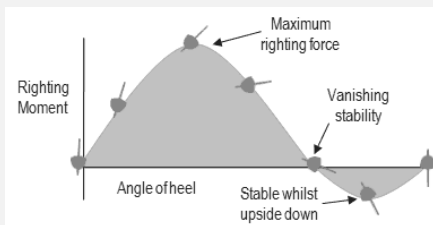


### Stability theory

Center of Buoyancy	The force generated by a vessel displacing water. It changes position depending on heel angle, trim and loading.
Center of Gravity	It is determined by structure and weight distribution of a vessel. Ideally the centre of gravity should be as low as possible.
The Angle of Heel	As the boat heels more the righting moment becomes greater.
The Point of Vanishing Stability	When the righting moment becomes zero the vessel inverts. This is called the angle of vanishing stability (AVS).

### Righting moment curves - sailing vessel

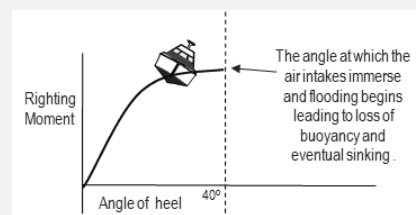


### Recreational craft directive

Category	Type	Wind Force	Wave Height
A	Ocean	F8	4m
B	Offshore	F8	4m
C	Inshore	F6	2m
D	Sheltered waters	F4	0.5m

New yachts in Europe are built to the Recreational Craft Directive (RCD). Minimum standards laid down for construction and stability. It gives an indication of the operating limits of a vessel with the category A, B, C or D displayed on the builders plate.

### Righting moment curves - motor vessel



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