

# AIR NAVIGATION SERVICES ECONOMIC REGULATION



### Table of Contents

Table of Contents	1
Chapter 1: Introductory provisions	2
Article 1: Terms and definitions	. 3
Article 2: General provisions	. 6
Article 3: Economic licensing provisions for secondary Air Navigation Service Providers	7
Article 4: Economic licensing requirements for the provision of secondary Air Navigation Services	8
Chapter Two: Obligations of Primary Air Navigation Service Provider	. 9
Article 5: Obligation to provide information	. 10
Article 6: Commitment to consult stakeholders	10
Article 7: Commitment to sign a service level agreement with the airport operator	11
Article 8: Charge setting	. 11
Article 9: Methodology of Determining Charging Zones for Air Navigation Services charges	14
Article 10: Methodology of determining the cost base for Charges	. 15
Article 11: Methodology of determining Air traffic forecast	. 16
Article 12: Methodology of determining Unit rates for each Charging Zone	. 16
Article 13: Flights Exempted from Air Navigation Service Charges	. 17
Article 14: Collection of Charges	. 17
Article 15: Compliance with Key Performance Indicators	. 18
Chapter Three: Final provisions	
Article 16: Complaints and Resolutions	
Annexes	
Annex I: Documents required for the issuance of an economic license	
Annex II: Information required for the charge submission And methodology of service unit rate calculation	
First: Reporting tables	
Second: Information List for the charge submission	
Third: Methodology of Service Unit Calculation	24
Annex III: List of key performance indicators in the field of Air Navigation Services	
Annex IV: Scope of air navigation services	29

# Chapter One Introductory Provisions



### **Chapter One :Introductory Provisions**

### Article 1: Terms and definitions

For the purposes of implementing this regulation, the following words and expressions, wherever they appear, shall have the meanings assigned to each of them, unless the context otherwise requires:

- 1. "Kingdom" means the Kingdom of Saudi Arabia.
- 2. "Authority" means the General Authority of Civil Aviation in the Kingdom.
- 3. "Aircraft" any machine that can derive support in the atmosphere from the reactions of the air, other than the reactions of the air against the earth's surface.
- 4. "Airport" means an area of land or water; including any buildings, installations and equipment designated, wholly or partly, for the arrival, movement or departure of Aircraft.
- 5. "Airport Cluster" means two or more Airports grouped together and serving the same city or conurbation.
- 6. "Airport Operator" means the entity that manages the infrastructure at the Airport, coordinates and manages the activities of the various operators located at the Airport, or the concerned Airport Cluster, including:
  - a. where an Airport or Airport Cluster is managed and operated not by a single body but by several separate bodies, each of those bodies shall be considered part of the Airport Operator for the purposes of this regulation.
  - b. where only a single managing body is set up for several Airports or Airport

    Clusters, each of those Airports or Airport Clusters shall be considered

    separately for the purposes of this regulation.



- 7. "Airspace" means the portion of the atmosphere in which the movement and navigation of aircraft is controlled in accordance with the Kingdom's laws and regulations.
- 8. "Airspace User" is the beneficiary of Air Navigation Services, such as the Aircraft operator, and in the event that the Aircraft operator cannot be identified, the owner of the Aircraft is the beneficiary.
- 9. "Authorized Airspace User" is an aircraft operator licensed by the Authority.
- 10. "Assessment Period" means the defined time frame for which the charge submission shall be set.
- 11. "Air Navigation Services" means services provided to ensure safe and efficient air traffic management, including:
  - a. Air traffic management services
  - b. Air navigation systems services
  - c. Search and rescue related to Air Navigation Services
  - d. Meteorological services for air navigation
  - e. Aeronautical information management services
  - f. Flight procedure design services
  - g. Aerial inspection and assessment services.
  - h. Obstacle assessment services.
  - i. Any other service determined by the Authority.
- 12. "Air Navigation Service Provider" is an entity that has been approved by the Authority and authorized to provide air navigation services in accordance with the provisions contained in this regulation.
- 13. "Charges" means fees levied for the provision of Air Navigation Services, as approved by the Authority.



- 14. "Charging Zone" means a designated geographical area or volume of Airspace where specific Charges are applied to Airspace Users for the provision of Air Navigation Services, divided into two:
  - a. **"En Route"** means a designated volume of Airspace, extending from ground level to upper Airspace, where en-route Air Navigation Services are provided under a unified cost base and single unit rate.
  - b. "Terminal" means an Airport or a group of Airports where terminal Air Navigation Services are provided and for which a single cost base and a single unit rate are established.
- 15. "Forecasted Cost" means the cost for providing Air Navigation Services expected to be incurred over a reference period.
- 16. "Actual Costs" means the cost incurred in a previous calendar year for providing Air Navigation Services, verified by audited accounts.
- 17. "Air Traffic Movements (ATMs)" means take-offs and landings performed by an Aircraft.
- 18. "Service Unit" means a standardized measure to reflect the quantity of air movements based on additional factors such as flight distance, Aircraft size, and/or usage level within managed Airspace.
- 19. "Baseline Value of Forecasted Costs" means the initial cost estimate established based on actual expenses from the previous Assessment Period.
- 20. "Key Performance Indicators (KPIs)" means quantitative and qualitative metrics set to evaluate the performance of Air Navigation Service Providers.
- 21. "Civil Aviation Law Violations Review Committee" means the committee competent to consider all violations of the provisions of the Civil Aviation Law and take decisions on the appropriate penalties for such violations.



### Article 2: General provisions

- All Air Navigation Service Providers shall comply with all the provisions contained in this
  regulation.
- 2. Air Navigation Services are categorized into:

First: Primary Air Navigation Services including:

- a. Air traffic management services.
- b. Air navigation systems services.
- c. Search and rescue related to Air Navigation Services.
- d. Meteorological services for air navigation.
- e. Aeronautical information management services.
- f. Obstacle assessment services.

Second: Secondary Air Navigation Services including:

- a. Flight procedure design services.
- b. Aerial inspection and assessment services.
- 3. Air Navigation Service Providers looking to provide secondary Air Navigation Services in the Kingdom shall apply for an economic license from the Authority.
- 4. Providing primary Air Navigation Services in the Kingdom does not require an economic license and are solely provided based on decisions issued by the Authority.
- 5. It is prohibited for an Air Navigation Service Provider to agree with a third party to perform any of the Air Navigation Services it is authorized to provide without obtaining prior approval from the Authority.



# Article 3: Economic licensing provisions for secondary Air Navigation Service Providers

- The economic license shall be considered the personal property of the licensee and may not be transferred or assigned to third parties. Where required, a new license application shall be submitted.
- 2. The Authority shall issue an economic license to provide one or more Air Navigation Services in the Kingdom to the applicant, provided that the license includes the following:
  - a. The name of the service.
  - b. The location of the service.
- An Air Navigation Service Provider is prohibited from providing any other Air Navigation
   Service than those stipulated in its economic license.
- The Service Provider shall notify the Authority if looking to make material changes in the scope of the Air Navigation Services to be provided.
- 5. The duration of economic licenses shall be five years from the date of issuance, subject to renewal.
- A licensee interested in renewing an economic license shall submit a renewal application to the Authority at least 90 days prior to the expiration date of his license.
- The Authority may suspend the economic license if the commercial registration of the Air Navigation Service Provider is suspended.
- 8. The economic license shall be terminated if any of the following conditions are met:
  - a. The license expires without renewal.
  - b. The Authority approves the licensee's request to suspend or revoke the license.
  - c. Termination of the legal personality of the Air Navigation Service Provider.



- Suspension or revocation of the standards and safety license issued by the Authority.
- e. Cancellation of the licensee's commercial registration.

Article 4: Economic licensing requirements for the provision of secondary Air Navigation Services

The Authority shall issue an economic license to provide secondary Air Navigation Services to applicants that meet the following requirements:

- 1. To be an entity established in the Kingdom and provide proof thereof.
- 2. Provide a valid Saudi commercial registration.
- 3. Provide proof of at least three years of experience or demonstrate its ability to provide operational expertise by appointing key personnel with experience in the corresponding field.
- 4. Submit proof of financial solvency by submitting financial statements for the last two fiscal years or provide any document that proves financial solvency in the case of new applicants.
- 5. Provide a work plan for the first two years.
- Adhere to all standards and safety and security requirements issued by the Authority to provide the Air Navigation Services.
  - Provide proof of payment of the fees required to issue the economic license.



Obligations of Air Navigation
Service Providers



### Chapter Two: Obligations of Air Navigation Service Providers

### Article 5: Obligation to provide information

- Air Navigation Service Providers shall provide the Authority annually with information regarding Actual Costs and the difference between the actual and the Forecasted Costs included in the charge submission on an annual basis, and any other financial data requested by the Authority.
- 2. Air Navigation Service Providers shall provide the Authority annually with information regarding actual IFR Air Traffic Movements and Service Units and the difference between the actual and the traffic included in the charge submission on an annual basis, and any other operational data requested by the Authority.

### Article 6: Commitment to consult stakeholders

- When setting Charges for the first time or when updating them, Air Navigation Service
  Providers shall consult Airspace Users or their representatives and Airport Operators on
  the determination of Forecasted Costs, Service Units, and unit rates, prior to the start of
  the Assessment Period and the submission of the charge submission to the Authority.
- All Airspace Users and Airport Operators shall have the right to participate. Air Navigation
   Service Providers shall consult them at least once a year to discuss the implementation of
   the provisions outlined in this regulation.
- Air Navigation Service Providers shall submit the results of the consultation to the Authority within a period not exceeding 30 days from the date in which it was conducted.



### Article 7: Commitment to sign a service level agreement with the airport operator

- All airport operators in the Kingdom shall sign an agreement with one or more Air Navigation Service Providers approved by the Authority for the services provided to the Airport in accordance with the provisions of this regulation.
- 2. The service level agreement between Air Navigation Service Providers and Airport Operators shall include at least the following aspects, provided that they are consistent with all the provisions contained in this regulation:
  - a. Asset ownership and operational structure.
  - The scope and duration of the agreement, not to extend beyond the end of the Assessment Period.
  - c. The rights and obligations of the parties to the agreement.
  - d. The charges approved by the Authority, the charging zones and the entity responsible for collecting these Charges from Airspace Users.
  - e. Performance and service quality requirements, including Key Performance Indicators.
  - f. Monitoring and oversight mechanisms.
  - g. Rebalancing mechanisms.
- 3. The Air Navigation Service Provider shall obtain the Authority's approval on the final draft of the agreement before signing it.

### Article 8: Charge setting

**First:** The Authority shall organize the mechanism to set Air Navigation Services charges in the Kingdom.



**Second:** Air Navigation Service Providers shall adhere to the following principles when setting charges for Air Navigation Services:

- a. Charges shall be set applying internationally recognized best practices and standards and be competitive with international pricing.
- Charges shall incentivize Airspace Users to operate at the Kingdom, increase capacity and improve performance.
- c. Charges shall promote the safe, efficient, and sustainable provision of Air Navigation Services, aiming to achieve the highest levels of safety and quality performance.
- d. Adherence to the cost-relatedness principle to cover the operations and maintenance costs and investments related to Air Navigation Services, with the possibility of achieving financial revenue that exceeds the direct and indirect operating costs, enabling the Air Navigation Service Provider to achieve a fair rate of return on assets (before taxes and cost of capital), in order to provide adequate funding for investments in infrastructure development and improvement of Air Navigation Services.
- e. Charges shall be established using Forecasted Costs and represent the cost of providing Air Navigation Services to Airspace Users.
- f. The costs associated with different Air Navigation Services shall be identified separately.
- g. Transparency in the cost base for Charges shall be ensured.
- h. Charges shall be applied under non-discriminatory conditions.
- Revenues from certain services should not be used to cover the costs of other Air
   Navigation Services without the approval of the Authority, provided that there are



clear and necessary justifications to ensure the sustainability of the operation and Air Navigation Service Providers.

**Third:** The following procedures shall be followed when setting charges for Air Navigation Services:

- The Authority shall determine and publish the start and end date of each Assessment Period.
- Air Navigation Service Providers shall prepare the charge submission for the specified Assessment Period, including Charges for each year of the Assessment Period.
- 3. The charge submission shall include all data outlined in section fourth of this article.
- 4. The charge submission shall include all data outlined in section fourth of this article.
- Air Navigation Service Providers shall consult stakeholders 30 days prior to submitting the charge submission to the Authority.
- The Air Navigation Service Provider shall submit the charge submission to the Authority
  before the beginning of each Assessment Period within the period specified by the
  Authority.
- 7. The Authority may decide to approve, reject, or amend the charge submission.
- 8. Air Navigation Service Providers may determine a different unit rate for each year within the same Assessment Period, provided there are no changes within any given year.
- 9. Air Navigation Service Providers shall, after obtaining the Authority's approval notify all Airspace Users at least 90 days before the application of new Charges.
- 10. The Authority may approve the revision of Charges during an Assessment Period at the request of the Air Navigation Service Provider, provided that such revision is justified by sound reasoning or necessitated by the resolution of exceptional circumstances.



- 11. The Air Navigation Service Provider shall submit a performance and compliance report to the Authority at the end of each year of the Assessment Period, and a comprehensive report at the end of each Assessment Period.
- 12. In the event of any deviation between the adopted charge submission and the actual collection of Air Navigation Services Charges, contained in the end-of-Assessment Period report shall be corrected in the following assessment period.

**Fourth:** Prior to the start of each Assessment Period, the Air Navigation Service Provider shall prepare the charge submission in accordance with the template and information outlined in Annex I, provided that it includes all the data and information described in this chapter as a minimum, which shall include:

- 1. Define the Charging Zones as described in Article 9.
- 2. Establishment of Charges cost as described in Article 10.
- 3. Information on key investments factored into the calculation of Forecasted Costs.
- 4. Air traffic forecasts as described in Article "11".
- 5. Calculation of unit rates for each Charging Zone as described in "Article 12".
- Report on the outcomes of the stakeholder consultation, including points of agreement, disagreements, and Air Navigation Service Provider justification for the final charge submission.

Article 9: Methodology of Determining Charging Zones for Air Navigation Services charges

 Air Navigation Service Providers shall define Charging Zones within the Airspace under their jurisdiction.



- The geographical boundaries of Charging Zones shall be clearly defined in the charge submission and aligned with the Air Navigation Services to be provided.
- 3. Air Navigation Service Providers may modify Charging Zones within an Assessment Period, by applying to the Authority for approval, provided they include the following data:
  - A. Relevant cost data accurately reflecting costs before and after the requested modification of the Charging Zone.
  - B. Relevant Aircraft movements data accurately reflecting costs before and after the requested modification of the Charging Zone.
  - C. The outcome of the consultation process with stakeholders on the requested Charging Zone modification.
  - D. Updated charge submission after the requested modification.
  - E. The new geographical boundaries of the Charging Zones to be modified.
  - F. Pertinent data outlined in Annex II.

### Article 10: Methodology of determining the cost base for Charges

- The cost base for Charges shall include the actual and Forecasted Costs associated with the
  provision of Air Navigation Services within the relevant Charging Zone. All assumptions shall
  be specified in the charge submission.
- 2. Air Navigation Service Providers shall include the following actual and Forecasted Costs related to Air Navigation Services in the cost base for Charges:
  - A. Operating costs.
  - B. Reasonable margin on Air Navigation services operating costs.
  - C. The weighted average cost of capital (WACC) reflects the average return expected by investors, considering the cost of both equity and debt. It is applied by multiplying the



WACC with the value of regulatory asset base (RAB) of air navigation services, as determined by the Authority, to calculate the returns on the asset base.

- D. Depreciation costs shall include expenses associated with fixed assets in operation for Air Navigation Services.
- E. Tax costs.

### Article 11: Methodology of determining Air traffic forecast

Air traffic forecasts in terms of Air Traffic Movements and Service Units for each Charging Zone shall be calculated as described in Annex II that illustrate the following:

- A. Calculation of En Route Service Units: En Route Service Units in charging zone shall be calculated as the product of the distance factor and weight factor for the relevant flight. Total En Route Service Units shall include Service Units derived from all aircraft movements.
- B. Calculation of Terminal Service Units: The Terminal Service Unit in charging zone shall be equivalent to the weight factor of the Aircraft concerned.

### Article 12: Methodology of determining Unit rates for each Charging Zone

- Total unit rates are calculated by dividing the total cost base for charges by the total air traffic forecast.
- Unit rates levied to Airspace Users for each charging zone shall be calculated by dividing the forecasted total Service Units for the respective years, by the total air traffic forecast for each charging zone.
- 3. Unit rates shall include adjustments reflecting deviations on previous Assessment Periods.



- Charges for a given flight shall be calculated as the product of the unit rate set for the Charging
   Zone and the Service Units for that flight.
- 5. For calculating the charges for a single flight withing Terminal charging zone shall be calculated as, landing and departure phases of a flight shall be considered as a single flight, with only one unit counted, either as the arriving or departing flight.

### Article 13: Flights Exempted from Air Navigation Service Charges

- The Authority shall notify the Air Navigation Service Providers of flights that are exempted from the payment of Air Navigation Services charges.
- 2. Exempted flights shall be excluded when calculating unit rates.
- 3. The Authority shall agree with the Air Navigation Service Provider to determine the methodology to recover the cost of exempted flights.

### Article 14: Collection of Charges

- Air Navigation Service Providers may collect Charges from Airspace Users directly or appoint
  an agent to collect Charges after obtaining the approval of the Authority.
- Airspace users shall be responsible to fully settle all air navigation Charges approved by the Authority.
- 3. Air Navigation Service Providers may establish effective and proportionate enforcement procedures to facilitate the collection of air navigation Charges, as long as they do not conflict with the Kingdom's regulations. The Authority has the right to discontinue any of these procedures if they are deemed inappropriate.

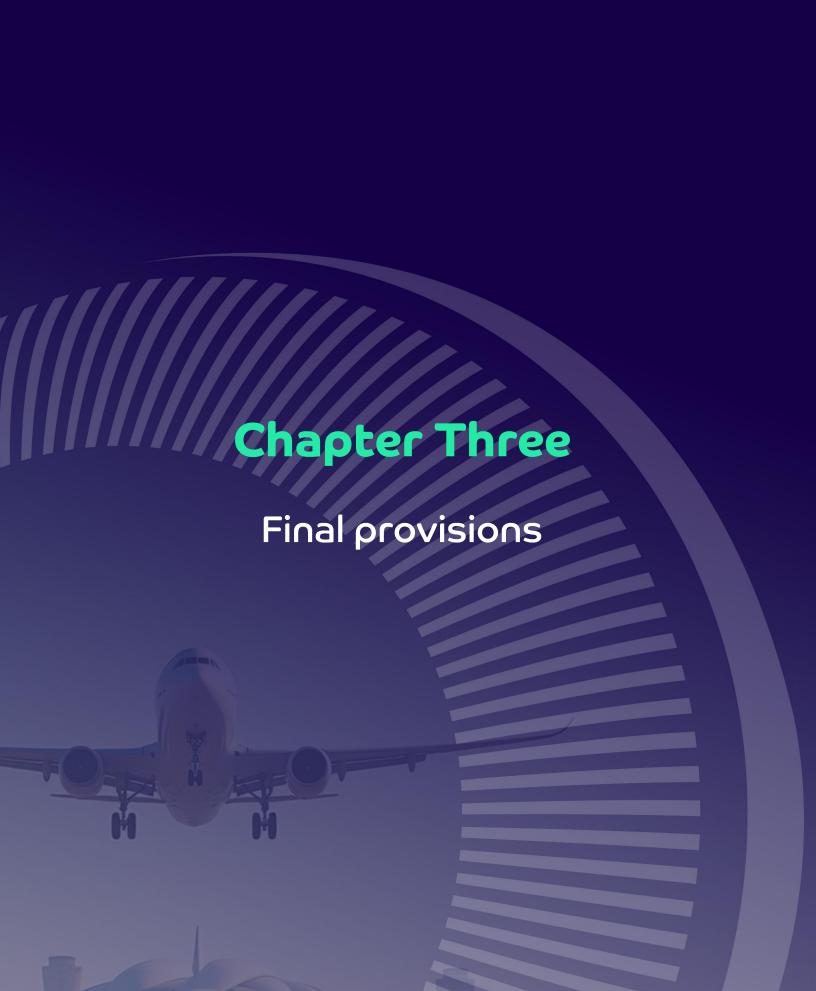


4. Air Navigation Service Providers shall not refrain from providing the service, interfere with operations, or seize Aircrafts or assets, without fulfilling the applicable legal and regulatory requirements of the Kingdom and obtaining the approval of the Authority.

### Article 15: Compliance with Key Performance Indicators

- Air Navigation Service Providers shall comply with the Key Performance Indicators (KPIs) and Air Navigation Service Performance Monitoring Indicators in each of the key performance areas specified by the Authority and listed in Annex III.
- Airport Operators may establish additional KPIs and monitoring indicators in addition to those
  mentioned in paragraph 1 to be included in the services provision agreement with the Air
  Navigation Service Provider.
- 3. The Authority may implement penalties or provide incentives to encourage Air Navigation Service Providers to comply with the prescribed performance.







### Chapter Three: Final provisions

### Article 16: Complaints and Resolutions

- Any individual may file a complaint with the relevant department of the Authority regarding any violation of the provisions of this regulation.
- The Authority shall notify the concerned party of the complaint, which is obliged to provide a response within the timeframe stipulated in the notice.
- 3. After receiving the response to the complaint, the Authority shall take one of the following actions:
  - I. Issue a notice directing the violator to implement corrective measures.
  - II. Issue a reasoned decision to reject the complaint.
  - III. refer the matter to the Committee Civil Aviation Law Violations Review Committee.
- 4. If the relevant party fails to respond within the designated timeframe, the Authority will make a decision based on the information currently available.
- 5. The Authority shall consider violations of the provisions of this regulation and impose appropriate penalties.
- 6. Decisions issued may be appealed to the competent court within the period specified in the Civil

  Aviation Law (60 days) from the date of informing the decision to the concerned parties.





### Annex I: Documents required for the issuance of an economic license

The applicant demonstrates compliance with the requirements mentioned in Article IV by filling out the Authority's application form with the following information:

- A. Nature of business: The applicant shall indicate the type of Air Navigation Services to be provided.
- B. Operational experience: Number of years of experience and supporting evidence. Number of years of relevant experience of key personnel.
- C. Annual accounts: Audited annual accounts for the last two financial years (if an existing company) or a solvency certificate if a new applicant.
- D. Business plan: A business plan is required for the first two years of operation. The business plan must include the following details:
  - A detailed description of the applicant's anticipated activities, including details of any market research conducted and the basis for the sales figures projected in the plan.
  - 2. Profit and loss accounts and projected balance sheets; a projected opening balance sheet should only be provided when appropriate.
  - 3. Projected monthly cash flow statements.
  - 4. Details of current and projected sources of funding.
  - 5. A detailed breakdown of all projected revenues/expenditures.

The following is an example of the details expected to be obtained in relation to the forecast:

Revenue: Details of how revenue will be realized per contract (signed or projected).

Expenses: Payroll costs, operational costs such as equipment, fuel, insurance, etc., and office costs such as rented facilities, etc.

E. Proof of payment of the economic license fee to the Authority.



# Annex II: Information required for the charge submission And methodology of service unit rate calculation

First: Reporting tables

Reporting table												
Charging zone name		Determined costs - Assessment period					Actual costs - Assessment period					
Cost details		n-1	n	n+1	n+2	n+3	n+4	n	n+1	n+2	n+3	n+4
1. Detail by nature (in nominal te	erms)											
1.1 Staffing costs												
1.2 Other operating costs												
1.3 Depreciation												
1.4 Cost of capital												
1.5 Tax costs												
2. Complementary information (	in nominal terms) A	verage as	set base									
2.1 Net book val. fixed assets												
2.2 Necessary net current assets												
2.3 Total asset base												
Cost of capital %												
2.4 Return on equity												
2.5 Average interest on debts												
Costs of new and existing investment	ents	_			1							
<ul><li>2.8 Depreciation</li><li>2.9 Cost of capital</li></ul>												
·												
3.1 Total costs												
Total % n/n-1												
3.2 Total Service Units												
Total % n/n-1												
3.3 Unit rate												
Total % n/n-1												
4. Inflation												
4.1 Inflation %												
4.2 Inflation index (1)					4							



### **Second:** Information List for the charge submission

- A. The following list of information shall be submitted prior to the start of the Assessment Period as part of the charge submission, in addition to the reporting schedules in (First):
  - 1. Traffic forecasts and Service Units underpinning the charge submission.
  - Summary of stakeholder consultation conducted prior to the charge submission, including points of agreement, disagreements, and justifications.
  - List of Airports under the service contracts, along with their average annual IFR Air Transport Movements.
  - 4. A description of the process followed in developing and adopting the charge submission.
  - Forecasted Costs for new and existing investments covering depreciation, and capital costs for each year of the Assessment Period.
  - 6. Detailed description and justification for Major Investments, including: (i) Total value for each Major investment, (ii) Assets acquired or developed, (iii) Benefits for Airspace Users, (iv) Specifics on ATM systems investments (new systems, overhauls, replacements).
  - An explanation of the methodology and assumptions used to establish costs for Air Navigation Services provided.
  - 8. Forecasted Costs for services for each year.
  - 9. Forecasts for Service Units per year.



- 10. Explanation of the criteria and methodology for cost allocation.
- 11. Key data for determining the fair rate of return on the asset base and the reasonable margin on operating expenses.
- 12. A description of the assumptions used in calculating the cost of capital, covering asset base composition, return on equity, average interest on debt, and the proportion of financing through debt and equity.
- 13. Justification of Air Navigation Service Providers' return on equity, gearing ratio, and asset base used to calculate capital costs.
- 14. Economic assumptions, including pension cost assumptions, interest rate details, and inflation forecasts.
- 15. Explanation of adjustments derived from the previous Assessment Period.
- B. The following list of additional information shall be submitted annually prior to the beginning of each charging year as well as the reporting tables in (First):
  - For each entity and each cost item, a description of reported Actual Costs and the variance from Forecasted Costs for each year of the Assessment Period.
  - A description of reported actual Service Units and differences from the forecasts in the charge submission for each year of the Assessment Period.
  - 3. Justification for any differences between Forecasted and Actual Costs for both new and existing Major Investments of Air Navigation Service Providers, as well as any variances between planned and actual operational start dates for fixed assets financed by these investments, for each year of the Assessment Period.



### Third: Methodology of Service Unit Calculation

 The charge for enroute services for a given flight within the Kingdom's territory shall be calculated according to the following formula:

Enroute charge = enroute service charge  $\times$  distance factor (d)  $\times$  weight factor ( $\omega$ )

### Wherein:

- Enroute service charge: Enroute unit rate.
- Distance factor (d): It represents the distance between the entry and exit point in kilometers divided by 100. If the flight originates or finalizes within a Kingdom airport such point shall be considered as the entry and/or exit point.
- Weight factor (ω): Calculated based on the aircraft's maximum take-off weight (MTOW) in tons. It shall not be calculated for aircrafts with a MTOW lower than 500 kilograms and shall be calculated using the following formula:

$$\omega = \left(\sqrt{\frac{MTOW}{50}}\right)$$

2. Terminal charges shall be levied on aircraft approaching and within 20 kilometers of an airport located within the Kingdom's territory and shall be calculated according to the following formula:

Terminal charge = terminal service charge  $\times$  weight factor  $(\omega)$ 

- Terminal service fee: Terminal unit rate.
- Weight factor (ω): Calculated based on the aircraft's maximum take-off weight (MTOW) in tons. It shall not be calculated for aircrafts with a MTOW lower than 500 kilograms and shall be calculated using the following formula:

$$\omega = \left(\sqrt{\frac{MTOW}{50}}\right)$$



### Annex III: List of key performance indicators in the field of Air Navigation Services

The following list should serve to identify key performance indicators for each key performance area that may be included in an agreement with Air Navigation Service Providers. Each stakeholder shall modify the indicators to suit the local environment and conditions.

### 1. Capacity:

- a. TMA capacity.
- b. En-route capacity.
- c. Minutes of en route ATFM delay per flight.
- d. IFR slot adherence.

### 2. Efficiency:

- a. Fuel Efficiency.
- b. Flight times.
- c. On-time performance.

### 3. Cost effectiveness:

- a. Direct ANS gate-to-gate cost per flight
- b. ATCO duty hours per FTE.
- c. Direct operating costs by Airspace User.



### 4. Flexibility:

- a. Gate to Gate ATFCM delay.
- b. ATC capacity.
- c. ATCO workload optimization.
- d. Average delay recovered for non-scheduled civil/military flights with late flight plan request.

### 5. Access and equity:

- a. Number of access complaints from stakeholders.
- b. Equity in Airspace allocation across stakeholders.

### 6. Global interoperability:

- a. Compliance rate with global ATM standards.
- b. Participation by the air traffic management community.
- c. Number of collaborative projects among ATM stakeholders.

### 7. Participation by ATM community:

a. Number of collaborative projects among ATM stakeholders.

### 8. Predictability:

a. Variance in actual vs. scheduled departure/arrival time.



### Annex IV: Scope of air navigation services

Se	rvice Name	Scope of Work
1	Air Traffic  Management  Services (ATM)	Set of services including the provision of flight information services, alerting services, air traffic information services, air traffic control and airspace management services, ensuring the safe, efficient, and orderly movement of aircraft both in the air and on the ground.
2	Air Navigation Systems Services	Provision and management of the infrastructure, technology services that support the safe, efficient, and reliable operation of aircraft during all phases of flight, including departure, en-route, and arrival. It includes navigation, communications, reconnaissance, infrastructure management and technology services.
3	Search and Rescue Services	Coordinated efforts and operations conducted to communicate, coordinate, locate, assist, and recover aircraft, their occupants, or any other persons in distress and provide first aid assistance or medical evacuation, through the use of public and private resources, including aircraft, cooperating vessels, and other vehicles and facilities.
4	Meteorological Services	Provision of accurate, timely, and reliable weather information and forecasts to support the safety, regularity, and efficiency of air navigation.
5	Aeronautical Information Management Services	Systematic collection, management, and dissemination of accurate, timely, and high-quality aeronautical data and information essential for the safety, regularity, and efficiency of air navigation.
6	Flight Procedure Design Services	Specific service for the design, documentation, verification, validation, maintenance and periodic review of safe, efficient, and standardized flight procedures for aircraft operations.



7	Aerial Inspection and Assessment Services	A series of flight tests and inspections carried out to determine the operational readiness of radionavigation aids or to allow a full operational assessment covering a specified flight surveillance system or flight procedures.
8	Obstacle Assessment	A service for evaluating, identifying, and analyzing natural or other objects (obstacles) that may pose a risk to the safety of aircraft
	Services	operations



## Thank You

