BOARD FOR BRANCH PILOTS

Thursday, December 12, 2024 – 10:30 a.m. Virginia Port Authority-Norfolk, VA

Department of Professional and Occupational Regulation 9960 Mayland Drive **Richmond, Virginia 23233**

ring qua professions Mission: Our mission is to protect the health, safety and welfare of the public by licensing qualified individuals and businesses enforcing standards of professional conduct for professions and occupations as designated by statute.

I. CALL TO ORDER

- a. Emergency Evacuation Procedures
- b. Determination of Quorum

II. APPROVAL OF AGENDA

III. APPROVAL OF MINUTES

- a. Branch Pilots Board Meeting, September 12, 2024
- b. Branch Pilots Bylaws Committee Meeting, September 12, 2024

IV. WELCOME AND INTRODUCTIONS

PUBLIC COMMENT, PER PERSON* V. PUBLIC COMMENT PERIOD *FIVE

VI. NOTIFICATION LETTER

a. Captain Gray- MV YO XIAO FE

EDUCATION VII.

a. Exam Administrator's Update

VIII. NEW BUSINESS

- a. Branch Pilots Retirement Announcement
- b. Consideration of Renewal of Licenses- December 9 & 10, 2024
- c. Review and Renewal of Virginia Pilot Association's Apprenticeship Training Program
- d. Review of Regulations Pursuant to §54.1-100 of the Code of Virginia
- e. Regulatory Update
 - i. Fee Update
 - ii. General Regulatory Review Update
- **Financial Disclosure** f.

IX. OTHER BUSINESS

- a. Board Member Training Conference Update
- b. Financial Statements
- **Board Member Training** c.

X. COMPLETE CONFLICT OF INTEREST FORM AND TRAVEL VOUCHER.

XI. ADJOURNMENT

NEXT MEETING SCHEDULED FOR THURSDAY, MARCH 13, 2025

- ✤ Agenda materials made available to the public do not include disciplinary case files or application files pursuant to §54.1-108 of the Code of Virginia.
- * Five-minute public comment, per person, with the exception of any open disciplinary or application file.
- en en en ace for an en ace for an en ace for an en ade for a en ade for ade for ade for a en ade for a en ade for ade Persons desiring to participate in the meeting and requiring special accommodations or interpretative services should contact the Department at (804) 367-2785 at least ten days prior to the meeting so that suitable arrangements can be made for an appropriate accommodation. The Department fully complies with the Americans with Disabilities

BOARD FOR BRANCH PILOTS MEETING MINUTES

topics tor discussion The Virginia Board for Branch Pilots met on September 12, 2024, at the Virginia Port Authority, 600 World Trade Center, Norfolk, Virginia, with the following members present:

Aaron Anseeuw Captain E. Waightstill Avery I. Vincent Behm, Jr Captain J.W. Whiting Chisman, III Michael W. Coleman Captain January N. Collins Christine N. Piersall Captain Clarence M. Young

Staff present for all, or part of the meeting were:

Brian P. Wolford, Director Steve Kirschner, LRPD Deputy Director Kate R. Nosbisch, Executive Director Ecila Williams, Licensing Operations Administrator Karen Reid, Administrative Coordinator Ernie Atkins, Tidewater Investigator

Jeb Wilkinson, Special Assistant to the Director, and Patrick B. McDermott, Citizen Member, were not present with regrets.

Elizabeth Peay, Assistant Attorney General with the Office of the Attorney General, was present.

Member of the Audience included:

William A. Burket, Jr., Senior Director, Maritime Incident Response Team (MIRT) and **Business Continuity**

Finding a quorum of the Board present, Mr. Coleman, President, called the Call to Order meeting to order at 10:31 a.m.

Mr. Burket advised the Board of the emergency evacuation procedures.

Safety Evacuation Instructions Ms. Nosbisch announced Brian Wolford's recent appointment as Agency Director. She introduced Karen Reid, new Administrative Coordinator, and Ernie Atkins, Investigator.

Ms. Piersall moved to approve the agenda. Captain Chisman seconded the motion which was unanimously approved by Messrs., Mme. and Captains: Anseeuw, Avery, Behm, Chisman, Coleman, Collins, Piersall and Young.

Mr. Behm moved to approve the minutes with an amendment from the June 13, 2024, Board Meeting. Ms. Piersall seconded the motion which was unanimously approved by Messrs., Mme. and Captains: Anseeuw, Avery, Behm, Chisman, Coleman, Collins, Piersall and Young.

There was no public comment.

LRPD Deputy Director Kirschner arrived at 10:37 a.m.

Mr. Burket presented to the Board an overview of the Virginia Port Authority (VPA) Maritime Incident Response Team (MIRT) for information purposes.

He shared with the Board the Virginia Department of Transportation's transportation network impacts, emergency operations at bridges and tunnels, and the structure vulnerability assessment of the key bridge collapse for information purposes.

He informed the Board of the 2024 National Port Partner Emergency Response Summit will be held on November 5th and 6th in Norfolk, Virginia.

Captain Avery provided the Board with a report of examinations conducted by the Exam Administrators on September 11, 2024. The following committee members were present, Captains: Avery, Chisman, Collins, and Young. The following report was made:

Matthew C. Morse answered oral questions related to the raise in grade. The subjects included safe anchoring positions in Lynnhaven, Sewell's Point, Cape Charles and York River, safe anchoring techniques, under keel clearance, inner harbor transits, vessel traffic management, determination of adequate tugboat power in adverse weather, vessel interaction during overtaking and meeting situations, bank suction and cushion, effectiveness of bow thrusters, and safe vessel speed.

Welcome/Intro ductions/Anno uncements

<u>Approval of</u> Agenda

<u>Approval of</u> <u>Minutes</u>

<u>Public</u> <u>Comment</u> <u>Period</u>

Jocu -

<u>Arrival of</u> <u>DPOR Staff</u>

VPA Maritime Incident Response Team Presentation

<u>Exam</u> <u>Administrator'</u> <u>s Report</u> Matthew C. Morse successfully completed the oral examination with the Board for Branch Pilots Examining committee. After considering the results of the

Lumin draft) to an Echo Lumin draft). Mr. Behm seconded Luminously approved by Messrs., Mme. and Captains: Luminously approved by Messrs., Mine. and Captains: Luminously approved by Messrs., Mine., Allow approved by Messrs., Mine., Allo

Austin C. Capps successfully completed the oral examination with the Board for Branch Pilots Examining committee. After considering the results of the examination, Captain Avery moved Austin C. Capps for a raise in grade from a Delta license (45,000 gross tons and 36 feet maximum draft) to Echo License (55,000 gross tons and 39 feet maximum draft). Mr. Behm seconded the motion which was unanimously approved by Messrs., Mme. and Captains: Anseeuw, Avery, Behm, Chisman, Coleman, Collins, Piersall and Young.

Zachary Stewart Dodson answered oral questions related to the extension of route. The subjects included courses and distances from the James River Bridge to Richmond with a detailed description of navigating to Richmond, local traffic, safe anchoring positions, vessel positioning when approaching various turns in anticipation of bank and cushion effect, narrow channel navigation techniques, docking and undocking in Hopewell, characteristics of the James River Bridge and the Benjamin Harrison Memorial Bridge, adverse tidal situations and safe vessel speed.

Zachary Stewart Dodson successfully completed the oral examination with the Board for Branch Pilots Examining committee. After considering the results of the examination, Captain Avery moved Zachary Stewart Dodson for an extension of route from the James River Bridge to Richmond, Virginia. Mr. Behm seconded the motion which was unanimously approved by Messrs., Mme. and Captains: Anseeuw, Avery, Behm, Chisman, Coleman, Collins, Piersall and Young.

Ms. Nosbisch informed the Board there is nothing to report at this time.

The Board reviewed a letter from Captain Dodson, regarding an incident on June 8, 2024, involving the M/V Nickolas D IMO 9474723

On June 8, 2024, Captain Dodson was ordered to the M/V NICKOLAS D for a 1400 move from Cape Charles Anchorage to Kinder Morgan Pier 9 in Newport News. The M/V NICKOLAS Dis a bulk carrier 751' in length and 105' in breadth. Upon arrival on the vessel Captain Dodson conducted a master pilot exchange and began the transit to the berth. At Newport News Point a McCallister docking pilot and docking pilot apprentice boarded the vessel to conduct the docking operation. Captain Dodson was relieved and the docking pilot and took the conn. Captain Dodson remained in the wheelhouse observing the maneuver from the bridge and bridge wing. At that time the current was ebbing at approximately 1 knot and the wind was out of the west at 14kts.

The vessel was docking on the north side of pier 9 which is constructed with a knuckle at the end of the pier with fendering to allow a ship setting from the current to contact the end of the pier and use it to turn into the berth. At approximately 17 46 the docking pilot allowed the vessel to contact the knuckle and turned into the berth. Docking continued as normal and approximately 15 minutes Captain Dodson disembarked from the vessel. The maneuver appeared normal, he did not observe any damage, and there was no mention of any damage or abnormalities made to him by either the docking pilot, pilot apprentice, or Captain of the vessel.

On June 13, 2024, Captain Dodson was advised by another McAllister docking pilot that there had been damage to the knuckle at the end of the pier when the NICKLOLAS D had docked. Captain Dodson contacted the original docking pilot who had docked the ship, and he advised that he saw the damage to the dolphin after his next job and went back aboard the ship to tell the captain and show him the damage. Captain Dodson advised he understand that the damage consisted of a paint scrape and 5cm dent on the vessel and chipping of the concrete on the pier. The knuckle was missing one section of tubular fendering approximately four feet in length. This missing fendering allowed the vessel to contact the concrete of the pier. Captain Dodson has brought ships in and out of the pier since and have seen that the large rubber fender has been replaced and the knuckle appears the same as before June 8.

Captain Dodson has no further information and has not conducted his own investigation other than his call to the docking pilot yesterday, June 13. Having been unaware of the incident, Captain Dodson did not have a drug or alcohol test. Notification Letter-Captain Dodson- M/V Nickolas D IMO 9474723

Regulatory

Update

Board for Branch Pilots Meeting Minutes September 12, 2024 Page **5** of **7**

The File Review Committee made a recommendation that the letter be filed, and the Board take no action, as there appears to be no violation of the Board's regulations or statutes. The Board moved to accept the recommendation and it was approved by Messrs., Mme., and Captains: Anseeuw, Avery, Behm, Chisman, Coleman, Collins, Piersall and Young.

The Board reviewed a letter from Captain Morse, regarding an incident on July 10, 2024, involving the M/V MRC Belize (IMO# 9335044).

On the morning of 10 July 2024, Captain Morse was ordered to sail the tanker M/V MRC BELIZE (IMO# 9335044) from KMI South Hill terminal to sea. The weather conditions were fine with the wind about 10 knots from the south and mostly flood current for the entire outbound trip. High water was around 1200 that day with 3 feet over MLLW, meaning the true clearance of the bridge around this time was close to 135 feet. The ship was set to get underway at 1130 and I arrived around 1110 to the ship.

During the master/pilot exchange, the captain informed Captain Morse the engine had been tested and everything was in good working order. Captain Morse asked him the air draft to which he replied 40.56 meters (133.07 feet), and he represented that the conditions were the same as when they came in, as he had taken on ballast to make up for the discharged cargo and therefore would clear the bridge. After reviewing the pilot card which reaffirmed the air draft to be 40.56 meters, Captain Morse advised the captain the anticipated traffic as well as weather conditions for the transit. The tugboats CLAYTON MORAN and MAXWELL MORAN arrived around 1150 and dropped the docking pilot by the port side (offshore) ladder. Once the docking pilot was aboard, Captain Morse informed him of the air draft given to him by the captain and told him traffic looked clear for an outbound transit.

The Old Virginia Railroad Bridge had closed and opened once during the time of waiting for the tugboats to arrive. During this time, Captain Morse spoke with the bridge tender via VHF radio to inform him that the vessel would be departing soon and would need a full lift. Once Captain Morse saw the bridge return to the open position, he made a security call on VHF channel 13 that the vessel was getting underway.

The ship undocked around 1200 with the MAXWELL MORAN made fast to the starboard bow and the CLAYTON MORAN made fast at the center-lead aft. The docking pilot discussed with me his plan to back through the Old Virginia Railroad Bridge then spin the ship around between Enviva and Perdue Piers. At about 1220 the MRC BELIZE began the transit through the bridge. The docking pilot was situated on the port side bridge wing while Captain Morse was on the starboard side bridge wing watching the clearance on each side of the vessel as it backed through the bridge opening. Shortly after 1220,

Notification Letter-Captain Morse- M/V MRC Belize IMO#9335044 Board for Branch Pilots Meeting Minutes September 12, 2024 Page **6** of **7**

he heard the sound of a rattle above the ship at the bridge and looked up to see what appeared to be a mast light covering falling to the roof of the ship's bridge. Upon this discovery, he went over to the port side bridge wing to confirm the docking pilot also saw it. After confirming that the docking pilot had seen the same object fall, Captain Morse reported to the Coast Guard his name, the vessel, and location and to explain that it had appeared the MRC BELIZE had come into contact with the bottom of the Old Virginia Railroad Bridge, but that he could see no damage to the bridge. A representative from the Coast Guard environmental department called Captain Morse around 1235 to ask more questions about the incident, specifically if there was anything from the ship that fell into the water, to which he replied "no." There have been no other communications with Coast Guard.

Later in the transit, a mate from the ship went up to the top of the ship's bridge to retrieve the plastic covering of the mast light that seemed to have been broken free.

The bridge span had stopped moving up for some time before the transit and appeared to be fully opened, though the difference of a few inches would not be noticeable from the deck of a ship. Captain Morse believe that the master's calculation of air draft was off. After the passage he re-calculated air draft with consideration for the trim of the ship and came up with an air draft of about 136 feet, compared to 13 3 feet as advised by the master.

The rest of the outbound transit was conducted with no other significant occurrence. Shortly after arriving back at Lynnhaven (1600) Captain Morse reported for a Virginia State drug and alcohol test. He has not received the test results.

The File Review Committee made a recommendation that the letter be filed, and the Board take no action, as there appears to be no violation of the Board's regulations or statutes. The Board moved to accept the recommendation and it was approved by Messrs., Mme., and Captains: Anseeuw, Avery, Behm, Chisman, Coleman, Collins, Piersall and Young.

Ms. Nosbisch stated the financial statements were provided for informational purposes.

Ms. Nosbisch and Mr. Wolford reminded the Board that the Board Member Training Conference is scheduled for October 10, 2024, to October 11, 2024, in Williamsburg, VA.

Ms. Nosbisch and Mr. Wolford provided an EpicX update.

<u>Financial</u> <u>Statements</u>

Other Business

	Conflict of Interest forms and travel vouchers were completed by all members present.	<u>Conflict of</u> <u>Interest Forms</u> <u>and Travel</u> <u>Vouchers</u>
	The meeting adjourned at 11:23 a.m.	Adjourn Oddine Coleman, President
	PRAFENDARE OF THE PRAFE OF THE	Wolford, Secretary
Mate	itals contained constructor	

Bylaws Committee of the BOARD FOR BRANCH PILOTS MEETING MINUTES

The Bylaws Committee of the Virginia Board for Branch Pilots met on September 12, 2024, at the Virginia Port Authority, 600 World Trade Center, Norfolk, Virginia, with the following members present: Captain J.W. Whiting Chisman, III Captain Clarence M. Young I. Vincent Behm, Jr. Michael W. Coleman was present as an observer. Patrick B. McDermont was not present at the meeting with regrets. Staff present for all or part of the meeting were:

Staff present for all or part of the meeting were:

Steve Kirschner, LRPD Deputy Director Kate Nosbisch, Executive Director Ecila Williams, Licensing Operations Administrator Karen Reid, Administrative Coordinator

Captain Chisman called the meeting to order at 11:50 p.m.

Ms. Nosbisch advised the Committee of the emergency evacuation procedures. Emergency Evacuation

Mr. Behm moved to approve the agenda. Captain Young seconded the motion which was unanimously approved by Mr. Behm and Captains Chisman and Young.

There was no one present for public comment.

The Committee began a review of draft bylaws for the Board for Branch Pilots. The Committee discussed items that could be lawfully added to the Board's bylaws. The Committee identified additional changes for further consideration at the December 12, 2024 board meeting.

There was no other business.

Conflict of Interest forms and travel vouchers were completed by all board members present.

Other Business

Call to Order

Approval of

Public Comment

Draft Bylaws for

the Board for

Branch Pilots

Agenda

Period

Conflict of Interest Forms/Travel Vouchers

Bylaws Committee of the Board for Branch Pilots Meeting Minutes September 12, 2024 Page 2 of 2

There being no further business, the meeting was adjourned at 12:43 p.m.	<u>Adjourn</u>
	<u>sion</u>
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Objective 9	1 Page	construb providence	

Objective 1

D bjective 1	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR	EVIDENCE OF ACCOMPLISHMENT OF	11/25/24
1.1 Orientation for New Apprentices	 Discussion with: Apprentice Committee President, Vice President 	COMPLETION 1 Week	OBJECTIVES Understanding of the Apprentice Program and the Role and Responsibilities of an Apprentice 	EVIDENCE – Validation by Apprentice Committee
1.2 Knowledge of Work Rules for Launch and Tower Duty	 Discussion with: Apprentice Committee Tower and Launch Operators 	3 Months	 Demonstration of ability to apply work rules while in the Tower or Launch 	 Validation by Apprentice Committee
1.3 Knowledge of Work Rules for Riding Ships	 Discussion with: Apprentice Committee Pilots 	6 Months	 Demonstration of ability to apply work rules while riding ships 	 Validation by Apprentice Committee
1.4 Piloting Techniques and Conning Skills	 Observation of Pilots on Ships Discussion with Apprentice Committee List of optimal procedures Shiphandling for the Mariner (p. 83-85) 	2 Years	 Demonstration of use of optimal procedures during day or night Demonstration of optimal procedures during restricted visibility or poor weather conditions 	 2 year exam Validation by Apprentice Committee
L.5 Professionalism as a Pilot	Discussion with: • Apprentice Committee • Pilots - Port Stakeholder Tour - Observation of Pilots on Ships	2 Years	 Demonstration of ability to work in a professional manner in all piloting situations 	 Validation by Apprentice Committee Review of Apprentice's overall performance

Objective 2

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LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE
2.1 Identify handling characteristics of small boats in all weather	 Riding launches Observation Description of fundamental procedures Launchmen Waterfront classes Chapman Piloting Chap. 9 	6 Months	 Demonstrate fundamental underway procedures 	 Check ride with Apprentice Committee
2.2 Prepare to get boat underway	 Launchmen Demonstration of proper procedures Engine Lines Controls 	1 Month	 Describe proper underway Procedure Describe proper engine Conditions Demonstrate appropriate underway procedures 	 Validation by Launchmen
2.3 Operate Engine Controls	 Launchmen demonstration Engineer demonstration Engineer written checklist 	3 Months	 Describe operation of appropriate controls to engineer 	 Validation by engineer
 2.4 Energize and adjust on-board navigation system for operation: Radar GPS AIS 	 Operational lesson by Pilot System operational manuals Power up checklist Readings: Radar Observer Manual GPS Video USCG AIS Handout 	3 Months	 Describe/Demonstrate tuning procedures Describe indications that systems are operating properly Describe entire capability GPS, and AIS 	 Validation by Pilot
 2.5 Demonstrate boarding procedures for all weather conditions: Various ship speeds Various vessel size 	 Launchman describes appropriate procedures during actual operations (talks through various procedures): Varied ship speeds Variety of boarding vessels sizes Careful observation Supervised practice 	6 Months	 Successful demonstration of boarding and disembarking operations 	 Successful demonstration check ride with Apprentice Committee
2.6 Judge/execute emergency procedures	 Fire drill procedure Distress procedures demonstration of liferaft procedures, lessons on survival Engineers shoreside lessons on emergency operations 	3 Months	 Describe and demonstrate appropriate fire drill and donning of survival suit 	 Validation by Apprentice Committee

LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE
2.7 Demonstrate man overboard rescue procedure	 Safety Training Class Refer to Chapman's procedure Description and demonstration of procedures for Pilot fall from ladder Description and demonstration of open water rescue 	3 Months	 Satisfactory description and demonstration of procedure for Pilot fall from ladder Successful completion of open water man overboard drill 	Successful participation in drills Validation by Apprentice Committee
2.8 Handle Boat in High Seas Entering Inlet	 Launchmen Discussion with Pilots Description of Fundamental Procedures 	6 Months	 Demonstrate Fundamental Underway Procedures 	 Validation by Apprentice Committee
2.9 Marlinespike Seamanship	 Chapman Piloting (Chap. 13) Knight's Modern Seamanship (Appendix 1 and 2) Mooring Equipment Guidelines (Chap. 6, Appendix B and C) Demonstration by Pilots and Launchmen 	6 Months	 Description and demonstration of: Use and care of wire and fiber lines Knots, bends and hitches Splices and splicing Typing to Cleats or Bollards 	 Demonstration to Pilots 6 month exam
2.10 Basic Rules of the Road	 Navigation Rules – Inland Chapman Piloting (Chap. 6) 	6 Months	 Application of rules in appropriate situations 	 6 Month Exam Validation by Apprentice Committee
2.11 Demonstrate knowledge of definitions and nomenclature	 Readings Mooring Equipment Guidelines (Glossary) Chapman Piloting (Glossary) USCG Light List Nomenclature handout 	6 Months	Use of appropriate termsCompletion of 2.9	 6 Month Exam Validation by Apprentice Committee
2.12 Complete Hampton Roads Launch experience	 Launchmen describe and demonstrate local knowledge of Piers, launch operations and demonstrate gangway boarding procedures Readings: The Port of Hampton Roads Annual U.S. Coast Pilot 3, Chap. 9 Chart 12245 Chart 12253 	6 Months	 Successful description of various pier and anchorage locations Successful demonstration of gangway boarding procedures 	 Approval by two launchmen

Objective 3

	A	Apprentice Learnin	g Objectives	155 -1	
Virginia Pilot Association 11/2. Apprentice Learning Objectives 0 Objective 3 1					
LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE	
3.1 Implement emergency procedures for power failures, etc.	 Refer to tower emergency procedures Demonstration of control and equipment location Demonstration of procedures Learn how to properly energize the radar, computer, and AIS 	6 Months	 Completion of simulated emergency procedure drills Proper demonstration of energizing the computer Proper demonstration of getting the radar back on and tuned Proper AlS initialization 	 Successful completion of emergency power drill under adverse weather condition and heavy traffic simulation Validation by tower operator 	
3.2 Operate radios	 Hands on demonstration by experienced operators Equipment operation manuals Local FCC frequency information Checklist of information to be gathered from arriving vessels 	6 Months	 Identify purpose for each of the frequencies used Demonstrate operational ability of radios Demonstrate the proper protocol for contacting ships List appropriate information to be gathered when contacting arriving vessels 	 Validation by tower operator 	
3.3 Basic Tower Procedures	 Individual, through observation, will identify the standard tower procedures Demonstration and discussion of tower operations with operators Individual will observe various operators on duty and take note of the proper dispatching of pilots and launches to inbound and outbound vessels 	6 Months	 Develop written listing of tower procedures 	 Six Month Exam- Written essay on the proper procedures of operating the tower 	
3.4 Basic Radar Operation	 Radar manual for controls and operations Pilot description and demonstration ARPA Book Radar Observer Manual 	12 Months	 Acquire targets Describe the various functions to include: Basic Radar and Display Controls Range and Bearing Measurements Picture presentation controls Vector times Guard zones Mapping functions Anchor watch 	 Validation by tower operator 	

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LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE
3.5 Dispatch procedures	 Tower Operators on duty 	12 Months	 Demonstrate appropriate information gathering protocol and dispatch procedures Demonstrate techniques for timing arrival of launch to boarding vessel in various weather conditions 	Two operators' verification and approval
3.6 Apply Standard Operation Procedure to tower operation	 Observe and identify the standard tower procedures Demonstration and discussion of tower operations with Pilot Individual will observe operators on duty and take note of the proper dispatching of pilots and launches to inbound and outbound vessels 	18 Months	 Successful boarding of pilots Develop written listing of tower procedures 	 Comprehensive tower check-day Successful demonstration of standing several watches in the tower under various adverse conditions while being supervised by the operator on duty Validation by all tower operators
	duty and take note of the proper dispatching of pilots and launches to inbound and outbound vessels	benoc rec		
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Objective 4

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Virginia Pilot Association 11/25/20 Apprentice Learning Objectives 11/25/20 Objective 4				
LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE
4.1 Complete 22 week launch experience	 22 weeks of training on 51 ft. twin screw launch and a 42ft R.H.I.B. launch with twin jet drives and catamaran launch with twin jet drives 	18 months	 Successful completion of all objectives under 2.0 Demonstration of ability to handle various size launches in all weather conditions 	 Validation by Apprentice Committee
I.2 Complete 18 week tower raining	 18 weeks of training in the Cape Henry Pilot Tower 	18 months	 Successful completion of all objectives under 3.0 Demonstration of ability to handle all aspects of the operation of the Pilot Tower 	 Validation by Apprentice Committee
I.3 Complete USCG Approved Courses	 USCG Approved Course List 	2 years	 Successful completion of all required courses 	 Validation by Apprentice Committee MAMA Certificates
i.4 Complete 1 week Radar School	- USCG Approved Course	2 years	 Successful completion of USCG approved course 	 Validation by Apprentice Committee Unlimited Radar Observer Certificate
I.5 Complete Firefighting School	 USCG Approved Firefighting School 	2 years	 Successful completion of USCG approved course for basic and advanced firefighting 	 Validation by Apprentice Committee School certificate
l.6 Complete CPR and First Aid courses	- MAMA class outline	2 years	 Successful completion of required class 	 Validation by Apprentice Committee MAMA certificates
.7 Complete an approved ARPA ourse	USCG Approved Course	2 years	 Successful completion of a USCG approved ARPA course 	 Validation by Apprentice Committee School certificate
.8 Complete Bridge Resource Nanagement Course for Pilots	 American Pilot Association (APA) Approved Course 	2 years	 Successful completion of a USCG approved BRMP course 	 Validation by Apprentice Committee School certificate
.9 Aaster Pilot Information xchange	Discussion with Pilots American Pilot Association Website	2 Years	 Demonstrate knowledge of all aspects of a Master Pilot Information Exchange 	 Validation by Apprentice Committee

LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	Apprentice Learnin TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE
4.10 Complete Advanced Electronic Navigation Training Course	 Maritime Pilots Institute 	2 Years	 Successful completion of all required training including: DGPS/ECDIS Theory Use of SealQ Navigation System Interactive Blind Pilotage Training Multi-ship Radar Simulation 	Validation by Apprentice Committee – School certificate
4.11 Complete Azipod Simulator Course	 Maritime Institute of Technology & Graduate Studies or Approved Course 	2 Years	 Successful completion of all required training 	 Validation by Apprentice Committee School Certificate
4.12 Complete Introduction to Manned Model/Simulator Course	 Maritime Pilots Institute 	2 Years	 Successful completion of all required training 	 Validation by Apprentice Committee School Certificates
4.13 Complete Emergency Shiphandling Simulator Course	 Maritime Institute of Technology & Graduate Studies or Approved Course 	2 years	 Successful completion of all required training 	 Validation by Apprentice Committee School certificate
4.14 Complete Intermediate Manned Model Shiphandling Course	 Warsash Maritime Shiphandling Centre 	2 years	 Successful completion of all required training 	 Validation by Apprentice Committee School certificate
4.16 Complete ULCV Manned Model and Simulator Course	 Maritime Pilots Institute 	4 Years	 Successful completion of all required training 	 Validation by Apprentice Committee School Certificate
4.17 Complete Advanced Manned Model Shiphandling School	 Port Revel Shiphandling Training Centre (France) OR Shiphandling Research and Training Centre (Poland) 	6 Years	 Successful completion of all required training 	 Validation by Apprentice Committee School Certificate
Mater	Centre (Poland)	<u>.</u>	·	·

Objective 5

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Objective 5					
LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE	
5.1 Shiphandling Fundamentals	 Pilot Instructed Class Port Revel Manual (Sections 2.1 through 2.3) Behavior and Handling of Ships (Introduction) Shiphandling for the Mariner (p. 28, p. 53-57, p. 86-89) The Shiphandler's Guide (p. 16-17) Discussion with Pilots 	6 Months	 Understanding of basic fundamentals of shiphandling: Judgement of force and motion Judgement of distance and speed Judgement of heading and rate of turn Inertia and momentum Drag and resistance Making turns in a channel 	 6 Month Exam 2 Year Exam 	
5.2 Use of Bridge Equipment and Maneuvering Information	 Pilot Instructed Class Shiphandling for the Mariner (p. 40-42, p. 60-64) Behavior and Handling of Ships (p. 33-35, p. 135-137) Knights (p. 250-252) Discussion with Pilots 	6 Months	 Understanding of the following: Master/Pilot Information Exchange Wheelhouse poster and pilot card Turning circle, swept path Using ship's equipment to advantage Effects of excessive speed Increase in draft due to list, roll, pitch 	 6 Month Exam 2 Year Exam 	
5.3 The Pivot Point	 Pilot Instructed Class Maneuvering Information For The Pilot/Navigator (p. 132) Behavior and Handling of Ships (Chap. 1, Appendix A, B) The Shiphandler's Guide (p. 12-15, 24- 25, 27) Discussion with Pilots 	6 Months	 Thorough understanding of the pivot point, its location, and importance. Knowledge of the effect of forces applied to the ship based on the location of the pivot point. 	 – 6 Month Exam – 2 Year Exam 	
5.4 Forces Under Control	 Pilot Instructed Class Port Revel Manual 3.1 (Units 2-12, 3-2) Naval Shiphandling (p. 41-54) The Shiphandler's Guide (p. 18-21, 23- 30, 90-103, 106-127) Behavior and Handling of Ships (Chap. 2, 4 [p. 49-56]) Shiphandling for the Mariner (p. 9-16, p. 47-49, p. 204-209) Discussion with Pilots 	6 Months	 Demonstrate an understanding of: Types of rudders and propellers Effects of rudders, propellers, and thrusters Effectiveness of different types of engines 	 – 6 Month Exam – 2 Year Exam 	

LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION		CRITERIA AND MEANS VALIDATING EVIDENCE
5.5 Wind and Current Effects	 Pilot Instructed Class Behavior and Handling of Ships (Chap. 3, 5) Port Revel Manual - 2.4 (Units 2-1, 2-2, 2-3, 2-4, 2-5, 2-6, 2-10) Shiphandling for the Mariner (p. 33-35, p. 47, p. 136-138) The Shiphandler's Guide (p. 38-47, 70- 73) Discussion with Pilots 	6 Months	 Understanding of the following: Magnitude of wind and current force Effect of each on steering Speed at which wind takes over Effect of pivot point location Effect of angle of attack on wind and current forces Effect of swell 	6 Month Exam - 2 Year Exam
5.6 Anchor-Handling Operations	 Close observation of the anchor handling operations on several ships. Knight's (Chap. 5, 10) Merchant Marine Officer's Handbook (Chap. 10) 	12 Months	 Understanding of the following: Types of anchors Anchor systems Anchor handling procedures Control of the anchor Potential problems when anchoring 	 12 Month Exam Validation by Pilot
5.7 Anchoring	 Pilot Instructed Class Port Revel Manual - 5.1 (Units 5-1, 5-2, 5-3) Naval Shiphandling (p. 95-100) Knight's (p. 294-296) Shiphandling for the Mariner (p. 136-156) Discussion with Pilots 	12 Months	 Understanding of the following: Mooring to one anchor Mooring to two anchors Use of second anchor in high wind Effects of wind and current approaching the anchorage Motion of a ship at anchor under effects of wind and current 	 – 12 Month Exam – 2 Year Exam
5.8 Directional Stability	 Pilot Instructed Class Port Revel Manual (Units 2-14, 2-15) Behavior and Handling of Ships (p. 31) Shiphandling for the Mariner (p. 18-20, p. 50-53) Maneuvering Information For The Pilot/Navigator (p. 133) Discussion with Pilots 	12 Months	 Understanding of the following: Overswing Directional stability Relationship of block co-efficient, under keel clearance, length/beam ratio, forward section areas, and trim on directional stability Effect of trim on steering 	 12 Month Exam 2 Year Exam

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LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE
5.9 Behavior of Ships in Deep and Shallow Water	 Pilot Instructed Class Port Revel Manual - 4.1 (Units 4-1, 4-4, 4-5, 4-6, 4-7) Shiphandling for the Mariner (p. 17-18; p. 64-67) The Shiphandler's Guide (p. 30-35, 55-59) Discussion with Pilots 	12 Months	 Demonstrate an understanding of deep vs. shallow water behavior including: Wave form Sinkage and squat Shallow water effects on speed and handling Channel blockage factor Turning Circles 	– 12 Month Exam – 2 Year Exam
5.10 Effects of Narrow Channels Interaction Between Vessels	 Pilot Instructed Class Port Revel Manual - 4.1 (Units 4-8, 4- 10, 4-11, 4-13 to 4-17, 4-19, 4-20, 7- 1 to 7-7) Behavior and Handling of Ships (Chap. 7) Shiphandling for the Mariner (p. 44-45; p. 57-60) Shiphandling in Narrow Channels (Chap. 1, Appendix) The Shiphandler's Guide (p. 60-68) Pilotage (p.269) Discussion with Pilots 	12 Months	 Understanding of the effects of narrow channels including: Bank cushion and suction Using these effects to advantage Responding to excessive bank effects Causes of these effects Trapping Understanding of the interaction between vessels including: Forces involved when meeting or overtaking How to safely meet or overtake 	 – 12 Month Exam – 2 Year Exam
5.11 Hydrodynamics	 Shiphandling for the Mariner (pg. 64- 67) 	12 Months	 Demonstrate an understanding of hydrodynamic effects of: Squat Buoyancy Block coefficiency Speed effects Current effects 	 – 12 Month Exam – 2 Year Exam
5.12 Characteristics of Tugs	 Discussion with Pilots The Shiphandler's Guide (p. 129-131, 140-144, 150-153) Tug Use In Port (p. 16-36, p. 85-97, 110-114) Shiphandling with Tugs (Chap. 3, 4; Appendix 1) Pilot Instructed Class 	18 Months	 Describe the following: Types of tugs Types of propulsion and steering systems Handling of light tugs Pros and cons of each tug type Escort tugs 	 – 18 Month Exam – 2 Year Exam

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LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE
5.13 Handling Tugs and Tows	 Pilot Instructed Class Primer of Towing (Chap. 6, 8) Shiphandling with Tugs (Chap. 20) Discussion with Pilots 	18 Months	 Describe handling characteristics of tugs towing astern, alongside, pushing ahead, the ATB and ITB Tandem towing astern 	18 Month Exam - 2 Year Exam
5.14 Mooring Principles and Operations	 Close observation of the mooring and unmooring operations on several ships Knight's (p. 271-275) Mooring Equipment Guidelines (Chap. 1, 6) Port Revel Manual (Units 3-18 to 3-24) 	18 Months	 Understanding of both modern and traditional principles of mooring. 	– 18 Month Exam– Validation by Pilot
5.15 Docking and Undocking	 Pilot Instructed Class Shiphandling for the Mariner (p. 83- 123) The Shiphandler's Guide (p. 103-104) Discussion with Pilots 	18 Months	 Demonstrate an Understanding of the following: Approaching the berth Docking Undocking Wind and current effects 	 – 18 Month Exam – 2 Year Exam
5.16 Use of the Anchor in Docking Maneuvering on an Anchor	 Pilot Instructed Class Port Revel Manual - 5.1 (Units 5-4, 5-5) Behavior and Handling of Ships (p. 70-71) Shiphandling for the Mariner (p. 159-168, p 170-172, p. 119-123) Shiphandling in Narrow Channels (Chap. 6, Appendix, Chap. 2) The Shiphandler's Guide (p. 49-54, 74-76) Discussion with Pilots 	18 Months	 Understanding of Principles Involved in the following: Dredging an anchor for docking Turning on an anchor Holding a vessel with an anchor Anchors to assist steering Anchor use in narrow channels Description of the following: Scope of chain Inshore vs. offshore anchor Vessel's speed Other factors to consider 	 – 18 Month Exam – 2 Year Exam
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 Demonstrate knowledge of rudder cycling, crash stop and hard-over turn. Determine which is most effective in various 	 18 Month Exam 2 Year Exam
 situations. Demonstrate understanding of how to handle emergency situations including loss of propulsion and/or steering, extreme maneuvering scenarios and unexpected delays or channel blockages Describe use of the anchor in an emergency 	
 Demonstrate understanding of the use of tugs to assist in shiphandling Docking and undocking Escort tugs and use of tugs to turn around Positioning of tugs Ways of making up a tug Using tugs to maximum advantage 	 – 18 Month Exam – 2 Year Exam
 Demonstrate understanding of the following definitive maneuvers: Direct or reversed spiral Zig zag Turning circle - including swept path and location of pivot point Demonstrate how information from these maneuvers applies to a ship's maneuvering characteristics 	– 2 Year Exam
	 unexpected delays or channel blockages Describe use of the anchor in an emergency Demonstrate understanding of the use of tugs to assist in shiphandling Docking and undocking Escort tugs and use of tugs to turn around Positioning of tugs Ways of making up a tug Using tugs to maximum advantage - Demonstrate understanding of the following definitive maneuvers: Direct or reversed spiral Zig zag Turning circle - including swept path and location of pivot point - Demonstrate how information from these maneuvers applies to a ship's maneuvering

LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION		CRITERIA AND MEANS VALIDATING EVIDENCE
5.20 Use of Electronic Navigation Equipment	 Discussion with Pilots USCG Approved Radar and ARPA courses On-board experience under pilot supervision 	2 Years	 Demonstrate understanding of function and use of radar, ARPA, GPS, DGPS, ECDIS, PPU Demonstrate ability to use this information to pilot with little or no visibility Completion of objective 7.35 	2 Year Exam
5.21 Calculating Wind and Current Forces	 Mooring Equipment Guidelines (Section I.2) Prediction of Wind and Current Loads on VLCC's Tug Use In Port (p. 74-77) The Shiphandler's Guide (p. 43-47, 80- 85) Discussion with Pilots 	2 Years	 Demonstrate knowledge of wind and current force calculations using coefficients and OCIMF publications Demonstrate ability to apply trigonometric functions to allow for angle of attack of wind or current 	– 2 Year Exam
5.22 Handle Light and Loaded Ships	 Hands on experience on a minimum of 500 vessels under pilot supervision Discussion with Pilots 	2 Years	 Completion of objectives 5.1-5.5, 5.8-5.10, 5.17, and 5.19-5.21 Demonstrate ability to apply shiphandling learning objectives in practical situations 	 Completion of VPA trip requirement Validation by Apprentice Committee
5.23 Anchor in a Specific Location	 Hands on experience under pilot supervision Discussion with Pilots 	2 Years	 Completion of Objectives 5.6, 5.7 Demonstrate ability to apply objectives 5.6 and 5.7 to practical situations 	 Completion of VPA trip requirement Validation by Apprentice Committee
5.24 Handle Tugs and Tows	 Hands on experience under pilot supervision Discussion with Pilots 	2 Years	 Completion of Objectives 5.11, 5.12 Demonstrate ability to apply objectives 5.11 and 5.12 in practical situations 	 Completion of VPA trip requirement Validation by Apprentice Committee
5.25 Docking and Undocking	 Hands on Experience Under Pilot Supervision Discussion with Pilots 	2 Years	 Completion of Objectives 5.11, 5.13, 5.14, 5.15, 5.17 Demonstrate ability to apply shiphandling learning objectives in practical situations 	 Completion of VPA trip requirement Validation by Apprentice Committee
NOTO	- Discussion with Pilots			

Virginia Pilot Association Apprentice Learning Objectives					
LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION		CRITERIA AND MEANS VALIDATING EVIDENCE	
5.26 Handle Outbound Deep Loaded Vessels	 Discussion with Pilots Observation on a minimum of four vessels with a draft of 48 feet or greater 	5 Years	 Describe and demonstrate handling characteristics of deep loaded vessels Description of factors unique to vessels with a draft of 48 feet or greater including: Sailing times Tides and currents Anchorages Channel availability 	Completion of VPA trip requirements	
5.27 Handle Deep Loaded Post Panamax Vessels	 Hands on experience under Pilot supervision Discussion with pilots 	2 Years Theoretical 5 Years Practical	 Description of factors unique to container vessels with a draft greater than 47 feet including: Sailing times Arrival times Tides and currents Weather conditions Anchorages Channel availability Berth availability Assist tug 	– 2 Year Exam	
5.28 Handle Deep Loaded Vessels and ULCVs with Escort Tugs	 Observation on a minimum of four ULCV vessels (2 inbound / 2 outbound) Discussion with Pilots "Tug use in Port" (Pg. 134-158) Simulator Classes Maritime Pilots Institute, Covington, LA Warsash Maritime Academy, Southhampton, UK 	2 Years Theoretical 5 Years Practical	 Description of: Safe speed Where to tether tug or tugs (geographically) Where to tether tug or tugs (on ship) Limitations of tugs Indirect steering concepts Indirect steering commands 	 – 2 Year Exam – School Certificates 	

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Objective 6

Objective 6	5 5 11/25/20.			
LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE
6.1 Demonstrate basic knowledge of ship board radar Check for heading line error	 Refer to competency 3.3 Radar Observer Manual 	12 Months	 Describe and correct heading line error Describe appropriate control adjustments Complete appropriate adjustments 	 Pilot approval
6.2 Demonstrate radar skill for meeting, overtaking and crossing	 On board pilot and apprentice demonstration and discussion Radar Observer Manual Merchant Marine Officer's Handbook (Chap. 2) Starpath Radar Trainer 	18 Months	 Accurate identification of target's course, speed, and closest point of approach Parallel Indexing 	 VPA Exam MAMA Certificate
6.3 Use of stabilized and unstabilized radar	 Demonstration and description by Pilot Radar Observer Manual 	18 Months	 Description and demonstration of appropriate radar skills 	Pilot approvalVPA Exam
6.4 Demonstrate ability to place vessel in an anchorage	 Pilot demonstration and dialogue with apprentice Hands-on experience under pilot supervision 	2 Years	Demonstrate taking fixes from radar, analyzing vessel speed, current, wind and positioning vessel in a specific anchorage	 Demonstration to Pilot satisfaction
6.5 Use of ARPA	 Pilot demonstration and on board discussion MAMA Course Readings: Automatic Radar Piloting Aids Manual 	2 Years	 Description and demonstration of appropriate ARPA skills 	 VPA Exam MAMA Certificate
6.6 Bridge Recording Equipment	 Discussion with Pilots VDR Video Surveillance Cell Phone Use 	2 Years	 Description of appropriate bridge decorum 	- VPA Exam
6 Page	- VDA - Video Surveillance - Cell Phone Use			

Objective 7

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LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE
7.1 Demonstrate Rules of the Road Section I	 Navigation Rules (Inland) Including: Part A: Rules 1-3 Part B: Rules 4-18 Rules of the Road class with pilot instructor 	6 Months	 Accurate description of Rules of the Road- Section I on request 	– 6 Month Exam
7.2 Identify location of Piers	 Charts: 12222, 12245, 12253 Port of Hampton Roads Annual Pilot and apprentice Dialogue and Demonstration 	6 Months 12 Months 18 Months 2 Years	 Correctly specify location of any pier on request 	 6 Month Exam 12 Month Exam 18 Month Exam 2 Year Exam
7.3 Demonstrate local knowledge for chart 12222	 Charts: 12222 Pilots dialogue with apprentice on board vessels CFR33 U.S. Coast Pilot 3, Chap. 9 USCG Light List 	6 Months	 Accurate description on request 	– 6 Month Exam
7.4 Identify courses and distance to destinations	 Charts: 12222, 12245, 12253, 12221, 12241 Pilot and apprentice dialogue 	6 Months	 Describe the specific course, identifying the distances between buoys and turning points 	– 6 Month Exam
7.5 Draw Chart 12222 (Cape Henry to Old Point Comfort)	 NOAA survey chart 12222 Pilot instructed chart drawing class 	6 Months	 Chart approved by Apprentice Committee 	– 6 Month Exam
7.6 Describe regulations and restrictions to chart 12222	 NOAA survey chart 12222 CFR 33 U.S. Coast Pilot 3 	6 Months	 Accurate description on request 	– 6 Month Exam
7.7 Demonstrate application of Rules of the Road Section II	 MAMA course Navigation Rules - Inland Rules 19-37; Annex II, IV, V 	12 Months	 Demonstrate application of Section II "Rules" accurately upon request 	– 12 Month Exam
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LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE
7.8 Variation/Deviation Compass Corrections	 Chapman, Chap. 17 Solving on-board problems under pilot supervision Bowditch, Chap. 7 Dutton's, Chap. 3 	6 Months 12 Months	- Completion of textbook problems	6 Month Exam – 12 Month Exam
7.9 Solve tide and current problems	 References: Chapman, Chap. 15 Tide and current tables Local knowledge discussion with Pilots Dutton's, Chap. 9, 10 Pilot Instructed Class 	12 Months	 Solving textbook problems and understanding principles of tides and currents 	– 12 Month Exam
7.10 Draw chart 12245 (Old Point Comfort to Craney Island and the James River Bridge)	 NOAA survey chart 12245 	12 Months	- Chart approved by Apprentice Committee	– 12 Month Exam
7.11 Describe regulations and restrictions to chart 12245	 NOAA Survey Chart 12245 CFR 33 U.S. Coast Pilot 3 	12 Months	 Accurate description on request 	– 12 Month Exam
7.12 Demonstrate knowledge of chart symbols and abbreviations	 Chart No. 1 Light List 	12 Months	 Successful interpretation of chart symbols and abbreviations on request 	– 12 Month Exam
7.13 Demonstrate application of the rules of the road	 Navigation Rules - Inland MAMA course 	18 Months	 Successful completion of 7.1 and 7.7 Successful completion of MAMA course Demonstration and accurate description of the Rules of the Road 	– 18 Month Exam
7.14 Demonstrate use and describe aids to navigation	 MAMA course Discussion and follow-up with pilots Readings: Chapman, Chap. 22 USCG Light List Dutton's, Chap. 4 	18 Months	 Describe and discuss use of any navigational aid upon request 	– 18 Month Exam
7.15 Solve various navigation problems	 Dutton's Chap. 5, 8, 11, 12, 14 MAMA Piloting Course 	18 Months	 Successful demonstration of navigation skills on request 	- 18 Month Exam
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	Virginia Pilot Association Apprentice Learning Objectives					
LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE		
7.16 (a) Draw Chart 12253 (Craney Island to the Southern and Eastern Branches of the Elizabeth River)	– NOAA Chart 12253	18 Months	 Chart approved by Apprentice Committee 	18 Month Exam		
7.16 (b) Draw Chart 12208 Approaches to Chesapeake Bay	– NOAA Chart 12208	1 week ,3 weeks 18 Months	 Chart approved by Apprentice Committee 	– 18 Month Exam		
7.17 (a) Describe regulations and restrictions of chart 12253	 NOAA Chart 12253 U.S. Coast Pilot 3 CFR 33 	18 Months	 Accurate description request 	– 18 Month Exam		
7.17 (b) Describe regulations and restrictions of chart 12208	 NOAA Chart 12208 U.S. Coast Pilot 3 CFR 33 	1 week, 3 weeks 18 Months	- Accurate description on request	– 18 Month Exam		
7.18 Complete sounding trip	 Demonstration by Pilots Charts: 12222, 12245, 12253 	2 Years	 Submission of soundings to the Hampton Roads anchorage and piers to Apprentice Committee 	 Validation by Apprentice Committee 		
7.19 Demonstration of application of the "Rules of the Road"	 Navigation Rules - inland MAMA course 	2 Years	 Successful completion of 7.1, 7.7 and 7.13 Demonstration and accurate interpretation of the "Rules of the Road" 	– 2 Year exam		
7.20 Understand both magnetic/gyro compasses	 Chapman, Chap. 17 Solving on board problems Bowditch, Chap. 13 Dutton's, Chap. 3 	2 Years	 Accurate solutions to textbook and underway problems upon request 	– 2 Year exam		
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LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE
7.21 Describe shiphandling procedures	 Pilot instructed classes Readings: Ship Handling in Narrow Channels Naval Shiphandling Primer of Towing Shiphandling with tugs Shiphandling for the Mariner Behavior and Handling of Ships Principles of Naval Architecture Port Revel Manual Tug Use In Port The Shiphandler's Guide Maneuvering Info For The Pilot/Navigator 	2 Years	 Successful completion of objectives itemized under 5.0 Understanding of shiphandling principles and ability to apply them to specific situations 	 2 Year Exam Hands-on experience on minimum of 500 vessels under pilot supervision
7.22 Identify signal flags and Morse Code	 Chapman, Chap. 24 Merchant Marine Officer's Handbook (p. 16) 	2 Years	 Read and interpret flag signals Identify morse code letters 	– 2 Year Exam
7.23 Apply wind and weather information	 MAMA course Pilot instructed class Readings: Chapman, Chap. 14 Oceanography and Seamanship, Chap. 6, 7 Weather for the Mariner Jetstream notebook 	2 Years	 Pilot/Apprentice dialogue in Reference to actual local weather situations encountered Accurate interpretation of weather conditions upon request Description of various principles of weather Demonstrate working knowledge of NOAA Doppler RADAR imagery 	 – 2 Year Exam – MAMA Certificate
7.24 Solve tide and current problems	 Pilot instructed class Tidal Current Tables Tide Tables MSC/TSN Course Readings: Chapman, Chap. 15 Dutton's, Chap. 9, 10 Waves, Tides and Shallow Water Processes Oceanography and Seamanship, Chap. 10 	2 Years	 Accurate solution to textbook problems Understanding theory of tides and currents Description of local tide and current conditions 	 2 Year Exam MAMA Certificate

LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE
 7.25 Demonstrate general knowledge of: Firefighting Stability and Construction 1st Aid 	 MAMA Class MSC/MARAD Fire School Readings: Merchant Marine Officer's Handbook, Chap. 16 Chapman, Chap. 5 Knight's, Chap. 3 Oceanography and Seamanship, Chap. 21 Red Cross 1st Aid Basic and Advanced Firefighting 	2 Years	 Define/describe: Firefighting First Aid Stability 	2 Year Exam – School Certificates
7.26 Demonstrate local knowledge from Cape Henry to James River Bridge, the head of navigation of Southern &Eastern branches of the Elizabeth River	 Charts: 12222, 12245, 12253 Pilot Dialogue CFR 33 U.S. Coast Pilot 3 	2 Years	 Demonstrate application of local knowledge and regulations to satisfaction of Pilots over 2 year period 	– 2 Year Exam
7.27 Solve various navigation problems	 MAMA Class Readings: Dutton's, Chap. 8, 11, 12, 14 Chapman, Chap. 17, 19, 20 Bowditch, Tables 7, 8 Knight's, Chap. 8 	2 Years	 Successful completion of a chart navigation problem Calculation or description of: Dead reckoning Set and drift Compass corrections Various methods of fixing position 	 – 2 Year Exam – MAMA Certificate
7.28 Draw charts of Hampton Roads	 NOAA Survey Charts 12222, 12245, 12253 	2 Years	 Successful completion of the 6 month, 12 month and 18 month charts 	– 2 Year Exam
7.29 Acquire Radar Observer Certificate	 (This objective is itemized under general objective 4.0. The specific objectives, resources, and validating evidence is included in number 4.4) 			
7.30 Assess/Report ship deficiencies and marine casualty regulations	 33 CFR 164 46 CFR 4.03-4.06 U.S.C.G. Form 2692 	2 Years	 Accurately identify deficiencies upon request Successful completion of MAMA classes 	– 2 Year Exam

LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE
7.31 Acquire ARPA Certificate	 (This objective is itemized under general objective 4.0. The specific objectives, resources, and validating evidence is included in objective 4.7) 	2 Years	for and	
 7.32 Demonstrate knowledge of electronic navigation equipment including: GPS, DGPS ECDIS Radio AIS 	 MAMA Piloting class Discussions and follow-up with Pilots References: Dutton's, Chap. 7, 32, 34 Chapman, Chap. 25 USCG Light List II GPS video U.S. Coast Pilot 3 U.S.C.G AIS Handout 	2 Years	 Successful demonstration or description of equipment on request Knowledge of radiotelephone regulations and frequencies 	 – 2 Year Exam – MAMA Certificate
7.33 Aids to Navigation	 USCG Light List U.S. Coast Pilot 3 Chapman, Chap. 18, 22 Dutton's, Chap. 2, 4, 5 Chart No. 1 	2 Years	 Description of: Buoyage system and characteristics Charts Symbols and abbreviations Chart projections Publications Various other aids 	– 2 Year Exam
7.34 Legal liabilities and responsibilities of pilots	 Pilot instructed classes 33 CFR 46 CFR Board for Branch Pilots – Rules and Regulations Shiphandling for the Mariner (p. 251-259) Discussion of court cases with pilots 	2 Years	 Understanding of the legal role of pilots and the master/pilot relationship 	– 2 Year Exam
7.35 State Pollution Control Regulations	Readings:• 33 CFR 151	2 Years	 Apprentice states pollution regulations and rules contained in 33 CFR 151.01 through 151.25 	– 2 Year Exam
7.36 (a) Draw Chart 12221 (Cape Charles Anchorage/Wolf Trap)	NOAA Chart 12221	2 Years and 6 Months	 Chart Approved by Apprentice Committee 	 Validation by Apprentice Committee

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Apprentice Learning Objectives

LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION		CRITERIA AND MEANS VALIDATING EVIDENCE
7.36 (b) Draw Chart 12241 (The York River)	– NOAA Chart 12241	2 Years and 6 Months	 Chart Approved by Apprentice Committee 	Validation by Apprentice Committee
7.37 (a) Describe Regulations and Restrictions of Chart 12221	 NOAA Chart 12221 US Coast Pilot 3 CFR 33 	2 Years and 6 Months	 Accurate Description on Request 	 Validation by Apprentice Committee
7.37 (b) Describe Regulations and Restrictions of Chart 12241	 NOAA Chart 12241 US Coast Pilot 3 CFR 33 	2 Years and 6 Months	 Accurate Description on Request 	 Validation by Apprentice Committee
23 Page	- NOAA Chart 12241 - US Coast Pilot 3 - CFR 33 - CFR 33 - CFR 33	Ledared Dendared	Phation Action A	
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Objective 8

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LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE
3.1 how three years of service		3 Years	 Verification of 3 years of sea service in accordance with 46 CFR 10.703 	 Validation by Apprentice Committee
3.2 /erify 18 months service on /essels over 1600 gross tons		3 Years	 Verified in accordance with 46 CFR 10.711 	 Validation by Apprentice Committee
3.3 /erify 1 year service on route or which seeking license		3 Years	 Verification of sea service in accordance with 46 CFR 10.703 	 Validation by Apprentice Committee
3.4 Meet Coast Guard trip requirements on accepted ressels		3 Years	 Verification of trip requirements in accordance with 46 CFR 10.705 	 Validation by Apprentice Committee
3.5 Meet USCG physical and hemical testing requirements		3 Years	 Completion of physical examination and chemical testing requirements of 46 CFR 10.205d, 16.22 	 Validation by Apprentice Committee
8.6 irst aid and CPR course ertificates		3 Years	Completion of objective 4.6 in accordance with 46 CFR 10.205h	 Validation by Apprentice Committee
8.7 Neet Radar Certification equirements	in this	3 Years	 Demonstrate ability to utilize radar in accordance with the requirements of 46 CFR 10.480 	 MAMA Certificate
8.8 Apply "Rules of the Road"	ined com	3 Years	 Successful completion of 7.14 	 Interpret and apply "Rules of the Road" appropriately over 3 year period to Apprentice Committee
3.9 First Class Pilot License	ALC: NO	3 Years and 4 Months	– USCG License	 Validation by Apprentice Committee
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Objective 9

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LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE
9.1 Satisfy all State and Federal License Requirements		5 Years	 Verified in accordance with 46 CFR 10.435 	 Validation by Apprentice Committee
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Objective 10

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Objective 10 LEARNING OBJECTIVES	LEARNING RESOURCES AND STRATEGIES	TARGET DATE FOR COMPLETION	EVIDENCE OF ACCOMPLISHMENT OF OBJECTIVES	CRITERIA AND MEANS VALIDATING EVIDENCE
10.1 Meet USCG Trip Requirements		6 Years	 Verification of Trip Requirements in accordance with 46 CFR 10.705 	 Validation by Apprentice Committee
10.2 Rules of the Road		6 Years	 Successful Completion of Objective 9.1 	 Validation by Apprentice Committee
10.3 Draw Charts for Route		6 Years	 Obtain USCG License 	 Validation by Apprentice Committee
10.4 Demonstrate Local Knowledge for Route		6 Years	 Successful Oral Examination by Board for Branch Pilots 	 Validation by Apprentice Committee
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VIRGINIA PILOT ASSOCIATION

Learning Resource Modification

2024

The Apprenticeship Committee recommends the following changes be made to the Apprenticeship Program for 2024:
1. Learning Objective 7.7 "Demonstrate application of Rules of the Apprendict of R

- - 37; Annex II, IV, V" to "Navigation Rules Inland Rules 19-37; Annex IV and V"
 - b. Annex II no longer contains any content. It is now "Reserved"
- 2. Learning Objective 4.1 Complete 22 week Launch Experience
 - a. Learning Resources and Strategies
 - EDIT to "22 weeks of training on 51 and 56 foot twin screw launches i. and 42 ft R.H.I.B Launch with twin jet drives". REMOVE "and catamaran launch with twin jet drives".
- 3. Learning Objective 4.3 Complete USCG Approved Courses
 - a. Criteria and Means Validating Evidence
 - EDIT to "Maritime Institute Certificates" (No longer "MAMA") i.
- 4. Learning Objective 4.10 Complete Advanced Electronic Navigation Training Course
- a. Evidence of Accomplishment of Objectives Materials containt, Materials are not to

EDIT "Interactive Blind Pilotage Training" to "Restricted Visibility Navigation"

Department of Professional and Occupational Regulation **Statement of Financial Activity Board for Branch Pilots** 954190 2022-2024 Biennium June 2024 **Biennium-to-Date Comparison** June 2024 July 2020 -July 2022 -June 2022 June 2024 Activity 2,258 **Cash/Revenue Balance Brought Forward** 5,040 **Revenues** 0 4,800 **Cumulative Revenues** 27,669 7,058 vices **Cost Categories: Board Expenditures** 5,763 7,671 **Board Administration** 286 309 Administration of Exams 0 0 Enforcement 1 1 Legal Services 8 145 **Information Systems** 211 210 Facilities and Support Services 4,662 100 **Agency Administration** 135 208 Other / Transfers 0 0 **Total Expenses** 6,503 13,207 Transfer To/(From) Cash Reserves 0 0 (6, 149)**Ending Cash/Revenue Balance** C

Cash Reserve Beginning Balance	11,475	0	17,623
Change in Cash Reserve	0	0	(6,149)
Ending Cash Reserve Balance	11,475	0	11,475

Number of Regulants

Current Month	0
Previous Biennium-to-Date	41

Department of Professional and Occupational Regulation Supporting Statement of Year-to-Date Activity Board for Branch Pilots - 954190 Fiscal Year 2024																		
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	Fiscal YTD Charges	Planned Annual Charges	Current Balance	Projected Charges at 6/30	Projected Favorable (U Amount	
Board Expenditures	0	Aug 3		451	2	1,032		1 rep	1,326	Ар і 135			4,250	4,665	415	4,631	34	0.7%
Board Administration	13	12	18	6	13	20	8	14	20	8	5 23		155	201	46	161	40	20.1%
Administration of Exams	0	0	0	0	0	0	0	0	0		0,0	0	0	0	0	0	0	
Enforcement	0	0	0	0	0	0	0	P ⁰	0			0	0	0	0	0	0	
Legal Services	0	0	0	0	0	0	140	.00	, eg		0	0	141	3	-138	154	-151	-4896.9%
Information Systems	5	13	10	7	8	10	C ²	20	19	7	11	0	112	113	1	121	-8	-7.0%
Facilities / Support Svcs	3	3	4,576	2	3	18	S 3	SO 2	4	3	3	0	4,620	53	-4,567	5,039	-4,987	-9426.4%
Agency Administration	9	9	15	5	10	14	4		13	5	14	0	105	124	19	109	14	11.7%
Other / Transfers	0	0	0	o		\$°	0	0	0	0	0	0	0	0	0	0	0	
Total Charges	29	41	5,041	472	×O ₃₇	1,093	303	46	1,382	158	781	0	9,383	5,158	-4,225	10,214	-5,056	-98.0%

Materials not