



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



PUGET SOUND PILOTS
Protecting Puget Sound Since 1935

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



PUGET SOUND PILOTS
Protecting Puget Sound Since 1935

Major Safety Changes Since 2010

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



PUGET SOUND PILOTS
Protecting Puget Sound Since 1935

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



PUGET SOUND PILOTS
Protecting Puget Sound Since 1935

Recommended Changes

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



PUGET SOUND PILOTS
Protecting Puget Sound Since 1935

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.



PUGET SOUND PILOTS
Protecting Puget Sound Since 1935

Unintended Consequences

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



PUGET SOUND PILOTS
Protecting Puget Sound Since 1935

Consequences of Complacency

- Risk
- Liability



PUGET SOUND PILOTS
Protecting Puget Sound Since 1935

Goals of 2019 065 Process

- Manage fatigue
- Manage callbacks
- Reduce delays

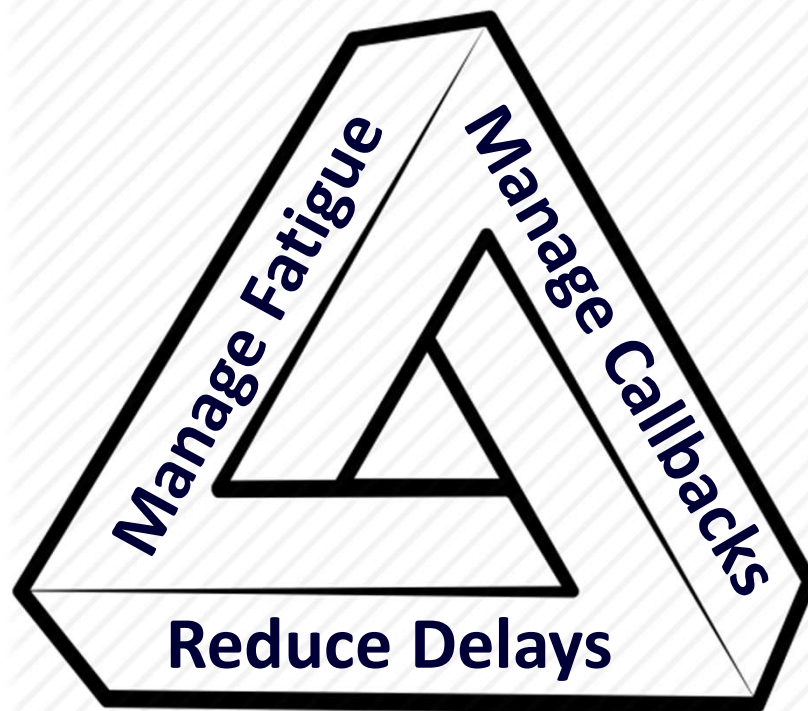


PUGET SOUND PILOTS

Protecting Puget Sound Since 1935

10

Current Challenge



PUGET SOUND PILOTS
Protecting Puget Sound Since 1935

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



PUGET SOUND PILOTS
Protecting Puget Sound Since 1935

Target Assignment Level

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



PUGET SOUND PILOTS

Protecting Puget Sound Since 1935

13

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.



PUGET SOUND PILOTS
Protecting Puget Sound Since 1935

Workload by Pilotage Districts

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



PUGET SOUND PILOTS
Protecting Puget Sound Since 1935

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
TOTAL	63



PUGET SOUND PILOTS
Protecting Puget Sound Since 1935

TAL Determination

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

$$7324 \div 62 =$$

118 assignments per pilot



PUGET SOUND PILOTS
Protecting Puget Sound Since 1935

Questions?