Day Skipper

Week 17

AXE YACHT CLUB

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Interpreting Forecasts

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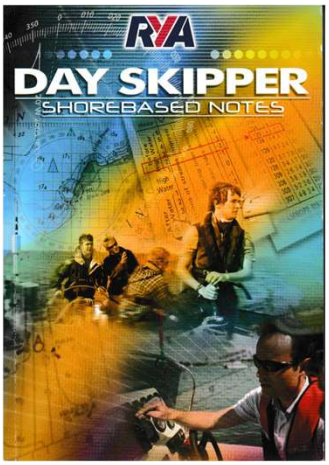
Terms used in forecasts

Day Skipper Notes p115



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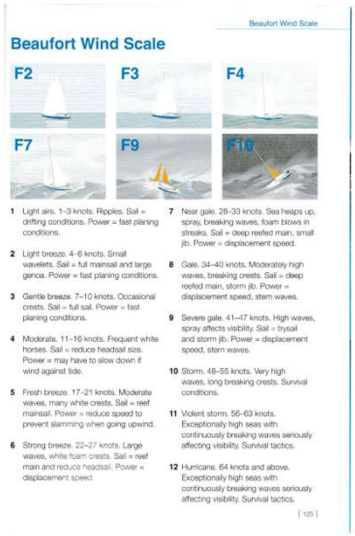
Beaufort Scale

Day Skipper Notes p119



Beaufort Wind Scale

Beaufort Wind Scale

F2 F3 F4

F7 F9 F10

1 Light airs. 1–3 knots. Ripples. Sail = drifting conditions. Power = fast planing conditions.

2 Light breeze. 4–6 knots. Small wavelets. Sail = full mainsail and large genoa. Power = fast planing conditions.

3 Gentle breeze. 7–10 knots. Occasional crests. Sail = full sail. Power = fast planing conditions.

4 Moderate. 11–16 knots. Frequent white horses. Sail = reduce headsail size. Power = may have to slow down if wind against tide.

5 Fresh breeze. 17–21 knots. Moderate waves, many white crests. Sail = reef mainsail. Power = reduce speed to prevent slamming when going upwind.

6 Strong breeze. 22–27 knots. Large waves, white foam crests. Sail = reef main and reduce headsail. Power = displacement speed.

7 Near gale. 28–33 knots. Sea heaps up, spray, breaking waves, foam blows in streaks. Sail = deep reefed main, small jib. Power = displacement speed.

8 Gale. 34–40 knots. Moderately high waves, breaking crests. Sail = deep reefed main, storm jib. Power = displacement speed, stem waves.

9 Severe gale. 41–47 knots. High waves, spray affects visibility. Sail = trysail and storm jib. Power = displacement speed, stem waves.

10 Storm. 48–55 knots. Very high waves, long breaking crests. Survival conditions.

11 Violent storm. 56–63 knots. Exceptionally high seas with continuously breaking waves seriously affecting visibility. Survival tactics.

12 Hurricane. 64 knots and above. Exceptionally high seas with continuously breaking waves seriously affecting visibility. Survival tactics.

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Application of the forecast

- Area
  - Local effects
- Sea State
  - Wind with tide
  - Wind against tide
- Shelter
- Now and Later

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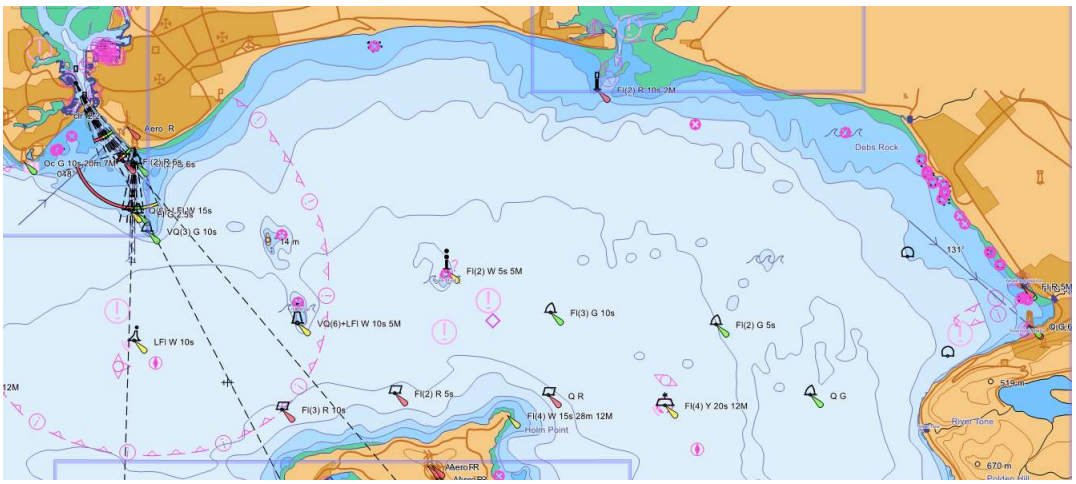
Scenario



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Navigation in Restricted Visibility



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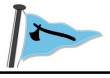
Hazards and Controls

Hazard	Potential Severity	Skipper's possible actions

Carry out your own "risk assessment" to consider the potential hazards of navigating in fog and consider ways by which these can be reduced.



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RYA TRAINING CENTRE

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Hazards and Controls

Hazard	Potential Severity	Skipper's possible actions
Collision with Large Vessel	High	Radar reflector hoisted if not permanent Use Radar and AIS if available If possible seek shallow water Maintain steerage way
Collision with similar sized vessels	Medium	Use Radar and AIS if available but remember that there will be vessels without AIS. Use foghorn. If using engine – stop and listen at frequent intervals if in area with high density of similar vessels. Maintain steerage way.
Getting lost	High	Fix position before landmarks obscured Maintain EP Navigate towards shallow water Use a contour line to find shelter.



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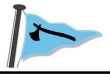
Continued

Hazard	Potential Severity	Skipper's possible actions
Losing crew overboard in collision	Medium	Muster crew on deck Lifejackets and harnesses (?) worn



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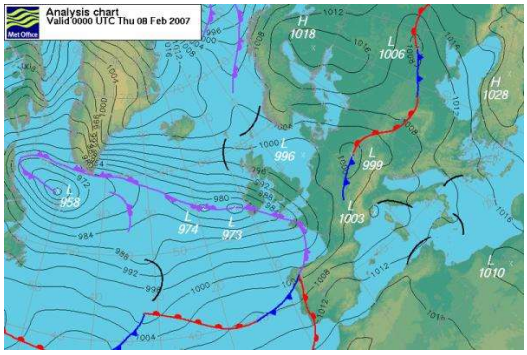
Synoptic Weather Charts

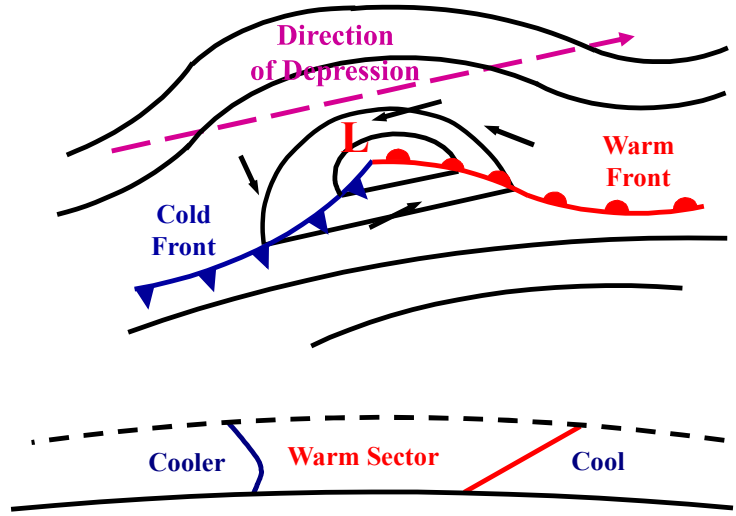
Isobars are used to join points at the same atmospheric pressure (c.f. contour lines on OS maps).

Isobars are normally at 4mb intervals.



Low Pressure Systems

DEPRESSION - CLASSIC STAGE



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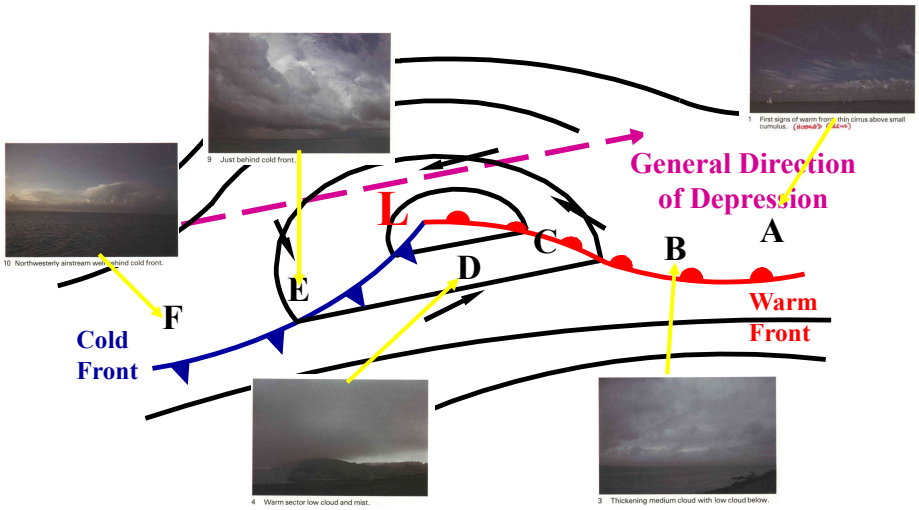
FRONTAL SYSTEM



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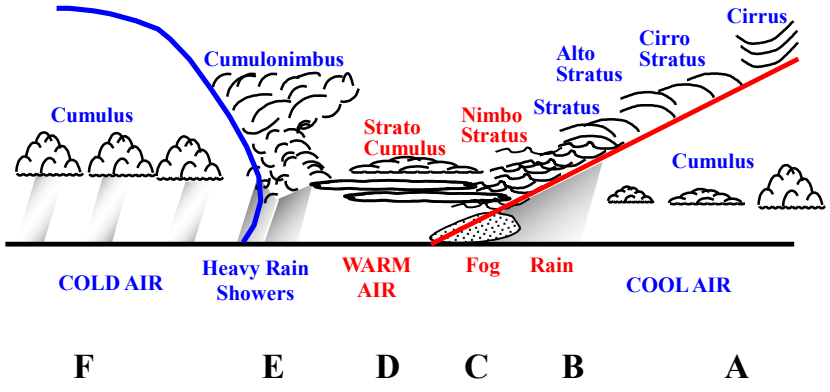
FRONTAL SYSTEM



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High Pressure Systems

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High Pressure Systems

- Cold Air descending
- Fairly stable
- Clockwise circulation in the Northern Hemisphere
- Tend to be “static” and can block movement of Low Pressure systems



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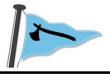
Typical weather with High Pressure

- Summer
  - Good Weather:
    - sunny
    - little cloud
    - light winds
- Winter
  - Quiet Weather:
    - Murky – build up of air pollution
    - Frosty



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Close to the Shore

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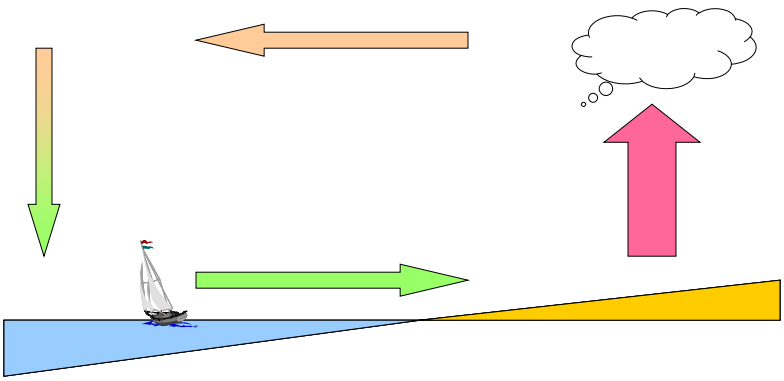
Sea Breezes



Daytime

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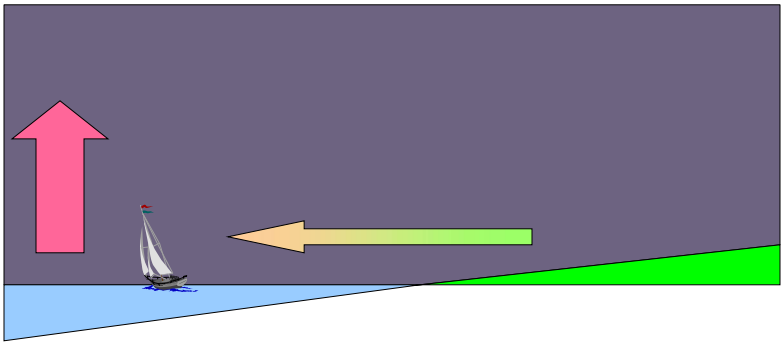
Sea Breezes



Evening / Night

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Back to the Scenario

24 hour forecast from 0001 – 2359 UT Tuesday 9 July

Wind S backing SE 3 to 4 occasionally 5 and then veering SW4 later.

Sea State Slight becoming moderate later.

Weather Rain then light rain or drizzle

Visibility Good becoming moderate later

Outlook for the following 24 hours from 0001 – 2359 UT Wednesday 10 July

Wind Starting SW4 veering NW4 occasionally 5 decreasing 3 later

Sea State Moderate

Weather Drizzle followed by rain and then showers later.

Visibility Moderate becoming good later although possibly moderate in showers.

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