

# **PORT NAUTICAL REQUIREMENTS FOR CELEBRITY CRUISE SHIPS**

Presented to  
The 12<sup>th</sup> Annual Meso American Caribbean Hydrographic Commission  
Conference  
by  
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# Product & Itinerary Optimization Considerations

- **Focus on costs and overall profitability**
- Balance marketability, guest experience and expense
  - Minimize fuel consumption
    - Single greatest variable cost
    - Trade off between port content and speed
  - Maximize revenue opportunities
    - Ticket and onboard and tours
    - Air lift for primary source markets
    - Leverage Sales feedback and market research
- **Operational feasibility – Can the ship get there & remain there safely**
- Incorporate External Constraints & Logistics

# External Constraints & Logistics

- Time / Speed / Distance
- Port
  - Infrastructure, future development
  - Dock / tender availability
  - Berthing policies & conflicts
  - Commitments & incentives
  - Fees and expenses
- Government
  - Taxes
  - Customs and Immigration
- Weather
- Security
- Environment & regulations

# Operational Feasibility (Nautical Review)

- In its simplest form, Celebrity Nautical looks for
  - A safe approach/transit route to the berth
  - A safe berth/anchorage for the vessel and/or its tenders

# Safe Approach/Transit Route to the Berth or Anchorage Area

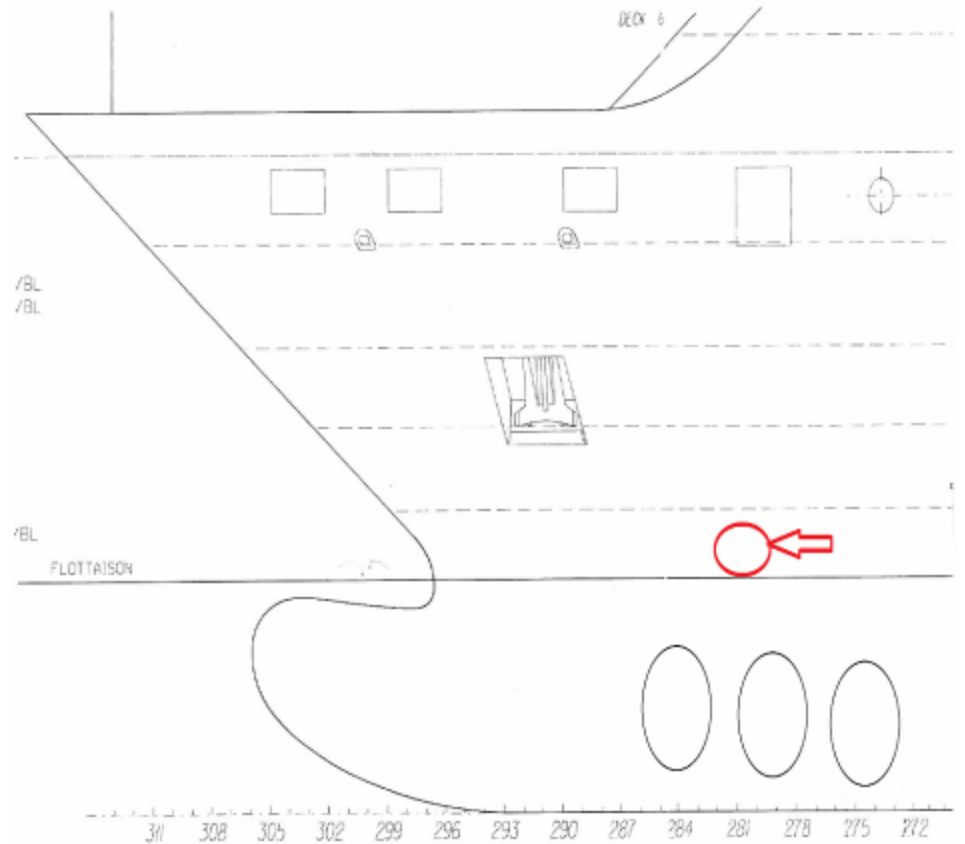
- Minimum under keel clearance (“UKC”) of 2.0 meters unless area is prone to high winds/strong currents. For latter conditions, greater clearances are required. Clearances taken at lowest charted datum for the port. This can be altered to the actual time of transit but this is not preferred option.
- Minimum width of 100 meters in straight reaches over relatively short distances, otherwise 150 meters; minimum 200 meters in gradual bends in channel.
- Minimum 2.0 meter UKC in turn basin and 30 meter clearance fore & aft for CN up to 50m fore and aft for SL class. Again, high winds could dictate increased clearances. **Accurate soundings are critical**
- Type of channel (ie: is it dredged cut or open channel) and what lies outside the channel (is water immediately outside the channel deep enough to support safe navigation?)
- Swell/wave action is looked at closely if the area is prone to high swells which could cause us to cancel (trig diagram of vessel).
- Air Draft Concerns – minimum 1.0 meter at High Water Datum.



# Safe (Ship) Berth

- Depth of water – **Again, accurate soundings are critical**
- Suitable length & construction wharf/dock for the size of vessel
- Obstructions
  - For the ship as a whole (Note: some ships have overhanging lifeboats)
  - In way of the shell doors
- Proper Bollards
  - Spacing (are leads adequate)
  - Number/location (proper leads)
  - Condition
  - Design
  - Pull strength
- Height of dock above water surface
- Adequate Fendering

# Port Side – Frame 281





# Safe Anchorage

- Clear Swing Circle
- Ample Depth – 5m UKC in calm seas
- Proximity to Tender Area (generally less than 1 mile)
- Protection
- Type of Bottom (holding power)

# Suitable Berth (Tender)

- Essentially same requirements as for the a ship
- Proximity to anchorage area (usually less than one mile)
- Height of dock and surface
- Capable of berthing more than one tender
- Is it wheel chair friendly

# Well Executed Evaluation Form

**CCI NAUTICAL DEPARTMENT**  
**PORT EVALUATION FORM**

**Name of Port : PORT ATLANTIQUE LA ROCHELLE**  
**Date of Visit or Date Information Provided: October 20<sup>th</sup> 2011**  
**Evaluator's Name and Title : Philippe REYDANT, Harbour Master**

Item	General Port Information
Prevailing Weather	Winds: from South west
	Currents: rising tide = North    ebbing tide = South
	Other:
Location(s) of pilot boarding areas	Lat. 46° 05,482 N                      Long. 001° 16.033 W
Approach channel width & minimum depth	Min. width = 0.5 NM    Min. depth = 10 m
Distance from pilot Sta. to dock/anchorage	5 NM
Estimated time from pilot station to dock/anchorage at max. speed allowed by port authority	Around 45 minutes
Minimum depth and diameter of turning basin	Min. depth = 10 m                      Diam. = 500 m
Air Draft restrictions	No restrictions
Minimum depth alongside pier and uninterrupted length for which this depth occurs	12 m / 350 m
Port Established Maximum Vessel Draft	12 m + tide level
Port Established Maximum Vessel Length	350 m
Range of Tide & Maximum Current	Min. = 0.20m / 2.40 m : 0.6 knt                      Max. = 4.40 m / 6.70 m : 1.2 knt
Name/Draft/LOA of largest ship to <i>safely</i> call at port	NORWAY : 315m x 32m x 10.90m
Power, type and number of tugs available	3 tugs 38 Tbp each                      type : aquamaster

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Signature/Firma/Signatur                      **Port Atlantique La Rochelle**                      1 of 4  
   **Philippe REYDANT**  
   *Commandant du Port*

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# Well Executed Evaluation Form

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**Date of Visit : October 20<sup>th</sup> 2011**

**Evaluator : Philippe REYDANT, Harbour Master**

Item	General Port Information
Are the tugs local (within 30 minutes from the port?)	Yes
How far in advance do tugs have to be ordered?	1 hour for 2 tugs / 48 hours for 3rd tug
Item	Berth/Dock Information
Names, lengths, and minimum depths for all berths where cruise ships can dock	1) ME 05/06 = 375 m / 12 m
	2) ME 03/02 = 500 m / 9.5m
	3) CB01/02 = 500 m / 12 m
	4) AP00 = 280 m / 12 m
Which of the above berths are cruise ship terminals and which are commercial berths?	ME 05/06 and ME 03/02 are commercial berths but are usually used as cruise ship terminals
What is immediately adjacent to each of the above berths?	
Are there any operations of a toxic, explosive, or combustible nature occurring within 1 km (0.5 miles) of the berth? If yes, what are they?	Yes, Oil terminal

Signature/Firma/Signatur

Port Atlantique La Rochelle  
 Philippe REYDANT  
 Commandant du Port  
 Title

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# Typical Nautical Related Problems

- Information sharing by local authorities (with major charting authorities)
- Current & accurate surveys of coastal/port areas – many ports have this information and most freely share it. Some have to be pressed for it.
- Notification, by local authorities, of dredging projects/changes to ports
- Depths less than what are reported
- Fenders/Bollards need repairs/maintenance

# SUGGESTIONS

- Encourage your HM/PD to provide information requested. We usually reach out to our network of agents for this.
- Come to us early. We can assist by providing you our needs – we want you to be successful as we look for new venues for our guests