

Bridge Resource Management

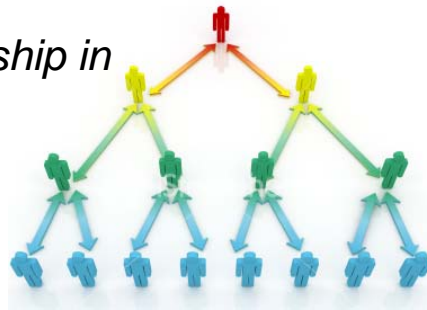


Bridge Resource Management

- *Weakness in bridge organization and management has been cited as a major cause for marine casualties worldwide.*
- *Accidents in operations are frequently caused by resource management errors.*
- *Bridge Resource Management reduces the risk of marine casualties by helping a ship's bridge crew anticipate and correctly respond to their ship's changing situation.*

Principles of Good Management practices are:

- *Shared view of goals*
- *Delegation of responsibilities*
- *Effective organization*
- *Sense of team ownership in achieving goals*



What is Bridge Resource Management?

- Bridge Resource Management (BRM), or as it is also called Bridge Team Management (BTM), is the effective management and utilization of all resources, human and technical, available to the Bridge Team to ensure the safe completion of the vessel's voyage.

What is Bridge Resource Management?

- BRM focuses on bridge officers' skills such as teamwork, teambuilding, communication, leadership, decision-making and resource management and incorporates this into the larger picture of organizational and regulatory management.

What is Bridge Resource Management?

- BRM addresses the management of operational tasks, as well as stress, attitudes and risk.
- BRM recognizes there are many elements of job effectiveness and safety, such as individual, organizational, and regulatory factors, and they must be anticipated and planned for.

What is Bridge Resource Management?

- BRM begins before the voyage with the passage plan and continues through the end of the voyage with the passage debrief.



What Are My Available Resources To Manage?

- A mariner has many resources available to him/her for safe passage planning and execution. Some examples include...



What Are My Available Resources To Manage?

- Electronic equipment (i.e. radar, depth sounder, GPS/DGPS, ARPA, gyro compass)
- Charts and publications, including electronic publications
- Environmental factors (i.e. tide, wind, currents)
- Vessel Traffic Services (VTS)
- Passage plan
- Internal and external communication equipment
- Automatic Identification System (AIS)
- Persons with local knowledge (i.e. Pilot)
- Bridge Personnel (i.e. Master, Officer On Watch (OOW), helmsman, lookout)

What are the objectives of Bridge Resource Management?

- Share a common view of the intended passage and the agreed procedures to transit the passage with all members of the Bridge Team.
- Develop and use a detailed passage plan to anticipate and manage workload demands and risks.
- Set appropriate manning levels and make contingency plans based on anticipated workload and risks.
- Make roles and responsibilities clear to Bridge Team members.
- Involve all team members in problem solving.
- Acquire all relevant information early and anticipate dangerous situations.
- Team members clearly understand the chain of command including the way decisions and instructions are made, responded to, and challenged.

How do I implement Bridge Resource Management?

The Master can implement BRM by considering and addressing the following:

- Passage Planning
- Passage Plan Briefing
- Bridge Manning
- Bridge Team Training
- Master's Standing Orders
- Master/Pilot Exchange
- End of Voyage Debriefing



How do I implement Bridge Resource Management?

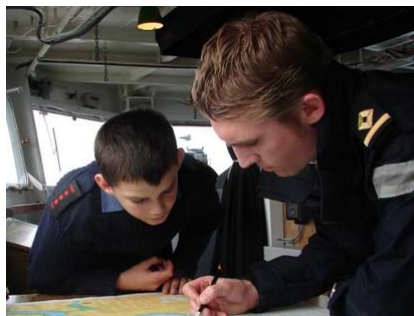
Passage Planning:

- Covering ocean, coastal and pilotage waters.
- Particular attention is paid to high traffic areas, shallow waters, or pilotage waters where the plan incorporates appropriate margins of safety and contingency plans for unexpected incidents.

How do I implement Bridge Resource Management?

Passage Plan Briefing:

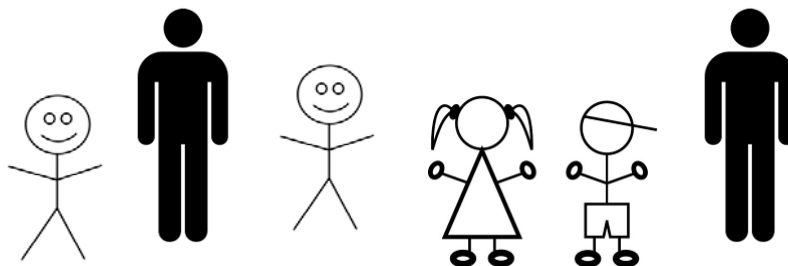
- All bridge team members are briefed on the passage plan and understand the intended route and procedures to transit the route.



How do I implement Bridge Resource Management?

Bridge Manning:

- Master uses passage plan to anticipate areas of high workload and risk and sets manning levels appropriately.



How do I implement Bridge Resource Management?

Bridge Team Training:

- Ashore and on-the-job
- Is given to all bridge crew members and they are sure of their roles and responsibilities, both for their routine duties and their duties in the event of an incident/emergency.

How do I implement Bridge Resource Management?

Master's Standing Orders:

- Are read and signed before the commencement of the voyage.
- Orders are clear on the chain of command, how decision and instructions are given on the bridge and responded to, and how bridge team members bring safety concerns to the notice of the Master.

How do I implement Bridge Resource Management?

Master/Pilot Exchange:

- The passage plan is discussed by the Master and the pilot and changes made as necessary.
- Any new information is communicated to the rest of the bridge team.
- When the pilot is onboard he/she should be supported as a temporary bridge team member.

How do I implement Bridge Resource Management?

End of Voyage Debriefing:

- Provides the opportunity for the bridge team to review the passage plan's strengths and weaknesses, make suggestions for improved safety or communications, and improve team problem solving skills.



What are the benefits of BRM when correctly practiced?

When BRM is practiced correctly onboard the result should be a Bridge Team that:

- Maintains its situational awareness
- Continually monitors the progress of the vessel making appropriate adjustments and corrections as necessary to maintain a safe passage;
- Acquires relevant information early;
- Appropriately delegates workload and authority;
- Anticipates dangerous situations;
- Avoids becoming pre-occupied with minor technical problems and losing sight of the big picture;
- Undertakes appropriate contingency plans when called for;
- Recognizes the development of an error chain; and
- Takes appropriate action to break the error-chain sequence.