



**PUGET SOUND PILOTS**  
Protecting Puget Sound Since 1935

**PRESENTATION IN SUPPORT OF  
WAC 363-116-065**

JULY 18, 2019

# Complacency is the Enemy of Progress



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# Progress Requires Change

- Changes should not be merely reactive
- Changes for safety should be proactive
- Decisions should be based on the best available science, which constantly progresses



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# Major Safety Changes Since 2010

- 2015 PSP rest policies
  - Adopted 8 hours' rest – change from 6 hours' rest
  - Three-and-out



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# Major Safety Changes Since 2010

- 2018 BPC Policies/2019 Legislation
  - 10 hours' minimum rest to obtain 8 hours' sleep
    - Means elimination of round trip cruises
  - 13-hour limit on multiple harbor shifts
    - Limited opportunities for MHS
  - Three-and-out



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# Recommended Changes

- Work hour restrictions (60 hours in 7 days)
- Callback Job limitations
- Count all time working as “assignment time”



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# Planning for Change

- **Planning is an express factor by rule.**
- **WAC 363-116-065(2)(c):** The lead time necessary to select and train new pilots.



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# Unintended Consequences

- Vessel delays awaiting rested pilot
- Excessive workload
- Massive accumulation of callback days



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# Consequences of Complacency

- Risk
- Liability



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# Goals of 2019 065 Process

- Manage fatigue
- Manage callbacks
- Reduce delays

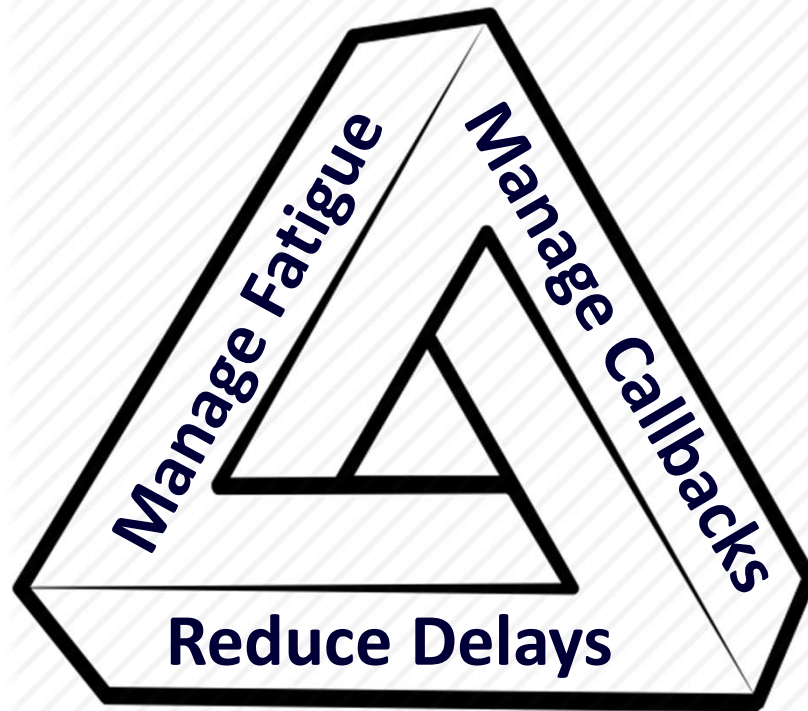


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# Current Challenge



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# PSP Operational Goals

- More predictable work schedule
  - Reduce accumulated callbacks
- Reduce high workload / cumulative fatigue
  - Reduce assignments per pilot
  - Reduce off-duty work
- Recruit trainees



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# Target Assignment Level

- Historical method of determining number of pilots.
- Used to adjust pilot numbers based on vessel traffic fluctuations.



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# Target Assignment Level

- Changes since 2010 require reconsideration of TAL.
- Setting a modern TAL based on current fatigue science and fatigue management principles will encourage safe practices.



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# Workload by Pilotage Districts

Pilotage District	Assignment Level	Hours Per Assignment	Assignment Hours Per Pilot
BC Coast Pilots	103 (Actual)	8.2	<b>844.6</b>
Columbia River	106 (Target)	6.9	<b>731.4</b>
San Francisco	128 (Actual)	7.6	<b>972.8</b>
Puget Sound	145 (Target)	9.2	<b>1,334.0</b>
<b>PSP Request</b>	<b>118</b>	9.2	<b>1,085.6</b>



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# NASA Model – 2018 Data

Variable	Number of Pilots Projected
Linear regression estimate	53 (26.33 x 2)
Additional Callback Job coverage	4
Pilots needed for 10 hour rest rule	2
Pilots on ETO	3
President	1
<b>TOTAL</b>	<b>63</b>



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# TAL Determination

- 7324 assignments and cancellations in 2018 calendar year (raw total)
- 62 Pilots moving ships projected

$$7324 \div 62 =$$

**118 assignments per pilot**



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# Questions?