

Operational Resilience Factors: Safety

Subchapter M

Subchapter M Scope

- ❖ Certification
- ❖ Vessel Compliance
- ❖ Towing Safety Management System (TSMS)
- ❖ Third-Party Organizations
- ❖ Operations
- ❖ Lifesaving
- ❖ Fire Protection
- ❖ Machinery and Electrical Systems and Equipment
- ❖ Construction and Arrangement



Compliance Options

✿ Coast Guard option

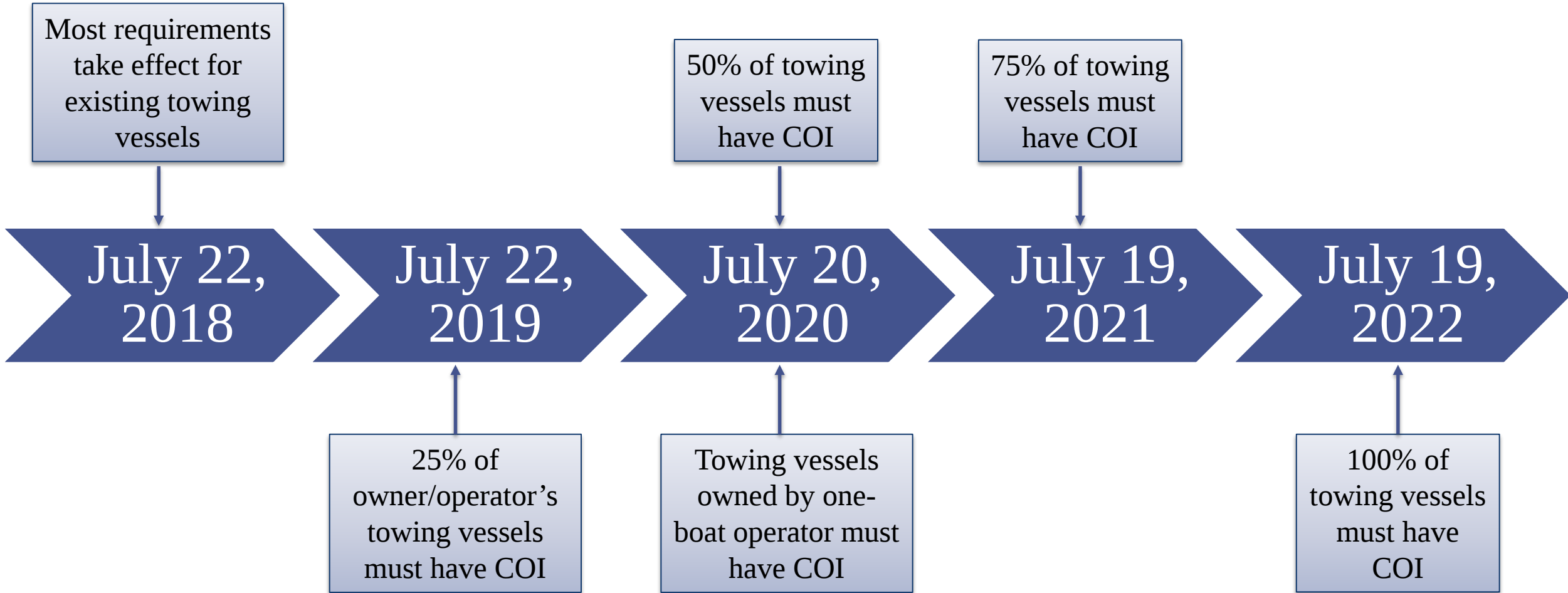
- Traditional inspection; annual inspections conducted by Coast Guard

✿ TSMS option

- Use of safety management system and approved Third-Party Organizations to provide objective evidence of compliance
- Scalable Coast Guard inspection every five years



Implementation and Phase-In



Implementation Success Factors

- ❖ Risk-based decision making
- ❖ Consistency
- ❖ Transparency
- ❖ Embrace of TSMS option



Successes

- USCG/stakeholder dialogue
- Frequently Asked Questions
- Acceptance of RCP as existing SMS
- Policy guidance to:
 - Reduce audit burdens on TSMS Option users
 - Facilitate initial inspections for TSMS vessels
 - Keep self-reported deficiencies out of public-facing USCG database
 - Authorize departures from low-risk requirements
 - Resolve some manning issues



Challenges

- ❖ COI application and issuance process
- ❖ Increased manning on some coastal towing vessels
- ❖ Low-risk equipment requirements
- ❖ Post-incident process
- ❖ Inspection user fee
- ❖ TBD: Risk-based enforcement



Fatigue

Work Hour Requirements on Inland Towing Vessels

❁ 46 USC 8104

- Towing vessel operators: No more than 12 hours work in 24 hours, except in emergency
- 6 hours off duty in 12 hours prior to assuming deck watch when leaving port

❁ AWO Responsible Carrier Program

- All crewmembers not subject to 12-hour rule: No more than 15 hours work in 24 hours or 42 hours work in 72 hours, except in emergency or drill



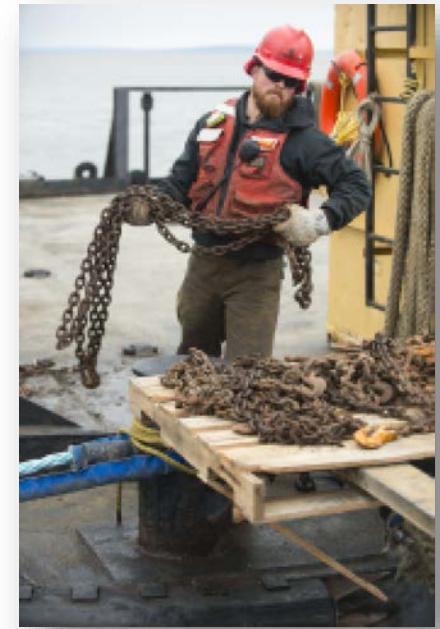
Typical Watch Schedules

- ❖ Live-aboard vessels
 - 6-on/6-off “square watch”
- ❖ Dayboats
 - 12-hour shift



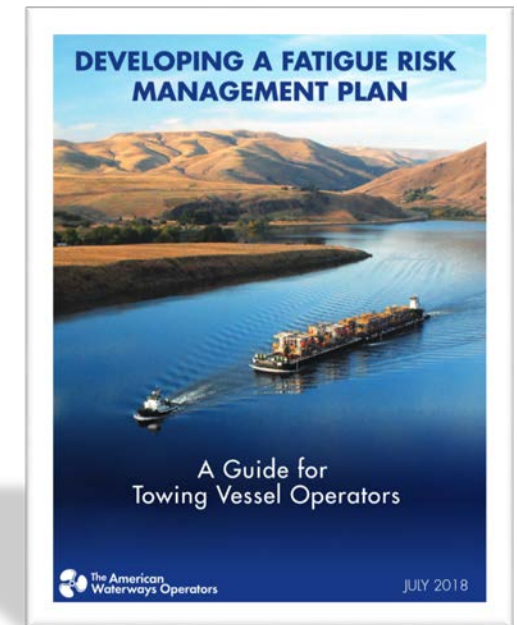
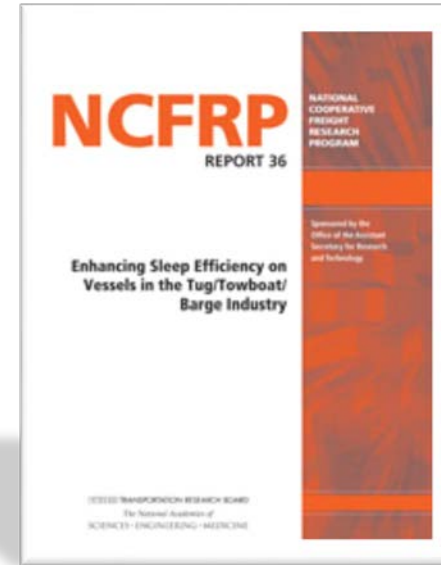
AWO Goal

- ❖ Lead and support members in preventing and managing fatigue risks
- ❖ Science-based, operationally practicable approach
- ❖ Partner with regulators and experts



Research and Resources

- ❖ Crew Endurance Management System
- ❖ USCG-AWO Travel Time QAT
- ❖ Northwestern University study
- ❖ Transportation Research Board study
- ❖ AWO Fatigue Risk Management Guide
- ❖ AWO Safety Committees



Fatigue Risk Management Plan Elements

CORE ELEMENTS

- Education
- Performance measurement
- Environment
- Work readiness and fatigue reporting

OTHER ELEMENTS

- Wellness program
- Sleep disorders
- Commuting
- Duty hours
- Sleep strategies
- Sustainability



Questions & Discussion

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