

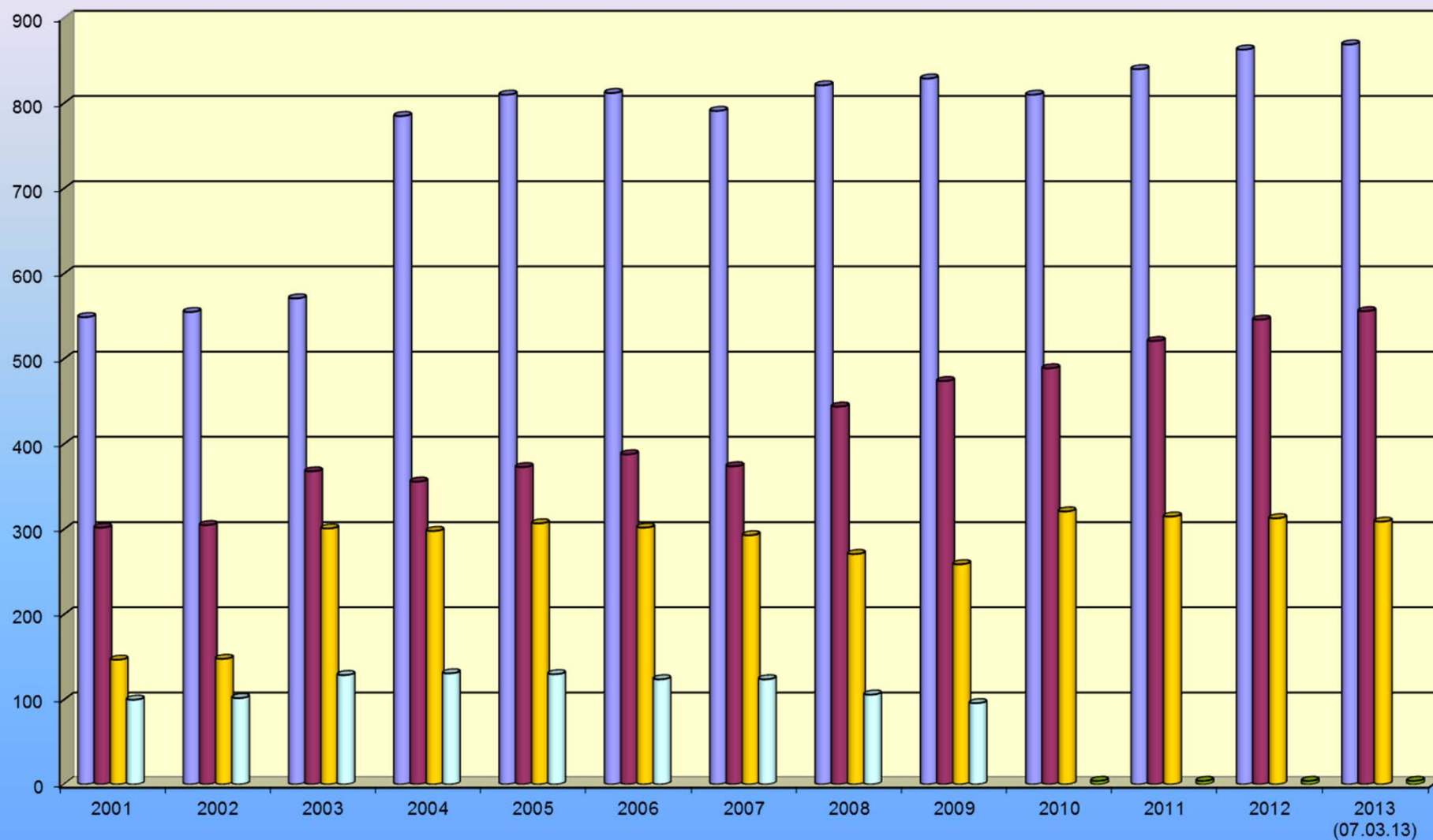
State ATM Corporation of Russia



Route Network & ACC Optimization

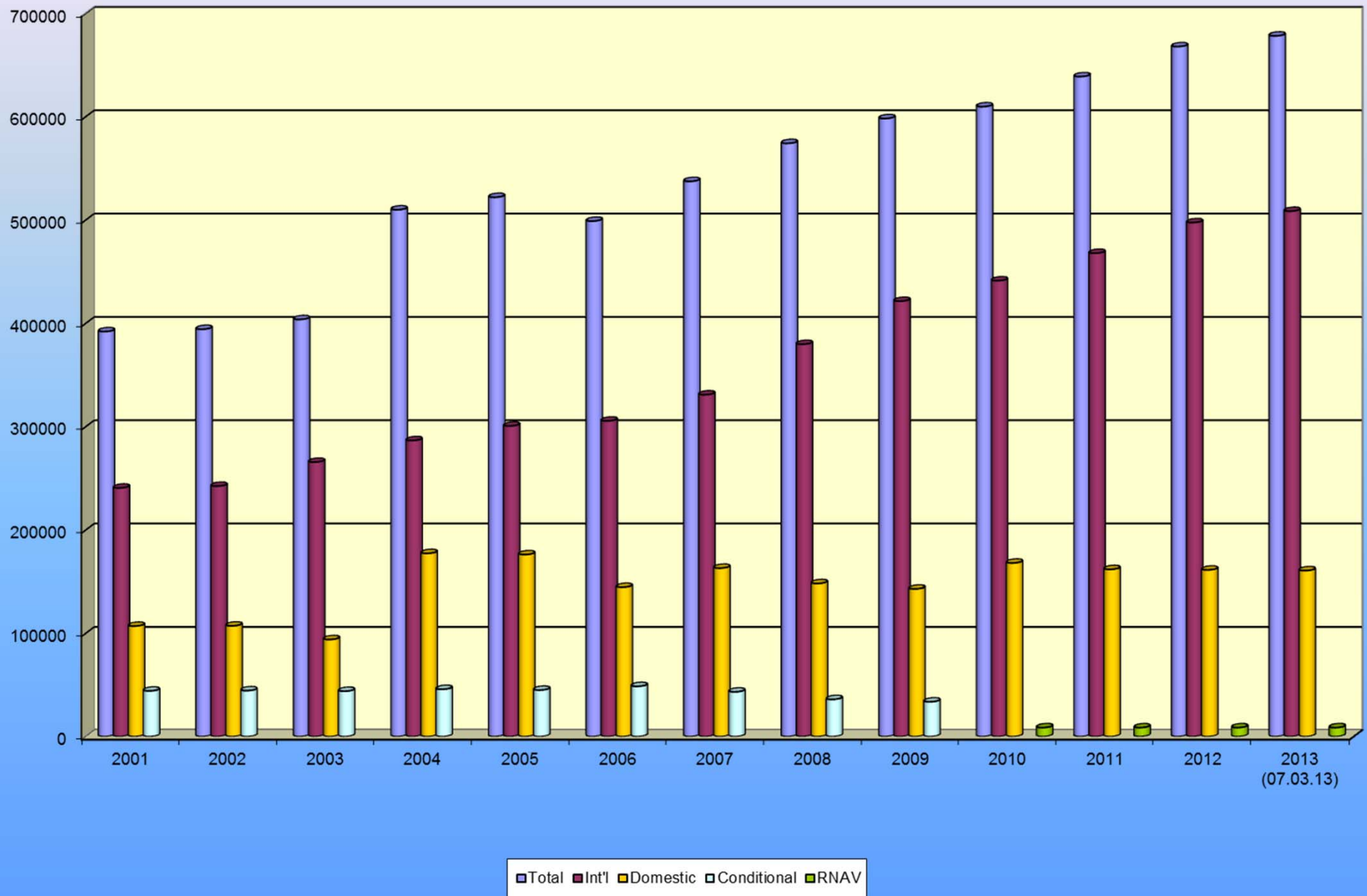
May 13 – 17, 2013

Changes to the Number of ATS Routes in 2001 - 2013

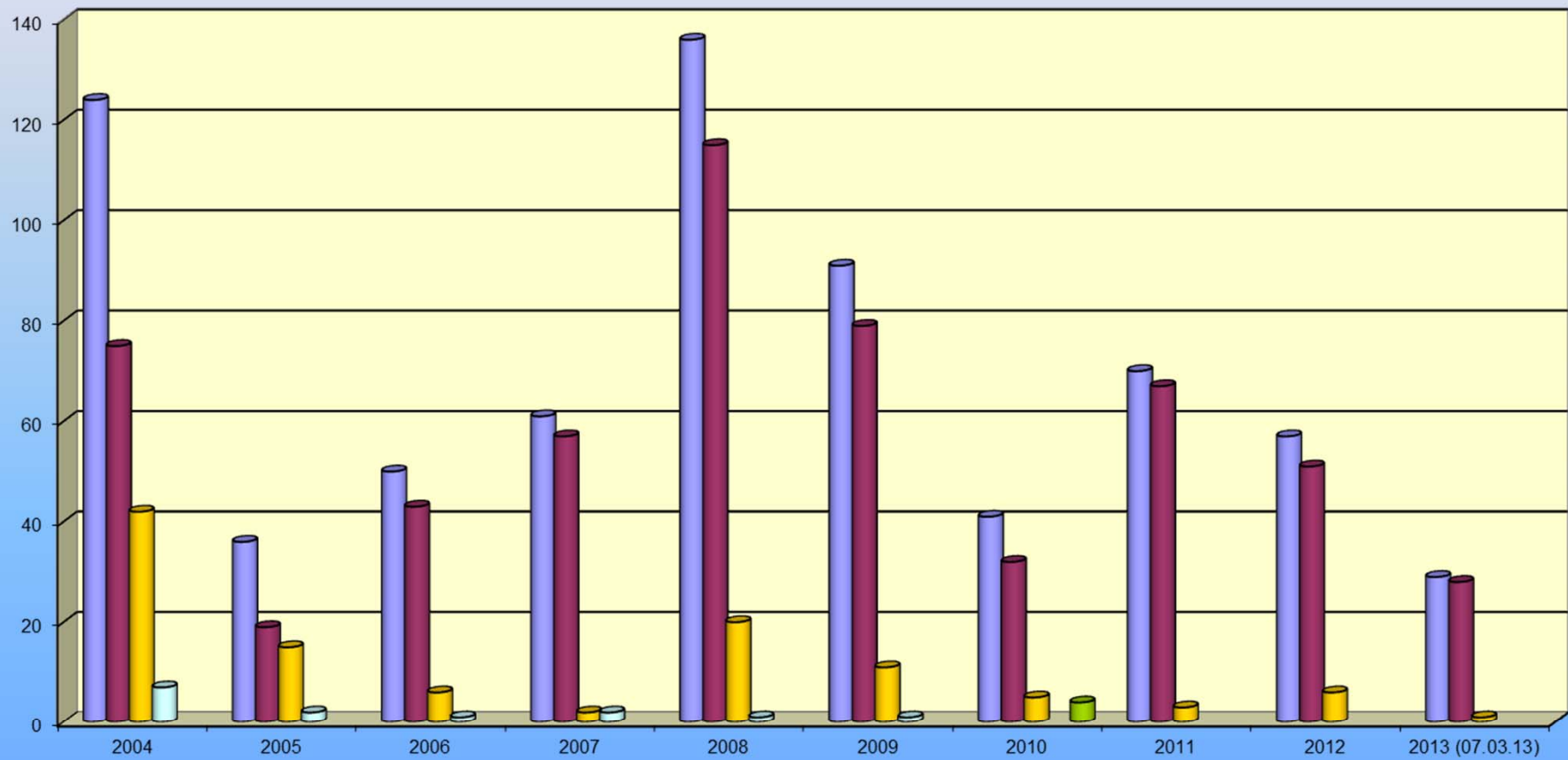


■ Total ■ Int'l ■ Domestic ■ Conditional ■ RNAV

Expansion of ATS Route Mileage in 2001-2013



Number of New ATS Routes 2004-2013



■ Total ■ Int'l ■ Domestic ■ Conditional ■ RNAV

Existing ATS Route Network



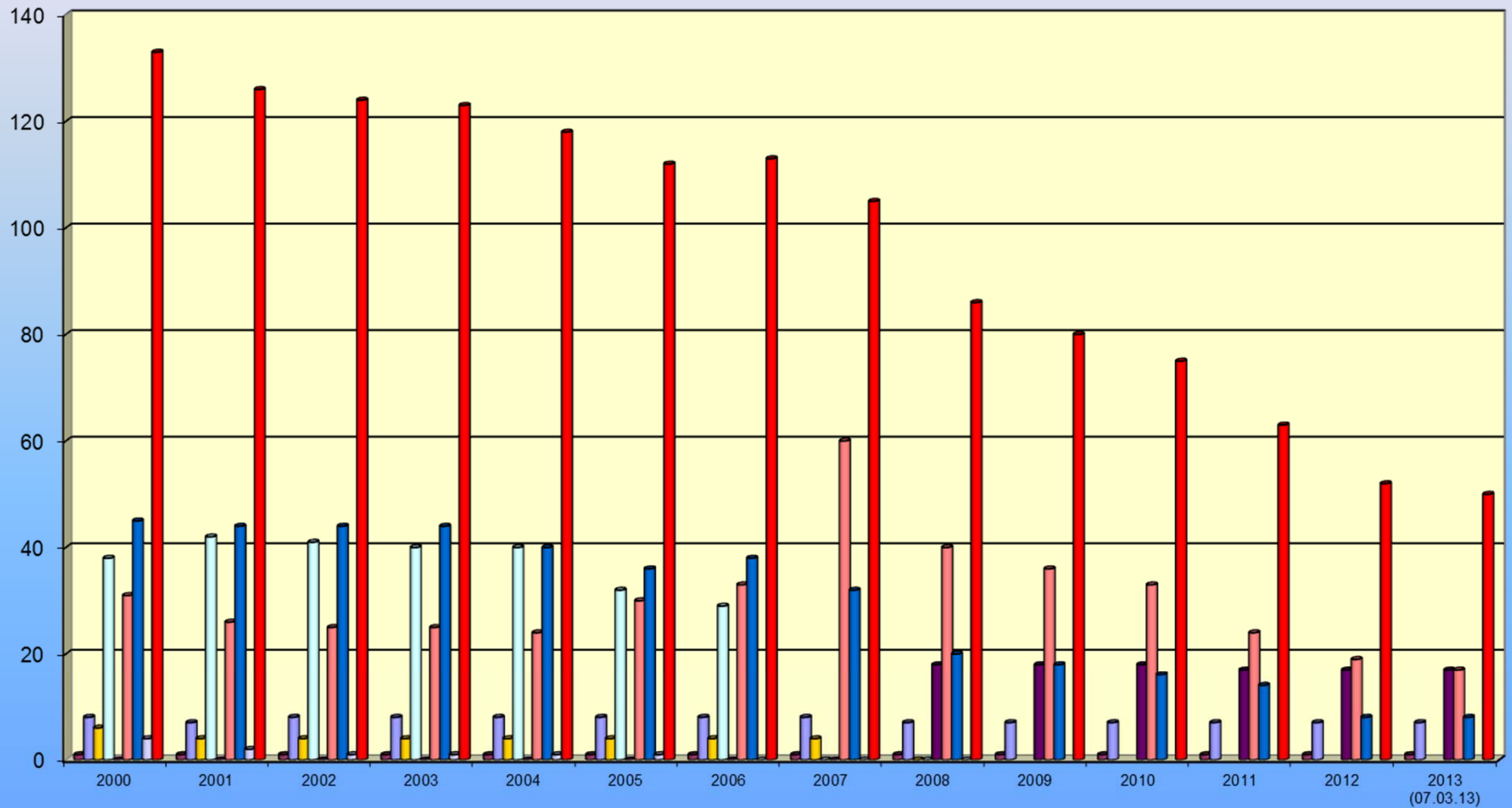
ATS Routes Opened in 2012.



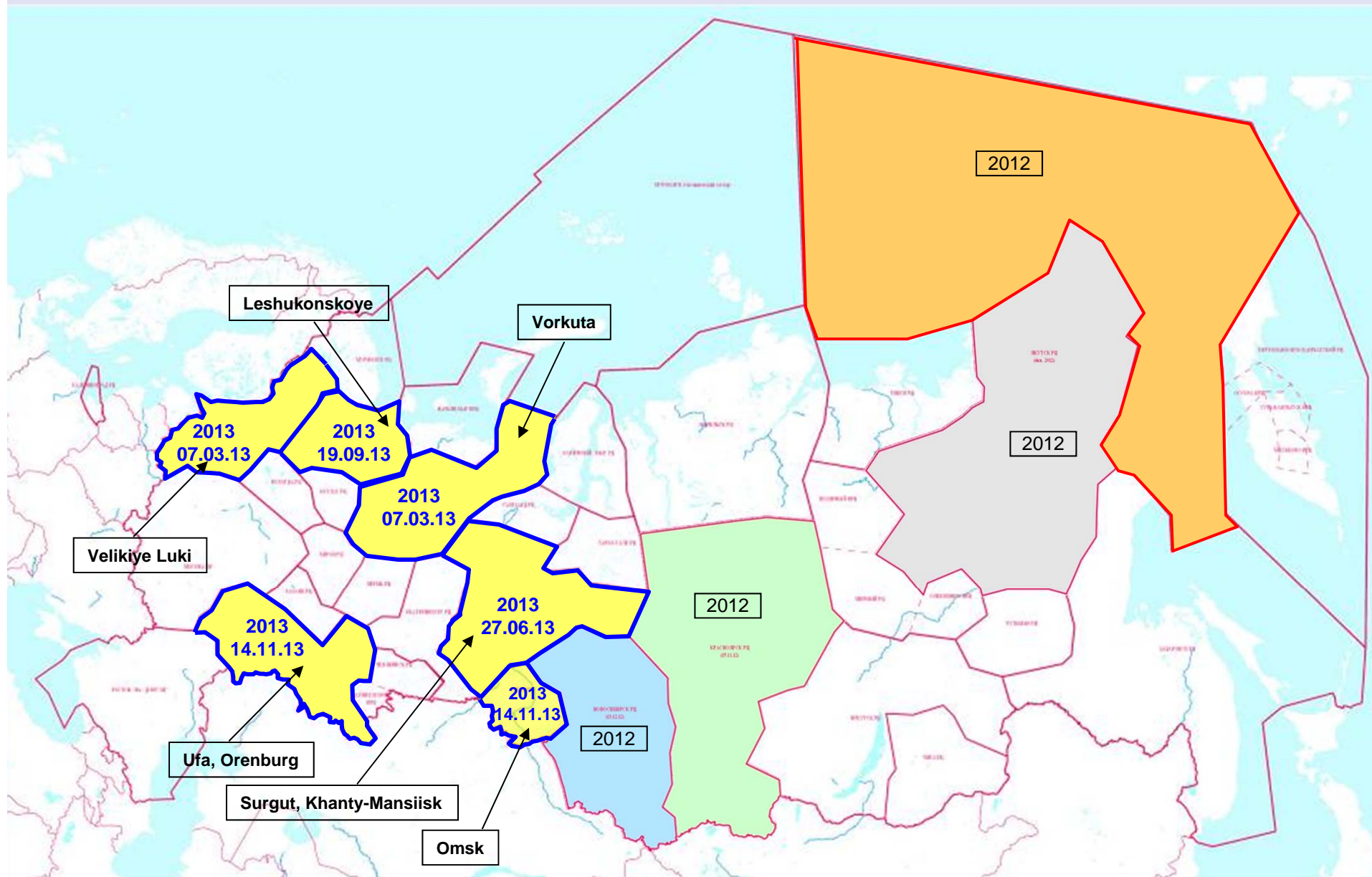
ATS Routes Opened in 2013



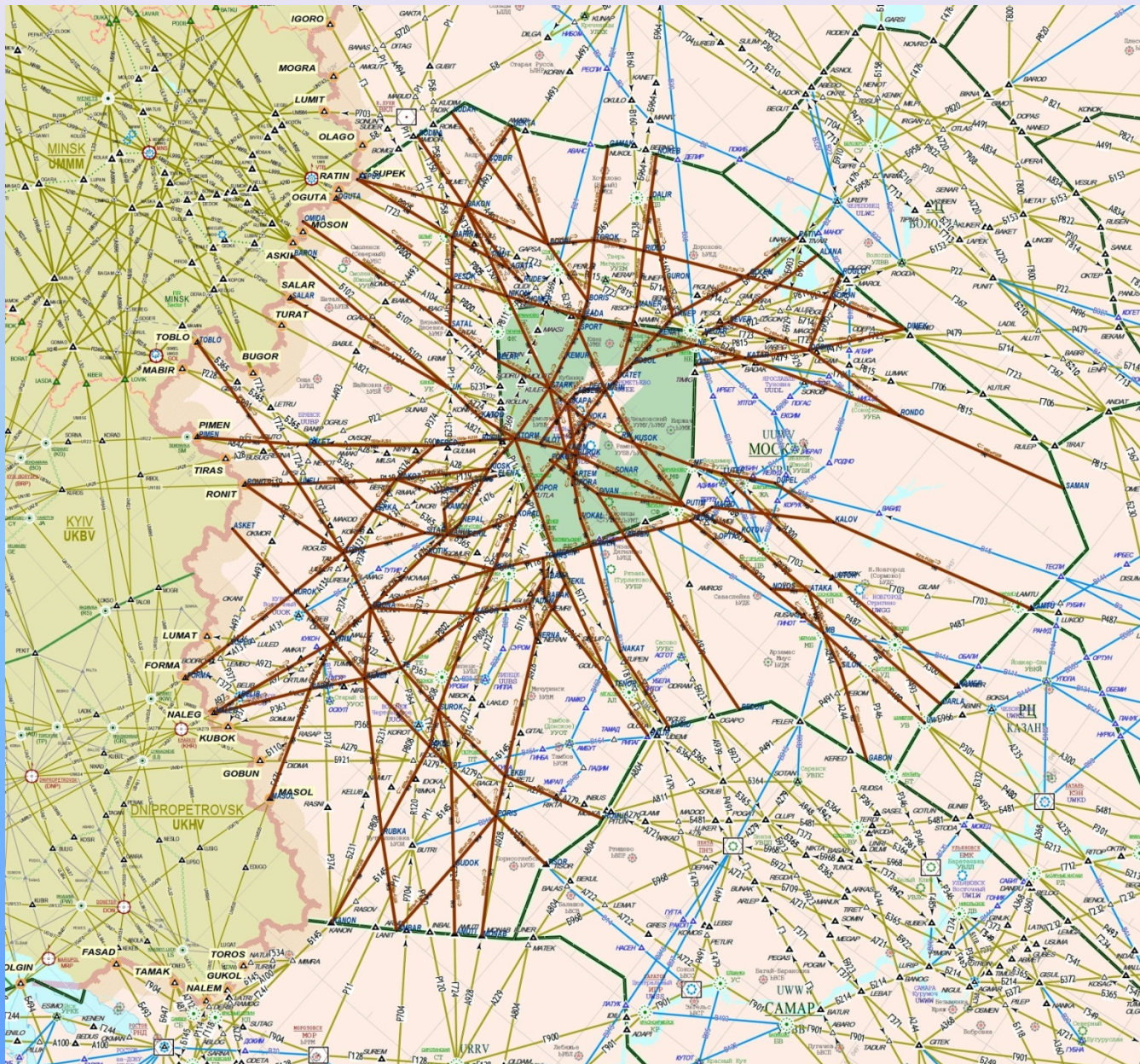
ACC Consolidation in 2000-2013



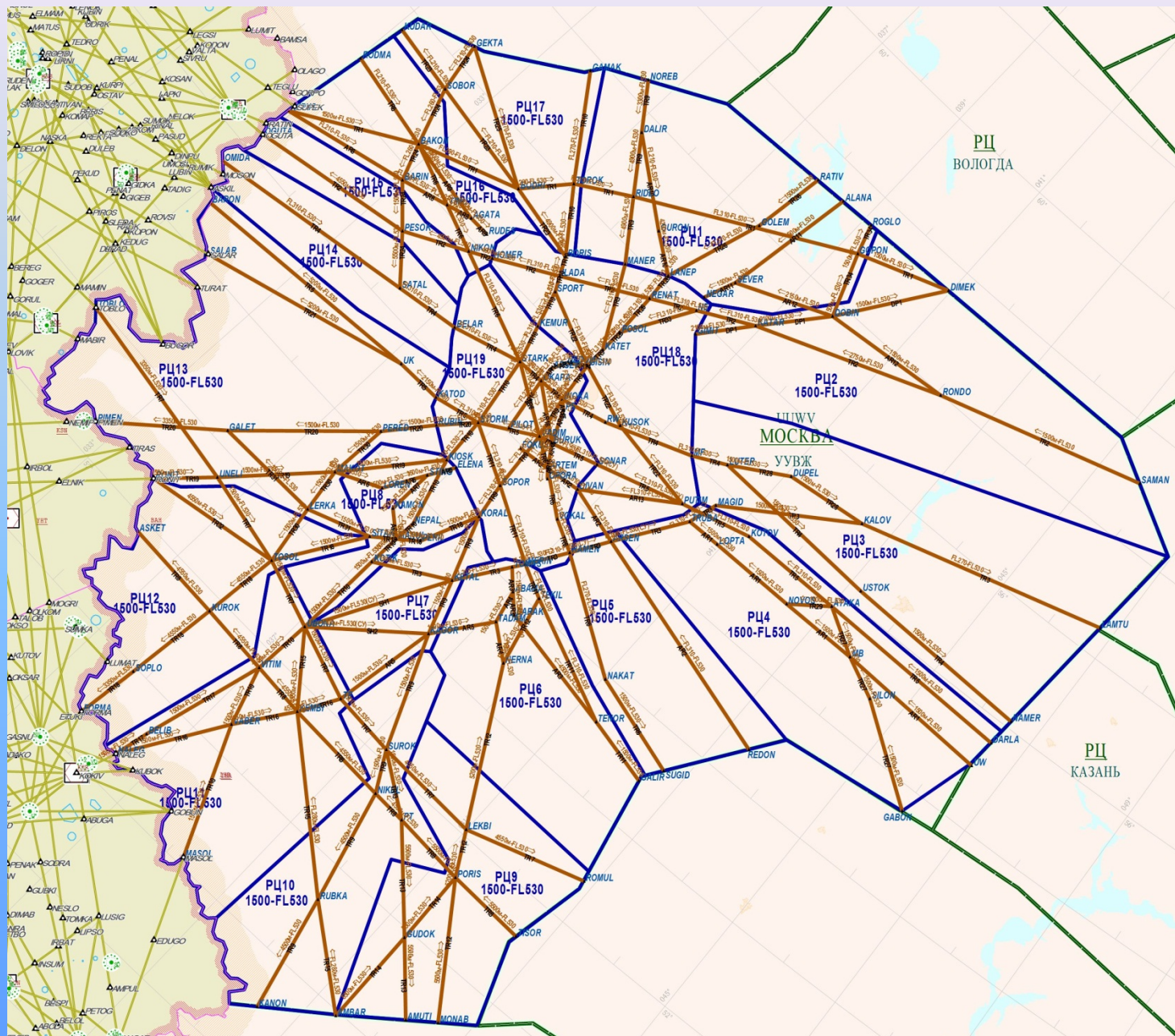
ACC Consolidation in 2012 and 2013



Proposed Route Network in Moscow FIR/TMA



Proposed Moscow ACC Sectorization



Expected Benefits

1. **RNAV 1 in Moscow TCC and RNAV 5 in Moscow ACC**
2. **Unidirectional routes for main flows of traffic in Moscow ACC area of responsibility.**
3. **Exclusion of transit flights from TCC**
4. **Pseudogeographical distribution of Moscow FIR airspace for inbound flows of traffic to main Moscow airports (UUEE, UUWW and UDD).**
5. **Use of QNH in TCC below the transition flight level (including state aircraft).**
6. **Use of POINT MERGE SYSTEM for all 64 combinations of runway utilization in three Moscow airports.**
7. **Conflict-free arrival and departure routes with existing longitudinal and lateral separation standards for all 64 combinations of runway utilization for all three Moscow airports.**
8. **Reduced criteria for loss of longitudinal separation alert in the automated ATC system (from 20 km to 13 km (7 nm))**
9. **Conflict-free approach schemes for independent use of parallel runways in UUEE and UDD**
Vertical location (one under the other) of the two point merge systems to allow independent approach to RWY25 in UUEE due to the lack of available airspace.
10. **Conflict-free straightened approach schemes to UUWW and UDD from Moscow city side.**
11. **Double cascade location of holding areas (holding area + point merge) to manage inbound traffic flows to UUWW, UDD and UUEE to allow a double level architecture of certain holding areas**