

# An A to Z of Ergonomics

**A**TTENTION - the faculty or power of mental concentration. **Divided** - applying one's mind to two or more tasks at the same time; **Selective** - monitoring several channels or sources of information at the same time so as to perform a single task; **Focussed** - concentrating on one channel or source of information; **Sustained** - concentrating over a prolonged period of time so as to detect infrequent signals.

**B**ODY MEASURES - the ranges in size, shape and strength of the human body as a function of gender, race, and regional origin (Anthropometrics). The mechanics of human movement (Biomechanics).

**C**ONTEXT OF USE - the users, tasks, equipment (hardware, software and materials) and the physical and social environments in which a system is used.

**D**ISPLAY - a device or feature designed to provide status, position, or condition information to the operator through visual or auditory feedback.

**E**RGONOMICS - the study and design of working environments (e.g., ship bridges, machinery control rooms, galleys) and their components, work practices, and work procedures for the benefit of the worker's efficiency, effectiveness, health, comfort, and safety.

**F**UNCTION ALLOCATION - the process by which tasks or functions are allocated between humans and machines/systems, and/or amongst different operators/maintainers.

**G**OOD PRACTICE - learning from other organisations that have developed successful projects or approaches to problems.

**H**UMAN PERFORMANCE - human sensory capabilities (e.g., sharpness of eye, hearing ability, sensitivity to touch), and the impact of environmental factors (e.g., lighting, noise) on human sensory systems, as well as mental capabilities for storing and processing information and for making decisions.

**I**NTEGRATED SYSTEM - a collection of applications on computer based systems and equipment designed to provide correct, sufficient, timely and unambiguous information to, and support control by, one or more users.

**J**OB DESIGN - the specification and achievement of successful job performance, typically focussing on tasks, responsibilities, accountabilities, knowledge and skill requirements.

**K**NOWLEDGE - a theoretical and/or practical understanding of a subject.

**L**AYOUT - the integration of people with equipment, systems, and interfaces, such as controls, displays, alarms, video-display units, computer workstations, labels, ladders, stairs, and overall workspace arrangement.

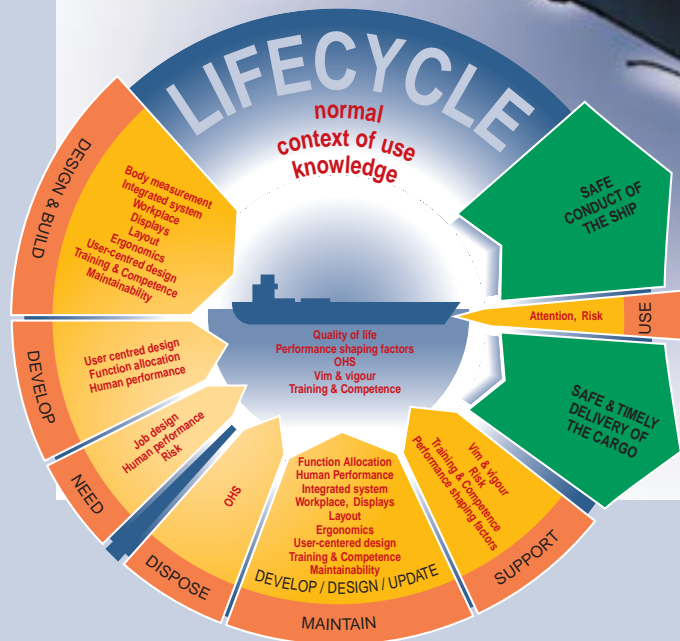
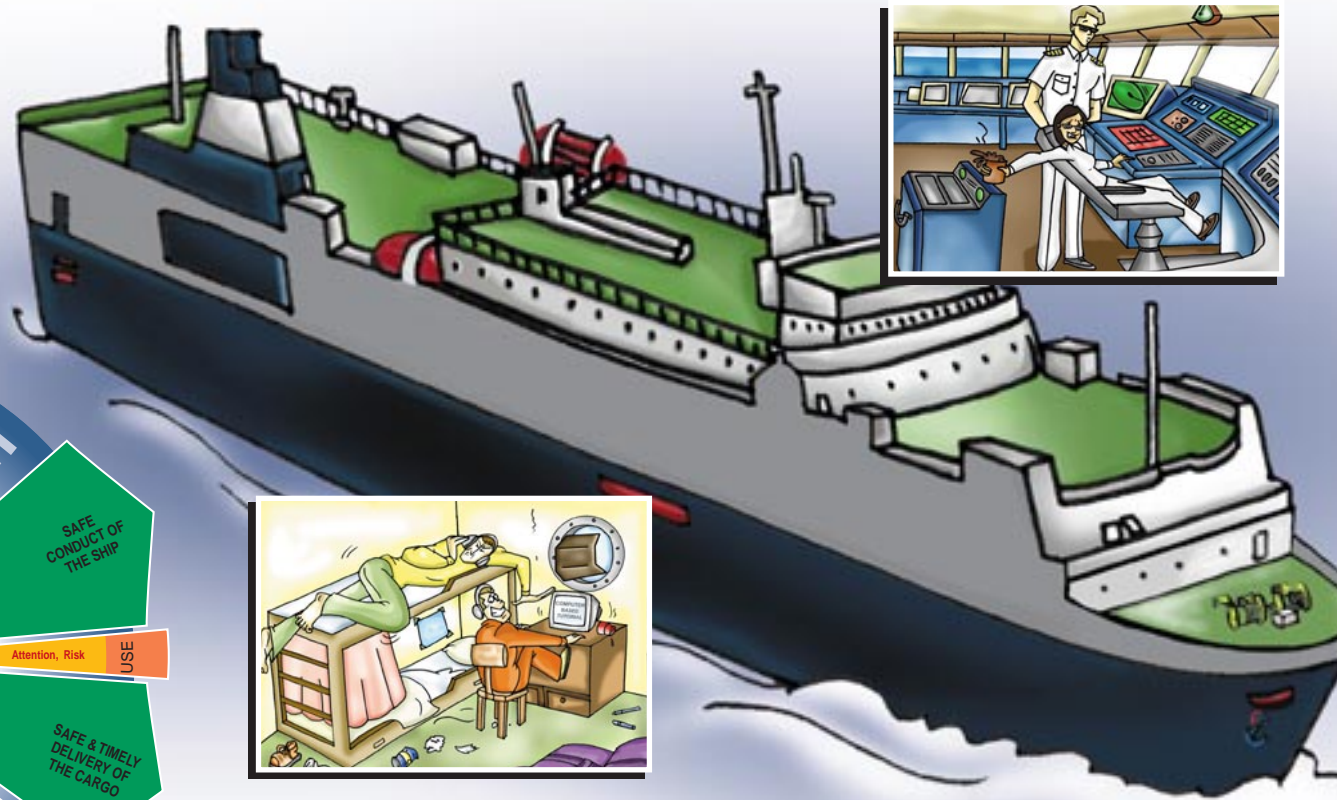
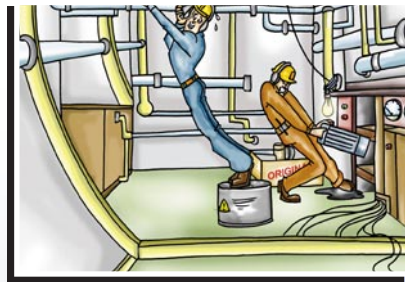
**M**AINAINABILITY - designing operational maintenance tasks to be rapid, safe and effective in order to allow equipment and systems to achieve a specified level of performance. This includes consideration of access, removal routes, tools, expertise, disposal, and through life support.

**N**ORMAL - conforming to a standard; regular, usual, typical.

**O**CUPATIONAL HEALTH AND SAFETY (OHS) - the effect of work, the working environment and living conditions on the health, safety and well-being of the person.

**P**ERFORMANCE SHAPING FACTORS - the environmental, ergonomic and job design factors that are correlated with effective and safe task performance by a human working within a system. (See Alert! Issue No 2).

**Q**UALITY OF LIFE - the combination of good occupational health and safety, good workplace design, good management and the impact on a person's physical and psychological fitness to work at sea.



**If you don't get the ergonomics right, overall ship performance may be compromised!**

**W**ORKPLACE DESIGN - the physical design and arrangement of the workplace and accommodation - the whole ship - taking into consideration environmental conditions such as weather, temperature, humidity, air quality, lighting, noise, vibration, cleanliness, ship motion (pitching & rolling), and its effect on the safety and performance of personnel.

**U**SER-CENTRED DESIGN - designing for users with users, in order to achieve systems that are effective, efficient, safe and satisfying to use.

**V**IM & VIGOUR - maintenance of strength and stamina through appropriate diet, rest periods, exercise, periodical medical review etc.

**T**RAINING & COMPETENCE - the development of skills or knowledge through instruction or practice; and the levels of proficiency achieved for the proper performance of functions onboard ship in accordance with internationally agreed criteria, incorporating prescribed standards or levels of knowledge, understanding and demonstrated skill.

**R**ISK - the probable rate of occurrence of a hazard causing harm and the degree of severity of the harm.

**S**YSTEM - a combination of interacting elements (human and/or machine) organized to achieve one or more stated purposes.