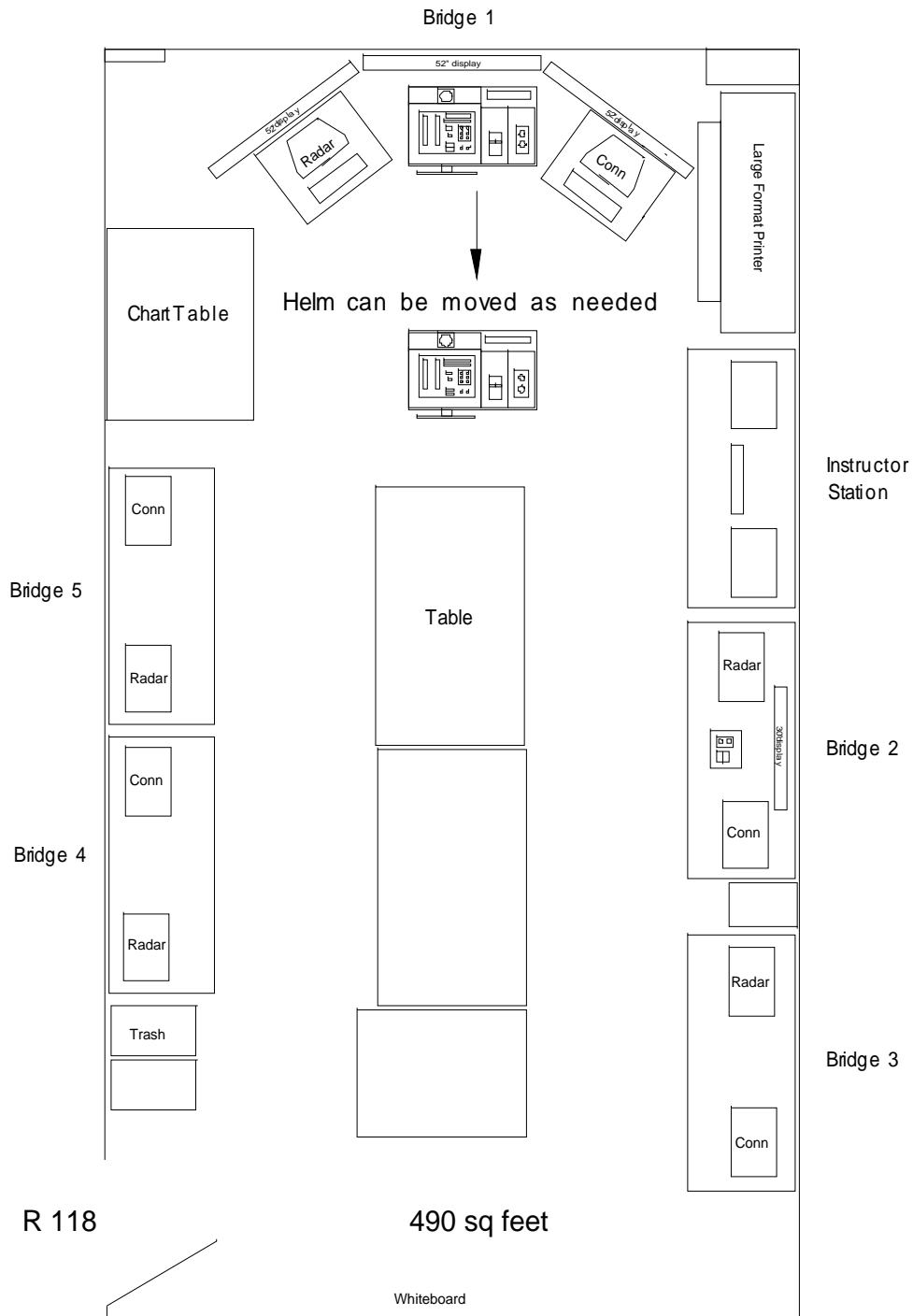




**Ship  
Simulator  
Lab**





## Ship Simulator Lab

UAS600 Stedman St. Ketchikan, Alaska 99901

Lab rental rate of \$65 per hour includes a simulator operator plus a \$30 set up fee.

Instructors are available if desired.

Call Diana at 907-228-4568 to arrange rental or [maritime@uas.alaska.edu](mailto:maritime@uas.alaska.edu)

## Five ship bridges:

Bridge 1 has three large displays plus helm and throttle control hardware

Bridge 2 has one medium display plus helm and throttle control hardware

Bridges 3, 4 & 5 have mouse driven split screen visuals and ship control

All bridges have radar and pilot plugs

Bridges can be assigned to separate training areas or to interact within the same training area

<b>Simulated Vessels</b>	<b>Displacement</b>	<b>Length</b>	<b>Speed</b>
Bulk Carrier	23,565 T	600 ft	15 kts
Coast Guard Cutter	100 T	108 ft	33 kts
Container Ship	83,105 T	910 ft	25 kts
Fast Ferry (Water jet)	3,545 T	405 ft	41 kts
Fishery Training Ship	3,300 T	305 ft	18 kts
FVS	812 T	175 ft	23 kts
Rescue Boat	14 T	38 ft	16 kts
Multirole Support Ship	2,250 T	240 ft	13 kts
Passenger Cruise Ship	24,841 T	757 ft	24 kts
Passenger Cruise Ship2	31,085 T	787 ft	19 kts
Patrol Boat (Water jet)	35 T	65 ft	34 kts
Rigid Inflatable Boat	2 T	25 ft	34 kts
Ro-Ro Passenger Ferry	7,100 T	410 ft	24 kts
VLCC	321,260 T	1089 ft	15 kts

Plus over 200 target vessels and objects in the Transas library.

## Training Area

Juneau, Alaska

Ketchikan, Alaska

Snow Pass, Alaska

Wrangell Narrows, Alaska

Prince William Sound, Alaska

Seattle, Washington

San Francisco, California

Norfolk and Hampton Roads, Virginia

Long and Block Island Sound, New York

Open Sea

## **Simulator Capabilities**

### Environmental conditions

- Any time of day or night – celestial bodies accurately displayed for date and time selected
- Varied states of visibility – fog, rain or snow
- Varied states of wind, sea and current – control of strength and direction

Simulator controller can initiate the movement of over 200 different types of vessels as well as aircraft, floating objects, person in the water, wrecks and land objects

### Auto or manual steering

#### ARPA Radar

- Three models available (Bridgemaster, Furuno & Nucleus)
- ARPA on or off
- Interference on or off
- No signal from a target
- SART (search and rescue transponder)

Simulator controller can initiate error, defect, failure or warning alarms for:

- Engine
- Steering
- GPS
- Depth sounder
- Gyro

#### Electronic Chart Display Information System (ECDIS)

- Installed ECDIS training software available or bring a laptop with your own electronic chart software (must be able to receive UAIS sentence data)
- Pilot plugs available on all 5 bridges. Two, Laptop-to-pilot plug cables available if needed

#### Anchoring

- Set number of shots
- Drop or pay out

Mooring and Towing

- Choice of type and breaking strength of line
- Send lines to the dock or object being towed as needed
- Control of winch

Light and sound signals

- Control of spot light and navigation lights
- Initiate sound signals and hear signals from other vessels

Ship movement recording and playback for debriefing

**Training option ideas**

Collision avoidance - Duplicate real world circumstances for others to learn from

Practice navigating and docking under different conditions of set and drift

Use limited resources to safely navigate during low visibility or equipment failure

Take a one, two or three position visual or radar fix

Practice docking, towing or ship assist under different environmental conditions

Practice helm Commands

Navigation aids and vessel light identification at night

Figure ETA (simulator controller can fast forward scenario to check accuracy of ETA)

Practice quick response to a man over board

---

---

---

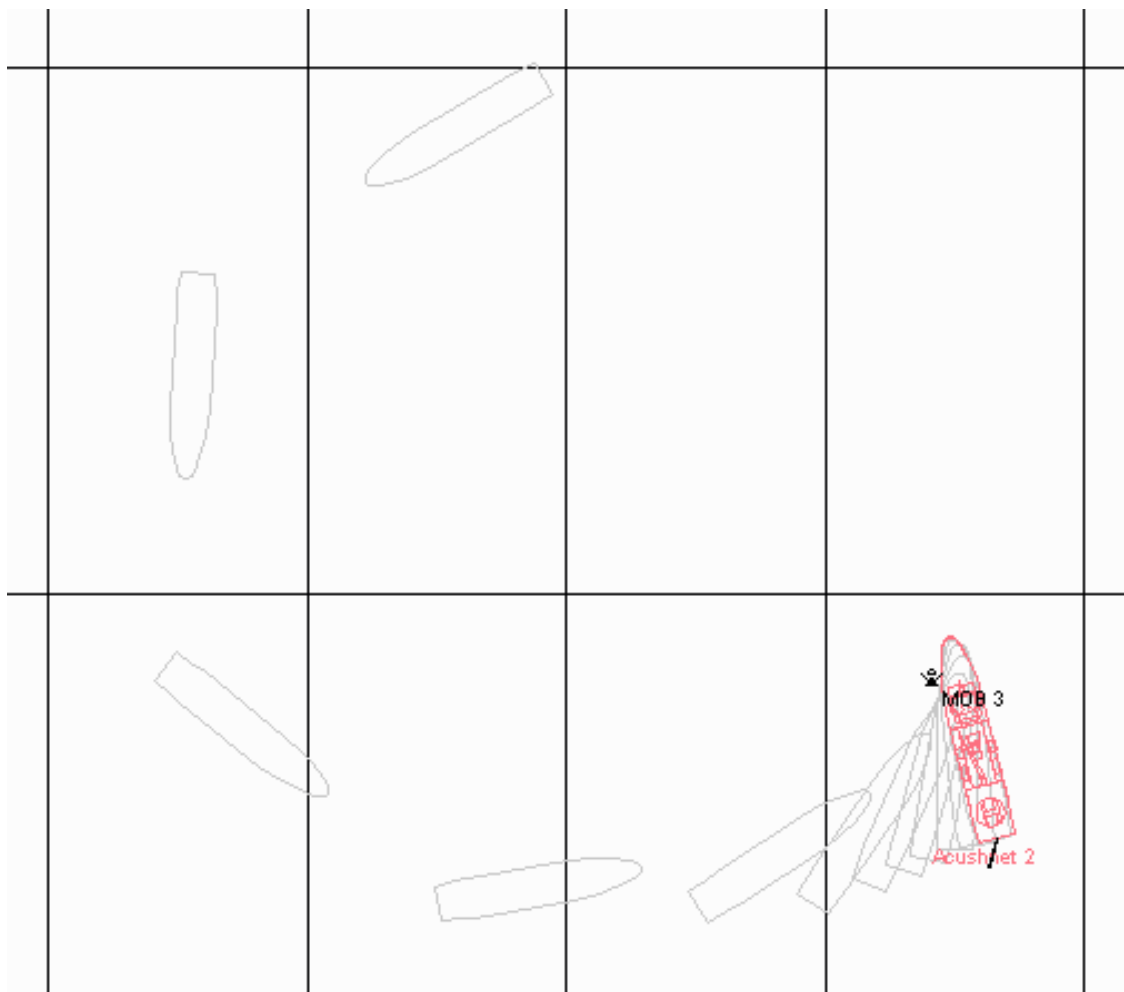
---

---

### Video playback showing tracks for debriefing

- Vessel 's tracks, throttle and helm commands shown during playback
- Playback speed, fast forward & pause control

### MOB exercise example



Lab rental rate of \$65 per hour includes a simulator operator plus a \$30 set up fee.

Instructors are available if desired.

Call Diana at 907-228-4568 to arrange rental or [maritime@uas.alaska.edu](mailto:maritime@uas.alaska.edu)