



**Consequences of regulatory
changes of the market opening
for local air traffic management**

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Summary

Since September 2010, airport owners have had the opportunity to independently provide local air traffic management, through their own operations or via procurement. The opening of the market occurred following direct requests, particularly from small local airports, for an opportunity to exert some influence over this part of their operational cost through their own actions. The legislative regulation of the market opening does not deny any airport owner the opportunity to manage air traffic management through its own offices or through procurement. This implies that even the government-owned company Swedavia, and the airports of the Swedish Armed Forces, are included.

In the wake of the market opening, both the organizational form and the role of the public enterprise the LFV Group, and the consequences of its exposure to competition, have been the subjects of debate. On 5 June 2013, the Riksdag notified (Report 2012/13:TU18, Riksdag Communication 2012/13:259) the government "that local air traffic management at Swedavia's airports, military airports, and airports that are necessary to the Armed Forces, as well as airports with shared terminal maneuvering areas, shall in the future be operated only by the LFV Group".

Against this background, Transport Analysis (Trafikanalys) was commissioned by the government to investigate the consequences of regulatory changes for a certain level of air traffic management in accordance with the notice communicated by the Riksdag. This report analyses the consequences of two ways of implementing the rule change, scenarios B and C. These consequences were compared with the current regulations local air traffic management, scenario A. The purpose is to provide a comprehensive explanation of the consequences of different ways of regulating local air management in Sweden. The analysis is based on transport policy goals and principles.

Scenario A entails a local air traffic management, exposed to competition and operating at all airports, including publicly operated national airports. The terminal manoeuvring areas, sectors in shared terminal manoeuvring areas, and the airports' control zones are included among the objects exposed to competition. Scenario B implies that only airports not owned by the government, not in shared terminal manoeuvring areas, or not required by the Armed Forces may procure air traffic management or provide such service using their own resources. Scenario C entails a local air traffic management, exposed to competition and operating only in the control zone, at all airports that are not national government-operated airports. No terminal manoeuvring areas are included among the objects exposed to competition; however, the LFV Group is required to ensure by contract that air traffic management in private terminal manoeuvring areas above airports' control zones shall be transferred to the actor that provides local air traffic management in the tower.

Depending on how the regulations are formulated, the size of the potential market changes. Today's market, estimated at SEK 700 million, would be expected to shrink by nearly 90 percent in scenario B and by almost 75 percent in scenario C.

As regards the consequences for different aviation actors, the conclusion is that scenarios B and C imply a risk that airport costs would increase. At the same time, the current and coming performance plan continue to make high demands in terms of cost reductions, and in scenarios B and C the LFV Group could continue to implement structural changes designed to provide the service more efficiently, for example, through co-locating terminal checkpoints. An expanded

project to implement remotely controlled towers (RTC) is also expected to lead to cost savings. Airports still fear, however, that regulation in accordance with both scenarios B and C could result in higher costs for all airports. Most airports lack financial latitude for cost increases, so increased costs could affect airport operations, particularly those of small airports.

For airlines, regulation in accordance with scenario A implies a risk of increased fuel costs for the airlines as a result of coordination difficulties and the absence of agreements regarding shared terminal maneuvering areas. At the same time, ongoing exposure to competition (scenario A) could eventually help enable a reduction in en route charges. The corollary would be that scenarios B and C imply that the risk of capacity problems at the airports decline somewhat, while opportunities to implement green approaches and departures may increase somewhat. In addition, there is a risk that airlines' costs will increase if competition disappears. The size of the en route charge would then be affected only by the performance plan.

The private air traffic management provider, ACR AB, which aside from the LFV Group provides the only support on the local air traffic management market, would see new conditions for its operations in scenarios B and C. This could eventually result in the company leaving the market. Non recurrent costs in the form of damages may arise if the re-regulation is not implemented using transitional rules to govern existing agreements.

The effects on public finances differ between today's regulation of local air traffic management (scenario A) and the other scenarios. In several cases it has been impossible to calculate the effects quantitatively. It is possible, however, to identify a number of clear differences between the effects of the various ways of regulating local air traffic management, i.e., scenarios A, B, and C.

First, in scenarios B and C there are probably better chances of fulfilling the impact objective than under current regulations. The analysis indicates that current regulations (scenario A), at least in the absence of appropriate agreements and collaborations, could make the use of green flights more difficult if the increased safety risks resulting from an increase in flight transfer and coordination between air traffic management units are dealt with by reducing the capacity of the air-traffic management – for example, by idling aircraft or not permitting them to start. Aircraft in idle mode that are not permitted to start or fly the straightest route create increased emissions. Regulation in accordance with scenarios B or C would resolve the problems associated with shared terminal manoeuvring areas by exempting airports within such areas, which would lead to somewhat better fulfilment of the impact objective.

Second, regulations in accordance with scenarios B and C would imply a potential worsening of the possibilities to reach the availability objective, as there is a risk that airport costs would increase. Increased costs for air traffic management would have adverse impacts, particularly on airports that are already in deficit. This could eventually lead to airport closure, which – depending on where in the country the airport is located – could lead to a lower availability. The risk of reduced availability is greater in scenario B than in scenario C, since the remaining market in scenario B consists of 13 percent of the current market, whereas the remaining market in scenario C is twice that, i.e., 26 percent of the current market. It has not been possible to precisely quantify the size of such an increase in the risk of closure. In both scenarios B and C, there is a risk that the remaining market would not be sufficiently large, or appropriately composed, to attract actors other than the LFV Group. The actual consequences for the availability objective depend on whether competition can be established, or whether airport costs can be controlled via the performance plan or via in-house production where possible. For the airlines, the effects are significantly less since the costs of local air-traffic management do not affect service frequency or destinations to any significant extent. In addition, the airlines, however, would be affected if an airport were to be closed.

Third, opportunities to exploit economies of scale differ between the scenarios. Allowing an actor to be responsible for shared terminal maneuvering areas also makes it simpler to use the airspace more efficiently and increase capacity. This yields economies of scale through simpler horizontal consolidation, which is an important way to reduce the total costs of air-traffic control service – for example, by coordinating work in terminal maneuvering areas and eventually also co-locating terminal controls. In these respects, scenarios B and C would appear to be the most advantageous.

As regards exploiting economies of scale through vertical consolidation, this could be made more difficult in terms of consolidation between the upper controlled area and the terminal maneuvering areas in scenario A. This would primarily affect the terminal checkpoints in Stockholm, Malmö, and Gothenburg. Otherwise in scenario A, the economies of scale created through vertical consolidation could be exploited. The same applies to scenario B. In scenario C, the basic premise is that these economies of scale could be exploited in the same way as in scenario B, but an agreement with the LFV Group would be required. For this to work, then, clarity regarding the management by the LFV Group is absolutely essential.

Provided the LFV Group can successfully establish agreements and transfer control of the airspace above the control zone to the actor that conducts local air traffic control in the tower, scenario C is the alternative that would realize the economies of scale that both a vertical and a horizontal consolidation would give.

Scenarios B and C are also the alternatives that best correspond to the aims of the EU's Single European Sky initiative, that is, they would result in the best conditions for optimizing the airspace.

Fourth, from the perspective of public finance, it is important to note that if the current regulations (scenario A) remain in place, the Armed Forces could choose, entirely or partially, to depart from the model of civil/military integration that has been applied since 1978. In such a case, the Armed Forces would create their own organization to provide air traffic control service. This would create extra costs and the duplication of civilian and military airtraffic controllers. The costs to the Armed Forces of managing staffing during heightened preparedness could then become significant. It should be added that the knowledge that the LFV Group has accumulated regarding the special conditions that affect military aviation risk being lost unless operations are reviewed. It is not expected, however, that the use and functionality of the airspace for passenger traffic would be affected by such a change.



Transport Analysis is a Swedish agency for transport policy analysis. We analyse and evaluate proposed and implemented measures within the sphere of transport policy. We are also responsible for official statistics in the transport and communication sectors. Transport Analysis was established in April 2010 with its head office in Stockholm and a branch office in Östersund.