

Sail Trim

Fundamental controls;

Main

- Halyard - Raises the sail
 - Tensions the luff
- Sheet - Pulls down on the boom
 - Tensions the leech / removes twist
- Traveller - Adjusts angle of attack of the sail
 - Narrowing the angle improves pointing, increases thrust and weather helm
 - Increasing the angle decreases heeling
- Telltails should stream aft
- Top Batten should be parallel to the boom

Jib

- Halyard - Raises the sail
 - Tensions the Luff
- Sheet - Pulls the sail aft and down
 - Tensions the Leech / removes twist
- Jib Track (Traveller) - adjusts down vs aft tension of sheet
 - If upper jib telltales lift first, there is too much aft tension.
Move car forward
 - If lower jib telltales lift first, there is too much down tension.
Move car aft
- Upper and lower telltales should stream aft together.

Advanced controls;

- Boom Vang - Controls mainsail twist
 - Use to keep boom parallel to the deck with appropriate twist in leech
- Outhaul - Tensions the mainsail foot (lower 1/3 of sail)
 - Helps flatten sail for high wind
- Cunningham - Tensions the mainsail luff (forward 1/3 of sail)
 - Helps flatten sail for high wind
- Leech Line - Controls tension on mainsail or jib leech
 - Keeps sail from vibrating
- Batten tensioners - keep sail flat, and decrease power of the main.

Sail Shape;

Chord - distance from the forward edge of the luff, to the trailing edge of the leech at a given vertical

Camber or depth - Fullness or "bagginess"

Draft - The location of the maximum camber

The maximum draft in a sail at rest is about 45% (forward) between luff and leech. As wind increases, the cloth stretches, and the draft moves aft. When draft moves aft, sail trim is harder to maintain. Adjust the location of draft with the Cunningham.

Increase Camber by easing the sheet, easing the outhaul, easing the halyard, or releasing tension of the battens. Increase camber too much, and you introduce turbulence, and increase drag.