

# FRMP/FSAG/Education Panel

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# Fatigue Risk Management Plan (FRMP)

- Supports and reinforces United SMS policies and principles
- Describes how fatigue reports are submitted, reviewed and managed
- Fatigue Review Committee (FRC)
  - Company /ALPA reps from scheduling / safety
  - Categorize fatigue events for pilot pay
  - Data collection and analysis of fatigue events
    - Determining root causes / contributing factors
    - Identify and monitor trends
    - Recommending corrective actions to mitigate risk
- Fatigue Management Steering Committee (FMSC)
  - Senior Vice President Flight Operations
  - Vice President Corporate Safety
  - Chairman System Scheduling Committee
  - Chairman Central Air Safety Committee



# When a Pilot Calls Fatigue

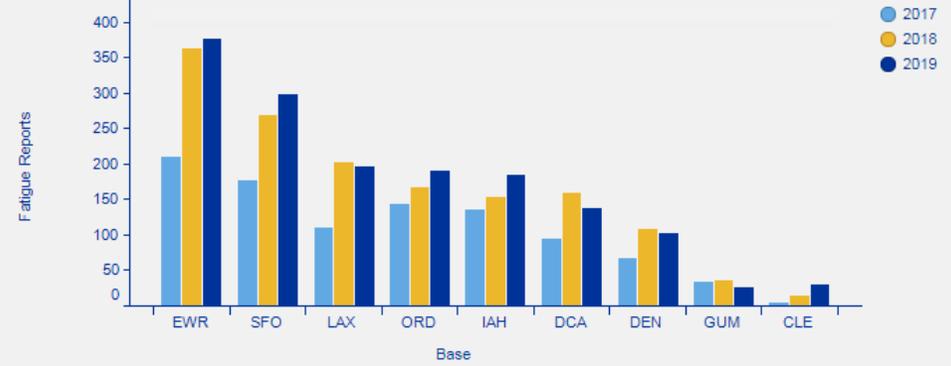
- Pilot informs crew scheduling
- Crew scheduling immediately releases pilot from flight duty
- Total rest period is mutually determined by the pilot and crew scheduler
- After the rest period, the pilot will be available for duty IAW UPA
  - Rejoin original assignment, be assigned to a different FDP or reserve duty
- Pilots sick bank initially debited and reconciled if necessary
- Pilots should utilize all available rest prior to calling fatigue



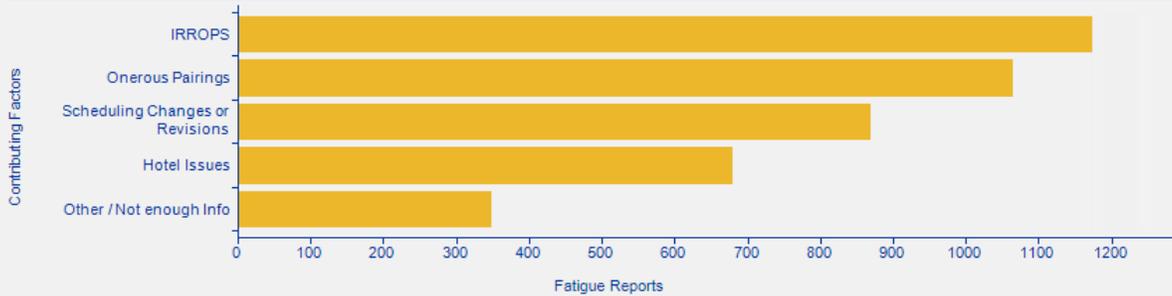
### Fatigue Reports - Year Over Year (Calendar Month)



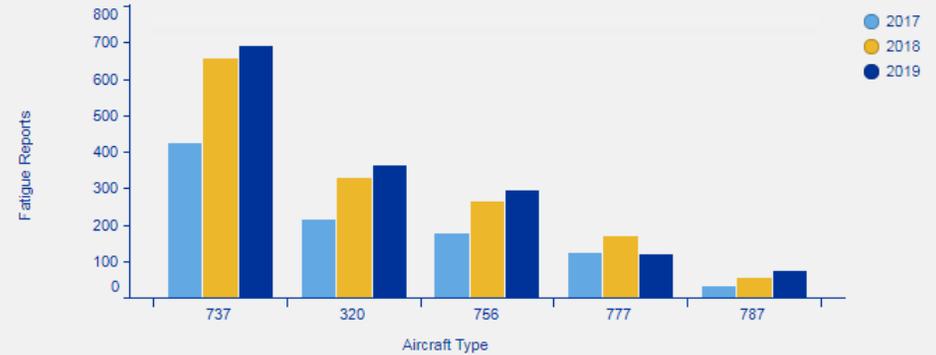
### Fatigue Reports - By Base (Calendar Year)



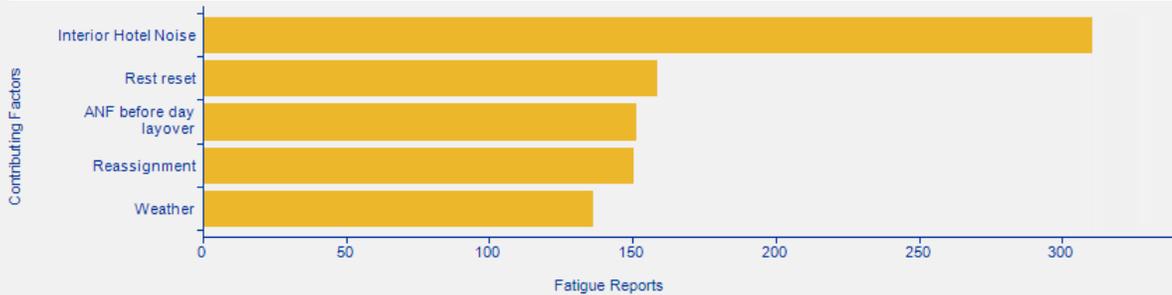
### Fatigue Reports - Contributing Factors



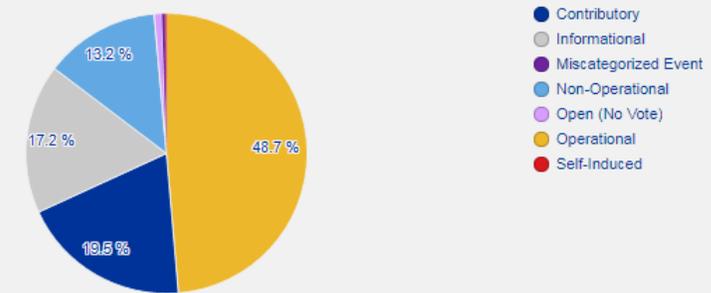
### Fatigue Reports - By A/C Type (Calendar Year)



### Fatigue Reports - SubFactors



### Fatigue Reports - By Final Vote



# Changes Due to Fatigue Calls

- Analyzing onerous pairings
  - 2 Leg WOCL
  - Early East
  - Day layover / ANF
  - ANF / Day layover /7+ FDP
  - Reverse Redeye / 7 + FDP
- Improvements to pairing building process
  - Refined/ing inputs to SAFTE-FAST scoring model
  - Rolled out scoring to wide-body fleets and GUM
  - Incorporated augmentation on wide-body fleets
    - Initial adjustments impacted ~40% of narrow-body pairings and reduced scores by ~1 point



# Changes Due to Fatigue Calls

## Manual adjustments made by Crew Resources during optimizer runs

- West Coast Hawaii departures before 1100 need to be trip start, or at least have no prior leg before 0700
- ANFs build for East Coast crews in 3<sup>rd</sup> or 4<sup>th</sup> duty often need to be moved into West Coast trips in 1<sup>st</sup> or 2<sup>nd</sup> duty
- IAH-POS/SJU usually need to be locked as out-and-back, varies seasonally

## Crew Resources adjusting rules in Jeppesen to optimize pairings

- Placing ANF legs into either 1<sup>st</sup> or 2<sup>nd</sup> duty of a trip
- Applying a penalty for multiple WOCLs in a trip
- Improved functionality for max duty time limitations for certain stations



# Changes Due to Fatigue Calls

- Broke up the GUM triangle
  - GUM-MNL-ROR-GUM
- Increased augmentation on transatlantic flights
  - TLV-EWR
  - LHR-EWR
  - DUB-IAD
  - LHR-IAD
- FRMP / FOM updates
  - Miscategorized Events (fatigue due to illness, injury, commuter policy, etc.)
  - Established procedures for when a pilot does not call fatigue
  - Establishes procedures for FSAP's that are filed but lack information



# Education

- Fatigue Education and Awareness Training (FEAT)
  - Introduction to FEAT
    - Introduces learners to subject areas required by FAA Advisory Circular 117-2 Information for Operators (InFO) 10017
  - Continuing Qualification Distance Learning (CQDL) – Trimester A & C
    - Build upon prior training / experience and address current hot topics
    - Includes a combination of elements based on operational risks, technological updates, changes to regulatory requirements / FRMP
  - Dispatcher / Operations Manager FEAT
- Captain upgrade
- Annual Flight Standards meetings for Line Check Airmen
- Base visits / town hall meetings
- Pilot / Scheduling bulletins

