



FluTuES

Fluxos Turbulentos no Espírito Santo

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IAG USP

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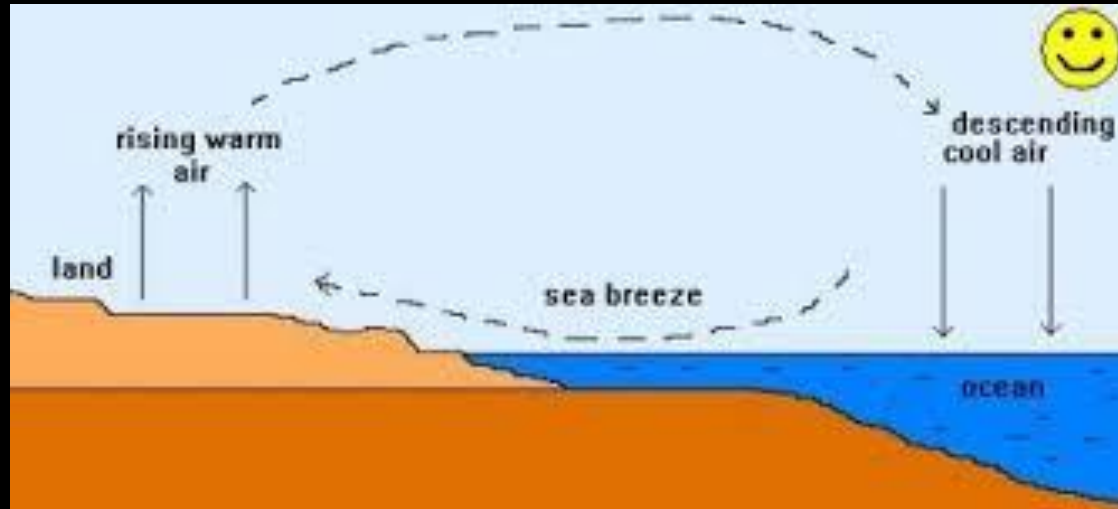
UFES

Meaípe, agosto 2018

Objetivos do Projeto FluTuES

- Construir um banco de dados atmosférico inédito na região costeira local;
- Investigar o balanço de radiação em locais turísticos costeiros;
- Representar adequadamente os processos de interação da atmosfera com as diferentes superfícies (areia, água);
- Estabelecer uma *base multidisciplinar* para o estudo da interação superfície-atmosfera, com posterior transferência desse conhecimento.

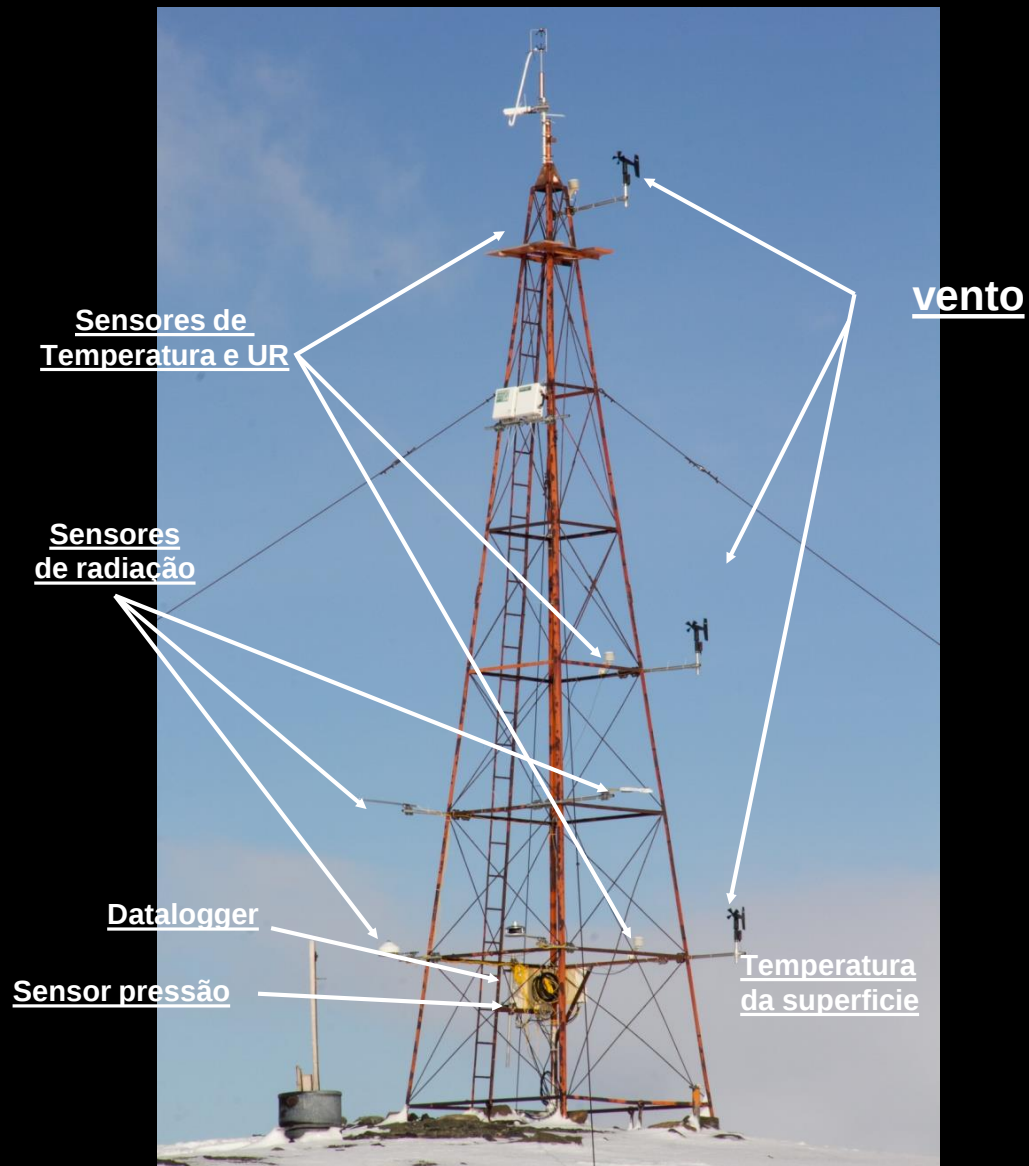
Brisa marítima



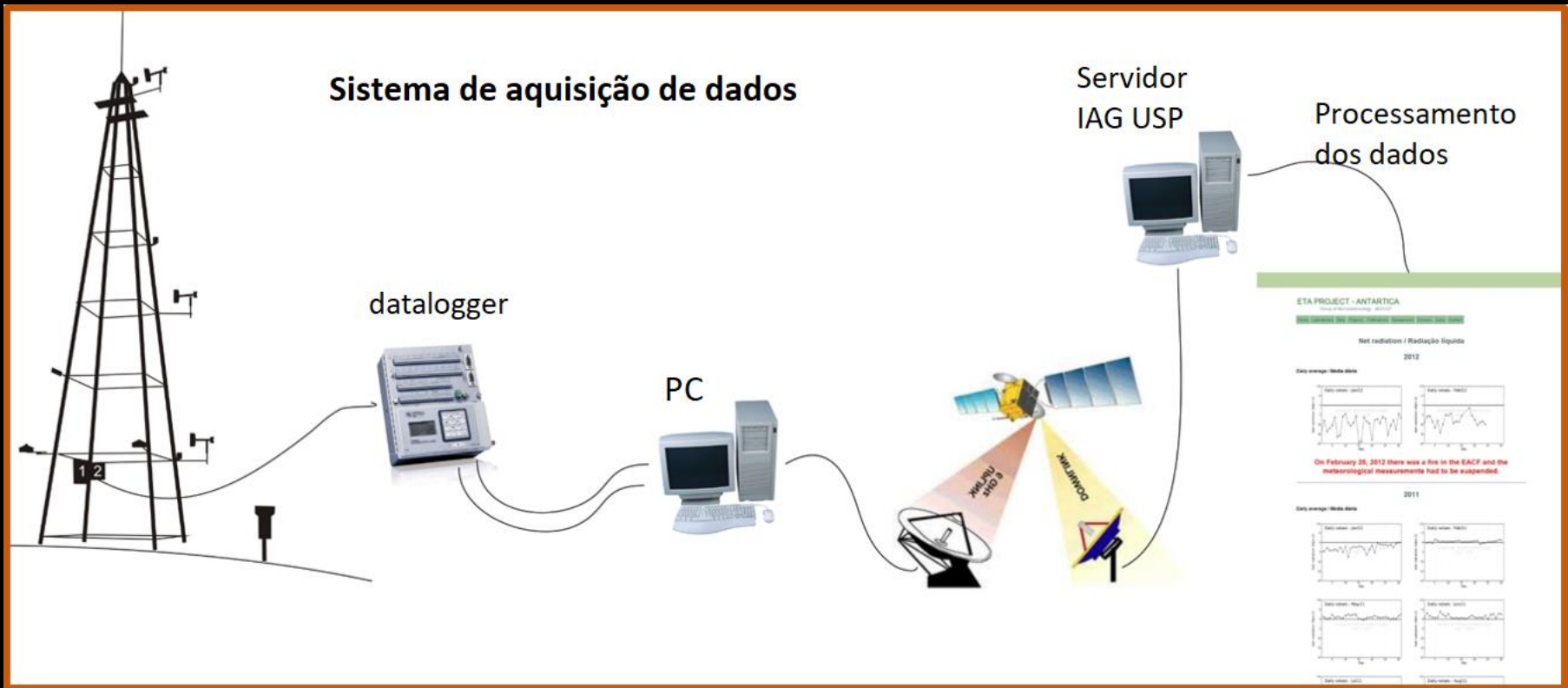
Brisa terrestre



Torre instrumentada

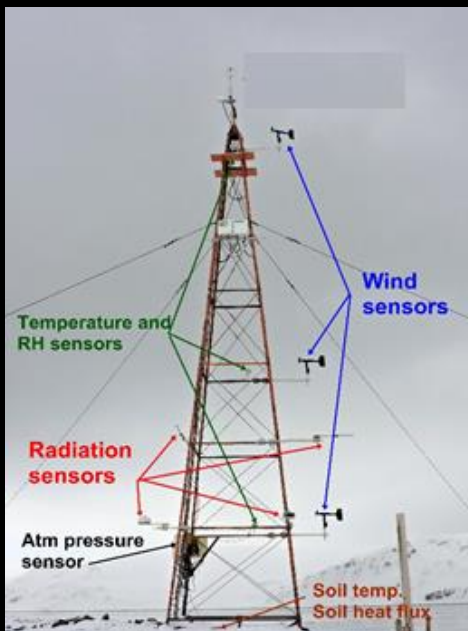


Operacionalização do sistema

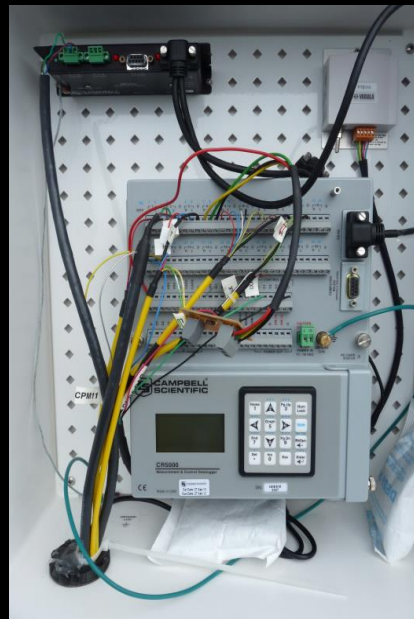


Coleta contínua de dados atmosféricos

Torre
micrometeorológica



Sistema de
aquisição de dados



IAG USP



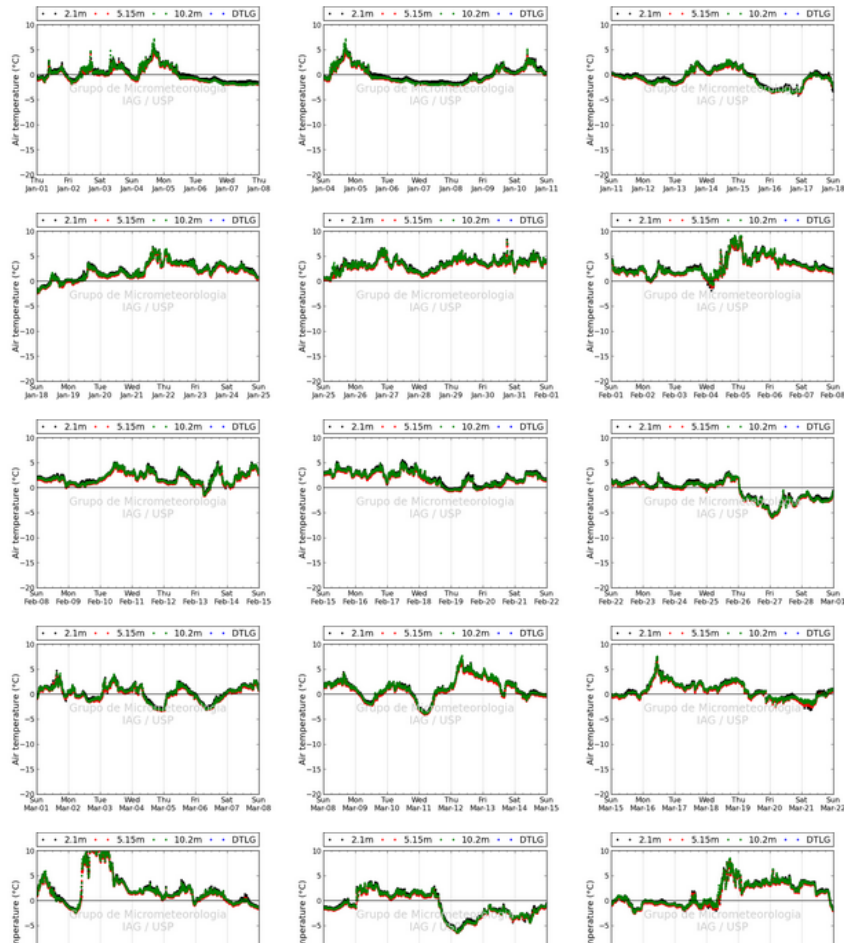
Air temperature / Temperatura do ar

Average os 5 minutes / Média de 5 minutos

Previous years:

- [2015](#)
- [2014](#)
- [2013](#)
- [2012](#)

2015



Operacionalização do sistema

Exemplos das variáveis meteorológicas que serão amostradas durante o Projeto FluTuES

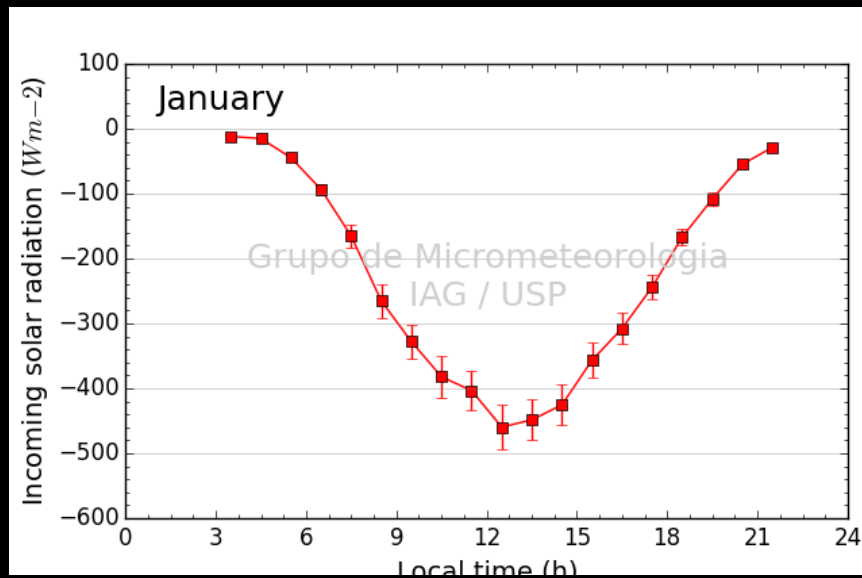
(Ciclo médio diurno de março de 2011 a
novembro de 2015, Antártica)

Radiação solar incidente (W m^{-2})

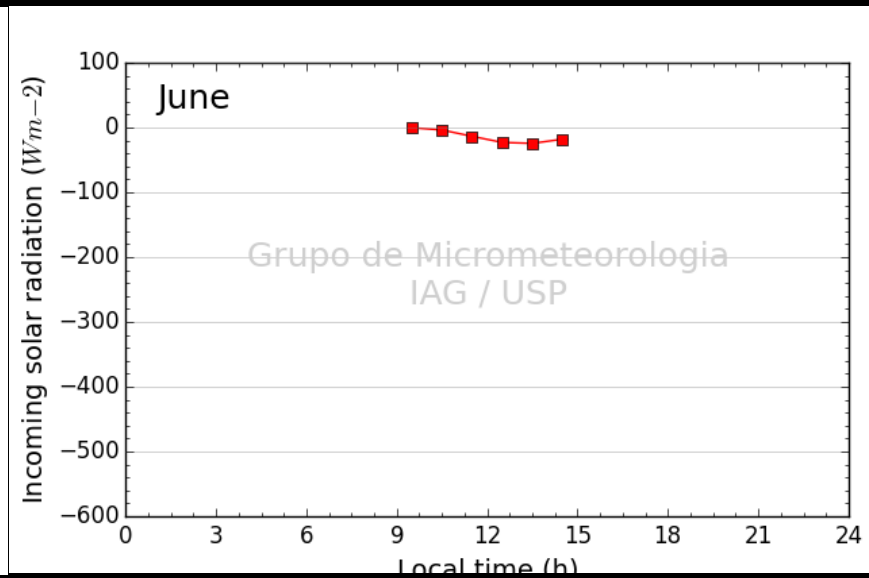


Piranômetro – CPM11

Janeiro



Junho

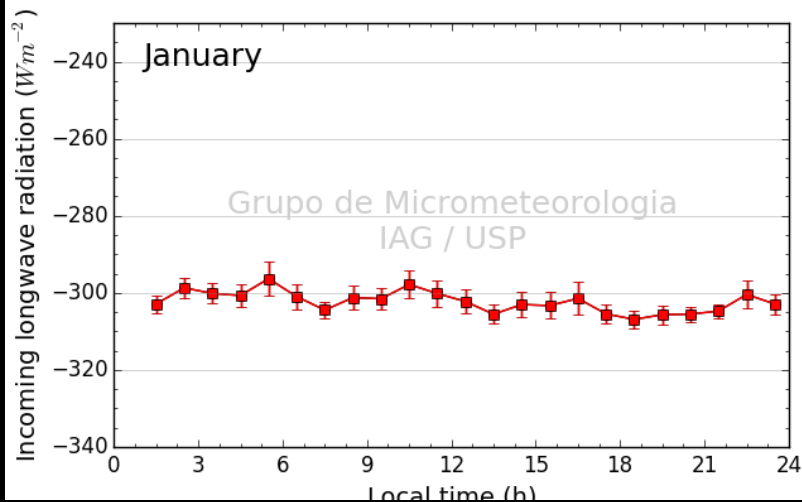


Radiação de OL incidente (W m^{-2})

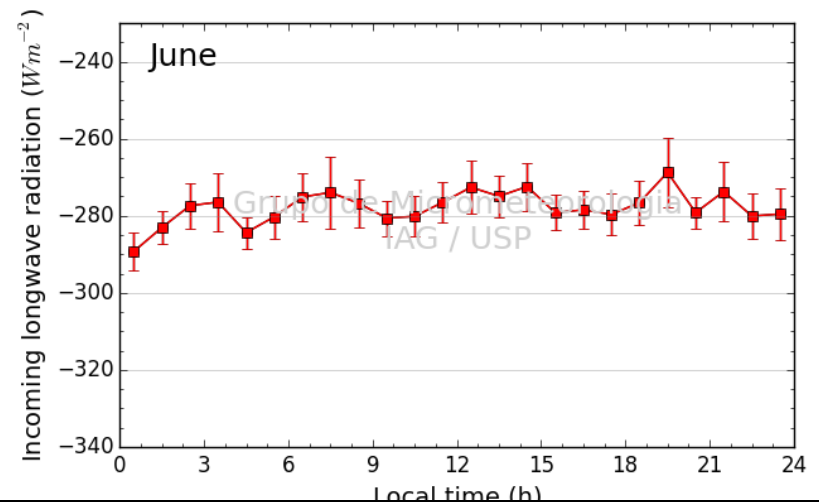


Pirgeômetro – CGR3

Janeiro



Junho

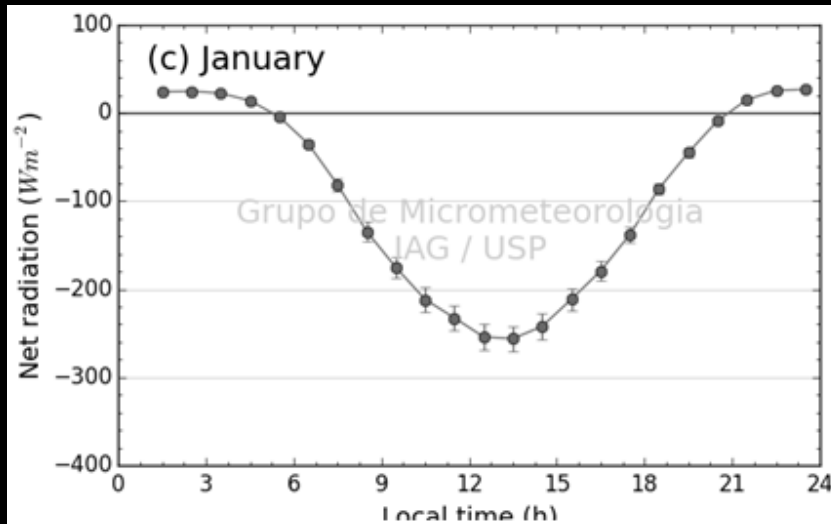


Radiação líquida (W m^{-2})

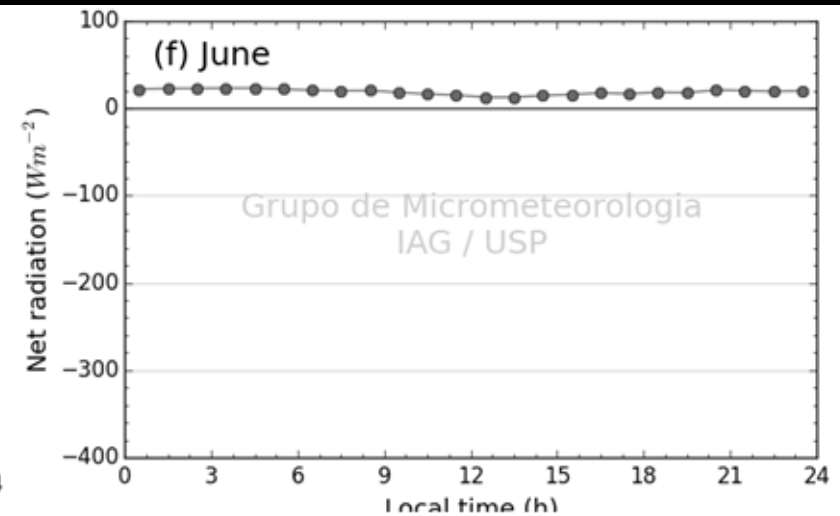


Saldo radiômetro – CNR4

Janeiro



Junho

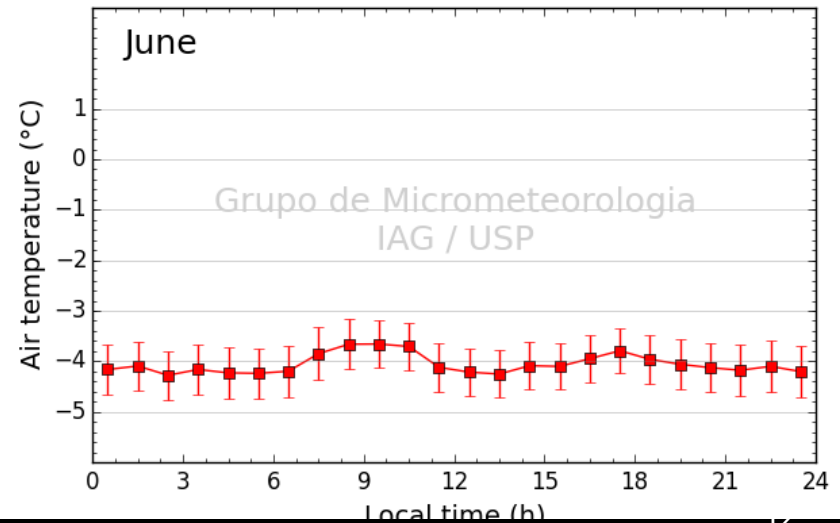
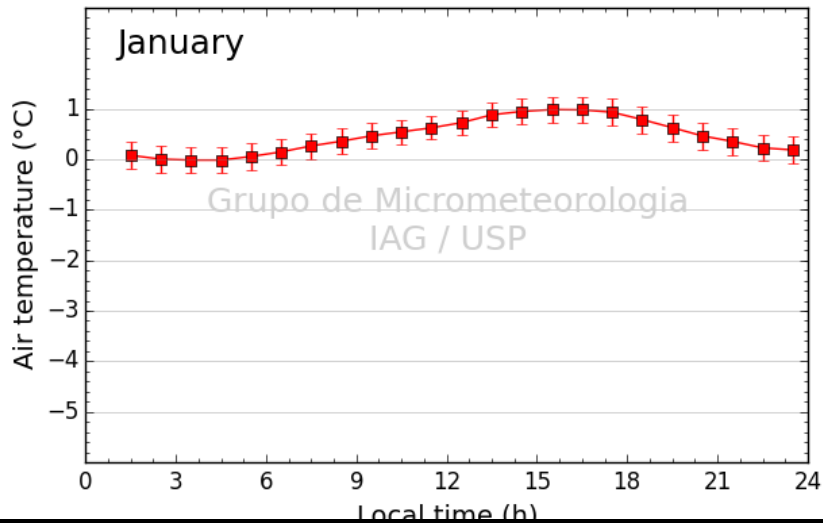


Temperatura do ar (°C)



Janeiro

Junho

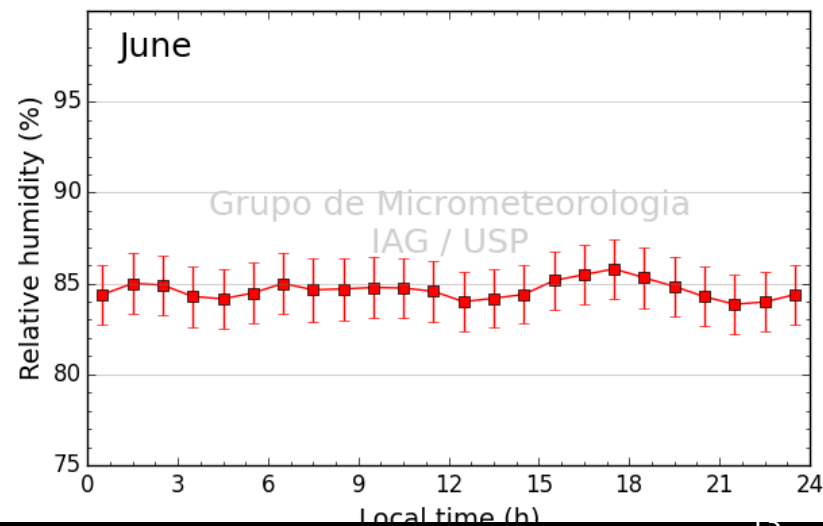
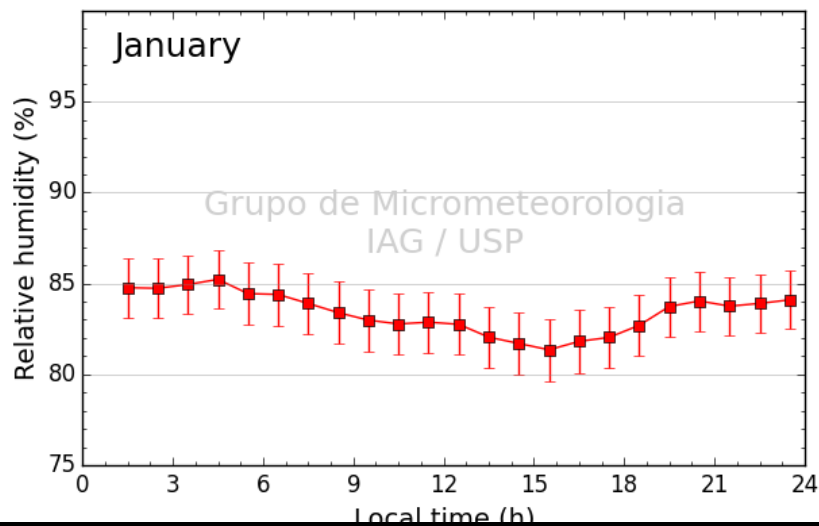


Umidade relativa do ar (%)



Janeiro

Junho

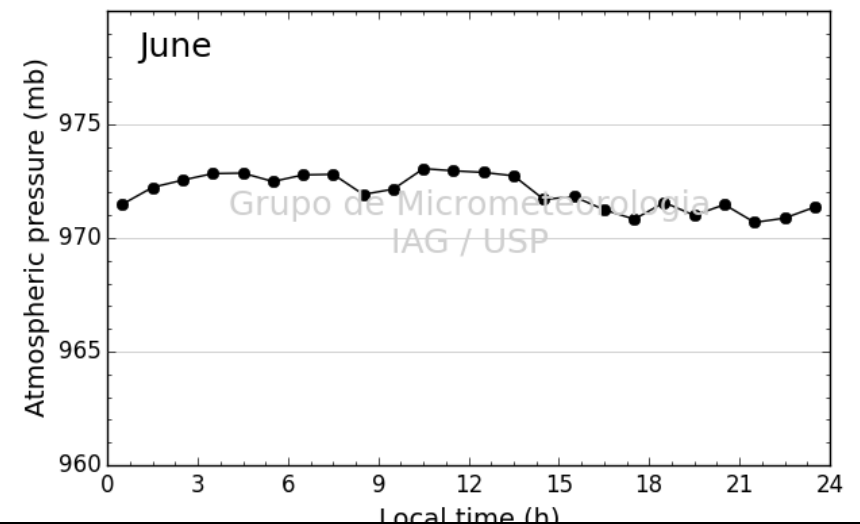
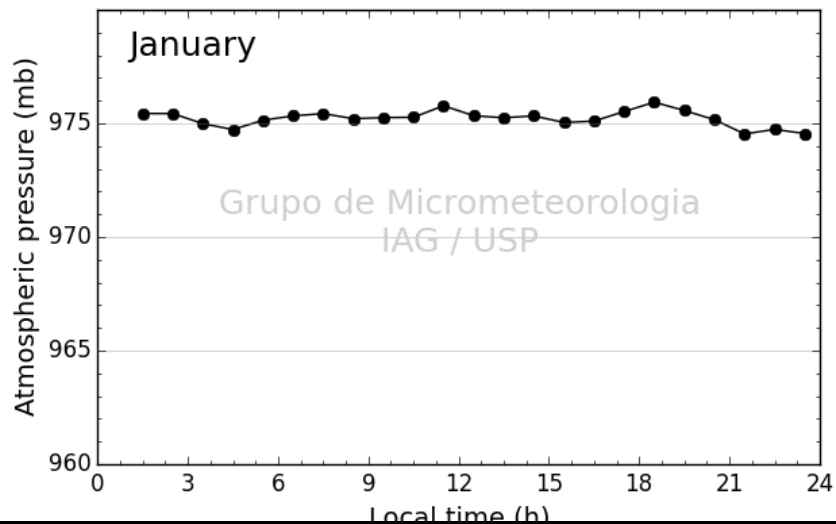


Pressão atmosférica (hPa)



Janeiro

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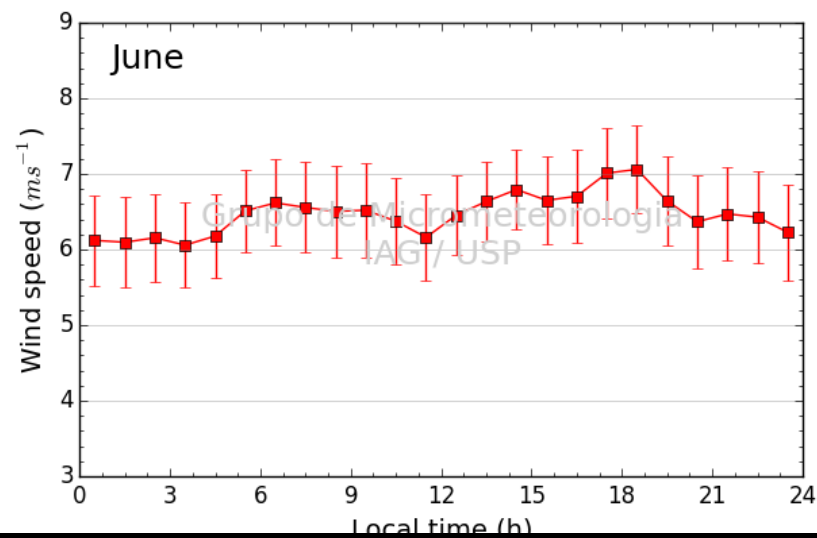
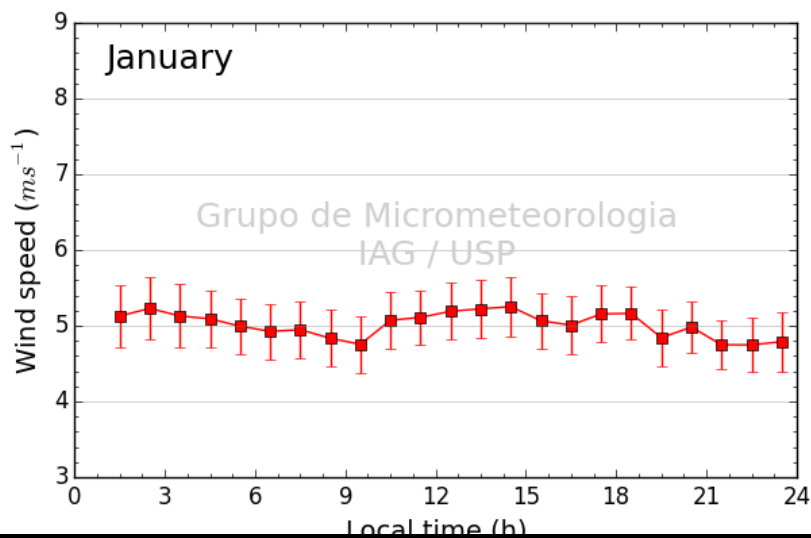


Velocidade do vento (m s^{-1})



Janeiro

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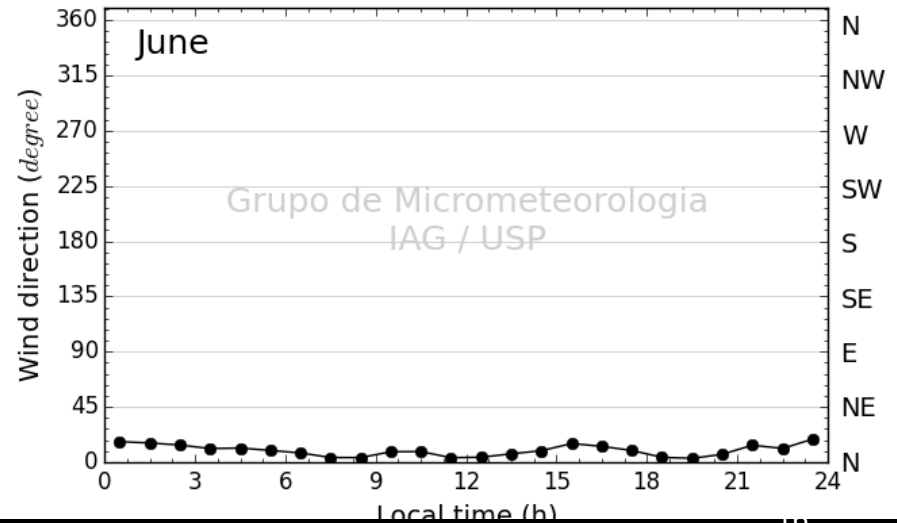
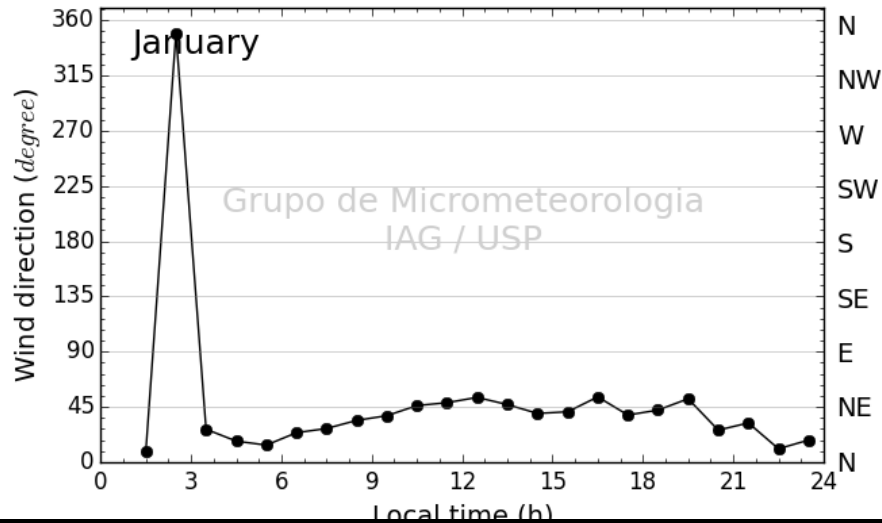


Direção do vento (grau)



Janeiro

Junho

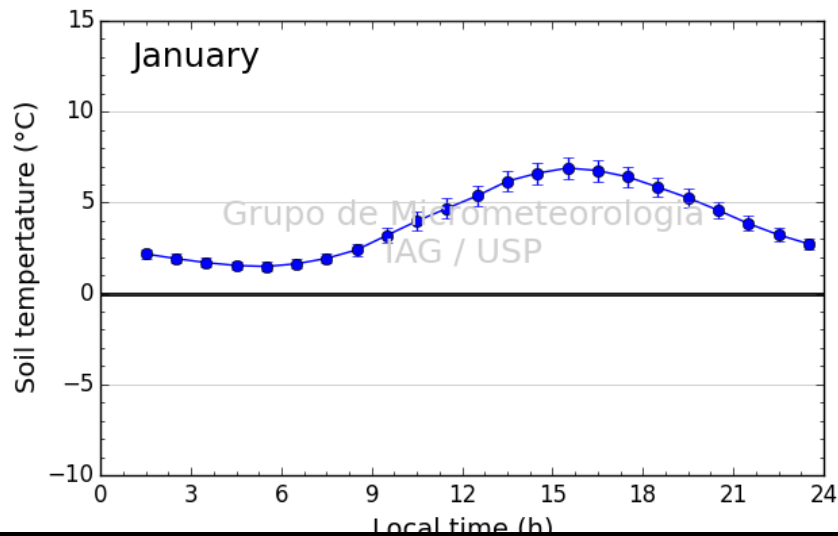


Temperatura do solo (°C)

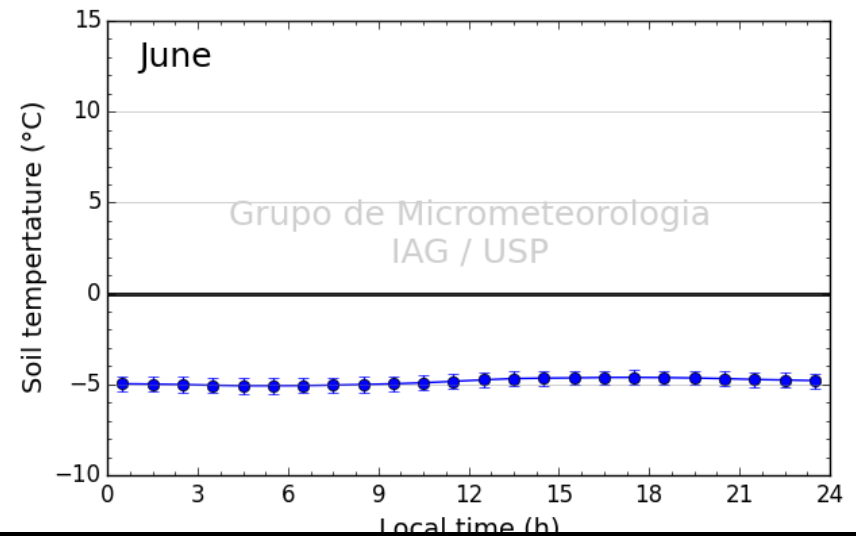


5 cm

Janeiro



Junho



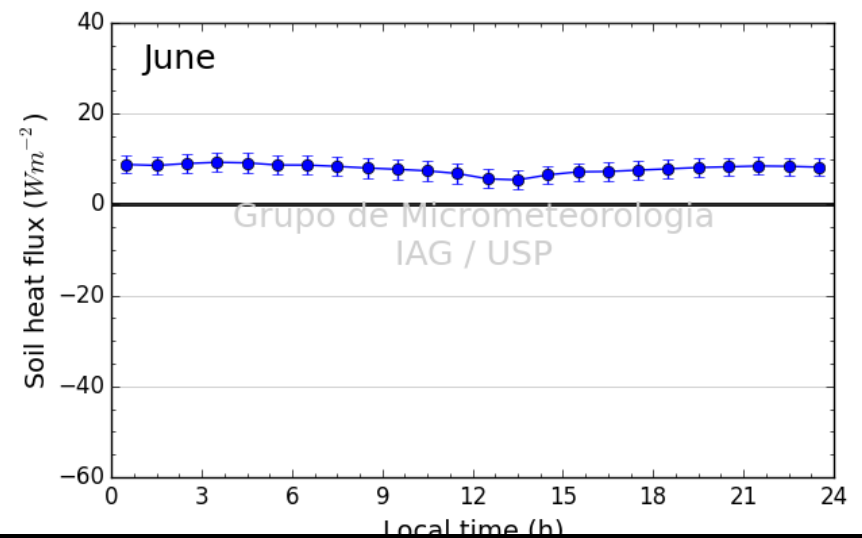
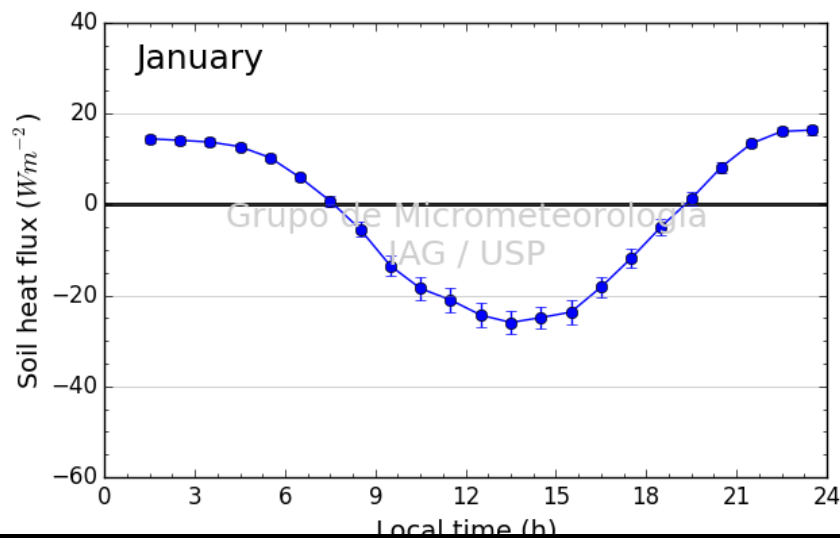
Fluxo de calor no solo (W m^{-2})

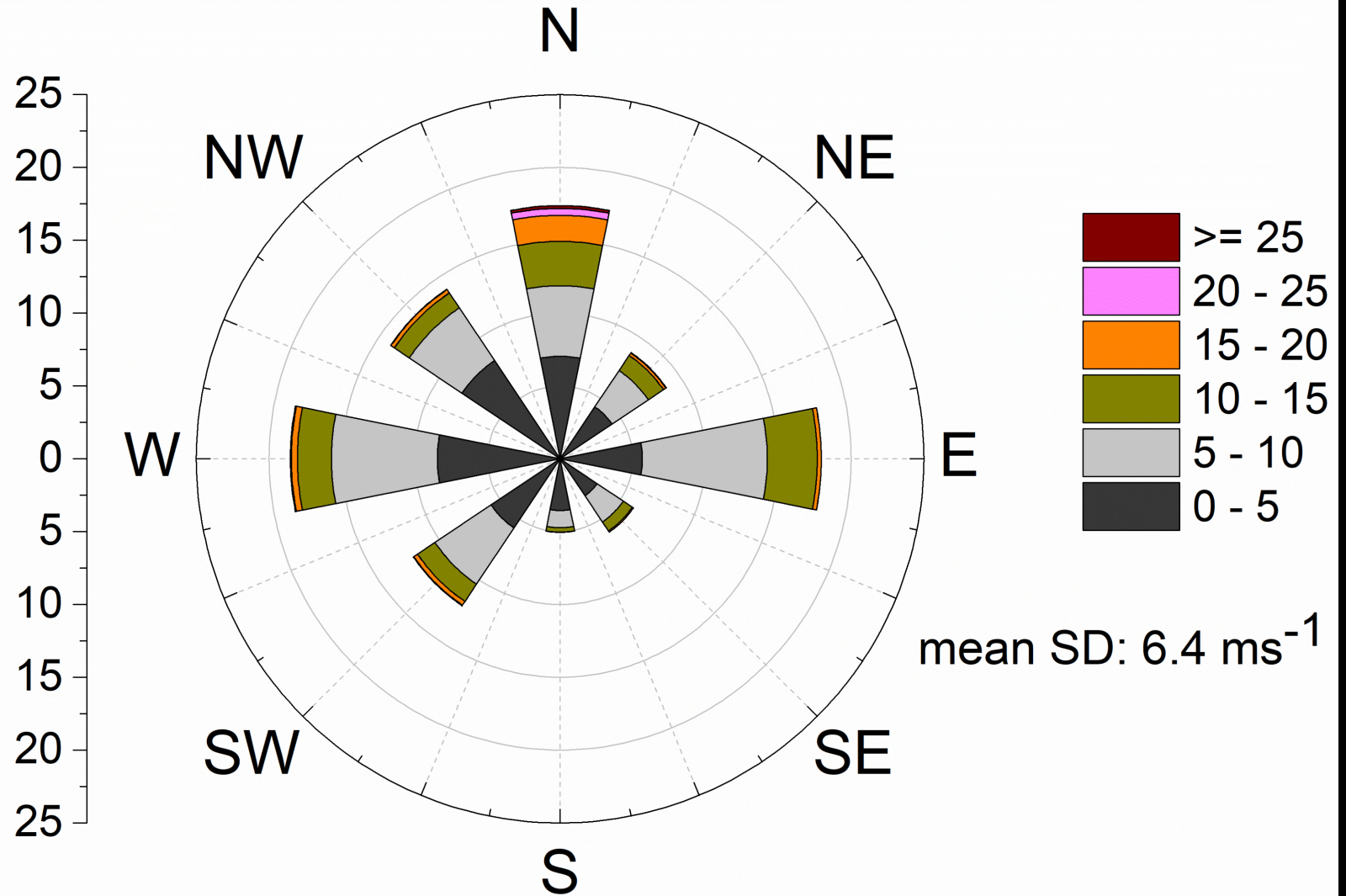


5 cm

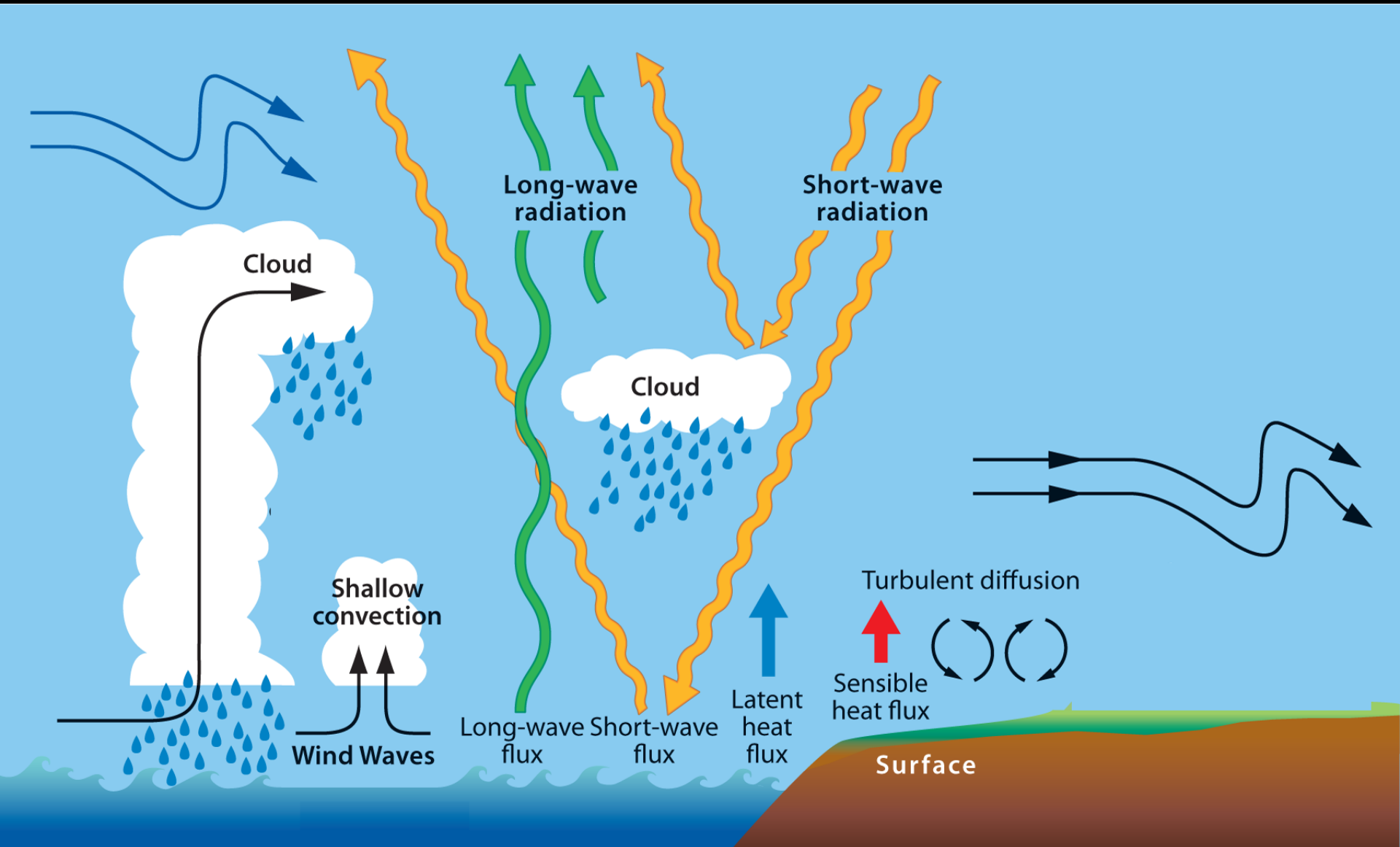
Janeiro

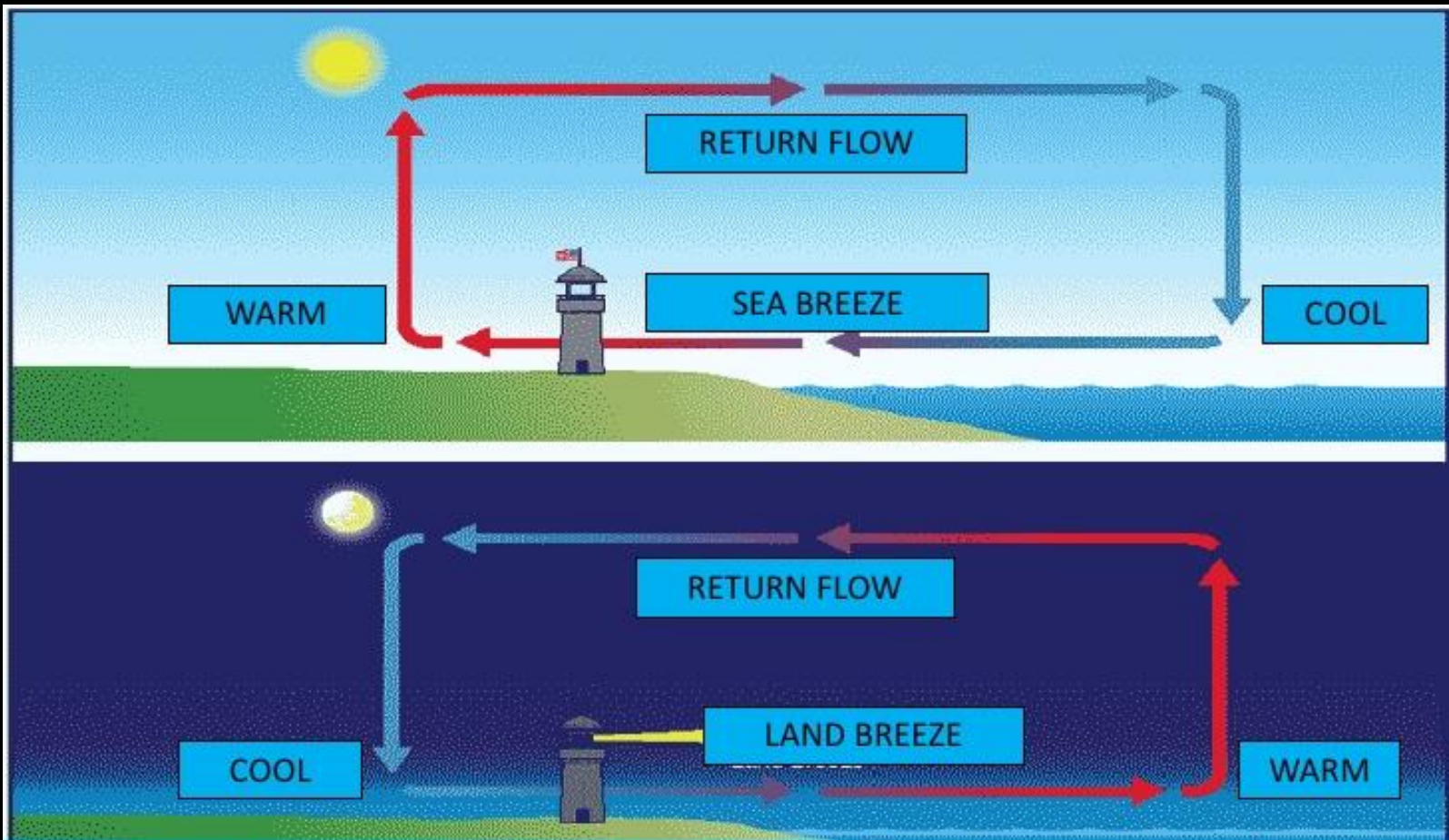
Junho





Obrigada!





Local heating can cause a local wind as air flows in to replace the rising heated air. It can be seen at a lake or sea shore where a daily onshore breeze occurs as the land heats faster than the ocean in the morning and a daily off shore breeze as the land cools faster than the ocean.