ASD Response to IAA Draft Decision on RP4 draft Performance Plan for Air Navigation Services Charging and Performance in Ireland DATED 18 July 2024

INTRODUCTION

The IAA draft decision accepted some of the costs detailed in the ASD plan in terms of eligibility and scale while other, significant, elements of the plan are considered to require further justification. The IAAs analysis of staff costs and other operating costs, in particular, are lower than those determined by ASD and fall short of what is required to fund Met Éireann's aviation services and authority functions.

The performance regulation sets challenging cost efficiency targets and ASD accept the necessity to be as cost efficient as possible. At the same time it must also be accepted that the cost of delivering and further developing services in an environment where systems are becoming necessarily more sophisticated and complex will incur higher costs. The context is further complicated by the fact that the demands for increased scope of aviation meteorological services and the ongoing availability and resilience of these services also emanate from the ICAO and EU requirements. And the implementation and oversight of these EU requirements also under the responsibility of IAA.

In its draft decision it was stated that some further justification was required by IAA for some cost elements determined by Met Éireann. Met Éireann is glad to provide further information as requested via this response document and has also provided IAA with additional technical information to justify the costs proposed.

The draft decision focusses on noted step changes in costs for different activities and the justification for these following the Need, Additionality and Efficiency approach. While this approach was generally followed throughout the plan, and in earlier feedback already provided to IAA, it will be extended to the other cost areas, as appropriate, in this response document.

It is important to state that all costs recovered for the provision of aviation services by Met Éireann are done so in line with the ICAO ***cost recovery*** principles. There is no profit motive and the costs recouped are returned in full to the exchequer and cannot be used by Met Éireann for any alternative purpose whatsoever. The costs are developed in a transparent manner and all inputs to the costs calculations, Direct and Core, are made available to IAA. It is also noted that the IAA reiterated its agreement with the cost allocation methodology used to apportion Met Éireann core costs in March of this year.

A. GENERAL COMMENTS

The Draft Decision identified some editorial and technical points within the draft ASD Plan regarding terminology and calculations. These were subsequently addressed and updates added and corrections made as appropriate. In particular the use of the nominal and real terminology is clarified and the calculations were closely reviewed and updated in line with IAA feedback and further Met Éireann analysis.

Further response to the draft decision under the main cost categories are set out below

B. STAFFING LEVELS

The draft decision refers to a significant step change in staffing levels at the outset of RP4 and suggests (sect. 7.15) that the reason for increased staffing levels is 'to reduce an over reliance on overtime'. While reducing an over reliance on overtime is indeed a key objective it is only one consideration that went into the determination of the ASD staffing levels for RP4. This additional rationale was also provided within the draft ASD RP4 Plan to IAA and further elaborated on in the Q and A consultation. Further rationale and justification for the determined staffing levels follows.

Staffing requirements are determined at levels necessary to provide safe, resilient high quality operations and services. In general the MET operational teams work on a 24/7 basis. A simple hours calculation shows that the absolute minimum requirement to maintain a 24/7 operational position is 6 FTE. All staffing projections are built on the basis of this minimum requirement and, in consideration of the significant contribution of staff costs to the RP4 plan, are developed to be as lean as possible.

Alongside the ASD ambition to maintain leanness there is the requirement on ASD to ensure sufficiency of all resources assigned to the aviation service and authority functions as detailed in

> ***Regulation (EU) 2017/373; ATM/ANS.OR.B.001 which places a requirement on Met Éireann, to main adequate technical and operational capacity/expertise to perform its tasks and discharge its responsibilities.*** ASD implementation of this EU requirement is also supervised by the IAA and must be considered by it when making its decisions regarding the appropriateness of ASD staffing, resource and costs proposals.

1. Comment on observed step change in staffing between end RP3 and RP4

A reduction in staffing in the aviation observations process was expected to be realised once the AMAP observations system (AWOS) was commissioned and operationalised. These efficiencies were expected by end 2023 with reductions in staffing to immediately follow. However, research of the AWOS outputs demonstrate that while they are of a high quality the anticipated staffing reductions cannot be implemented for the following reasons:

- International experience coupled with Met Éireann internal research and analysis of AWOS outputs shows that the new observations system as implemented is under-resourced in terms of the number of sensors measuring the visual parameters of visibility and cloud ceiling. Therefore, it is not yet possible to use the system to deliver fully automated aviation observations of sufficient quality to meet user needs *without human supervision*
- To mitigate this and to ensure service quality the human observer will be retained to supervise and intervene with the automatically generated output until the system is supplemented with additional sensor resources to support fully automated observations
- Therefore, the step reduction in staffing at end RP3 did not occur and so the baseline for operational weather observers will be determined based on the current requirement of an observations process fully supported by human observers.

However,

- Met Éireann will invest in additional sensors and the development of appropriate algorithms across its aviation network to allow the commencement of safe and staged transition to automation during RP4 at sites Cork, IWAK and Casement Aerodrome
- But until the expansion of the sensors is complete it will be required that human supervision of the system output will be required.

Therefore, in terms of the Needs, Additionality and Efficiency to retain full complements of observers albeit at the minimum 6FTE per position:
Need: Assign safe and resilient staffing levels to ensure the ongoing provision of high quality regulated observation services
Additionality: Provide necessary human supervision of automatically generated sensor output and OPMET and modify/correct this service as required
Efficiency: Staffing levels are retained at exceptionally lean levels with novel management initiatives used to manage contingency arrangements rather than adopting a simple gross increase in staffing approach.

2. Operations staffing requirements:

This section provides further additional information to justify the ASD staffing requirements for the operational activity areas.

a. All aviation meteorological service offices operate on a 365/24/7 basis.
b. The minimum staffing complement for a 24/7 operational position is 6 FTE and this is the baseline from which the RP4 staffing requirements are developed. 6 FTE per 24/7 position allow sufficient capacity for 1 full 24/7 position coverage and will also provide enough of a resource to cover planned annual leave only. It provides very little additional capacity to support:
    - Short/long term sick leave
    - maternity leave
    - work life balance arrangements – including those of a statutory nature such as parents leave
    - on-call arrangements
    - training (aviation/airport requirements, refresher, QMS, security, new systems, new procedures, normal CPD)
    - internal audit implementation
    - implementation of BCM procedures
    - temporary increase of staffing to support extreme/high impact weather operations

    Provision of cover for staffing absences is further constrained by the necessarily structured nature of operational rosters.
c. In situations whereby the operational teams are at 6 or below then the activities/absences listed above are either resourced via overtime payments or are postponed until resources become available. In circumstances where absences cannot be postponed (e.g. sick leave, maternity leave) the rosters come under significant strain. Operational examples of such impacts were shared with the IAA.

d. In its Draft decision the IAA state that '*Replacing overtime with additional headcount does not necessarily or typically lead to a material increase in cost.*' However, the ASD plan does not include a level of staffing that could in any way be considered sufficient so as to replace overtime. The staffing complement is, as will be seen, set at a ***minimum*** in order to cover operational requirements and fulfil the basic leave requirements of staff with some scope for the other activities listed earlier. It is expected that overtime will continue to be used as a resource tool for the entirety of RP4.

e. To assess efficiency of ASD rosters it is useful to consider the following ASD staffing projections for RP4 across all aviation operational areas and to compare it with other information made available during the RP4 consultation process.

Activity	**Office Function**	**Determined ASD FTE**	Comparator figure based on IAA commissioned CEPA report*
Met Watch Office and Aeronautical Forecasting	Provision of warnings of hazardous weather and aviation weather forecast	**8 staff fulfilling** one 24/7 shift position + one 9-5 position	11 est.*
Aviation weather observations	Provision of aviation weather observations at airport sites	**31 staff fulfilling** 4* 24/7 roster positions 2* 12 hr positions	40 est.*

**figures are estimated using current and recommended staffing factors for equivalent operational positions in other ANSP located at Shannon and Cork airports. It is also noted that the 8 fte minimum per shift position is understood to be a norm within the aviation industry.*

f. *Roster resilience*: Despite such a lean staffing model ASD limits risk to operations via the implementation of a number of novel contingency arrangements. For some stations, such as Shannon and the aviation forecast offices, contingency is available within the teams of 6 FTE per operational position via interoperability between teams and between adjacent operational sites and the management of operational tasks under a priority system. However, in the case of Cork Airport it is necessary (due to its isolation from other operational sites) to assign 1 additional FTE for the operational 24/7 position (i.e. assigning a complement of 7 rather than 6 FTE).

g. ASD would welcome an independent assessment of the planned staffing resources as conducted on other ANSP should the IAA wish to engage such a study. ASD is certain that the outcome of such a review would confirm that there is no opportunity to reduce staffing levels beyond what are included in the plan.

3. Step change in Shannon Central Aviation Office (CAO) staffing requirement

During the RP4 period the ASD Shannon Central Aviation Office will be staffed by 2 24/7 rosters both comprised of the minimum 6 FTE. This represents an increase of 2 FTE on current staffing levels but is necessary to ensure roster resilience

Need: One team (6FTE) will maintain 24/7 observations processes while the other (also 6 FTE) will supervise all MWO activities, monitor division wide outputs, manage BCM activities, manage interaction with service users alongside other administrative functions. Currently with a staff complement of 10 the CAO office cannot provide full 24/7 coverage of the non-observational functions or, crucially, provide support for the newly developed, and funded, BCM systems and procedures. The division wide BCM system is managed from the Shannon office and cannot be implemented without attendant personnel.

Additionality: Full 24/7 operational support of all CAO activities and business activities (currently limited to 12 hours per day). In particular the additional staff will allow full 24/7 operational contingency capability for the entire ASD regulated operational service activities including observations from all sits, forecast services and hazardous weather warning services.

Efficiency: As staff costs are a significant cost driver the 2 teams are currently limited to the absolute minimum of 6 FTE each. It is planned that these 2 teams will have interoperability capability and act as contingency for each other.

As a comparator the published CEPA report on ANSP efficiency suggests that the determined MET RP4 falls significantly below what are the norms for 24/7 operational activities. The following extract refers:

> *'Shannon has one approach position and one air/runway control position staffed 24/7, supplemented by a ground control position staffed from 09:00 from 17:00 (eight-hour shift) across the year. AirNav Ireland's 2023 headcount figure for Shannon ATCOs is 20'* .

The ASD plan is proposing to staff 2 24/7 positions with 12 staff representing an exceptionally lean staffing proposal.

4. **AWOS technical support team**: Staffing requirement for technical support of the automatic weather observing system

Need: The size and complexity of the AWOS weather observations infrastructure (sensors, ICT, cabling, LAN and WAN) delivered by the AMAP project is much greater than the legacy system (currently being phased out). It is therefore much more demanding in terms of its support requirements. The legacy system was supported by a small team of 3 technical engineering staff. The AWOS system has more than doubled the observation infrastructure in size in terms sensor numbers and has an additional very large, complex ICT and networking overhead which is additional to what was previously in place. The technical support team must therefore grow in order to ensure support is adequate.

Additionality: The significantly increased scope and complexity of the technical system is such that a team of 6 plus the team manager is determined as the minimum necessary. Aside from the usual system support, engagement with other ANSP and airport authorities, maintenance, life cycle upgrade activities the team also provide an out of hours oncall service. Along with this work, technical staff also have to maintain their professional standards involving refresher courses and CPD in various disciplines. Furthermore, the demands of ensuring compliance with QMS procedures and increasing compliance demands regarding the MET functional system under CIR EU 2017/373 necessitates the maintenance of a right sized technical support team.

Efficiency: The technical support team comprises a small expert team of 6 technical support engineers working under the ATSEP regulatory requirements and overseen by 1 manager. These staff work only on aviation systems, across all airport sites (airside and landside) and are part of the direct staff costs included in the plan.

5. Future staff efficiencies

At the early planning phase of the AMAP project it was envisaged that immediate staff reductions would be enabled once the system was operationalized via the generation of fully automatic observations at a number of sites. It is incorrect to suggest however, that it was on this basis alone that the AMAP project was deemed eligible for cost recovery. The ***primary*** objective of the project was to ensure compliance of Irelands aviation observations service provision with ICAO standards and, later, EU regulatory requirements. This primary objective is achieved. The AMAP project was required whether or not any further benefits, such as staff reductions, would have accrued.

The possibility still exists to build on the success of AMAP and to work towards reductions in staff numbers working within the operational aviation observations process. During RP4 ASD will further enhance the technical AWOS system to develop limited automation and garner these staffing efficiencies. ASD is confident that the planned research and development will yield staff reductions – but the implementation and scale of these reductions will depend on a number of external factors including – quality of service, regulatory approval and users demands.

A best case scenario estimate of the saving that can be expected to be achieved by end RP4 is 4 to 6 FTE currently assigned to the observations process. However, as this staff reduction is not a guaranteed saving the reductions in determined staff FTE is not built into the plan and nor is the associated cost reduction. This is to avoid a scenario developing at the end of RP4 similar to what is being experienced now at the RP4 planning stage in terms of step change assessments. However, ASD will strive to achieve a staffing efficiency and, when it does, the staffing levels will be reduced accordingly.

C. STAFF COSTS

Staff costs are directly linked to staff numbers. The method by which the staff costs are calculated is very clear and the principles, guidance material and method used to calculate them is well defined within the Public Spending Code (PSC).

1. The staff costs tables were presented to on foot of the earlier Q A request and these include a full breakdown of basic salary; shift allowances for eligible staff; PRSI contributions; Pension costs; Staff salary Increments. Staff overhead costs are also included – but as part of the Other Operating Costs category. Updated staff costs tables were updated and forwarded to IAA.
2. Direct salary calculations moved away from using mid point of salary scale to actual point on staff members salary scale. These salary points increase annually and in line with payscale and with any pay agreements. This approach was sought by IAA and will result in more accurate costings.

3. In justification of the staff costs IAA have been presented with:
    - Substantial detail on staff numbers
    - Staff salary tables constructed on an individual staff by staff basis
    - All computational formulae
    - Salary scales are set and are available or can be provided on request
    - References to the underpinning PSC guidance with key summary extracts below:

Table 2: Framework for Estimating Staffing Costs

	Cost Component	Methodology
A.	Pay	Midpoint of pay range using formula below
B.	Direct Salary Cost	Pay + Employers PRSI
C.	Total Salary Cost	B + Imputed pension cost (see Tables 3A and 3B)
D.	Total Staff Cost	C + 25% of A in respect of 'overheads'

Table 3A: Standard Accrual Categories – Cost of Pension less Normal Employee Contributions

	Pre-2013 Cohorts	Post-2013 Cohorts
Civil Servant	27%	8%
Teacher	29%	9%
Nurse	28%	8%
Engineer	33%	10%
Hospital Consultant	46%	14%
Average[3]	29%	9%

4. Step changes in staff costs:

It must be noted that the step change in staff costs as represented by Figure 7.2 in the draft decision does not reflect the actual staff costs profile between the projected actual cost for 2024 and 2025. The RP3 determined staff cost for 2024 comprehends a reduction in staffing that could not occur for reasons described earlier. The expect actual staff cost for 2024 will be €5,039k (inc. 755k pension) which is significantly greater that suggested in the draft decision. This is also lower than it should be due to current vacancies which are in the process of being filled. If full staffing was in place the actual staff cost for 2024 would be €5,431k (inc. 818k pension). The determined staff cost for 2025 is €5,972k demonstrating that the step change is far less than indicated in the draft decision.

However, in consideration of the, in reality, much smaller step change, a number of factors contribute to cost increase from 2024 and the determined staff costs for 2025 due to –

- As previously addressed above staff numbers not decreasing as projected at the end of RP3 (this was not possible in order to ensure quality of services provided)
- A small increase in staff number is required in order to ensure operational resilience, uninterrupted services and resourcing technical support and BCM activities
- Public sector pay deal which will add 7.25% by end 2024 over 2023 and around 10% over 2.5 years
- Using actual points in salary scales for all staff instead of mid points results in annual pay inflation on top of pay rises under the public sector pay deal

As the staff costs are a direct function of staff levels the justification and needs analysis is detailed in that section.

D. OTHER OPERATING COSTS

The step changes in other operating costs are accounted for due to the following additional activities that must be costed for:

QMS costs: These are necessarily incurred at it is both an ICAO and EU requirement that MET ANSP hold accreditation to a QMS. ASD holds accreditation to the ISO 9001:2015 QMS standard and maintenance of this accreditation incurs both audit (accreditation and surveillance) and certification costs. These costs were previously overlooked in RP2 and RP3 and are now, correctly, included. The costs themselves are determined based on the procurement of the necessary services via the public sector procurement rules.

AWOS Support Costs: The Aviation Weather Observing System (AWOS) delivered by the AMAP project is far more complex and greater in scope than the legacy observing infrastructure. There are multiples more sensors, ICT infrastructure, servers, switches, communications and power infrastructure, workstations, licences that must be maintained and paid for. The system is implemented across multiple sites, both landside and airside at all airports at which ASD provides the aviation weather observations service. AWOS requires significant ongoing scheduled and ad-hoc support, maintenance and lifecycle upgrades of its constituent parts. The determined costs for this activity are precisely determined in line with manufacturers maintenance schedules, QMS procedures and lifecycle projections. Travel and subsistence for the technical team also forms part of this cost activity.

Airport Security costs: These are incurred as the ASD staff working at the State airports are required to comply with EU regulations governing airport access and security. The costs comprise those necessary to compete training and secure certification to acquire AICs, BSAT training and airside driving permits. The costs are precisely determined under procurement rules.

Comment on other operating costs calculations: A technical error in the costs tables resulted in other operating costs being significantly higher than they should have been.

This error is now corrected and the true determined values are now included in the finalised ASD RP4 Plan. The corrected tables were also provided to IAA for its information.

E. EXCEPTIONAL ITEMS

The only exceptional item included is the contribution to EUMETSAT and this was reviewed and considered eligible by IAA. In line with the draft decision the final RP4 plan is revised to include these costs in real 2022 prices rather than nominal.

F. DEPRECIATION COSTS

IAA accept in its draft decision that the investment programme and associated depreciation costs are eligible as presented.

G. CONCLUSION

This response document seeks to address all elements of the IAA RP4 Draft Decision and respond to issues, questions and requests raised by IAA and by stakeholders at the consultation meeting of 5th August. In developing this response Met Éireann ASD undertook a full review of the draft MET RP4 Plan and updated it with revised costs as appropriate. The finalised ASD RP4 Plan is also now submitted to IAA.

The determined costs were developed with an emphasis on cost efficiency with the basic principle that the minimum amount of staffing and infrastructure resources are assigned to aviation necessary to safely and resiliently provide both service and authority functions that are fully compliant with the ICAO standards and EU regulatory requirements. There is no scope to reduce the staffing, staff costs, operating costs or investment costs from what is detailed. To do so would result in service reductions and/or unacceptable risk to service safety, quality and resilience. Such impacts would not be acceptable to the IAA as the certification body of ASD under EU 2017/373, or of the Department of Transport in its role as designator of ASD as provider of regulated meteorological services.

ASD remains fully open to any requests for further information or evidence from IAA to assist with its decision making process.