# Visibility

Rule 6

Safe Speed

Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions.

In determining a safe speed the following factors shall be among those taken into account:

(a) By all vessels:

The state of visibility:

(ii) The traffic density including concentrations of fishing vessels or any other vessels;

(iii) The manageability of the vessel with special reference to stopping distance and turning ability in the prevailing conditions;

(iv) At night the presence of background light such as from shore lights or from back scatter from her own lights;

(v) The state of wind, sea and current, and the proximity of navigational hazards;

(vi) The draft in relation to the available depth of water.

Fog -is a cloud in contact with the ground. -is a cloud (stratus) which has its cloud base on or close to ground, and reduces visibility to less than 1000



### Mist

is a phenomenon of small droplets suspended in <u>air</u>. It can occur as part of natural <u>weather</u> or <u>volcanic</u> activity, and is common in cold air above warmer water, in exhaled air in the cold, and in a steam room of a sauna. It can also be created artificially with aerosol canisters if the humidity conditions are right.



#### Haze

is caused when sunlight encounters tiny pollution particles in the air. Some light is absorbed by the particles. Other light is scattered before it reaches an observer. More pollutants in the air mean more absorption and scattering of light, which reduce the clarity and color of what we see. Some types of particles, such as sulfates, scatter more light than others, particularly during humid conditions.



# Smog

is a kind of <u>air pollution</u>; the word "smog" is a portmanteau of smoke and fog. Come from vehicular and industrial emissions that are acted on in the atmosphere by sunlight to form secondary pollutants that also combine with the primary emissions to form photochemical smog





#### Sea Smoke

Evaporation fog or steam fog which is formed when <u>water vapor</u> is added to air which is much colder than the vapor's source; most commonly, when very cold air drifts across relatively warm water.

cold <u>air</u> moves over warmer <u>water</u>.







#### Types

- Radiation Fog
- Advection Fog
- Upslope Fog
- Steam Fog

## How they form

#### Radiation fog

- shallow, moist air near surface
- clear/calm nights
- although light winds will bring more air in contact with ground





#### **Advection Fog**

Common off the west coast of the U.S. Cold current along coastline warm water further to the west westerlies moving in from the warmer water to the colder water



