



VFE Workshop presentation

KLM Flight Operations
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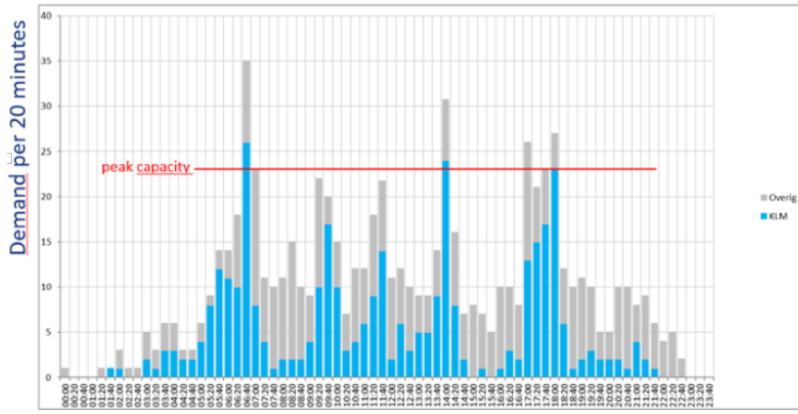
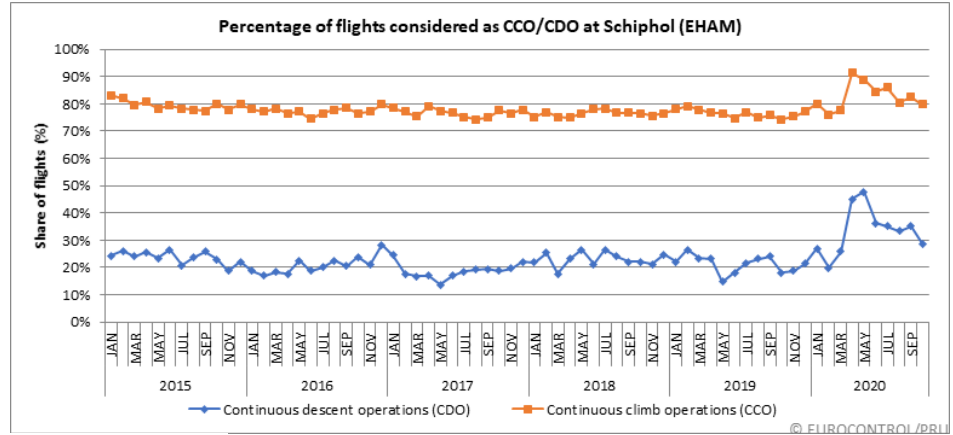
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■ Agenda

- VFE performance due COVID at Schiphol
- PBN development at Schiphol and Lessons learned
- Challenges for the future

VFE performance due COVID at Schiphol

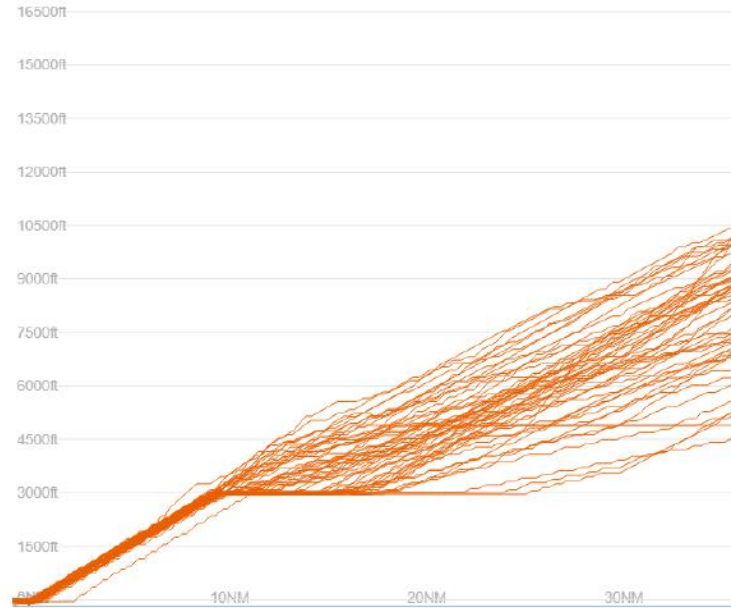
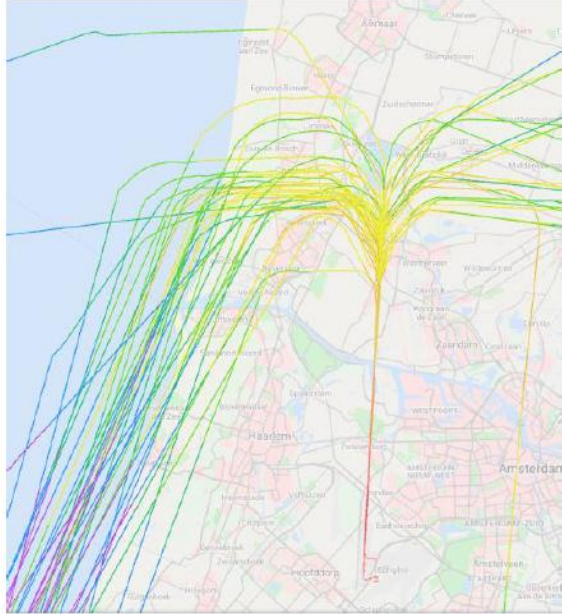
VFE improved initially but when we went back to 50% of our schedule it was almost back to the regular performance:



The reason for the quick return to normal:
The Hub schedule is still based on connectivity, thus organized in peaks. (W20 schedule IAF load example)

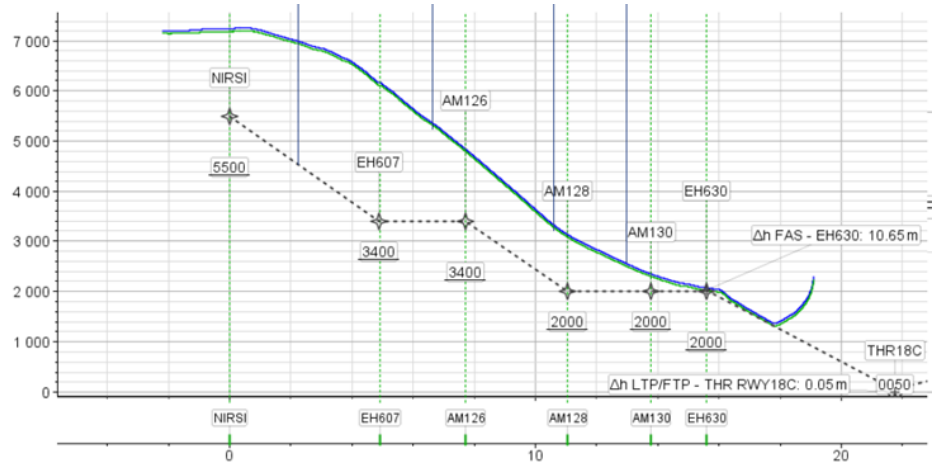
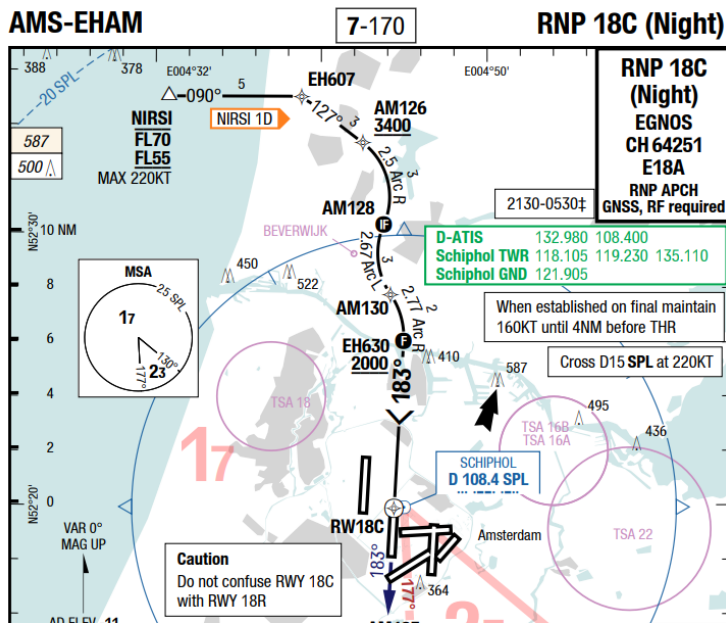
■ PBN development EHAM 18C

Arrival procedure for EHAM 18C overflies many urban area's @ 3000ft:



■ New night arrival EHAM 18C

The lateral path circumnavigates urban area's and a CDA profile is established.
For non-RF capable aircraft a straight CDA is available too.



■ Lessons learned during implementation:

- The devil is in the details of FMS coding. Careful collaboration between ANSP and AO is the only way to tackle these issues quickly and safely.
- FMS programming works in reverse order. (for most aircraft types) Early in the process the Pilot must know an RNP approach is expected otherwise the associated CDA arrival/transition will never be found in the FMS.
- Consultation with communities is always difficult. There is always someone not benefitting...

■ Challenges for the Long term

- Consultation process for route changes. Without this the PBN implementation will result in developing overlay procedures only.
- PBN fixed routes require some sort of interval management at high density airports. There are currently no mandates or incentives to support development.
- Move of RNP1 requirement from CP1 to PBN regulation, effectively postponing 2024 to 2030. How do we ensure development of procedures will continue to be supported.