

Appendix A

Automatically generated Airport Maps

A.1 Kansas City International Airport

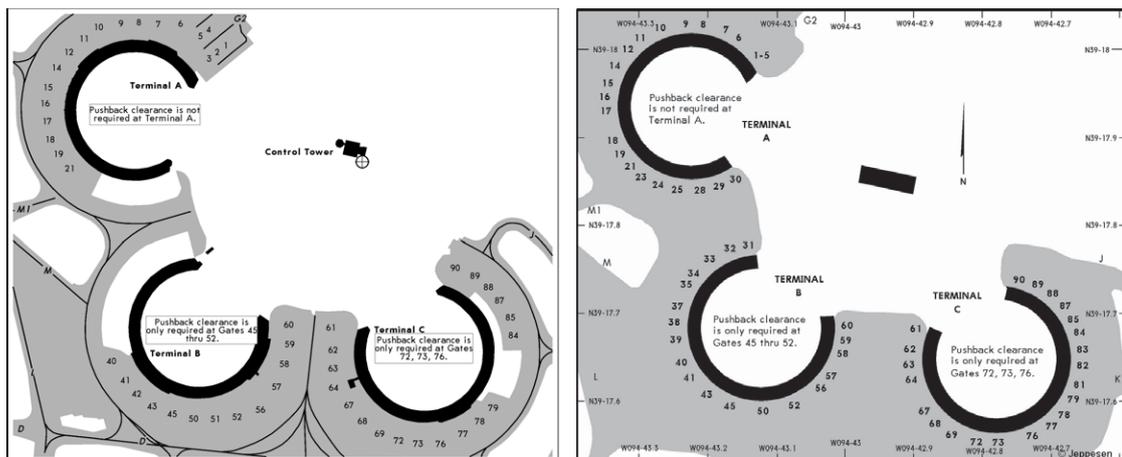


Figure A.1: Automatically generated parking map of Kansas City International airport (left). The right image shows a manually generated chart for comparison.

Taxilines are not drawn on the paper chart in contradiction to the normal charting standards. Some parking stands (e.g. 23 to 39) are not displayed on the automatically generated map as they are marked as construction area in the AMDB. This illustrates the advantage of automatically generated charts to be more current than manually generated ones.

Overlays like the magnetic variation symbol in the upper right corner, the window ticks, or a scale bar have not been implemented for the automatically generated charts.

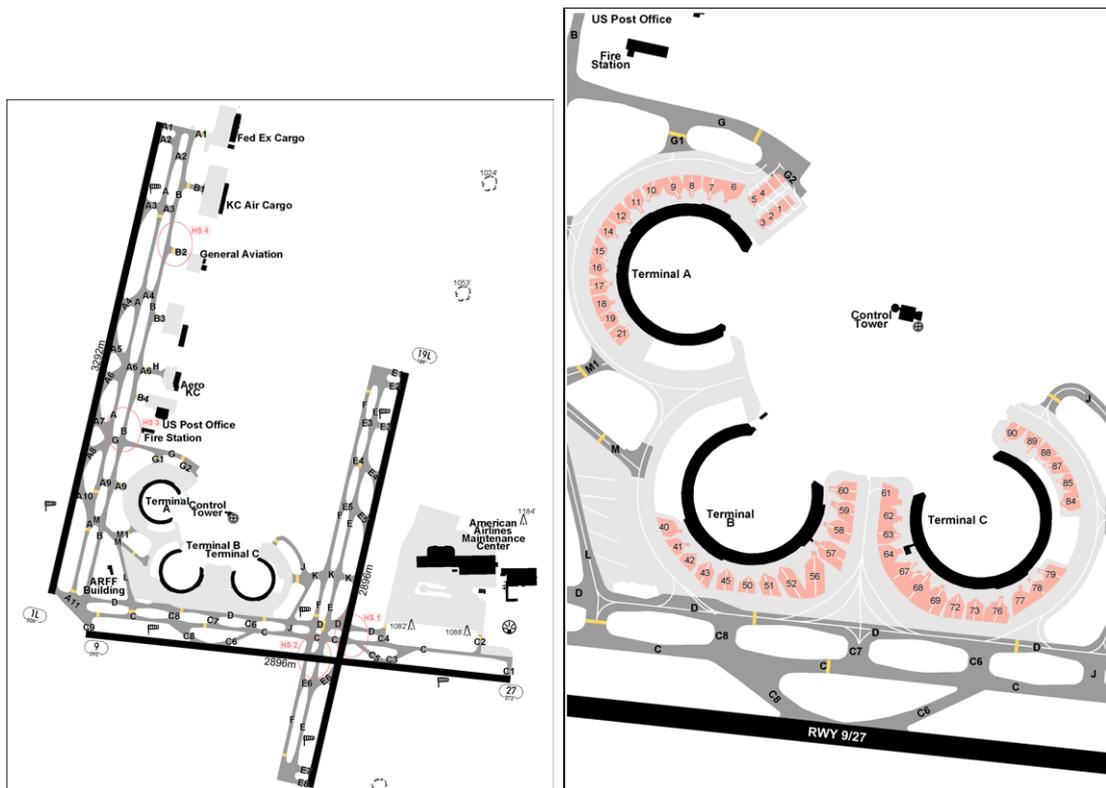


Figure A.3: Automatically generated airport overview and parking maps of Kansas City International airport. A modified symbology set for windsocks, airport beacons, and ARP is used, as well as a different color schema for taxiways, taxilines, aprons, and parking stands. Stopbars are depicted in yellow and larger fonts are used for most label types. The abandonment of approach light systems, roads, and water bodies in the vicinity of the airport leads to a less cluttered map. This enables also a larger map scale. In consequence, even the two taxiways unlabeled in fig. A.2 can be labeled.

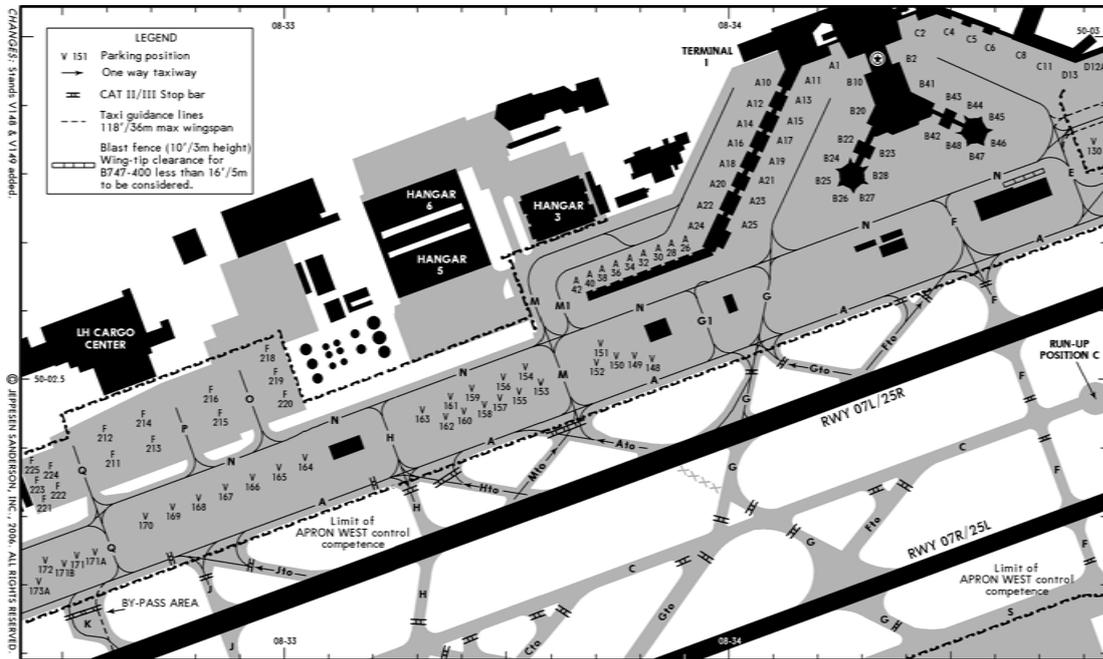
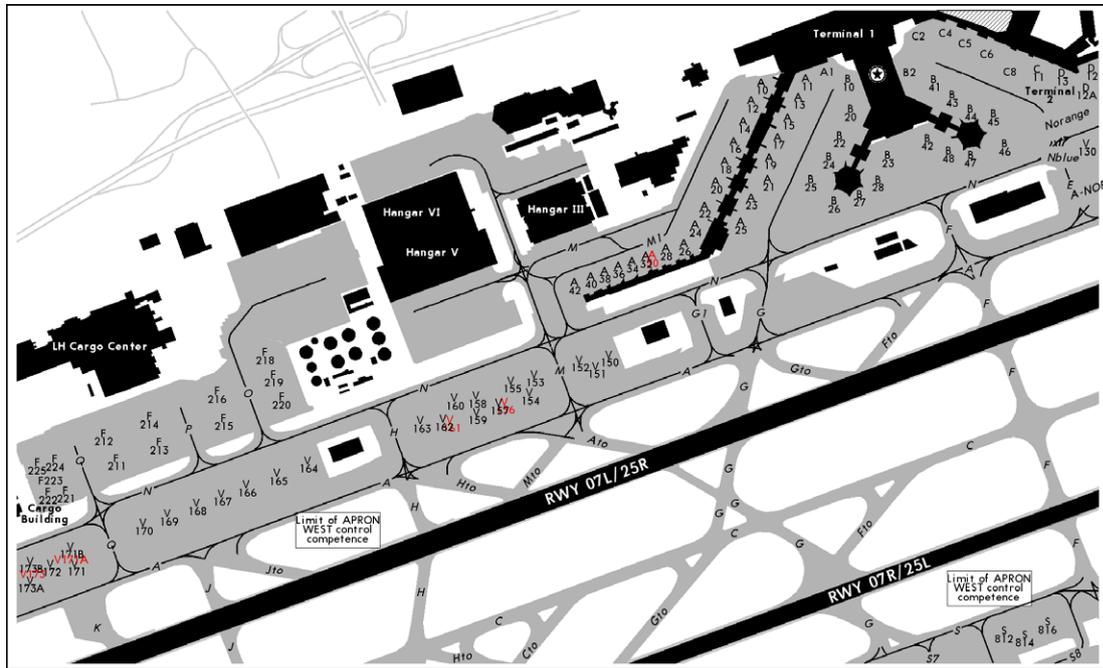


Figure A.6: Automatically generated parking map of Frankfurt/Main (left) and manually generated chart (bottom). Five parking stand labels, located in dense groups, could not be placed automatically (marked in red).

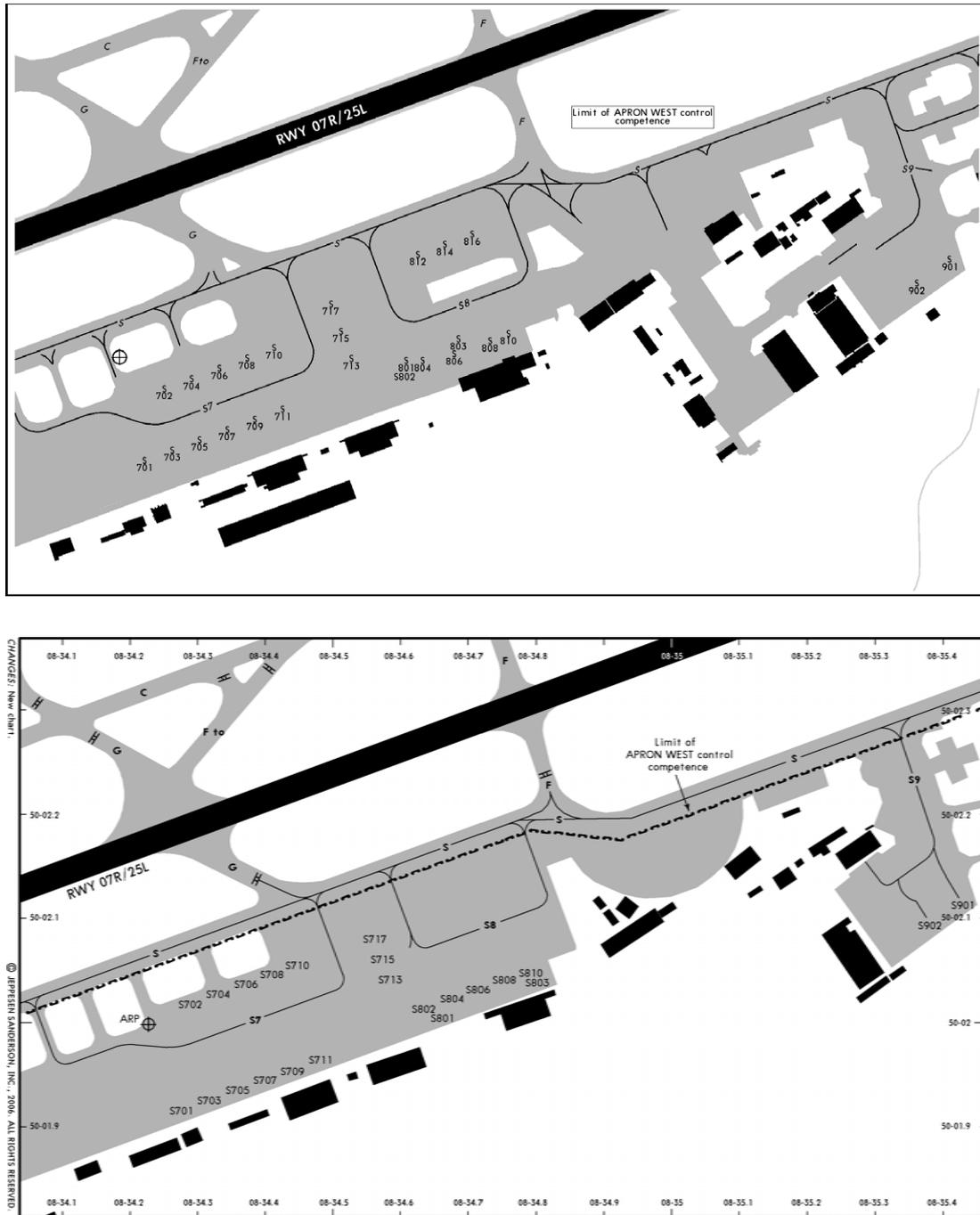


Figure A.8: Automatically generated parking map of Frankfurt/Main (left) and manually generated chart (bottom). All labels could be placed automatically. This example demonstrates the higher accuracy of automatically generated maps. The shapes of aprons and buildings in this area are much more detailed than on the existing paper chart.

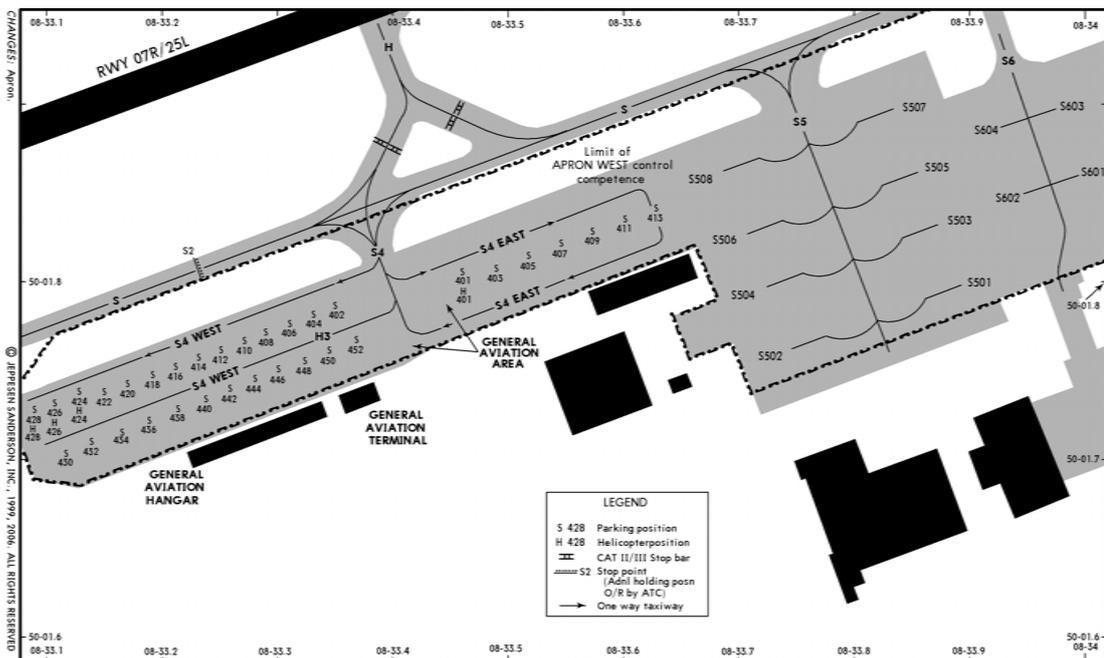
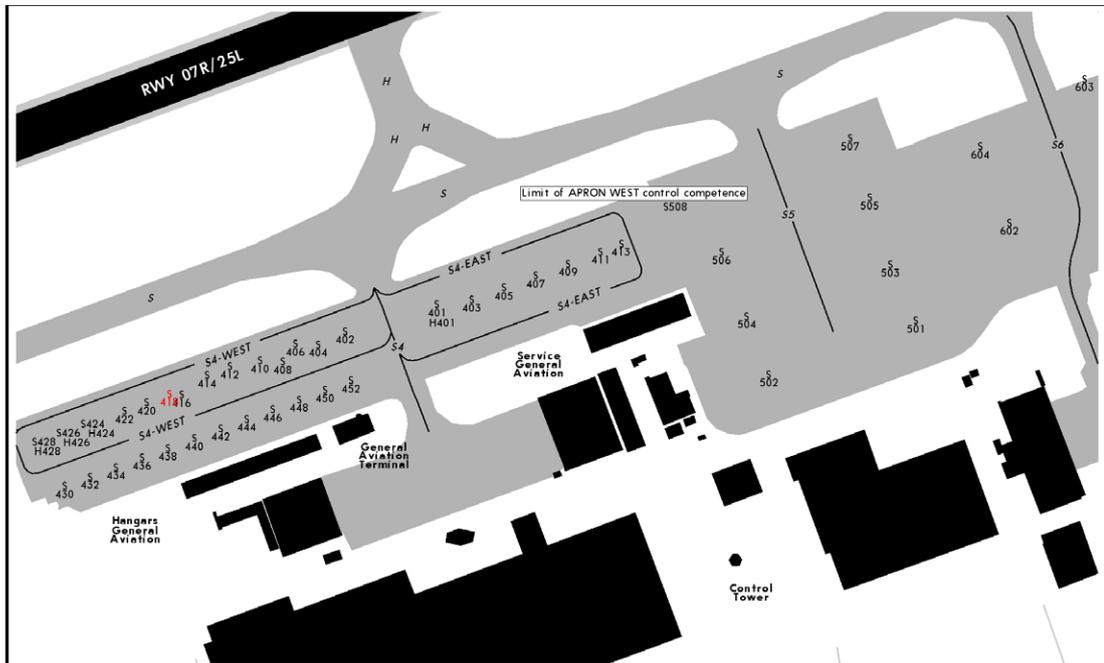


Figure A.9: Automatically generated parking map of Frankfurt/Main (left) and manually generated chart (bottom). All labels could be placed automatically with one exception (“S418”). This example shows an inconsistency in the existing maps, where stand lines are shown for parking stands “S501” to “S508”, but not for any of the other parking stands.

A.3 Toulouse Blagnac

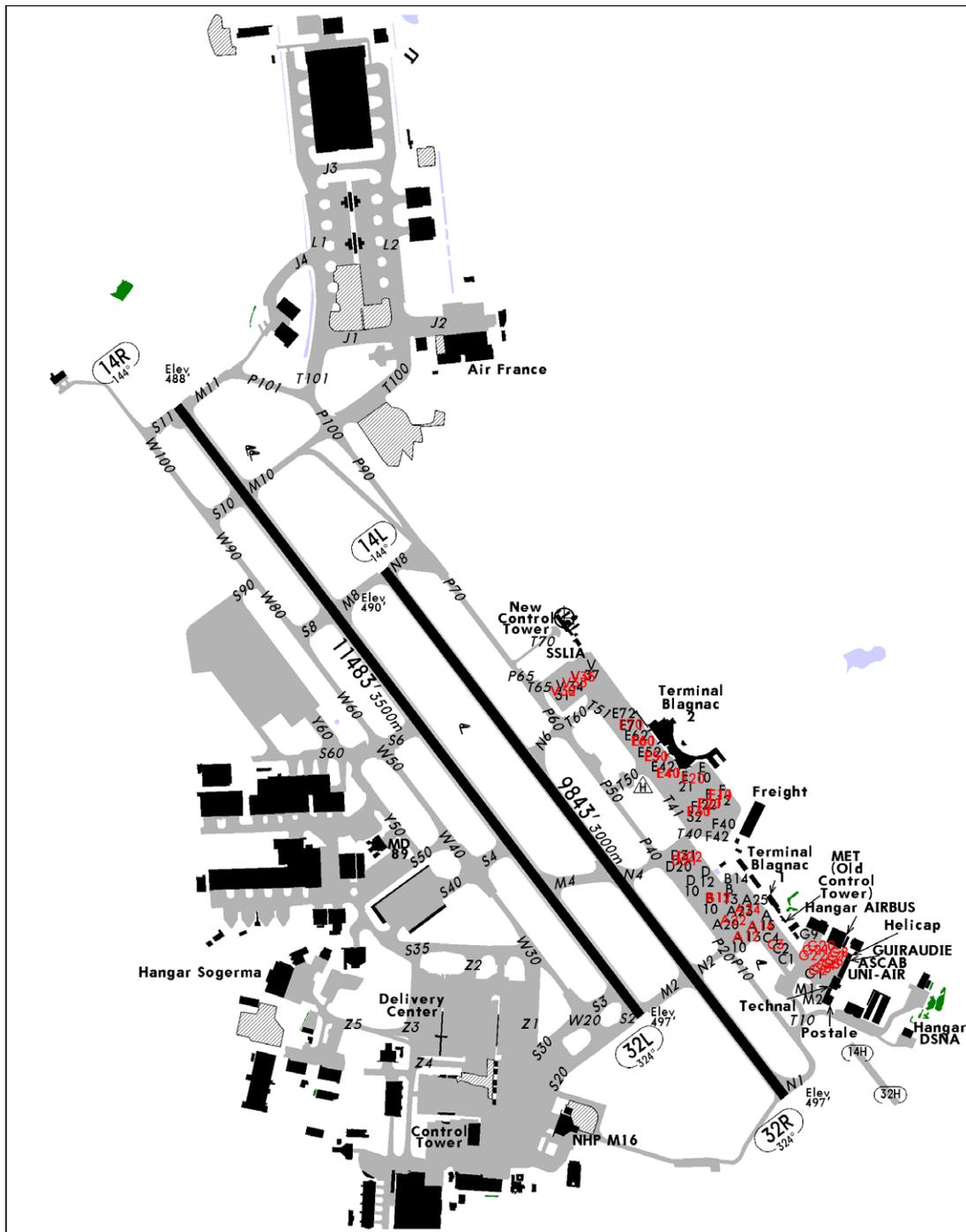


Figure A.10: Automatically generated overview map of Toulouse Blagnac. Labeling of parking stands is much too dense in front of the terminal on the east side.

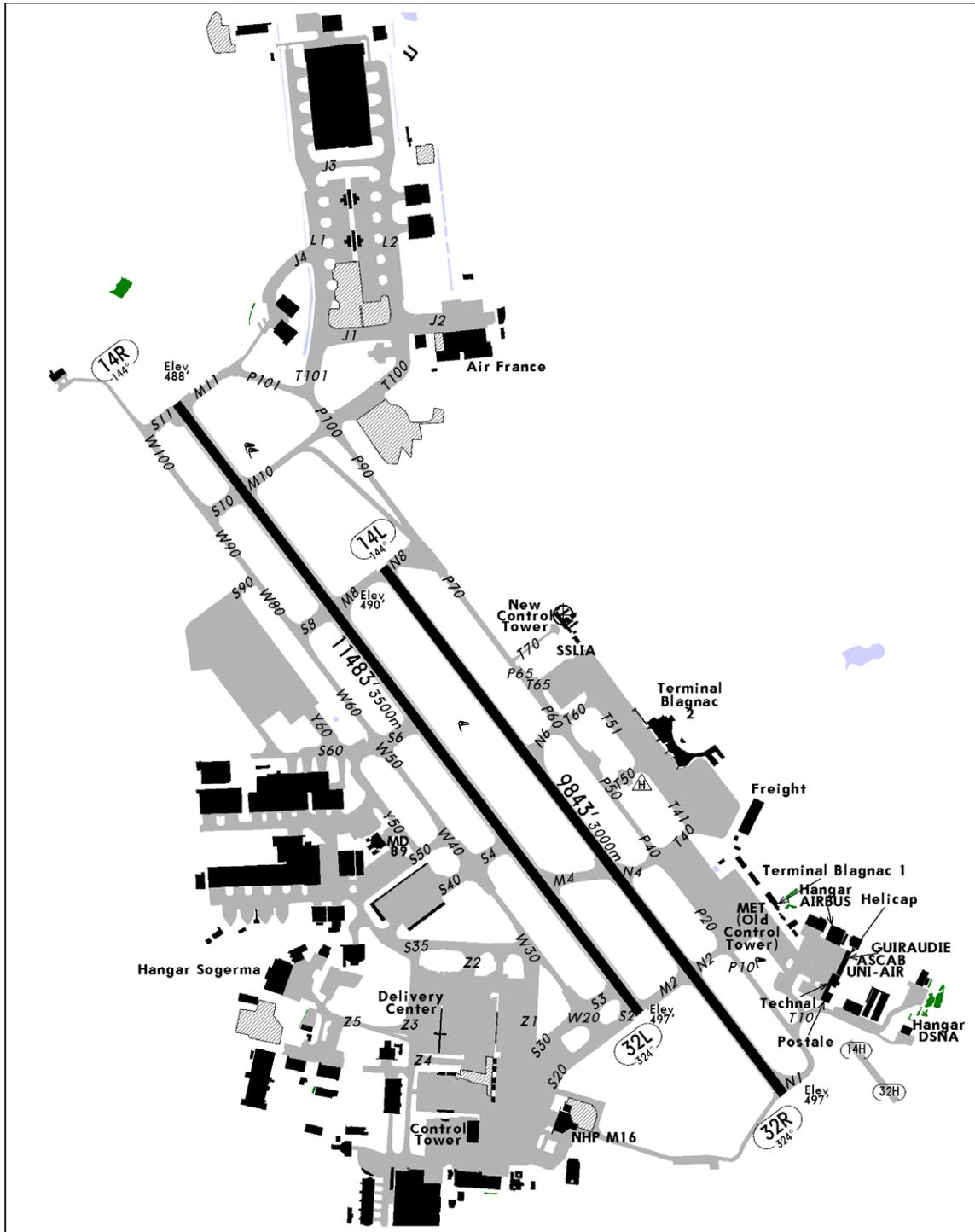


Figure A.11: Automatically generated overview map of Toulouse Blagnac. Parking labels are suppressed on this map and are extracted to a separate parking chart (next figure). This greatly improves legibility and overall perception of the chart. Even the small buildings on the south-east side can be labeled using leader-lines (arrows).

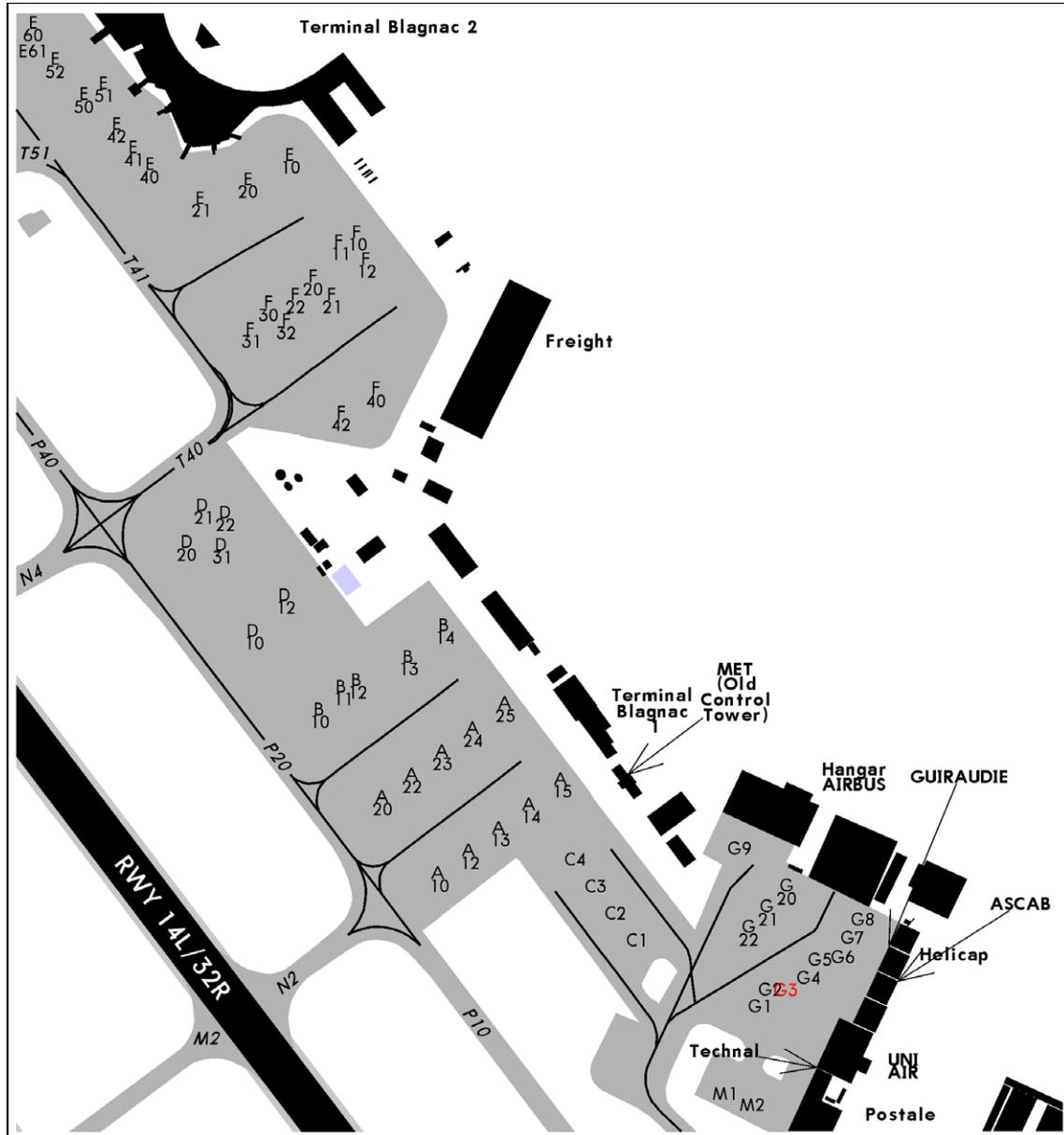


Figure A.12: Automatically generated parking map of Toulouse Blagnac. Only one label could not be placed automatically, and this one can be easily interpolated by the names of the neighbor labels. All buildings can be labeled using leader-lines.