PRESENTATION IN SUPPORT OF
WAC 363-116-065

JULY 18, 2019
Complacency is the Enemy of Progress
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
Major Safety Changes Since 2010

• 2015 PSP rest policies
  – Adopted 8 hours’ rest – change from 6 hours’ rest
  – Three-and-out
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
Recommended Changes

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

• Vessel delays awaiting rested pilot
• Excessive workload
• Massive accumulation of callback days
Consequences of Complacency

• Risk
• Liability
Goals of 2019 065 Process

• Manage fatigue
• Manage callbacks
• Reduce delays
Current Challenge

Manage Fatigue
Manage Callbacks
Reduce Delays
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
Target Assignment Level

• Historical method of determining number of pilots.
• Used to adjust pilot numbers based on vessel traffic fluctuations.
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.
# Workload by Pilotage Districts

<table>
<thead>
<tr>
<th>Pilotage District</th>
<th>Assignment Level</th>
<th>Hours Per Assignment</th>
<th>Assignment Hours Per Pilot</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC Coast Pilots</td>
<td>103 (Actual)</td>
<td>8.2</td>
<td>844.6</td>
</tr>
<tr>
<td>Columbia River</td>
<td>106 (Target)</td>
<td>6.9</td>
<td>731.4</td>
</tr>
<tr>
<td>San Francisco</td>
<td>128 (Actual)</td>
<td>7.6</td>
<td>972.8</td>
</tr>
<tr>
<td>Puget Sound</td>
<td>145 (Target)</td>
<td>9.2</td>
<td>1,334.0</td>
</tr>
<tr>
<td>PSP Request</td>
<td>118</td>
<td>9.2</td>
<td>1,085.6</td>
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</tbody>
</table>
### NASA Model – 2018 Data

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of Pilots Projected</th>
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<tbody>
<tr>
<td>Linear regression estimate</td>
<td>53 (26.33 x 2)</td>
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<tr>
<td>Additional Callback Job coverage</td>
<td>4</td>
</tr>
<tr>
<td>Pilots needed for 10 hour rest rule</td>
<td>2</td>
</tr>
<tr>
<td>Pilots on ETO</td>
<td>3</td>
</tr>
<tr>
<td>President</td>
<td>1</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>63</strong></td>
</tr>
</tbody>
</table>
TAL Determination

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

$$7324 \div 62 = 118$$

118 assignments per pilot
Questions?