

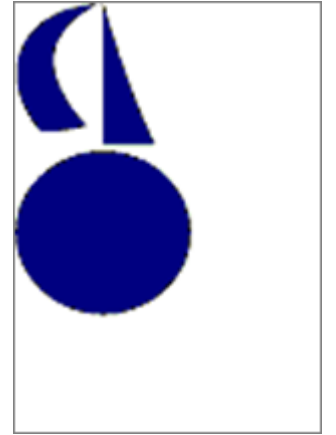
# MP Kilpakoulu 22.2.2021

OSA 2 Teamsilla klo 18-19

Veikko Mäkipää

<https://www.marjaniemen-purjehtijat.fi/kilpakoulumateriaalit.html>

# Agenda 22.2.2021



Veikko Mäkipää: Uutisia

Mikko Brummer: Isot keulapurjeet ja puksprööti kilpapurjehtijan veneessä

Noora Westerlund: ORC MM valmennusohjelma ja tiedon lähteitä korona-aikana

Americas Cup karsintakisat Aucklandissa

Dellenbaughin Speed & Smarts webinaarit: Issue 151 (Wind Strategies)

FinRating-mittaluku / tilanne 2021

## SHF GoForSpeed! 2021

Välkommen till Svenska Havskappseglingsförbundets seminarier serie GoForSpeed! 2021. Denna vinter kommer vi hålla dessa seminarier helt på nätet via Zoom.



### *Seminarie schema, preliminärt*

**2021-01-12** ORC for beginners, från mätning till scoring via rating och optimering. Leds av **Johan Tuvstedt**, och **Lena Bøymo-Having**

*Seminarier finns inspelat både för medlemmar och andra*

**2021-01-26** Internationella havskappseglingar 2021 ur ett svenskt perspektiv. Leds av **Thomas Blixt**, fokuset är primärt de som planerar att segla de stora Rolex-regattorna samt ev VM/EM i ORCI

[BLI MEDLEM](#)

### NYHETER

[Dags för GoDouble 2021](#)

[SHFs GoForSpeed! medlemsseminarier vintern 2021](#)

[Intro till ORC, öppen GoForSpeed! föreläsning.](#)

[Offshore Doubles blir allt större](#)

[Dags för ägarmöte i SHF! - Uppdaterat](#)

### KONTAKT

[havskappseglingsforbundet@gmail.com](mailto:havskappseglingsforbundet@gmail.com)



# Mittamieskoulutus

20.3.2021

## Päiväys ja aika

Date(s) - 20/03/2021

09:00 - 13:00

## Kategoriat

- Kilpapurjehdus
- Kurssit & koulutukset

Koulutuksessa tullaan käymään läpi yleiset mittamiesasiat. Koulutus toteutetaan etänä, tarkempi toteutustapa jaetaan ilmoittautuneille myöhemmin. Kurssimaksu on 50€. Voit ilmoittautua kurssille [tästä](#). Lisätietoja antaa koulutuksen pitäjä Jyrki Santaholma, 050-5506713.

Mittamieskoulutuksen ensimmäinen mahdollinen käytännön osuus järjestetään jo 21.3 Helsingissä. Mikäli haluat osallistua kyseiselle käytännön osuudelle niin ilmoittaudu käytännön osuudelle erikseen [tästä](#). Teoriaosuuden käyminen on pakollista ennen käytännön osuutta. Käytännön osuuksia tullaan järjestämään myös paikallisesti kiinnostuksen mukaan. Koronatilanteen takia koulutuksen käytännön osuudelle otetaan vain 6 nopeimmin ilmoittautunutta henkilöä, joten käy varaamassa paikkasi nopeasti.

*Karttaa ei ole saatavissa*

*Suosittellaan kaikille!!  
Paikkoja lisätään tarpeen tullen*

<https://avomeripurjehtijat.org/> ja [FACEBOOK.COM/AVOMERIPURJEHTIJAT](https://www.facebook.com/avomeripurjehtijat)

## MM-sparri osa 2: Veneen parantelu vai miehistön sparraus – mihin kannattaa investoida?

[17.2.2021YLEINEN](#)

Avomeripurjehtijoiden MM-sparrin [toisessa osassa](#) selvitetään kannattaako panostaa veneen optimointiin vai purjehdustaitojen parantamiseen, ja siihen voiko esimerkiksi hyvä taktikko, pinnamies tai trimmeri nostaa purjehduksen uudelle tasolle?

Avomeripurjehtijat pääsi haastattelemaan virolaista huippupurjehtijaa, **Peter Saraskinia**. Puolet työajastaan Peter käyttää purjeiden parissa toimien North Sailsin edustajana ja toisen puolen valmentaan virolaisia purjehdustiimejä. Peter on myös tuttu näky menestyksekkäästi purjehtivassa *Katarina II* -veneessä.

[MM-sparri, osa 1: Menestyvän kilpapurjehdustiimin rakentaminen](#)

[26.1.2021YLEINEN](#)

Avomeripurjehtijat julkaisee kevään aikana neliosaisen kilpapurjehdussparrin “Kohti MM-kisoja”.

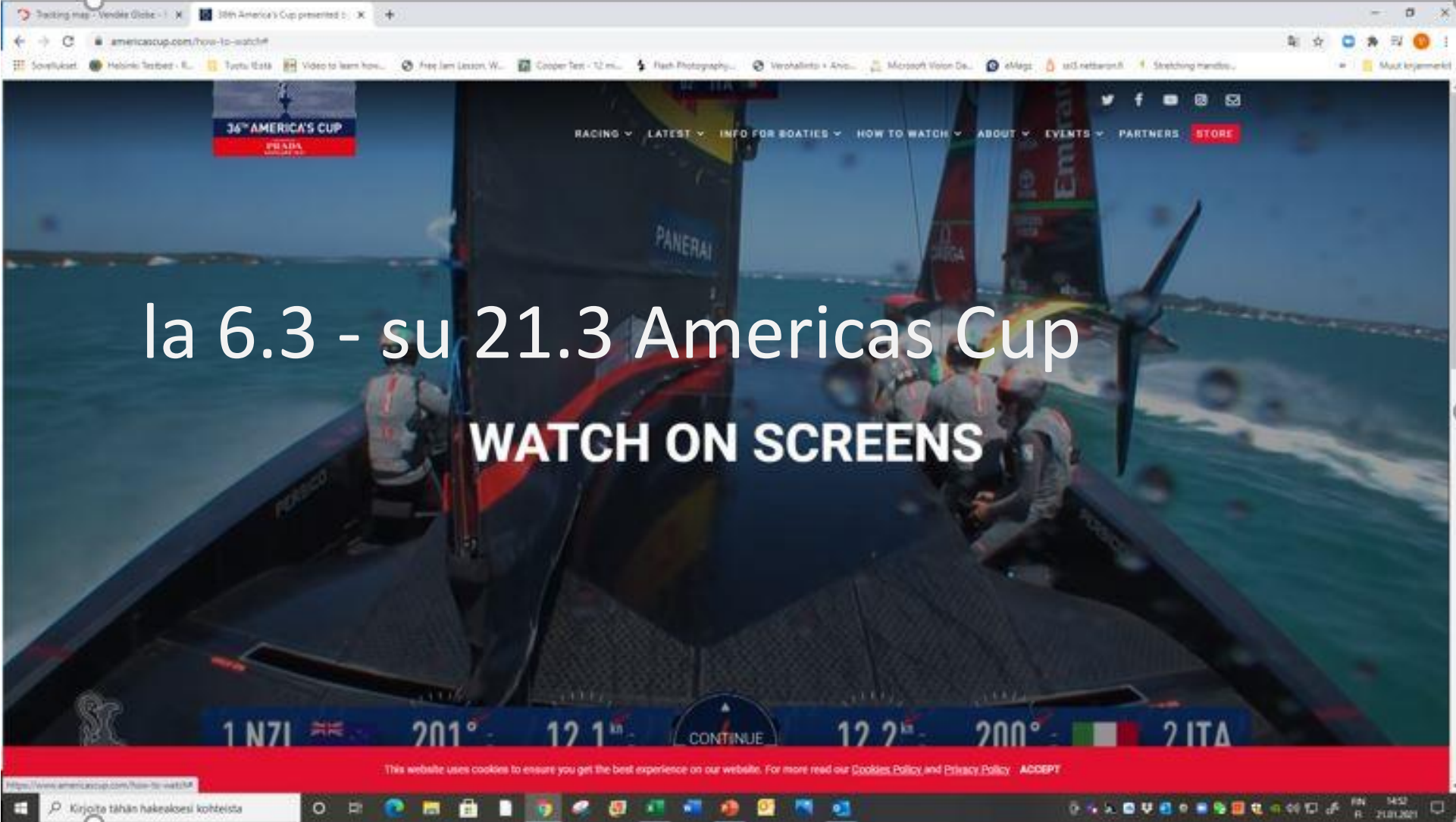
Juttusarjan ensimmäinen osa käsittelee tiimin rakentamista.

**Kertoo Noora Westerlund**



<https://www.americascup.com/en/prada-cup>

[https://en.wikipedia.org/wiki/2021 Prada Cup](https://en.wikipedia.org/wiki/2021_America's_Cup)



The image is a screenshot of a web browser displaying the 36th America's Cup website. The browser's address bar shows the URL [americascup.com/how-to-watch/](https://www.americascup.com/how-to-watch/). The website's main content is a large, high-quality photograph taken from the deck of a racing yacht, looking out over the ocean. In the foreground, the dark hull of the boat is visible, with crew members in white gear working. The water is a deep blue-green, and in the distance, other racing yachts with colorful sails are visible. The sky is clear and blue. Overlaid on the center of the image is the text "la 6.3 - su 21.3 Americas Cup" in a large, white, sans-serif font, and below it, "WATCH ON SCREENS" in a smaller, white, bold, sans-serif font. The website's navigation menu is visible at the top, including links for "RACING", "LATEST", "INFO FOR BOATIES", "HOW TO WATCH", "ABOUT", "EVENTS", "PARTNERS", and "STORE". A small "36th AMERICA'S CUP PRADA" logo is in the top left corner. At the bottom of the browser window, a Windows taskbar is visible with the search bar containing "Kirjoita tähän hakeaksesi kohteista" and the system tray showing the date and time as 14:52 on 21.01.2021.

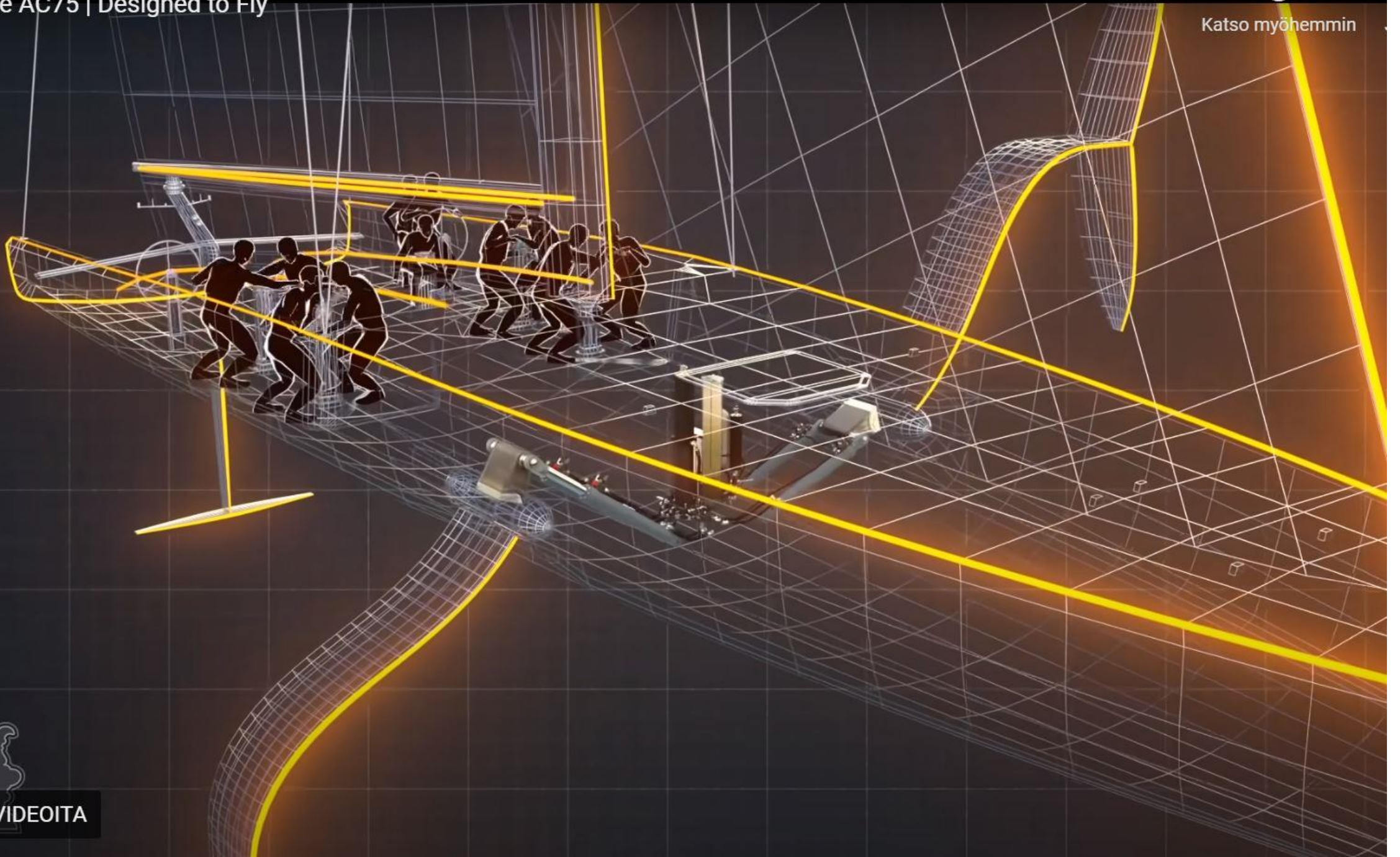
la 6.3 - su 21.3 Americas Cup  
WATCH ON SCREENS



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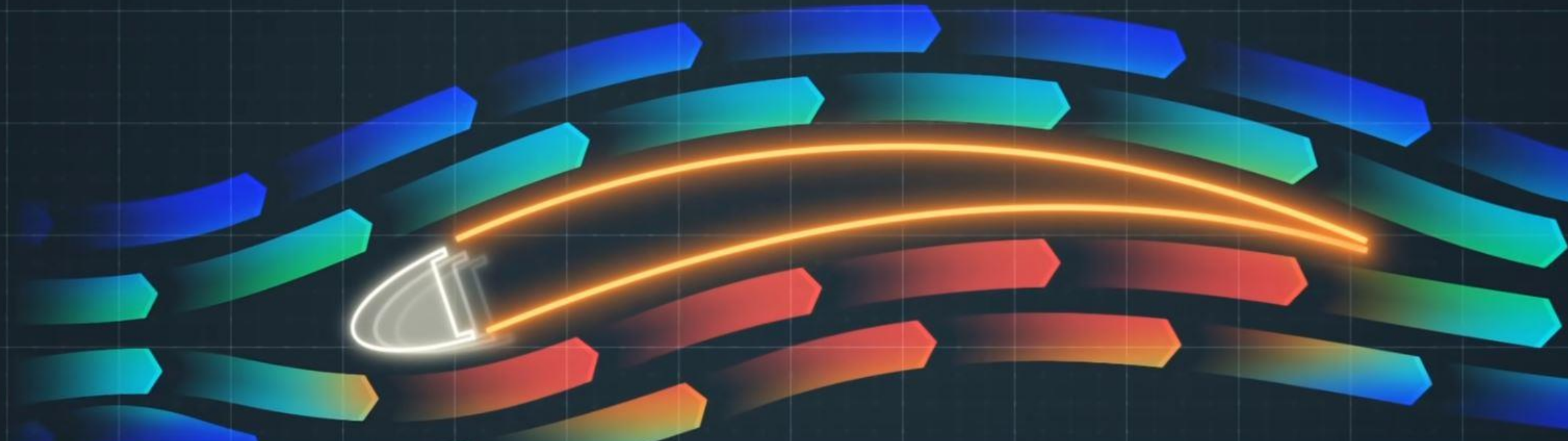


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Lisää videoita







LEG 1 of 6

ITA   
SPEED 30.2kn

UK   
SPEED 31.3kn

9m



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|-----|---|------------|-----------------|
| UK  |  | VMG 15.7kn | <b>LEAD 10m</b> |
| ITA |  | VMG 20.6kn |                 |

LEG 1 of 6



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|-----|---|------------|----------|
| UK  |  | VMG 19.5kn | LEAD 11m |
| ITA |  | VMG 16.4kn |          |



SPEED and SMARTS  
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## Wind Strategies

In sailboat racing, many factors contribute to overall success. One of the major ones, without doubt, is how competitors handle wind shifts. The wind direction is always changing, and this may contribute more to gain and loss than any other strategic or tactical factor.

If we could only predict where the wind will shift next, we'd have a huge advantage over our competition. Well, actually, it is possible to predict a lot of the wind shifts that are coming our way. This requires a combination of experience, awareness and scientific knowledge of how wind works. To learn more about all this, we've enlisted the help of Chelsea Carlson, an up-and-coming sailing meteorologist who will share her understanding of the wind throughout this issue.

*Interview with Chelsea*

### Racing advice from a meteorologist

*An experienced weather forecaster who is also a racing sailor shares her unique perspective on how to sail smarter.*

**QUESTION: How much can racing sailors benefit from knowing more about weather forecasting?**

**Chelsea:** Changes in wind speed and direction often have a huge impact on your finish position in a race, so anything you can do to predict future changes in the wind will be extremely valuable. I think about the 'law of the vital few,' which states that 80% of a successful

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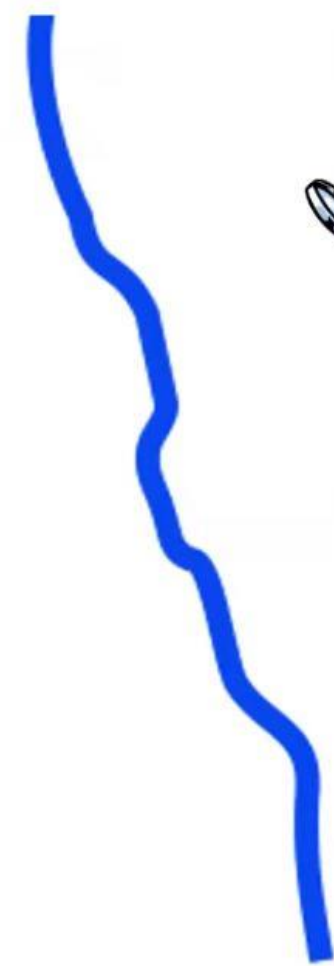


David D

## What's the shift pattern?

You are likely to have **Persistent Shifts** when:

- Your headings on each tack trend in one direction.
- More wind pressure on one side of the course.
- The farther you go to one side of the course, the more the boats there are lifted or headed.
- Gains and losses are all made on one side of the course.
- There is land close to one side of the course.





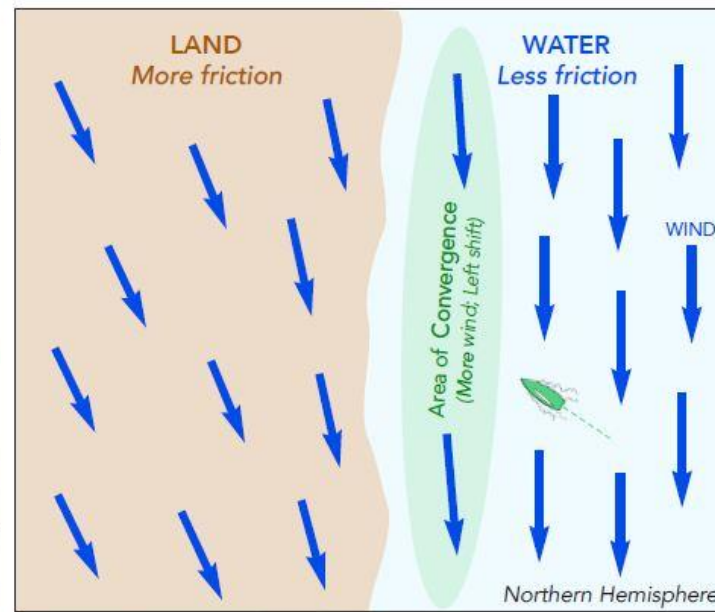
## Convergence

When the wind is blowing along a shore (i.e. parallel or nearly parallel to the land), you may find an area of convergence close to shore. This area has more wind pressure (than farther offshore), and the direction of the wind might shift slightly so it comes more from shore (see right).

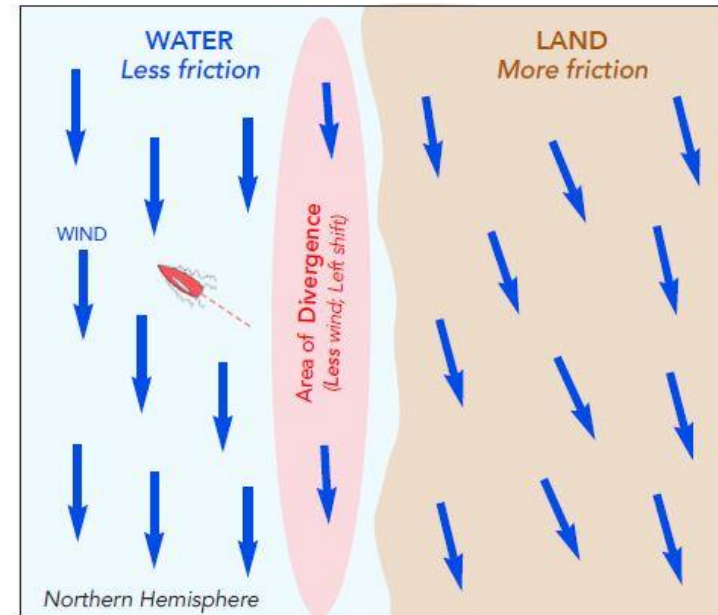
Convergence happens because the extra surface drag of the land area causes the wind to shift and blow toward the nearby body of water. This wind blowing off the land converges with the wind over the water and creates more wind where the two breezes meet.

In the Northern Hemisphere more friction makes the land wind shift left, so you'll find convergence when you are sailing upwind and you get closer to a shoreline on your left. South of the equator this is opposite: more friction makes the wind shift right so you'll find convergence near a right-hand shore when racing upwind.

When there is an area of convergence on your race course, it's usually good to head straight for this 'permanent' area of better pressure. Treat it like a persistent shift (see page 15).



Because wind encounters more friction over land than over water (and because friction affects wind direction), the wind over land does not blow exactly parallel to wind over water. As a result, the 'land wind' and 'water wind' will either converge (above) or diverge (below) near shore; this effect is greatest when the wind is roughly parallel to shore and can extend as far as a few miles offshore.



## Divergence

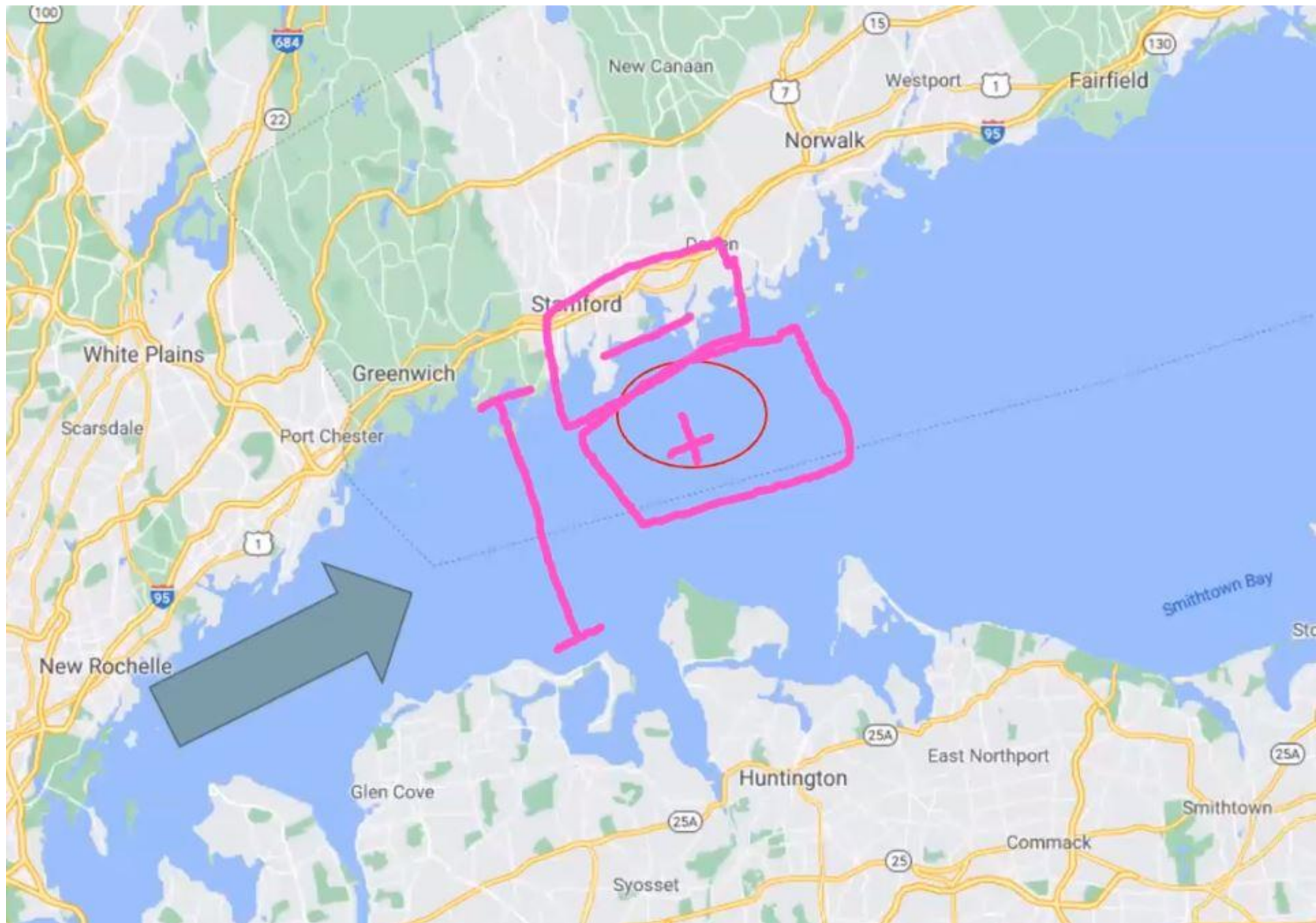
If you find an area of convergence near a left-hand shore, you'll find an area of divergence near a right-hand shore (and vice versa). This area has less wind pressure (than farther offshore), and the direction of the wind might be shifted slightly so it blows more toward the shore (see left).

Divergence occurs because the land friction causes the wind to shift away from the nearby body of water. This means the wind blowing over the land will diverge from the wind over the water; as a result there will be an area with less wind.

In the Northern Hemisphere you'll find this when you are sailing upwind and the land is to your right. It occurs in the Southern Hemisphere when you are sailing upwind and the land is to your left.

Strategically, it's usually best to avoid areas of divergence, primarily because of lighter wind there.







## CLOUDS as Clues

**Chelsea:** You could say clouds are a sailor's best friend because they tell us so much about what the wind is doing at any time. The clouds are visual representations of the air flow on/around our race course, so it's important to understand what clouds mean, and keep an eye on them.

Scanning the sky at regular intervals (before and during a race) seems like such an obvious thing to do, but it's surprisingly easy to forget when there are so many other variables going on in sailing! One suggestion is to make it a priority to check the sky at certain intervals; if necessary set a repeating watch timer to remind you.

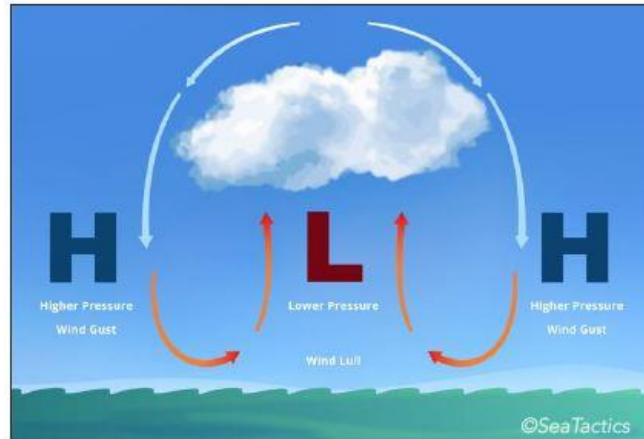
Before leaving the dock, take a look at the sky at least every 20 minutes. On the sail out, check the sky more frequently and make a mental note of: a) areas with more or less cloud cover (e.g. which side

of the course has more clouds or more blue sky?), and b) clouds that may be moving into or out of your racing area.

In the buildup to the start of the race, scan the sky every five to ten minutes for changes in cloud cover or activity. By doing this at a regular interval, you can estimate the speed of the clouds in relation to the course length, and the direction in which they are moving downwind. This will allow you to make a 'nowcast' about which clouds will affect the course area during your first beat (see right).

Another goal of your pre-start warm-up is to sail upwind toward clouds and measure the wind shifts and changes in pressure as you approach them. How much more wind do you get on the leading edge of a cloud, or on its right or left side? And what effect do clouds have on wind direction?

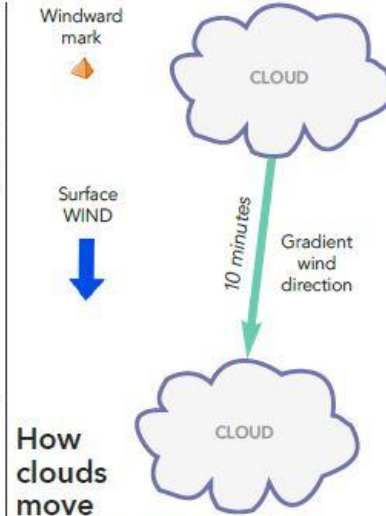
See the next few pages for more on what to look for in clouds.



An individual cumulus cloud is essentially its own small circulation system with relative areas of lower and higher pressures (rising and sinking air). The cloud begins with air that is warmed near the water or land surface. As this warm air rises, it reaches a certain height in the sky where the moisture condenses and forms a cloud.

While the air directly underneath the cloud is rising, there is relatively lower pressure there, which creates a wind lull.

On the edges of the cloud, the air is slightly drier and the moisture evaporates (which causes cooling). This cooling air sinks around the sides of the cloud, which creates a relative high pressure area and produces a wind gust (under the blue sky).



**How clouds move**  
One reason to watch clouds is so you can predict which ones will impact your first beat. For example, if a cloud moves half the length of the course in 10 minutes, and it takes you 20 minutes to sail the beat, you will meet in the middle with any clouds that are near the windward mark when you start the race.

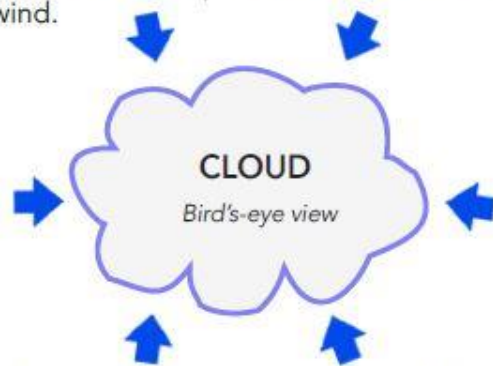
Note that clouds do not always move straight downwind, so that's another thing to track. Clouds are usually high enough to be up in the gradient wind. Since the gradient direction is typically to the right of your surface wind (in the Northern Hemisphere, due to friction), the clouds will often move slightly right to left as you look upwind.



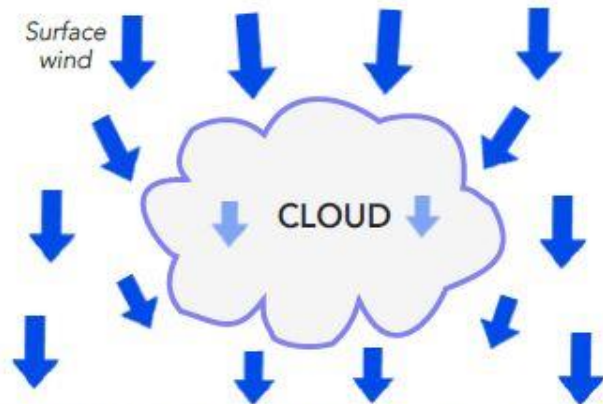


## Clouds without rain

These are the standard white or greyish cumulus clouds that we often find over land or water. These clouds show us the areas around the race course where a) local warm thermals are rising (updrafts), and b) there is lower pressure, and therefore usually less wind.



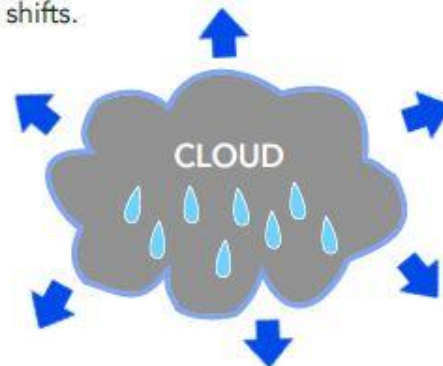
▲ As the air under a non-raining cloud rises up, the air around the cloud at surface level flows inward toward the center to replace the air that is rising. That air then gets warmed, rises and is replaced by more air flowing inward from around the cloud. This circulatory flow impacts the strength and direction of the wind around the cloud as shown below.



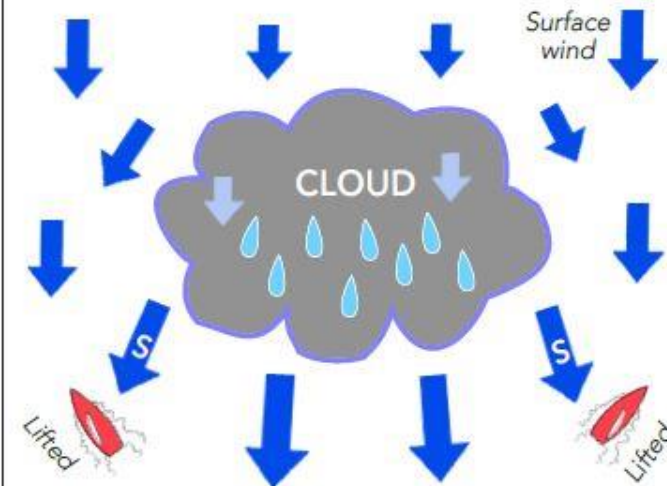
▲ This diagram shows net wind speed and direction at the surface around a non-raining cloud that is moving roughly in the direction of the surface wind. Each wind arrow is a vector sum of wind created by cloud circulation (top) and the prevailing surface wind.

## Clouds with rain

Cumulus clouds sometimes develop into bigger, greyer clouds with rain. Rain is an indicator that the airflow under the cloud is no longer rising (updraft), but has started to fall (downdraft). The edges of these clouds show us where there may be gusts and/or shifts.



▲ When a cloud starts raining, it's a clue that the updraft under the cloud has changed to a downdraft. The air flowing down from the cloud hits the surface and then turns outward in all directions away from the center. This air flow impacts the strength and direction of the wind around the rain cloud as shown below.



▲ With rain clouds, sailors will find the strongest winds at the leading (leeward) edge of the cloud,





Club  
Certificate  
2021

Boat  
**SUGAR 3**  
EST-792

| Time Allowances in secs/NM |        |       |       |       |       |       |       |
|----------------------------|--------|-------|-------|-------|-------|-------|-------|
| Wind Velocity              | 6 kt   | 8 kt  | 10 kt | 12 kt | 14 kt | 16 kt | 20 kt |
| Beat VMG                   | 1017.2 | 839.6 | 742.8 | 702.5 | 685.9 | 679.3 | 666.9 |
| 52°                        | 660.0  | 555.2 | 501.6 | 480.0 | 472.5 | 469.2 | 463.8 |
| 60°                        | 620.6  | 528.1 | 485.4 | 466.3 | 457.9 | 453.7 | 449.4 |
| 75°                        | 590.2  | 508.6 | 474.4 | 454.7 | 439.7 | 430.2 | 422.9 |
| 90°                        | 595.6  | 504.6 | 465.9 | 451.7 | 434.1 | 416.9 | 395.0 |
| 110°                       | 593.7  | 495.3 | 457.2 | 430.8 | 410.5 | 398.5 | 377.8 |
| 120°                       | 609.6  | 504.1 | 462.3 | 434.8 | 408.3 | 384.8 | 358.1 |
| 135°                       | 678.2  | 548.5 | 483.1 | 452.7 | 426.7 | 402.0 | 353.6 |
| 150°                       | 801.6  | 639.0 | 540.4 | 483.6 | 455.0 | 430.8 | 386.1 |
| Run VMG                    | 925.6  | 737.8 | 624.0 | 551.6 | 504.1 | 468.8 | 422.0 |
| Selected Courses           |        |       |       |       |       |       |       |
| Windward / Leeward         | 971.4  | 788.7 | 683.4 | 627.1 | 595.0 | 574.1 | 544.4 |
| All purpose                | 744.9  | 613.9 | 545.8 | 511.0 | 489.4 | 473.2 | 450.1 |

| Single Number Scoring Options |                  |              |
|-------------------------------|------------------|--------------|
| Course                        | Time On Distance | Time On Time |
| Windward / Leeward            | 655.9            | 0.9148       |
| All purpose                   | 528.8            | 1.1347       |