

**En-route Charging Zone Slovak Republic
Reference Period 3 (2020-2024)**

ADDITIONAL INFORMATION TO REPORTING TABLES 1 – TOTAL COSTS AND UNIT COSTS

1. Determined costs and unit costs

a) Description of the methodology used for allocating costs of facilities or services between different air navigation services, based on the list of facilities and services listed in ICAO Regional Air Navigation Plan, European Region (Doc 7754) as last amended, and a description of the methodology used for allocating those costs between different charging zones;

There is only one en-route charging zone established in the Slovak Republic. It covers en-route air navigation services provided within FIR Bratislava. The corresponding cost-base for en-route charges consists of following elements:

ANSP – costs incurred by Letové prevádzkové služby Slovenskej republiky (LPS SR);
MET – costs incurred by Slovenský hydrometeorologický ústav (SHMÚ);
NSA – costs incurred by Dopravný úrad Slovenská republika (DÚ SR).

For the purpose of establishing the cost-base eligible facilities and services as listed in the relevant ICAO Regional Air Navigation Plan (European Region, Doc 7754) have been considered to the extent they are used to provide different air navigation services.

ANSP

Costs are allocated between terminal and en-route services directly in LPS SR's accounting system according to rules set by company's internal directive. Annually these rules are considered against those set by the Principles and the cost allocation as a whole is subject to separate audit performed by independent Auditor.

Cost allocation is performed in several steps. In a first step the person forming particular cost decides to which extent (expressed in percentage) it supports en-route or terminal air navigation services. Costs not related to ANS are not further considered for the cost-base calculation purposes. For facilities and services which serve both en-route and terminal activities and which can not be allocated exactly the basic allocation key is a share of terminal/en-route IFR movements on total IFR movements controlled. This allocation key is kept under annual review. In next steps further allocation of APP/TWR costs is performed to satisfy the 20km rule anticipated by the Conditions of Application. Different allocation ratios are applied here including terminal units/tons controlled (allocation to different aerodromes), ATCO hours controlled (allocation between APP and TWR) and distance controlled (allocation of APP costs to en-route or terminal charging zone). These allocation keys are under annual review, as well.

MET

Not applicable – SHMÚ provides only MET services.

NSA

Not applicable – DÚ SR does not provide ANS services.

b) Description of the methodology and assumptions used to establish the costs of air navigation services provided to VFR flights, when exemptions are granted for VFR flights in accordance with Article 31(3), 31(4) and 31(5);

VFR costs are calculated as a product of VFR service units and a theoretical VFR unit rate. VFR service units are calculated for each VFR flight similarly to IFR flights based on data available from ANSP's

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FDPS. The VFR unit rate is a theoretical value calculated for this purpose as a proportion in national unit rate of the costs related to services provided to VFR flights (all but ATM services are considered here as a proxy).

c) Criteria used to allocate costs between terminal and en route services, in accordance with Article 22(5);

ANSP

Costs are allocated between terminal and en-route services directly in ANSP's accounting system according to rules set by company's internal directive. Annually these rules are considered against those set by the Principles and the cost allocation as a whole is subject to separate audit performed by independent Auditor.

Cost allocation is performed in several steps. In a first step the person forming particular cost decides to which extent (expressed in percentage) it supports en-route or terminal air navigation services. Costs not related to ANS are not further considered for the cost-base calculation purposes. For facilities and services which serve both en-route and terminal activities and which can not be allocated exactly the basic allocation key is a share of terminal/en-route IFR movements on total IFR movements controlled. This allocation key is kept under annual review. In next steps further allocation of APP/TWR costs is performed to satisfy the 20km rule anticipated by the Conditions of Application. Different allocation ratios are applied here including terminal units/tons controlled (allocation to different aerodromes), ATCO hours controlled (allocation between APP and TWR) and distance controlled (allocation of APP costs to en-route or terminal charging zone). These allocation keys are under annual review, as well.

MET

The cost allocation between terminal and en-route services is based on the method published in the ICAO Doc 9161. Following the method described in the aforementioned document all MET facilities and products are appreciated according their utilization for the en-route, terminal or other operation. Consequently by this way gained percentage proportion is applied also to the cost allocations between en-route, terminal and other services.

NSA

Costs are allocated between terminal and en-route services directly accounting system according to SLA between NSA and ANSP.

d) Breakdown of the meteorological costs between direct costs and the costs of supporting meteorological facilities and services that also serve meteorological requirements in general ('MET core costs'). MET core costs include general analysis and forecasting, surface and upper-air observation networks, meteorological communication systems, data processing centres and supporting core research, training and administration;

SHMU follows ICAO Doc 9161 to determine direct costs (facilities and services intended exclusively to serve aeronautical requirements), MET core costs (core facilities and services that may serve both aeronautical and non-aeronautical requirements) and other costs (facilities and services intended exclusively to serve non-aeronautical requirements).

e) Description of the methodology used for allocating total meteorological costs and MET core costs referred to in point (d) to civil aviation and between charging zones;

LMS (is the unit under SHMU that provides service for aviation) costs are divided into two groups, depending on their nature, for personnel and operating costs. In view of the legal form of the SHMU and in accordance with the requirements of the Regulation for the allocation of costs by nature and requirement, that the same load is not counted multiple times, the LMS does not form and thus does

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not report the cost of depreciation, capital costs or exceptional items. LMS distinguishes its costs according to other basic criteria:

- the cost of facilities, resources and services that are established and provided exclusively for aviation customers,
- the cost of equipment, resources and services used for the needs aviation and other (non-aviation) customers
- the cost of equipment, resources and services that are used exclusively for the needs of not aviation customers.

LMS provides its services to

- aviation customers,
 - service users in the en route zone
 - service users in the terminal zone
 - airport operators
 - aircraft operators
 - other aviation users
- SHMU organizational units,
- other contractual non-aviation customers.

An aliquot of the LMS costs for the equipment and services that are provided for SHMU organizational units is paid directly from SHMU budget. An aliquot portion of the LMS costs for the facilities and services that LMS provides to other customers is directly paid by the customers.

In determining the share of costs for individual customers (both aviation and non-aviation), the requirements in the ICAO Doc 9161 document are taken into account, and then the most appropriate criteria are considered so that the redistribution of costs is as fair as possible, and at first the exact values are found and only when it is not possible, the qualified estimation is used. An account is taken of

- wage costs
 - the number and quantity of services/products that the customer collects;
 - the number and quantity of services/products that are produced at the workplace (LMS);
 - time to service/product;
 - number of customers; etc.
- operating costs eg. also whether a particular operating cost can be tied to a particular customer (then a distribution, e.g., by the number of subscribers, or, if appropriate, depending on whom the device serves most, etc.).

Since the LMS collects services from the SHMU's organizational units, which SHMU also provides to other non-aviation customers, it is important to set a reasonable share of the costs that will be covered by the fees for the provision of the meteorological service. Costs must be included in the costs incurred by the organizational units of SHMU in connection with the provision of services for the LMS. The determination of a share is a fair, transparent and non-discriminatory ratio, i. proportionality between the service provided to the LMS and other customers, whether external or within the SHMU. When determining the proportion, the most appropriate criteria are considered so that the redistribution of costs is as fair as possible, and firstly, the exact estimates are used and only when this is not possible, a qualified estimate is used.

Product(s)	ICAO	Recovered by
		En-route charges (E)
<i>TREND</i>	A/E	85%
<i>TAF</i>	mE	80%

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Product(s)	ICAO	Recovered by
		En-route charges (E)
<i>FIR forecast</i>	E	100%
<i>GAMET</i>	E	100%
<i>REG QNH (for altimeter setting)</i>	E	50%
<i>Other forecasts for FIR</i>	E	100%
<i>SIGMET</i>	E	100%
<i>AIRMET</i>	E	100%
<i>Area warnings</i>	E	100%
<i>METAR/SPECI</i>	mE	80%
<i>SYNOP</i>	mE	50%

f) For each entity, description of the composition of each item of the determined costs by nature and by service (points 1 and 2 of Table 1), including a description of the main factors explaining the planned variations over the reference period;

Determined costs by nature and by service

Entity: LPS SR	
1. Detail by nature (in nominal terms)	
1.1 Staff costs	As a response to the unprecedented traffic drop in 2020, LPS SR has introduced exceptional cost cutting measures when almost 10% of staff has been laid off and substantial part of salaries of remaining employees has been decreased, resulting in 37% reduction in personnel costs of LPS SR in 2020 and 2021 compared to year 2019. It must be emphasized that this drastic one-off measures are not sustainable in longer period due to preserve the key staff for providing ANS in required quality and quantity. That is the reason why the personnel costs will significantly increase in 2022. The years 2023 and 2024 will continue at the same level at 2022 with little increase due to inflation etc.
of which, pension costs	Are copying the development of wages as it was mentioned above.
1.2 Other operating costs	In 2020 and 2021 cost cutting measures were also applied to other operating costs. Since 2022 most postponed projects will be carried out resulting in increase of costs.

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1.3 Depreciation	Costs reflect on investment plan for RP3. Costs of investment projects postponed from RP2 are excluded appropriately to avoid double financing.
1.4 Cost of capital	During RP3 ANSP applies WACC calculation using capital asset pricing model (CAPM).
1.5 Exceptional items	n/a
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	As the finalization of the RP3 plan is currently underway and several actions still need to be taken, allocation of year to year costs are spread equally reflecting increase of the total foreseen costs. Specific allocation to separate subcategories will be submitted before the final deadline, once all the inputs are clear and known.
2.2 Communication	dtto
2.3 Navigation	dtto
2.4 Surveillance	dtto
2.5 Search and rescue	dtto
2.6 Aeronautical Information	dtto
2.7 Meteorological services	n/a
2.8 Supervision costs	n/a
2.9 Other State costs	n/a
Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008	
None	

Entity: SHMÚ	
1. Detail by nature (in nominal terms)	
1.1 Staff costs	The staff costs (year 2021-2024) was reduced by approximately 6 to 1% compared to year 2019. Some working positions were merged – where possible and the number of staff was reduced due to the termination of MET services provision at Sliač airport and phased termination of the Assistant for Briefing working position also.
of which, pension costs	Costs are copying the development of wages
1.2 Other operating costs	The other operating costs (year 2021-2024) increased by approximately 18 to 56% compared to year 2019 - due to planed Modernization and unification of AWOS MET equipment and systems, the purchase and installation of windprofiler (due to COVID 19 all investments in year 2020 were stopped. But it is necessary to start the modernization of AWOS MET equipment and systems in period 2021-2024 as the life cycle of MET equipment is in average 5-6 years). Note: costs related to modernization of AWOS MET equipment and systems were not included in year 2019.
1.3 Depreciation	N/A
1.4 Cost of capital	N/A
1.5 Exceptional items	N/A
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	n/a
2.2 Communication	n/a
2.3 Navigation	n/a
2.4 Surveillance	n/a
2.5 Search and rescue	n/a
2.6 Aeronautical Information	n/a
2.7 Meteorological services	< >
2.8 Supervision costs	n/a
2.9 Other State costs	n/a
Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008	
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Entity: DÚ

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1. Detail by nature (in nominal terms)	
1.1 Staff costs	The Slovak Republic has introduced exceptional measures to reduce costs, with 10% of employees to be made redundant from 2021 onwards, resulting in 11% reduction in personnel costs. Staff cost in years 2022-2024 slightly increase compared to year 2019 due to workload of inspectors.
of which, pension costs	Costs are copying the development of wages
1.2 Other operating costs	In 2021 cost cutting measures were also applied to other operating costs, resulting in 57% reduction.
1.3 Depreciation	N/A
1.4 Cost of capital	N/A
1.5 Exceptional items	N/A
2. Detail by service (in nominal terms)	
2.1 Air Traffic Management	n/a
2.2 Communication	n/a
2.3 Navigation	n/a
2.4 Surveillance	n/a
2.5 Search and rescue	n/a
2.6 Aeronautical Information	n/a
2.7 Meteorological services	n/a
2.8 Supervision costs	< >
2.9 Other State costs	< >
Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008	
< >	

Pension costs

The determined pension costs of the main ANSPs are detailed and justified in the body of the performance plan (item 3.4.3)

g) For each entity, a description and justification of the method adopted for the calculation of depreciation costs (point 1.3 of Table 1): historical costs or current costs referred to in the fourth subparagraph of Article 22(4), and, where current cost accounting is used, provision of comparable historical cost data;

ANSP

LPS SR uses the method of linear depreciation applied on historic costs. Annually, the adherence to depreciation rates derived from the expected operating life of particular fixed assets is verified by the Auditor. In general, depreciation periods are in line with those of the Principles.

MET

N/A

NSA

N/A

h) For each entity, description and underlying assumptions of each item of complementary information (point 3 of Table 1), including a description of the main factors explaining the variations over the reference period;

LPS SR	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	Covered in item f) above

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3.11 Cost of capital	For Weight average Cost of Capital calculation the Capital Asset Pricing Model (CAPM) is used where: Risk free rate is 0.7 %, Asset beta 0.5, Market risk premium is 5.59 % and tax is 21 %. The total value of ROE is calculated in amount of 4.42 % to 5.09 %. Since 2021 LPS have obtained the loan with interest rate 3M EURIBOR + 0,045% margin and five year payment period. The debt ratio varied from 10% to 21% during the years 2021-2024.
3.12 Cost of leasing	n/a

SHMÚ	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	Covered in item f) above
3.11 Cost of capital	N/A
3.12 Cost of leasing	N/A

DÚ	
Costs of new and existing investments (see also performance plan item 2)	
3.10 Depreciation	N/A
3.11 Cost of capital	N/A
3.12 Cost of leasing	N/A

Eurocontrol costs	
3.13 Eurocontrol costs (Euro)	For particular costs see Item 3.13 of Table 1 NSA
3.14 Exchange rate (if applicable)	n/a

i) For each entity, description of the assumptions used to compute the cost of capital (point 1.4 of Table 1), including the composition of the asset base, the return on equity, the average interest on debts and the shares of financing of the asset base through debt and equity;

LPS SR	
Average asset base	
3.1 NBV fixed assets	The main assumption considered in calculation is the ANSP's asset put into operation before RP3. The other part of this item is calculated according to the investment plan. Tangible fixed assets (constructions, devices, equipment) constitute more than 81 % of all NBV fixed assets. Another part, circa 18 %, consists of intangible assets, such as software. Fixed asset under construction is also part of this item.
3.2 Adjustments total assets	n/a
3.3 Net current assets	The assumption is based on historical trend of this item, significant deviation from this trend is not expected in future. This item is calculated as difference between current assets (without cash) and current liabilities incl. part of the loan and short term provisions.
Cost of capital %	
3.6 Return on equity	CAPM is applied where: Risk free rate is 0.7 % (10y government bonds; Fernandez 2021), Asset beta is 0.5, Debt beta is 0.05 (middle; NERL JULY 2020), Equity beta varies from 0.50 to 0.59, Market risk premium is 5.59% (average of Fernandez 2021 and Damodaran), Tax is 21 %,

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	Total value of ROE varies from 4.42 % to 5.09 % depends on debt ratio.
3.7 Average interest on debts	In 2021 LPS obtained a loan with interest rate 3M EURIBOR + 0,045% margin and a five-year payment period. Based on the fact that 3M EURIBOR has been 0% for a long period of time, we have used 0,045 % in the calculation.
3.8 Share of financing through equity	Varies from 79% to 100%,

j) Description of the determined costs of common projects (point 3.9 of Table 1).

LPS SR					
Determined costs of common projects (in nominal terms in '000 national currency)					
CP reference	2020	2021	2022	2023	2024
SPECIFIC AGREEMENT No INEA/CEF/TRAN/M2016/13496192016_159_AF6 – DLS Implementation Project - Path 2	15 200 €				
SPECIFIC AGREEMENT No INEA/CEF/TRAN/M2015/1132963 - NewPENS Stakeholders contribution for the procurement and deployment of NewPENS – Part B.Cohesion Call	49 000 €				
SPECIFIC AGREEMENT No INEA/CEF/TRAN/M2017/1602559 - AF5 SWIM Common PKI and policies & procedures for establishing a Trust framework	27 055 €	22 460 €			
Total (Table 1 item 3.9)	91 255 €	22 460 €			

2. Actual costs and unit costs

a) For each entity and for each cost item, a description of the reported actual costs and the difference between those costs and the determined costs, for each year of the reference period;

2020-2021

RP3 Monitoring – Year 2020-2021	
ANSP: LPS SR	
1.1 Staff costs	Actual staff costs in 2021 were significantly lower than planned (-6,7 M€; -25%) due to continued non-payment of variable wage components (a covid-19 crisis measure taken in 2020 in order to stabilize ANSP's cashflow).
1.2 Other operating costs	Other operating cost were lower (-0,9 M€; -11%) due to cost containment measures such as limited travel expences, courses, day-to-day consumption material etc.
1.3 Depreciation	Actual depreciation was in line with the investment plan. The difference of +1,3 M€ (+31%) is a consequence of the fact that for the 2021 unit rate calculation the depreciation was reduced by 1,3 M€ as a carry-over from RP2 (unrealized investments from RP2 returned to Users during RP3)
1.4 Cost of capital	Actual cost of capital in line with the determined value.
1.5 Exceptional items	n/a

RP3 Monitoring – Year 2020-2021	
ANSP: SHMÚ	
1.1 Staff costs	Actual staff costs in 2021 were lower than planned due to such as non-payment of variable wage components.
1.2 Other operating costs	Other operating costs were reduced by restriction on purchases materials.
1.3 Depreciation	N/A
1.4 Cost of capital	N/A

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1.5 Exceptional items	N/A
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RP3 Monitoring – Year 2020-2021	
STATE/NSA:	
1.1 Staff costs	Staff costs in 2021 were lower than planned due to non-payment of salaries items beyond the statutory obligation (bonuses, rewards etc.).
1.2 Other operating costs	Other operating costs were reduced such as day to day material consumption, travel costs etc.
1.3 Depreciation	N/A
1.4 Cost of capital	N/A
1.5 Exceptional items	N/A

b) Description of the reported actual service units and a description of any differences between those units and the figures provided by the entity that is billing and collecting charges as well as any differences between those units and the forecast set in the performance plan, for each year of the reference period;

Due to COVID crisis traffic in 2020 and 2021 was well below the forecast used for the Unit Rate calculation. Slovakia was one of the most affected countries in this respect when traffic fell respectively by 67 % and 59 %.

c) Breakdown of the actual costs of common projects per individual project;

2020-2021

For details see Table 4.

d) Justification of the difference between the determined and the actual costs of new and existing investments of the air navigation service providers, as well as the difference between the planned and the actual date of entry into operation of the fixed assets financed by those investments for each year of the reference period;

2020-2021

Actual costs in line with the determined costs.

e) Description of the investment projects added, cancelled or replaced during the reference period with respect to the major investment projects identified in the performance plan, and approved by the national supervisory authority in accordance with Article 28(4)..

2020-2021

no difference in respect of major investment

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ADDITIONAL INFORMATION TO REPORTING TABLES 2 – UNIT RATE CALCULATION

a) Description and rationale for establishment of the different charging zones, in particular with regard to terminal charging zones and potential cross-subsidies between charging zones;

Not applicable to en-route charging zone.

b) Description of the policy on exemptions and description of the financing means to cover the related costs;

ANSP has a possibility, in line with the national legislation, to apply through the MoT against the State budget for recovery of costs arising from ANS provision to exempted flights.

Actual costs incurred in relation to services to flights exempted from ANS charges (pursuant to Article 31(3) to (5) and Article 22(6) of Implementing Regulation (EU) 2019/317) in the charging zone.

	2020
Costs for exempted VFR flights	42 588 €
Costs for exempted IFR flights	587 101 €
Total costs for exempted flights	629 689 €

	2021
Costs for exempted VFR flights	50 311 €
Costs for exempted IFR flights	649 209 €
Total costs for exempted flights	699 520 €

c) Description of adjustments resulting from the traffic risk sharing mechanism in accordance with Article 27;

n/a for 2020-2021

d) Description of the differences between determined costs and actual costs of year n as a result of the changes in costs referred to in Article 28(3) including description of the changes referred to in that Article;

n/a for 2020-2021

e) Description of adjustments resulting from unforeseen changes in costs in accordance with Article 28(3) to (6);

n/a for 2020-2021

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f) Description of the other revenues, if any, broken down between the different categories indicated in Article 25(3);

2020-2021

g) Description of the application of the financial incentive schemes referred to in Article 11(3) and 11(4) in year n and the resulting financial advantages and disadvantages; description and explanation of the modulation of air navigation charges applied in year n under Article 32 where applicable, and resulting adjustments;

Financial incentive schemes

n/a for 2020-2021

Modulation of charges

n/a for 2020-2021

h) Description of adjustments relating to the temporary application of a unit rate under Article 29(5);

2020-2021

Adjustment relating to the temporary application of 2020 a 2021 unit rates is spread evenly over a period of 7 years, for details see Table 3.

i) Description of the cross-financing between en route charging zones, or between terminal charging zones, in accordance with point (e) of Article 15(2) of Regulation 550/2004;

Not applicable – there is only one charging zone.

j) Information on the application of a lower unit rate under Article 29(6) than the unit rate calculated in accordance with Article 25(2) and the means to finance the difference in revenue;

Not applicable.

k) Information and breakdown of the adjustments relating to previous reference periods impacting the unit rate calculation;

For details/amounts relating to particular adjustments see Table 3 ANSP.

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**ADDITIONAL INFORMATION TO REPORTING TABLE 3 – COMPLEMENTARY INFORMATION
ON COMMON PROJECTS AND ON UNION ASSISTANCE PROGRAMME**

I) Information on the costs of common projects and other funded projects broken down per individual project, as well as of public funds obtained from public authorities for these projects.

For details see Table 4.