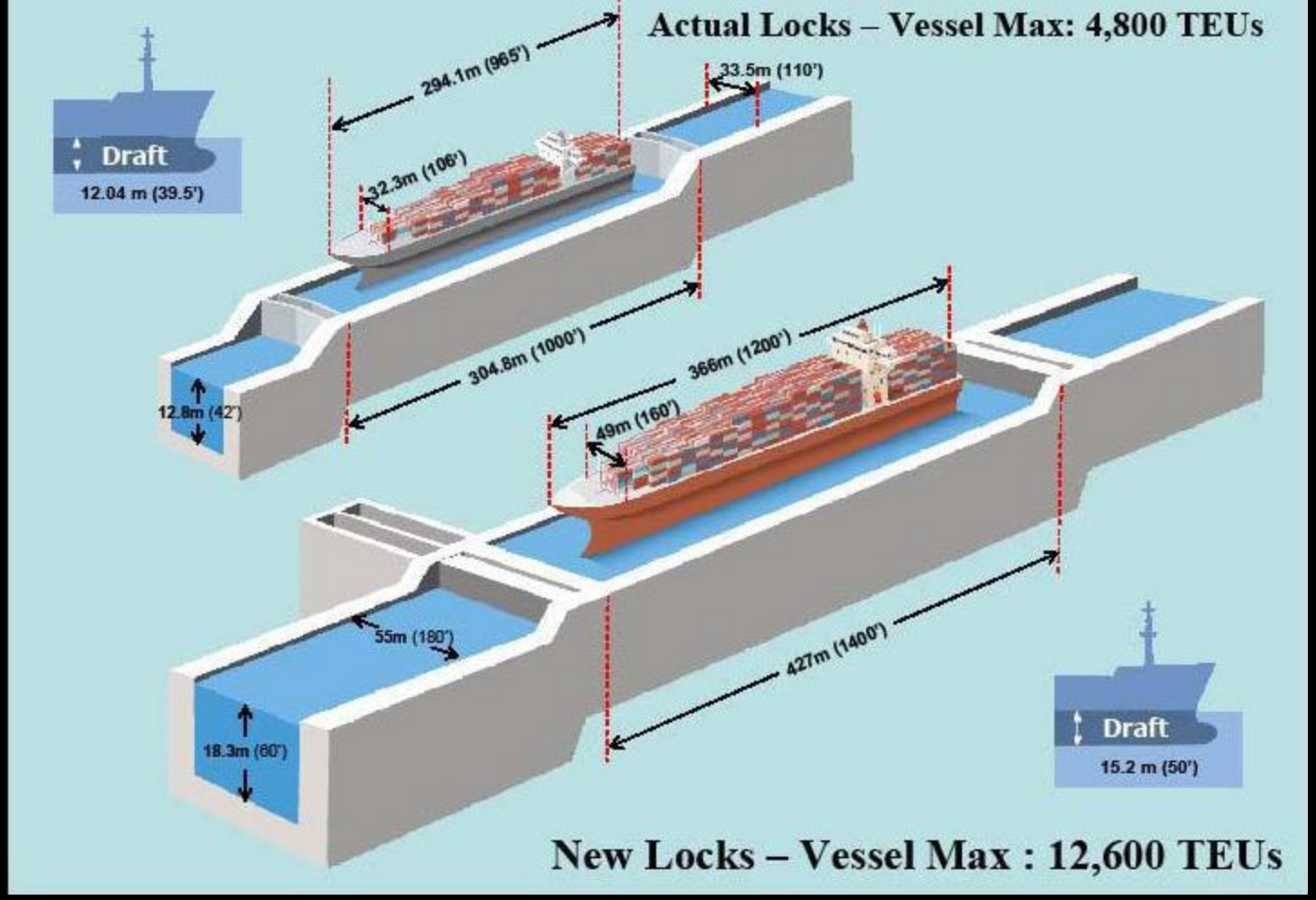
Post Panamax Piloting Challenges

HANJIN
HANJIN TOKYO
K LINE
YANG MING

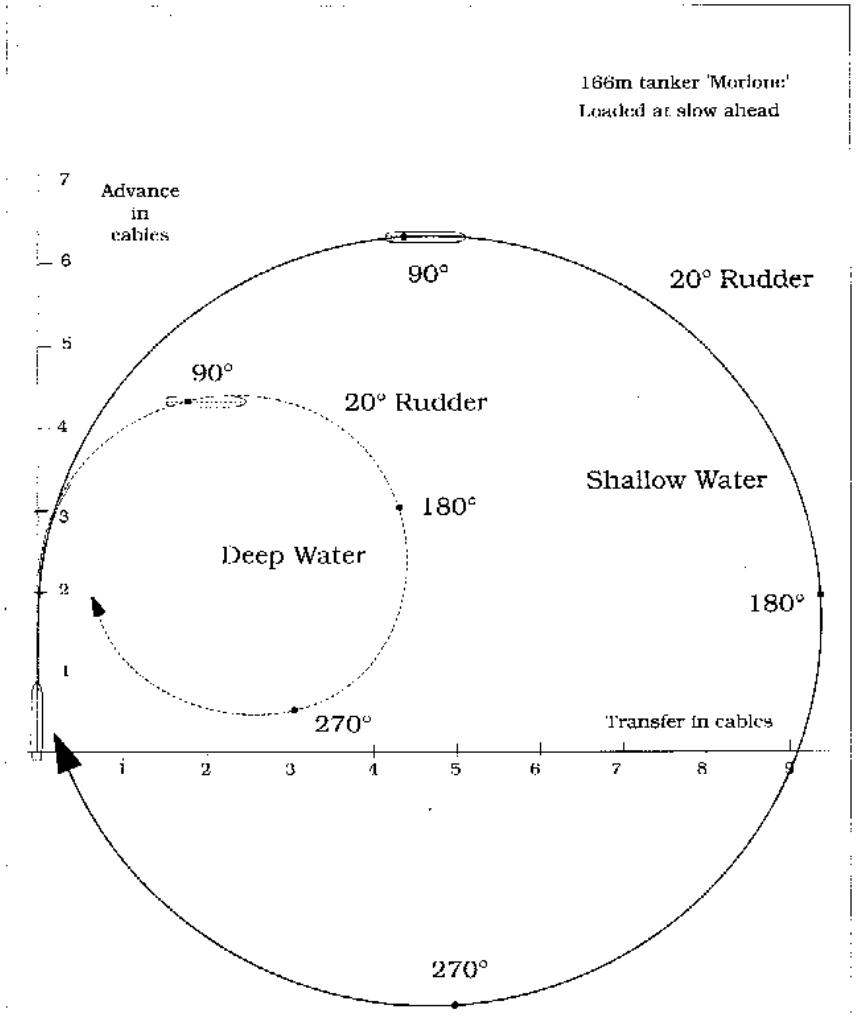
New Locks Dimensions



EASTERN QUEEN
이스턴 퀸
19

VIRGINIA
VA. BEACH

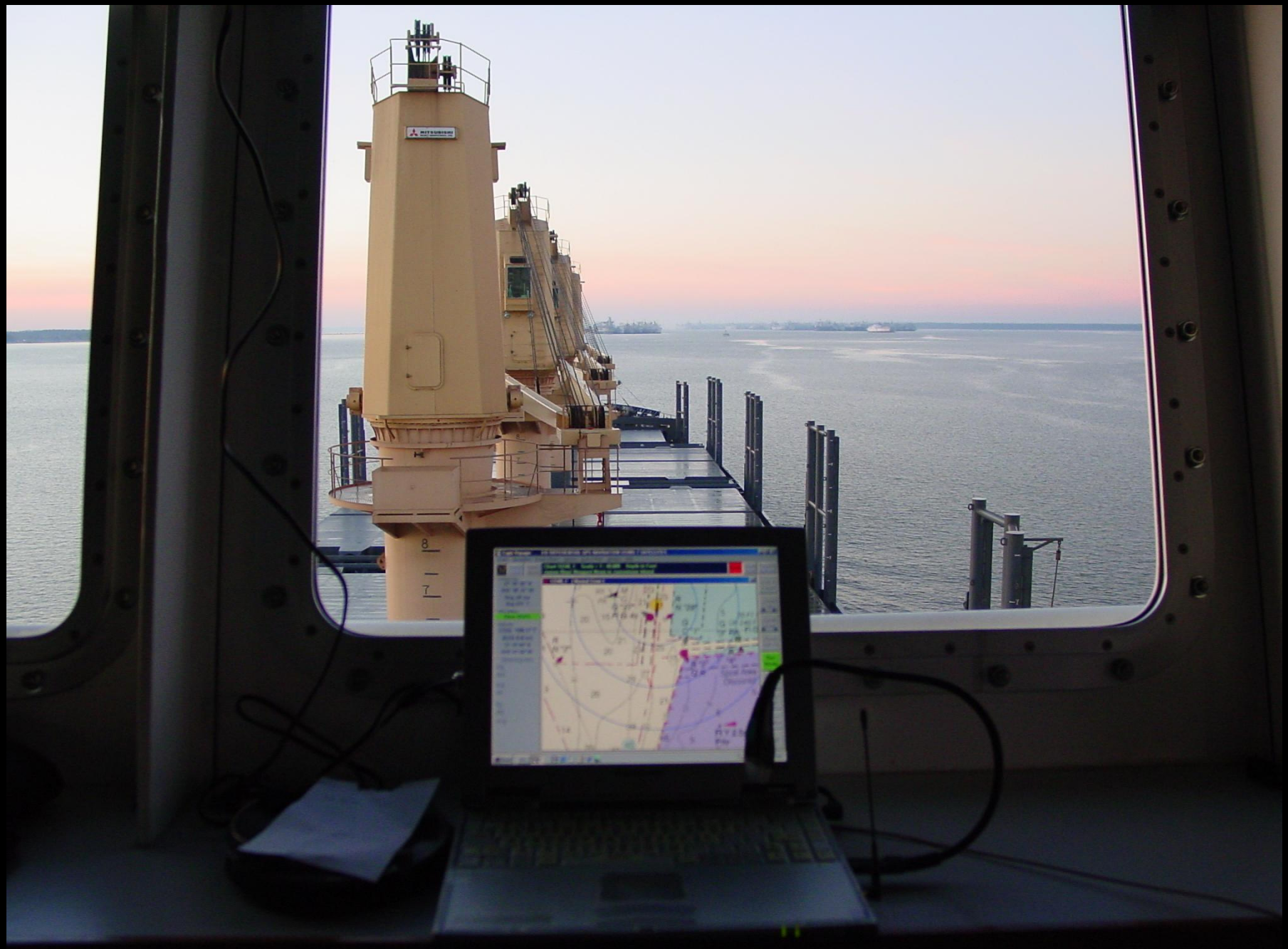
Fig. 13 Turning in Shallow Water



Specimen only - Ship Simulator, Maritime Centre, Warsash, Southampton

EVER DEVOTE

PILOT


MITSUBISHI
8
7

OOCL
Hapag-Lloyd

MAERSK SEALAND

COAL PIER 6
ABEROUS

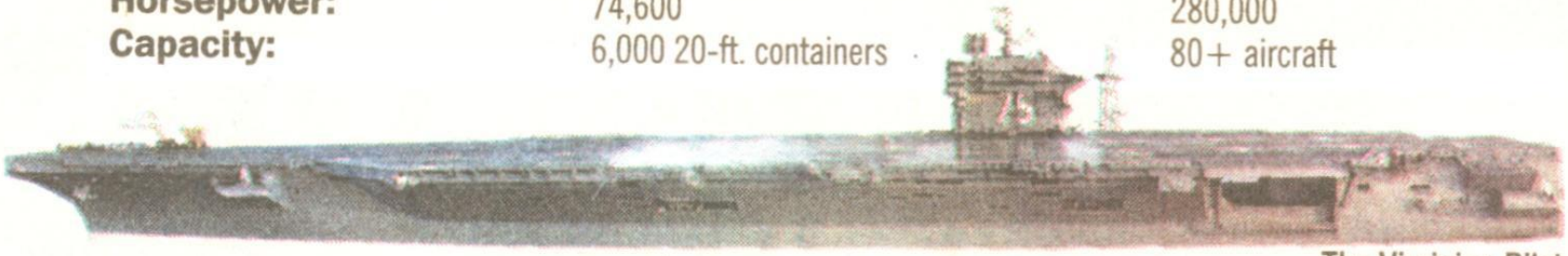
HOLD
ONLY

6P
6S

MAERSK SEALAND
MAERSK
MAERSK SEALAND

TWO GIANTS COMPARED

	REGINA MAERSK	HARRY S. TRUMAN
Length:	1,043 ft.	1,096 ft.
Beam:	137 ft.	134 ft.
Speed:	25 knots	30+ knots
Crew:	15	5,680
Power plant:	Diesel	Nuclear
Horsepower:	74,600	280,000
Capacity:	6,000 20-ft. containers	80+ aircraft



The Virginian-Pilot

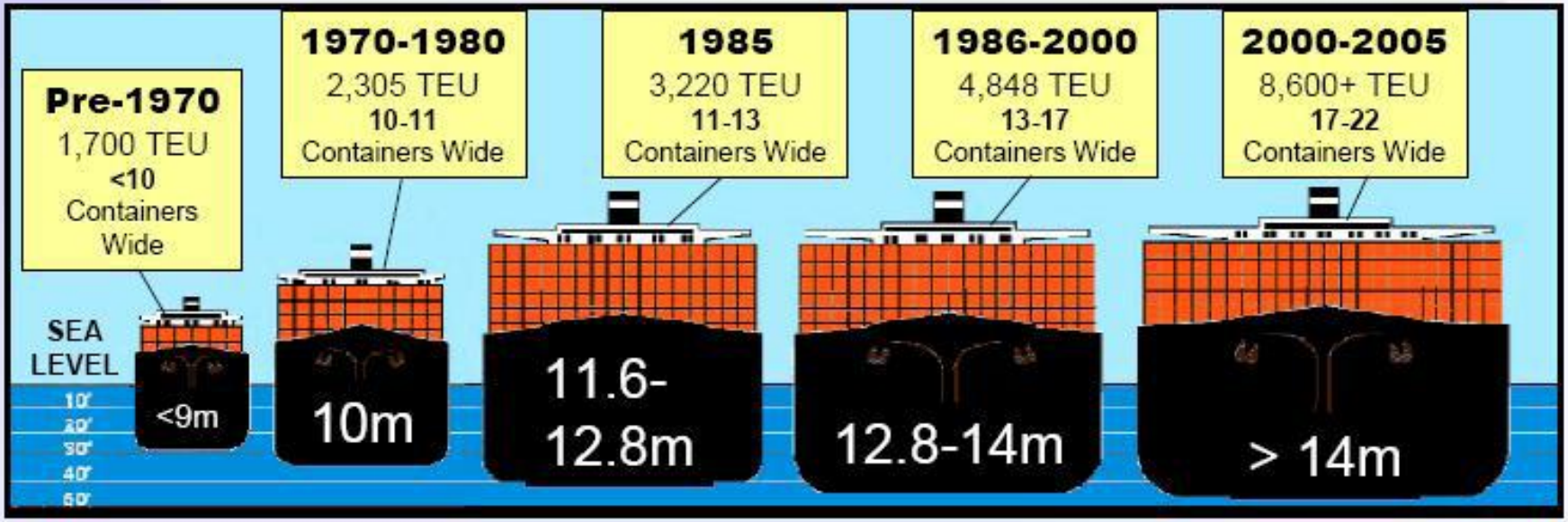
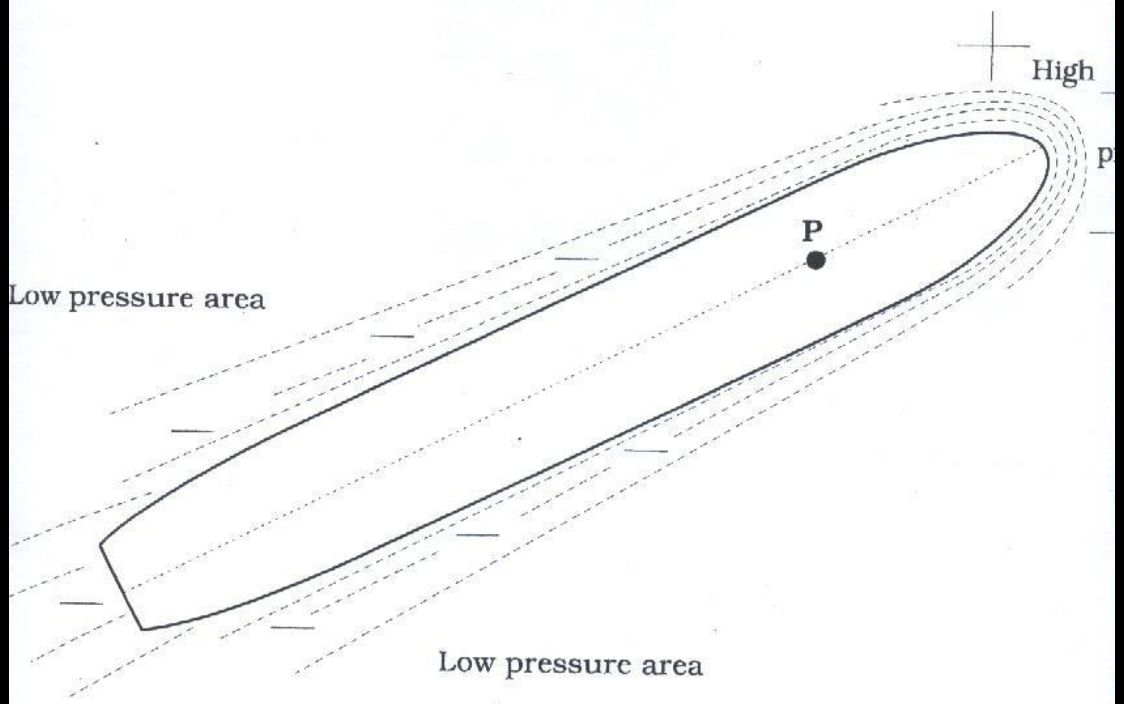
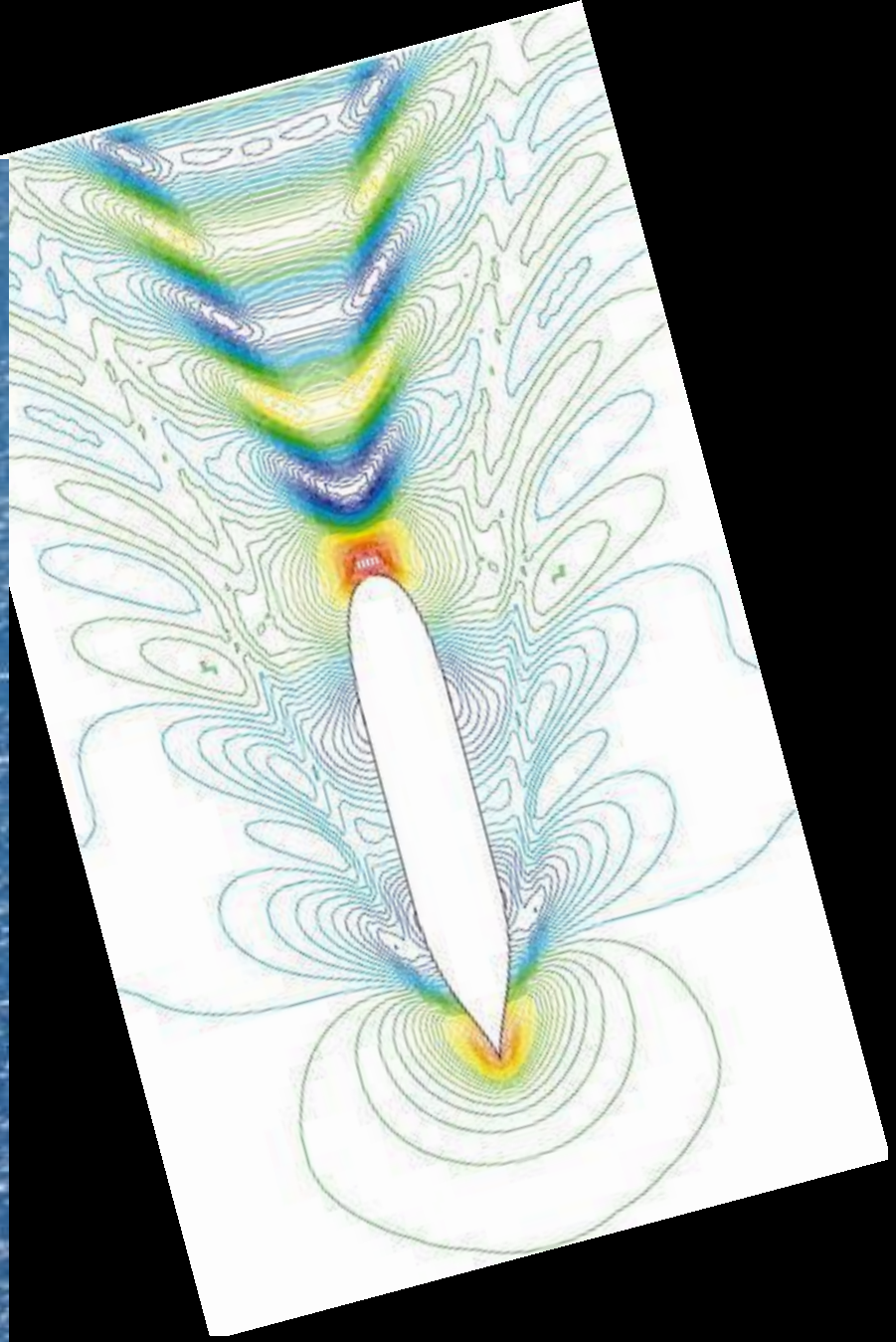
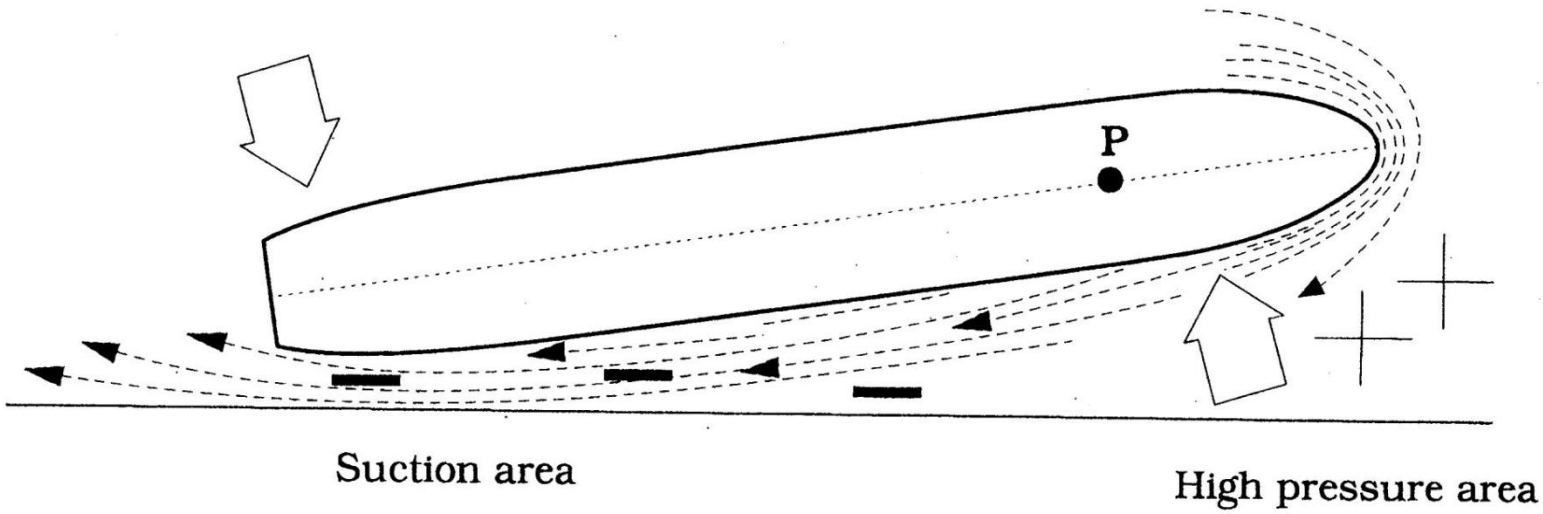

Pre-1970
1,700 TEU
<10
Containers
Wide
1970-1980
2,305 TEU
10-11
Containers Wide
1985
3,220 TEU
11-13
Containers Wide
1986-2000
4,848 TEU
13-17
Containers Wide
2000-2005
8,600+ TEU
17-22
Containers Wide
SEA
LEVEL
10'
20'
30'
40'
60'
<9m
10m
11.6-
12.8m
12.8-14m
> 14m

Fig. 24 Pressure Zones (simplified



SKS TAGUS




P
Suction area
High pressure area

Water piles-up on port quarter

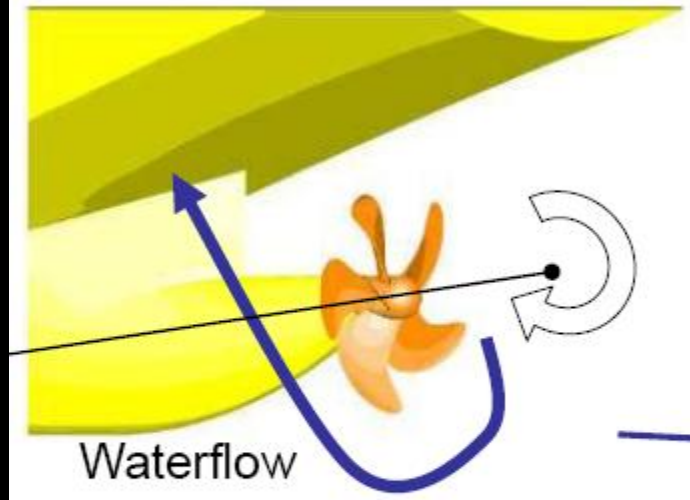
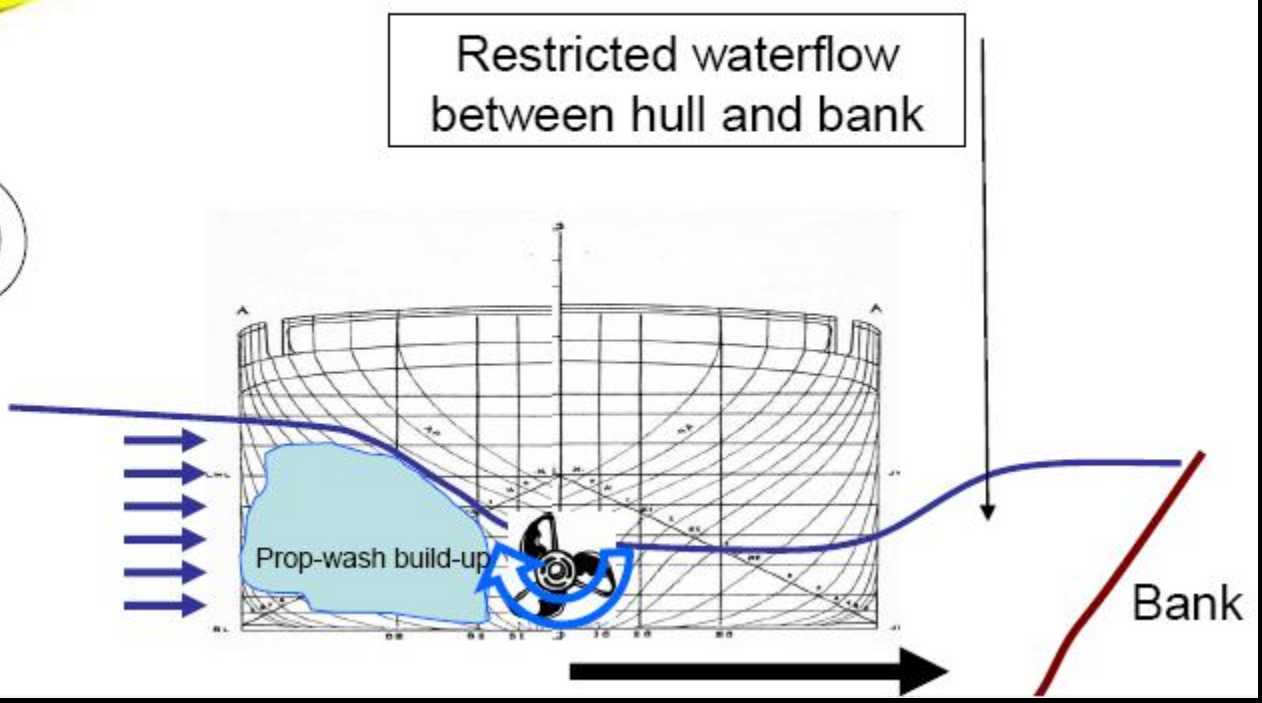


Image credit: Flowgrid
http://www.unizar.es/flowgrid/ship_hull.htm



ORIENTAL
ORIENTAL
AMERICANA
MONROVIA
IMO 9438676