpose, wake vortex accurate measurement and monitoring need to be implemented for each runway and between each couple of close parallel runways.

Thank you