



MINISTERIO  
DE TRANSPORTES  
Y MOVILIDAD SOSTENIBLE



## 2<sup>ND</sup> FRM CONFERENCE - Main Challenges when overseeing FRM and FTL schemes

José L. LÓPEZ LEBOREIRO  
*AESA – Head of Air Operations Oversight Division*  
Madrid, February-2025

1. TOP CHALLENGES AS OVERSIGHT AUTHORITY. FTL/FRM SCHEMES
2. PERFORMANCE BASED REGULATIONS. KPIs
3. AESA ACTIONS



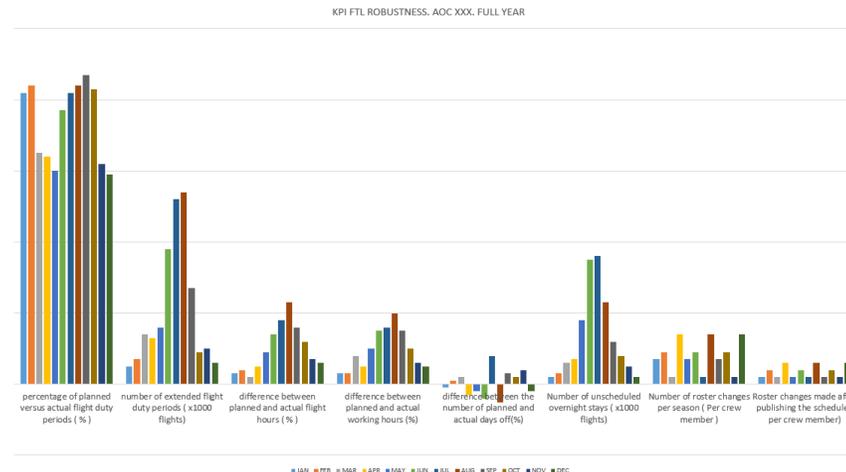
## 1. TOP CHALLENGES AS OVERSIGHT AUTHORITY. FTL/FRM SCHEMES

- FTL/FRM KPI management and data oversight ( metrics, thresholds/targets and actions taken by operator. Lack of data/KPI commonality among operators )
- Changes to crew scheduling ( definition/metrics by operator )
- Fatigue training ( instructor competency, detail and duration of training)
- Timely implementation of changes to the rule by operators
- Fatigue reporting culture among operators ( variability )



## 2. PERFORMANCE BASED REGULATIONS. KPIs

- The operator evaluates its performance through KPIs
- Thresholds or targets are set for KPIs and these are continuously monitored.
- KPIs are reviewed and regularly updated to ensure they remain relevant.
- Where the KPIs indicate a control not being effective appropriate action is taken.



### 2. PERFORMANCE BASED REGULATIONS. KPIs

#### Examples of metrics that may be used by the operator for FTL performance:

- Number of reports (sick, not fit for duty, fatigue) associated with inadequate rest because of late publication of rosters, below a specified threshold
- Number of reports pointing to the lack of mitigation as per the AltMoC.
- % change in flights from publication to actual, below threshold
- % crew keeping the original rostered duty close to target
- Number of days-off removed from roster, below threshold
- Number of changes without proper notification, below threshold
- Number of reports pointing to reduce rest due to roster change below threshold
- Number of re-routes below threshold
- Number of aircraft swaps below threshold
- Number of unscheduled breaks below threshold
- Number of reports associating the change to a fatigue event
- Number of night FDPs > 10h per crew member per week below threshold
- Number of FDPs > 13h per crew member per week below threshold
- Number of FDPs > 5 sectors below threshold
- Number of exceedances pre-flight and pre-departure times, below threshold
- Number of FDP exceedances due to longer pre-flight and pre-departure times, below threshold
- Number of crew reporting insufficient time for pre-flight and pre-departure duties
- Minimum turnaround time planned v. actual



### 2. PERFORMANCE BASED REGULATIONS. KPIs

#### Examples of metrics that may be used by the operator for FTL performance:

- Ratio days on/days off close to target
- Ratio FDP/rest period close to target
- A limit on the days on/days off
- Number of fatigue reports due to insufficient rest between consecutive duties
- Number of early starts after a day off, below threshold
- % change in FDP starting times in a duty block, below threshold
- Ratio planned FDPs / actual FDPs
- Number of alternating day/night duties in a duty block, below threshold
- Number of alternating Eastward-Westward or Westward-Eastward transitions in a duty block, below threshold
- Number of transitions from a late finish/night duty to an early start in a duty block, below threshold
- % of the sleep opportunities covering local night (2200 - 0800 LT) close to target;
- % of minimum rest periods, below threshold
- % of rest periods completely outside WOCL, below threshold
- Number of fatigue reports due to insufficient rest
- Number of single days free of duty
- City pair exceedances in the planned FDPs on a monthly basis due to traffic congestion and/or airport infrastructure
- Number of delays > 15 min
- Number of delays > 1 hour
- Minimum turnaround time planned v. actual



### 2. PERFORMANCE BASED REGULATIONS. KPIs

#### Examples of metrics that may be used by the operator for FTL performance:

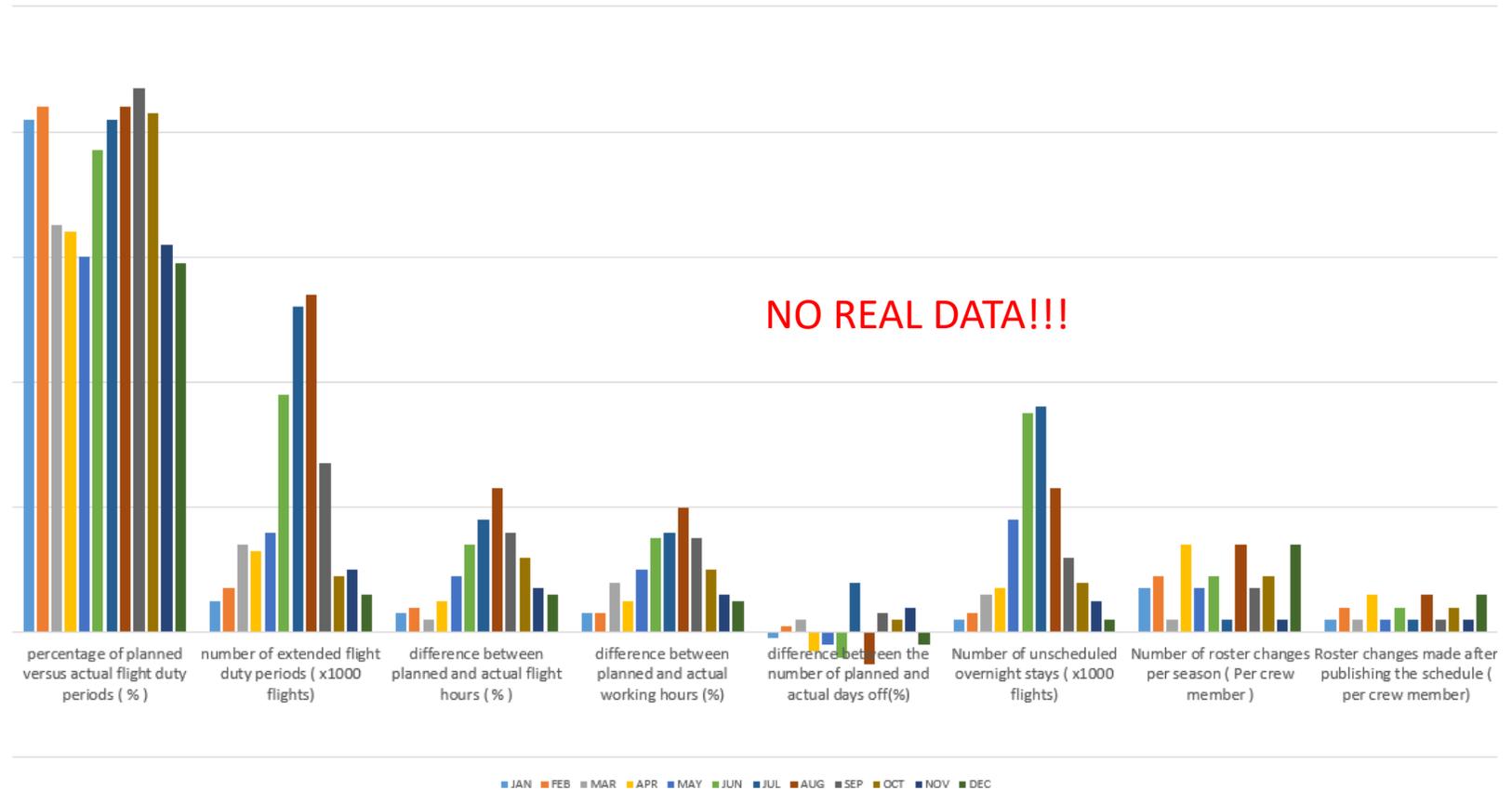
- Average duration of exceedances
- % of FDPs planned v actual close to target
- Number of FDP extended through CD
- Difference between planned and actual flight hours
- Difference between planned and actual duty hours
- Difference between planned and actual number of days off
- Number of unscheduled overnights;
- Number of roster changes per scheduled seasonal period
- Changes of schedule carried out after published roster
- Ratio proactive/reactive reports
- Distribution of root causes of submitted fatigue reports
- Fatigue report filing rate
- Timely closure of action items stemming from fatigue reports



2. PERFORMANCE BASED REGULATIONS. KPIs

- TRENDS????
- ACTIONS TAKEN????
- SEASONALITY????
- FLEET RELATED????
- BASE RELATED???
- COMPARISON WITH PREVIOUS YEARS????
- FIGURES CONSISTENT WITH INDUSTRY????
- THRESHOLDS/TARGETS??

KPI FTL ROBUSTNESS. AOC XXX. FULL YEAR



### 3. AESA ACTIONS

- Improving data gathering and treatment for oversight FTL/FRM Schemes
  - ❖ Using mandatory AIROPS reports to Authority ( CD, Reduction of CC )
  - ❖ Improving data analysis skills of inspection teams ( while keeping multidisciplinary background )
  - ❖ Improving data tools for inspectors
  
- Working on definition of common KPIs for effective oversight



THANK YOU!

