

APPENDIX 7-List of FRA KPIs post-Implementation

The following indicators can be used for post-implementation evaluation and ongoing monitoring of the FRA:

- a) **Flight Efficiency:** Analyze flight times and distances for flights using FRA compared to those following traditional airways. Improved efficiency, such as shorter flight times and reduced distances, demonstrates the benefits of FRA implementation.
- b) **Compliance Rate:** Measure the percentage of flights that utilize FRA as planned compared to those that deviate from the preferred routes. This indicates how well aircraft operators are adhering to FRA procedures.
- c) **Safety Performance:** Monitor safety incidents, near misses, and airspace infringements within FRA to ensure that safety standards are maintained or improved post-implementation.
- d) **Airspace Capacity:** Evaluate the FRA's ability to accommodate increased air traffic demand without congestion or delays. Monitoring airspace capacity helps ensure efficient flow management.
- e) **User Satisfaction:** Conduct surveys or gather feedback from aircraft operators to assess their satisfaction with FRA procedures, including route flexibility, operational efficiency, and ease of planning.
- f) **Air Traffic Controller Workload:** Monitor the workload of air traffic controllers handling flights within FRA to ensure it remains manageable and does not compromise safety or efficiency.
- g) **Fuel Savings:** Calculate the fuel saved by aircraft operators when using FRA compared to traditional route structures. Fuel savings contribute to cost reduction and environmental benefits.
- h) **Route Optimization:** Analyze route planning data to identify opportunities for further route optimization within FRA, such as identifying commonly used routes and adjusting airspace design accordingly.
- i) **Environmental Impact:** Assess the reduction in greenhouse gas emissions resulting from fuel savings achieved by utilizing FRA. Monitoring environmental impact helps demonstrate the sustainability benefits of FRA.
- j) **Cost-Benefit Analysis:** Conduct a cost-benefit analysis to evaluate the overall economic impact of FRA implementation, considering factors such as fuel savings, reduced operational costs, and increased airspace capacity.