



RINA



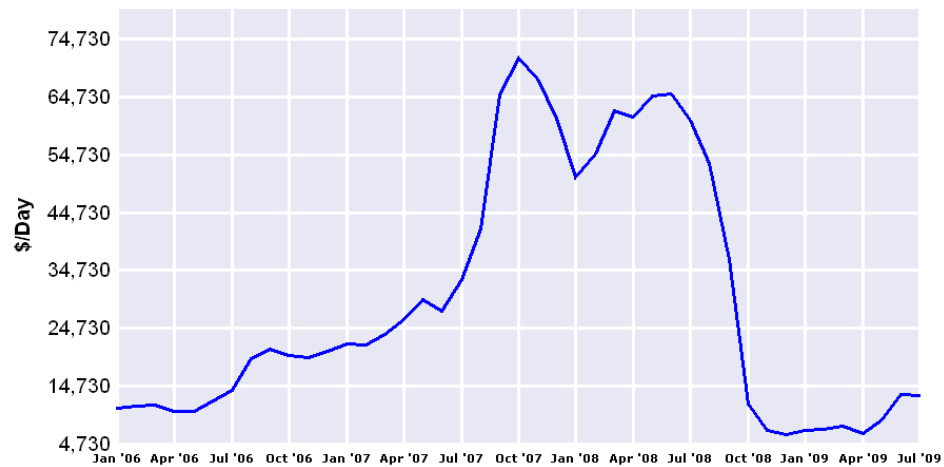
Cold and Hot Lay-Up Rules and Procedures a Class Surveyor's View

Bruges, 15 September 2009

Giosue' Vezzuto
Country Manager South East Asia
RINA – Marine Division

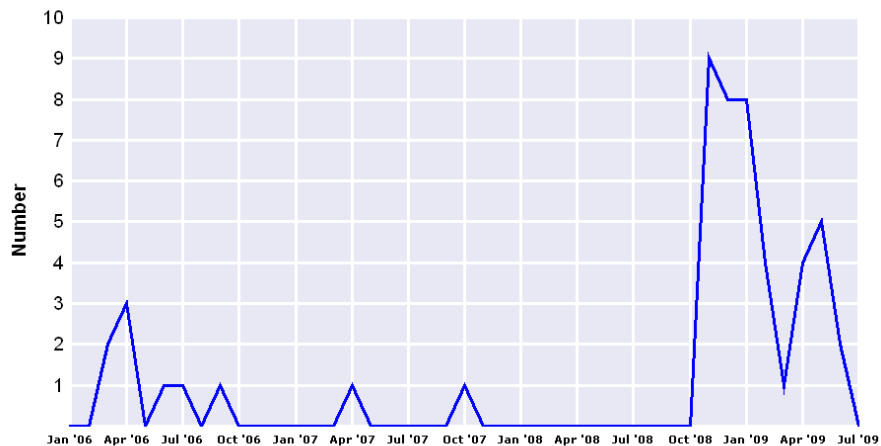


1 Year Timecharter Rate 65,000 dwt Bulkcarrier \$/Day



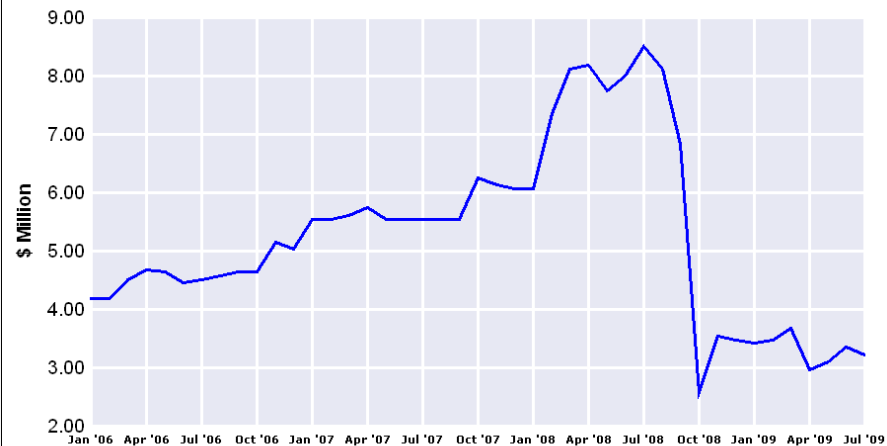
Source: Clarkson Research Services Limited

Panamax Bulkcarrier Demolition Number



Source: Clarkson Research Services Limited

Panamax Bulker Scrap Value \$ Million



Source: Clarkson Research Services Limited

Introduction

Planning

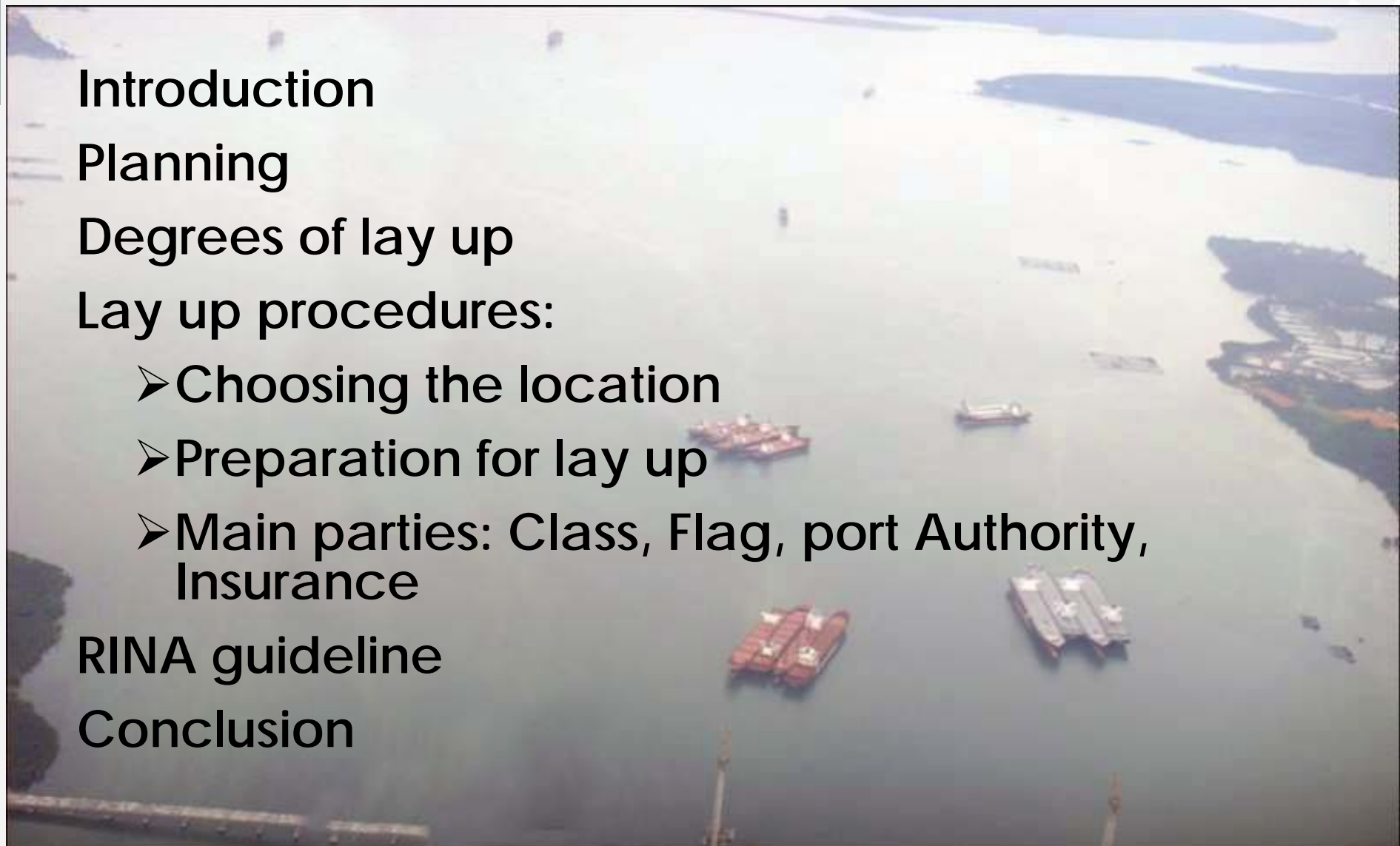
Degrees of lay up

Lay up procedures:

- **Choosing the location**
- **Preparation for lay up**
- **Main parties: Class, Flag, port Authority, Insurance**

RINA guideline

Conclusion



Laying up:



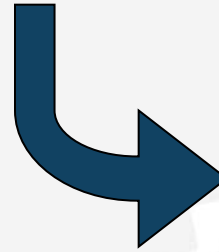
Temporary trading
cessation of a vessel by
the ship-owner or
operator



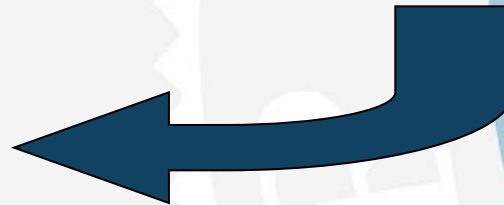
Lay-up requirements:



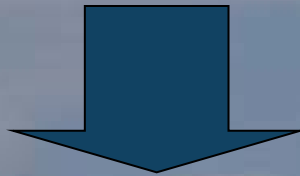
Maintain security, safety and protection of the ship, crew and environment



Preserve and maintain the ship's hull and machinery to enable economic reactivation



Ship's age and value compared to her scrap value
How long – weeks/months/years? (need to reduce costs)
Reactivation time – hours/days/weeks?



Lay up location
Insurance status – full trade or port risks?
Manning level
Local port authority requirements
Class & Statutory Certificates





Baltic Dry Index

Hot lay up: up to 1 months	Reactivation time: 24 hours
Hot lay up: up to 12 months	Reactivation time: 1 week
Cold lay up: up to 5 years	Reactivation time: 1 month
Long term lay up: over 5 years	Reactivation time: 3 months





	Bulk Carrier (Handymax) USD/day			Container 5,000 teu USD/day		
	In service	Hot lay up	Cold lay up	In service	Hot lay up	Cold lay up
Manning	2,150	1,650	300	3,300	2,450	400
Maintenance	850	250	80	950	220	70
Stores	880	230	70	900	230	70
Insurance	940	840	450	2300	2,100	1,050
Various	680	480	150	650	200	100
Total	5,500	3,450	1,050	8,100	5,200	1,690

Costs overview

Hot lay up reduces cost by **40%** (ship at anchorage)

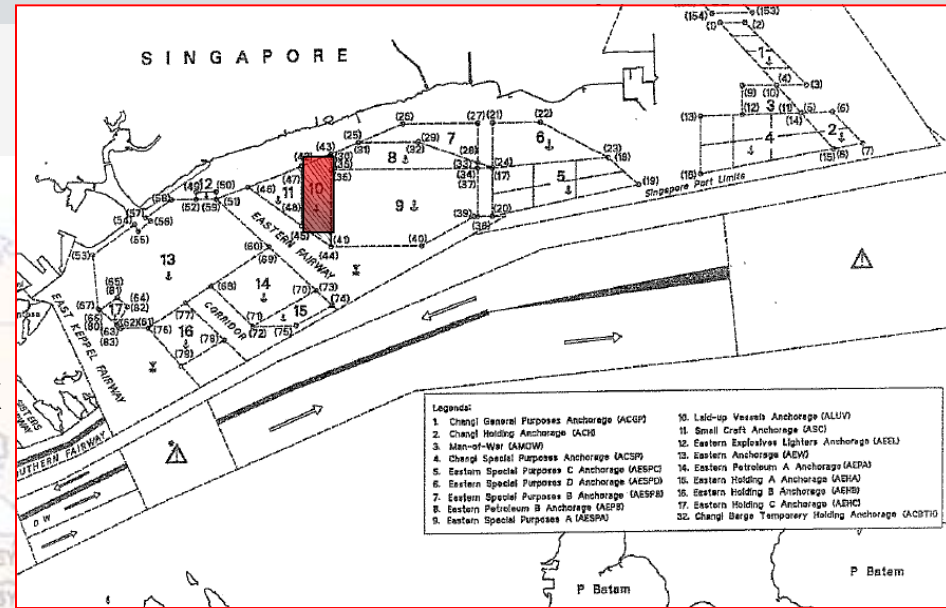
Cold lay up reduces cost by **75%**, but there are higher costs for reactivation, also taking into account the need of sending competent crew when the ship is reactivated

- Choosing the location
- Preparation for lay up, maintenance during lay up
- Class lay up surveys, re-activation surveys
- ISM/ISPS certificates
- Flag and Port Authority requirements
- Insurance aspects



Assessment factors are:

- Geographical features: access, shelter, traffic, space
- Meteorological information: max wind force, waves & swell
- Current and tides
- Not exposed to moving ice
- Bathymetry and holding of the sea ground
- Clear of corrosive waste waters
- Adequate ship to shore communications, availability of services (e.g. tugs, fire-fighting, workshops)
- Security



SINGAPORE



Ship's hull and accommodations

	Hot up to 1 month	Hot up to 12 month	Cold
Hull's bottom	-	Diver before lay up	Periodic diver exam.
Sea valves	Normal ops.	Locked closed (except FFA)	Locked closed (except FFA). Use biocide
Anodes / impr. curr.	Normal ops.	Normal ops.	Frequent monitor
Ballast tanks	Normal ops.	0% or 100% (with inhibitor) Chain locker dry	0% or 100% (with inhibitor) Chain locker dry
Tanks	Normal ops.	Gas free	Gas free
Deck piping	Normal ops. (anti freezing measures if necessary)	Drained, blown through with dry air	Drained, blown through with dry air
Painting	Normal ops.	By lay up crew	Before lay up
Cabins	Normal ops.	Normal ops.	Dehumidifiers
Acc. alleys	Normal ops.	Polythene	Polythene
Provision rooms	Normal ops.	Routine maintenance	Empty and doors open
A/C system	Normal ops.	Routine maintenance	Freon pumped to condenser



Equipment

	Hot up to 1 month	Hot up to 12 month	Cold
Steering gear	Routine maintenance	To be moved monthly	To be moved monthly
Anchoring / mooring	Routine maintenance	To be moved monthly	To be moved monthly
Deck outfitting	Routine maintenance	Routine maintenance	Greased
Hatch covers	Routine maintenance	Routine maintenance	Greased
LSA	Normal ops.	Normal ops.	In ops. for lay up personnel
Vent. dampers	Routine maintenance	Routine maintenance	To be moved monthly
FFA	Normal ops.	Normal ops.	Normal ops.
Cranes	Normal ops.	Normal ops.	1 crane operational



Machinery

	Hot up to 1 month	Hot up to 12 month	Cold
ER ventilation	Routine maintenance	Reduced ops.	De-humidifiers (RH<50%)
M/E & Aux	Routine maintenance	To be moved monthly. Oil purified and analyzed.	To be moved monthly. Oil purified and analyzed.
Engines crankcase	Routine maintenance	Routine maintenance	Open, de-humidifiers
Propeller / Shafts	Routine maintenance	To be moved monthly	To be moved monthly
Steam systems	Routine maintenance	0% or 100% (with inhibitor)	Empty & open
Purifiers	Routine maintenance	To be moved monthly	Open
SW cooling systems	Routine maintenance	0% or 100% (with inhibitor)	Empty & open
FW cooling systems	Routine maintenance	0% or 100% (with inhibitor)	Empty & open
FO systems	Flushed with DO	Flushed with DO	Flushed with DO
LO systems	Routine maintenance	Routine maintenance	Keep full
Compressed air systems	Routine maintenance	Full or empty and open. 1 receiver to be kept full	Empty & open
ER bilges	Routine maintenance	Clean	Clean
Bilge alarms	Routine maintenance	Routine maintenance	Routine maintenance



Electrical systems

	Hot up to 1 month	Hot up to 12 month	Cold
Alternators, switchboards	Routine maintenance	Routine maintenance	De-humidifiers
Batteries	Routine maintenance	Routine maintenance	Disconnected, re-charge
El. motors	Routine maintenance	Heating on	Heating on
Fire detection system	Routine maintenance	Routine maintenance	Routine maintenance
CO2	Normal ops.	Normal ops.	Normal ops.
Nautical eq.	Normal ops.	Normal ops.	Off & de-humidified
Radars	Normal ops.	Monthly operated	Monthly operated
Automation equipment	Normal ops.	Normal ops.	Off & de-humidified

- Classification Society
- Flag State
- Local Port Authority
- Insurance Company

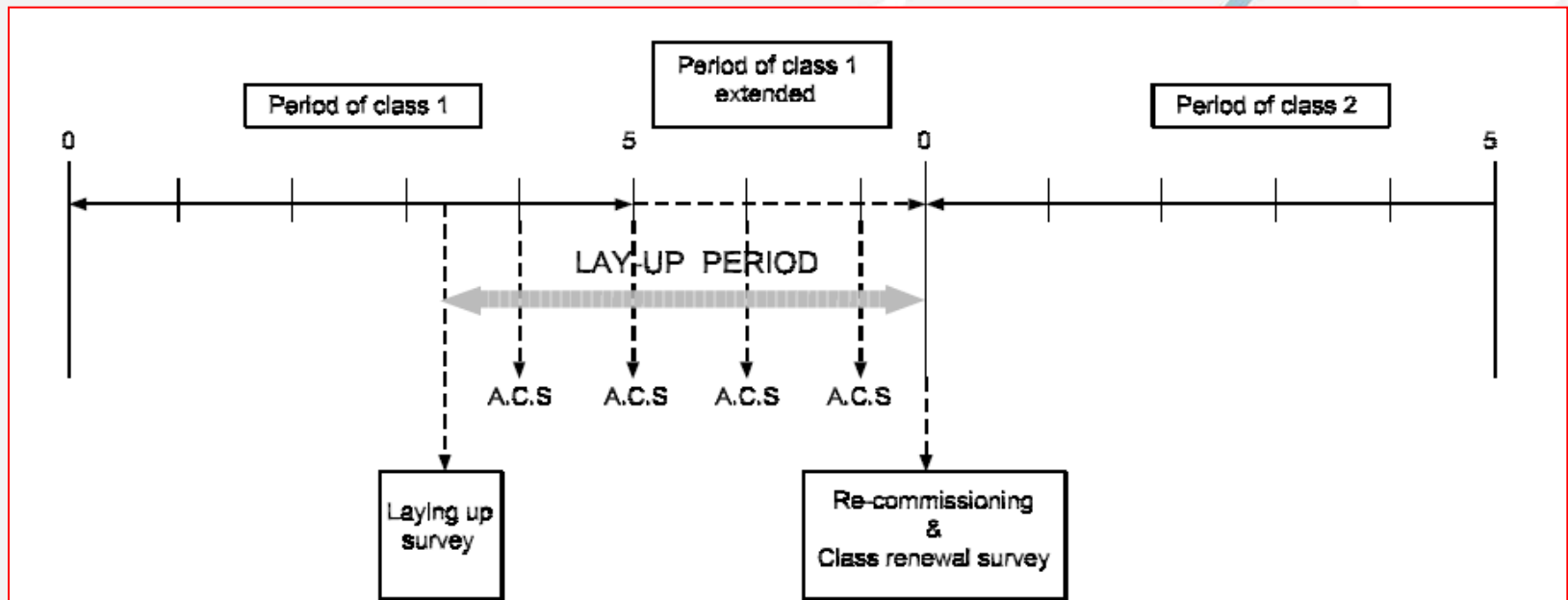


Laying-up survey

to verify that safety conditions, preservation measures, lay-up sites and mooring arrangements are in accordance with the program agreed by the Classification Society

Annual lay-up condition survey

is performed in lieu of the normal class surveys with the purpose to verify that the lay-up maintenance program implemented is continuously complied with

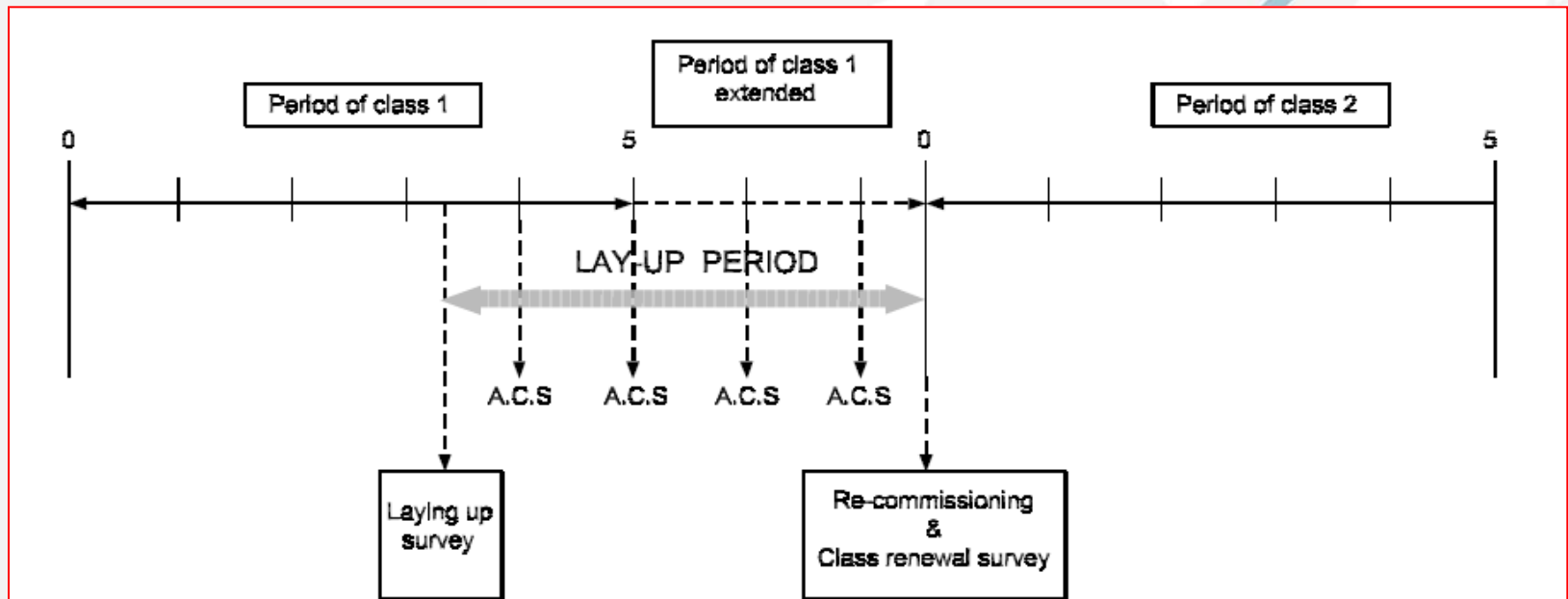


Re-commissioning survey

examination of hull, deck fittings, safety systems and machinery installations

AND

all periodical surveys due at the date of re-commissioning or which became overdue during the lay-up period



Statutory Certificates

- Depend on Flag Administration and Port Authority requirements
- In course of validity for the status of the ship

An example: documents required by Singapore Port Authority to lay-up ships

- Written permission of the Port Master
- Safety Construction, Safety Equipment, Load Line, IOPP Certificates
- Statement of Fitness (fit to lay-up status)
- Crew list
- SMC & DOC (ISM Code), ISSC (ISPS Code)



SMC is **suspended after 3 months** of ship lay-up. A reactivation audit has to be performed upon re-commissioning.

SMC becomes **invalid after 12 months** of ship lay-up. An interim verification audit has to be performed upon re-commissioning and an Interim Certificate has to be issued.



ISPS requirements

If ISSC is **still valid** at the ship reactivation



Check the Flag Administration requirements

If ISSC is **not valid** at the ship reactivation



Interim verification audit has to be carried out at the re-commissioning and an Interim Certificate has to be issued



Risk under P&I cover is reduced because risk elements are limited (no cargo, no fuel onboard, no crew onboard, etc.)

Lay-up insurance premium depends on:

- Site, approved by insurance company (lay up clusters may represent a concentrated insurance risk)
- Manning
- Safety issues
- Lay-up condition (hot or cold lay-up)

A claim for return premium could be made if the lay-up period exceeds 30 consecutive days





lay-up actions overview

	HOT LAY-UP			COLD LAY-UP (more than 1 year)
	up to 1 month	up to 3 months	up to 12 months	
Re-activation	24 hours	24 hours	1 week	1 month
Location	close to the potential cargo trade routes	close to the potential cargo trade routes	close to the potential cargo trade routes/protected site	remote site (so access to the ship is to be limited)
Machinery	In operation	In operation or in stand-by	In operation or in stand-by	Shut down
Class	As in operation	Lay-up status notification to the Society. Lay-up maintenance program. Laying-up survey. Annual lay-up condition survey. Re-commissioning survey. (Extent of surveys based on the lay-up maintenance program)		
Flag State	As in operation	Lay-up status notification		
Manning	Safe Manning Certificate	Safe Manning Certificate level or reduced	Reduced	Watch personnel only
ISM	As in operation	As in operation	Suspended after 3 months. Reactivation audit	Invalid. Interim certificate after the reactivation audit
ISPS	As in operation	As per Flag Administration requirements	If it is become invalid an interim audit will be carried out at the reactivation	Invalid. Interim certificate after reactivation audit
Insurance	As in operation	As in operation. Lay-up return may be applied for a lay-up period exceeding 30 days.	Lay-up return may be applied. Risk under P&I cover may be reduced (no cargo, no fuel, reduced crew)	

Main topics

- RINA services
- Classification requirements
- Flag and Port Authorities
- Manning
- Safety and security
- Insurance aspects
- Machinery and systems maintenance



General advisory services (i.e.: advise on planning lay-up, mooring arrangements review, etc.)

Development or review of owners lay-up specifications and procedures

Support with Flag and port Authorities issues



Given:

- Mooring site information (geographical area, environmental conditions)
- Geometry of mooring arrangements
- Characteristics of mooring equipment (strength of mooring equipment, mooring lines and anchors)

RINA verifies:

- Suitability of the mooring arrangements to the chosen lay-up site
- Strength of mooring arrangements, chains and cables





Lay up: not an easy task
requiring accurate



The pay off is a quick and
smooth reactivation

Ships poorly laid up may present faults
for a very long period of time after the
lay up

Prudent ship managers may want to
employ some competent technical
staff for lay up jobs





RINA marine

and finally...

Thank you!

(you may now reactivate yourself)





RINA marine

and finally...

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