

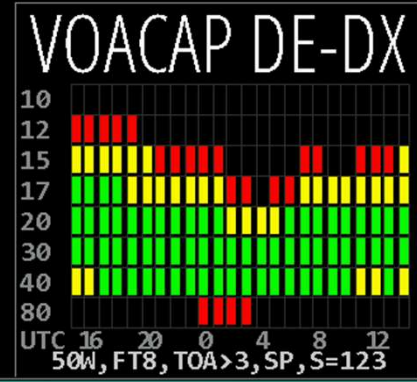
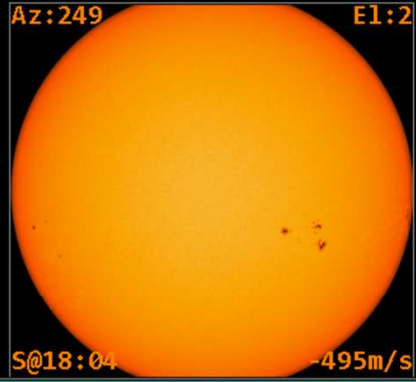
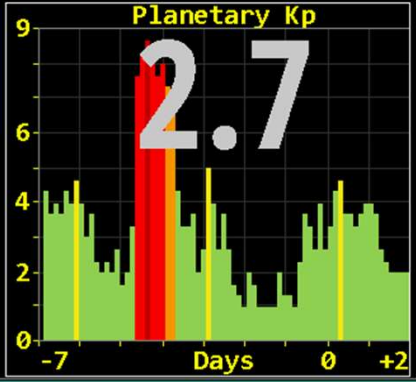
# LA40

Up 14m 8s WiFi -50 dBm V4.08

## 15:44:56

Tue, 15 Oct 2024

UTC



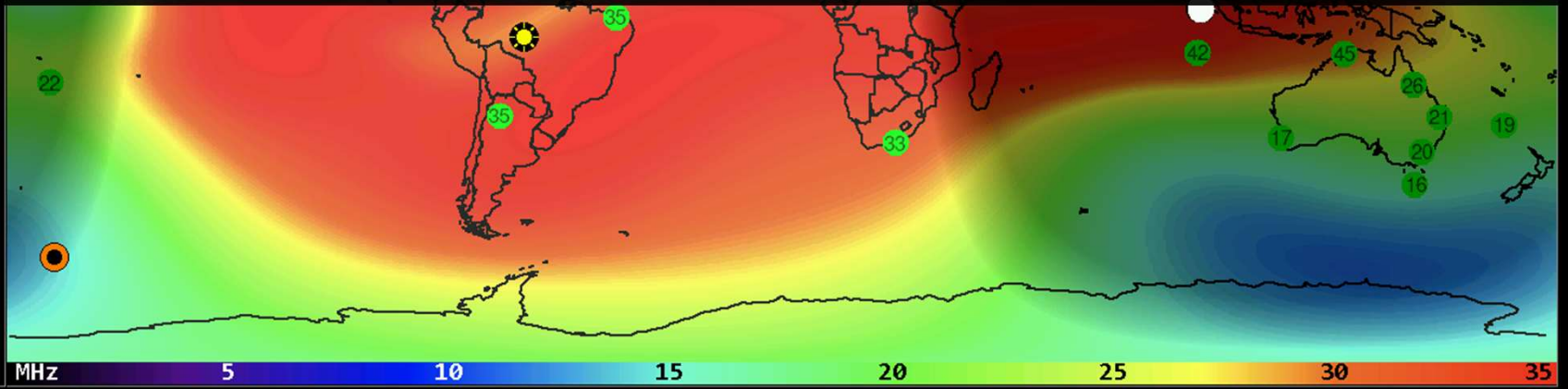
7.9 DE Temp  
73.0 Humidity  
S Wind Dir  
3 W Speed

DE: UTC+2  
17:44 15 Oct  
60N 11E  
J059 S in 0  
R 9:42 ago



# Workshop: Installasjon av HamClock på Raspberry Pi

DX: UTC-3  
07:44 15 Oct  
70N 147W  
BQ60 R in 1:27  
S 13:47 ago  
5423<sub>m</sub>@350<sub>SP</sub>



# Du trenger

- Raspberry Pi
- Strømforsyning
- Minnekort
- Tastatur
- Mus
- Skjerm
- Skjermkabel
- Bærbar PC med minnekortleser

<https://www.raspberrypi.com/software/>



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Introducing Raspberry Pi Connect (Beta) • Access your Raspberry Pi from anywhere

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# Raspberry Pi OS

Your Raspberry Pi needs an operating system to work. This is it. Raspberry Pi OS (previously called Raspbian) is our official supported operating system.



## Install Raspberry Pi OS using Raspberry Pi Imager

Raspberry Pi Imager is the quick and easy way to install Raspberry Pi OS and other operating systems to a microSD card, ready to use with your Raspberry Pi.

Download and install Raspberry Pi Imager to a computer with an SD card reader. Put the SD card you'll use with your Raspberry Pi into the reader and run Raspberry Pi Imager.

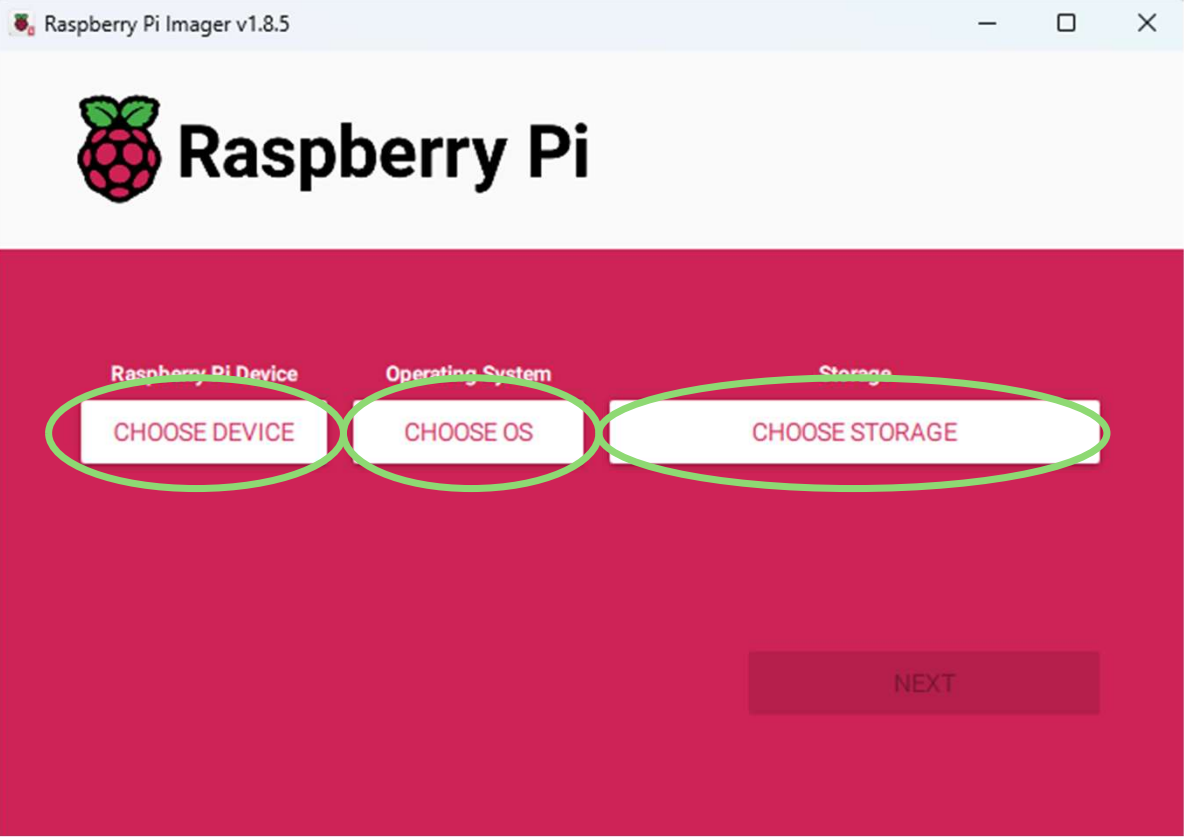
[Download for Windows](#)

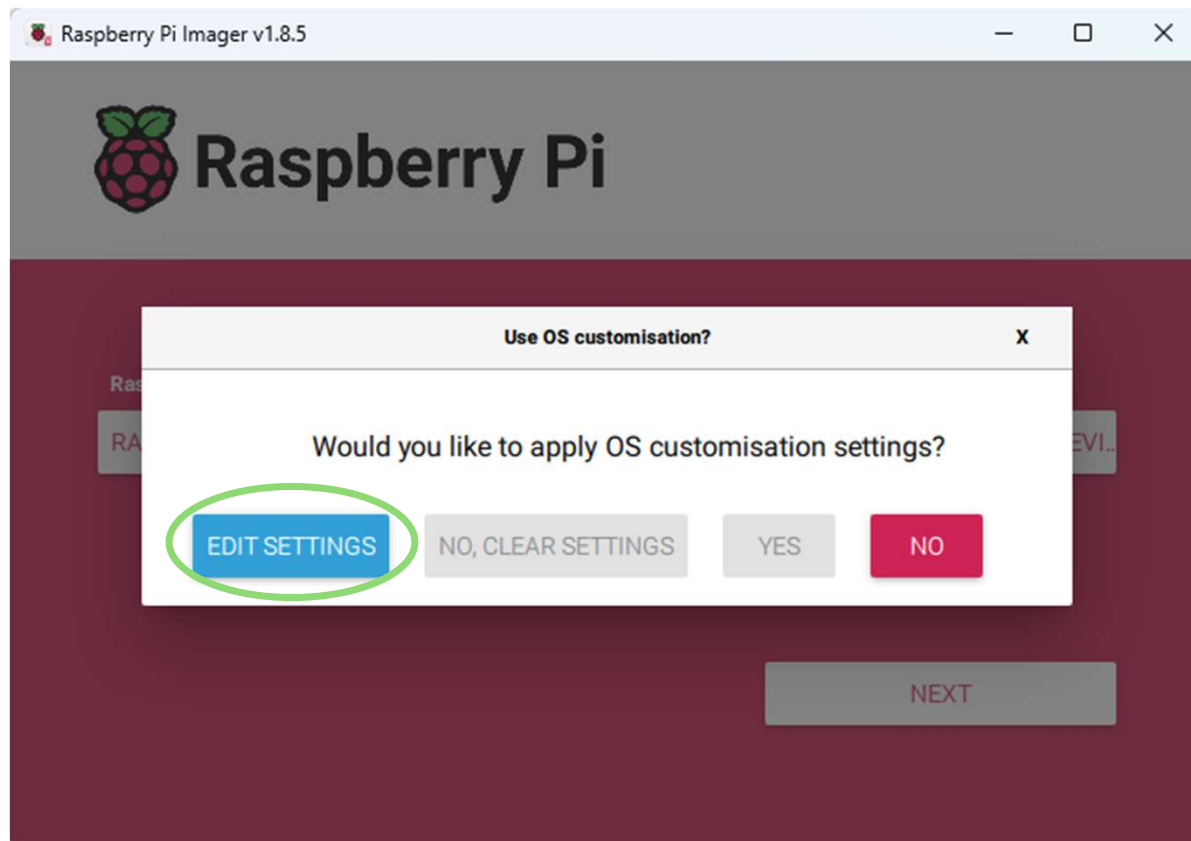
[Download for macOS](#)

[Download for Ubuntu for x86](#)

To install on **Raspberry Pi OS**, type `sudo apt install rpi-imager` in a Terminal window.







Raspberry Pi Imager v1.8.5



# Raspberry Pi

Use OS customisation?

X

Would you like to apply OS customisation settings?

EDIT SETTINGS

NO, CLEAR SETTINGS

YES

NO

NEXT

Username and password  
er påkrevd for å kunne  
bruke SSH

Username: pi  
Password: raspberry

The screenshot shows the 'OS Customisation' window with the 'GENERAL' tab selected. The window has three tabs: 'GENERAL', 'SERVICES', and 'OPTIONS'. The 'GENERAL' tab contains several settings:

- Set hostname: hamclock .local
- Set username and password
  - Username: pi
  - Password: [masked]
- Configure wireless LAN
  - SSID: nrrl
  - Password: [masked]
  - Show password  Hidden SSID
  - Wireless LAN country: GB
- Set locale settings
  - Time zone: Europe/Oslo
  - Keyboard layout: no

A red 'SAVE' button is located at the bottom center of the window.

SSID: LA4O\_GJEST  
Password: oslogruppen2020

GENERAL

SERVICES

OPTIONS

Enable SSH

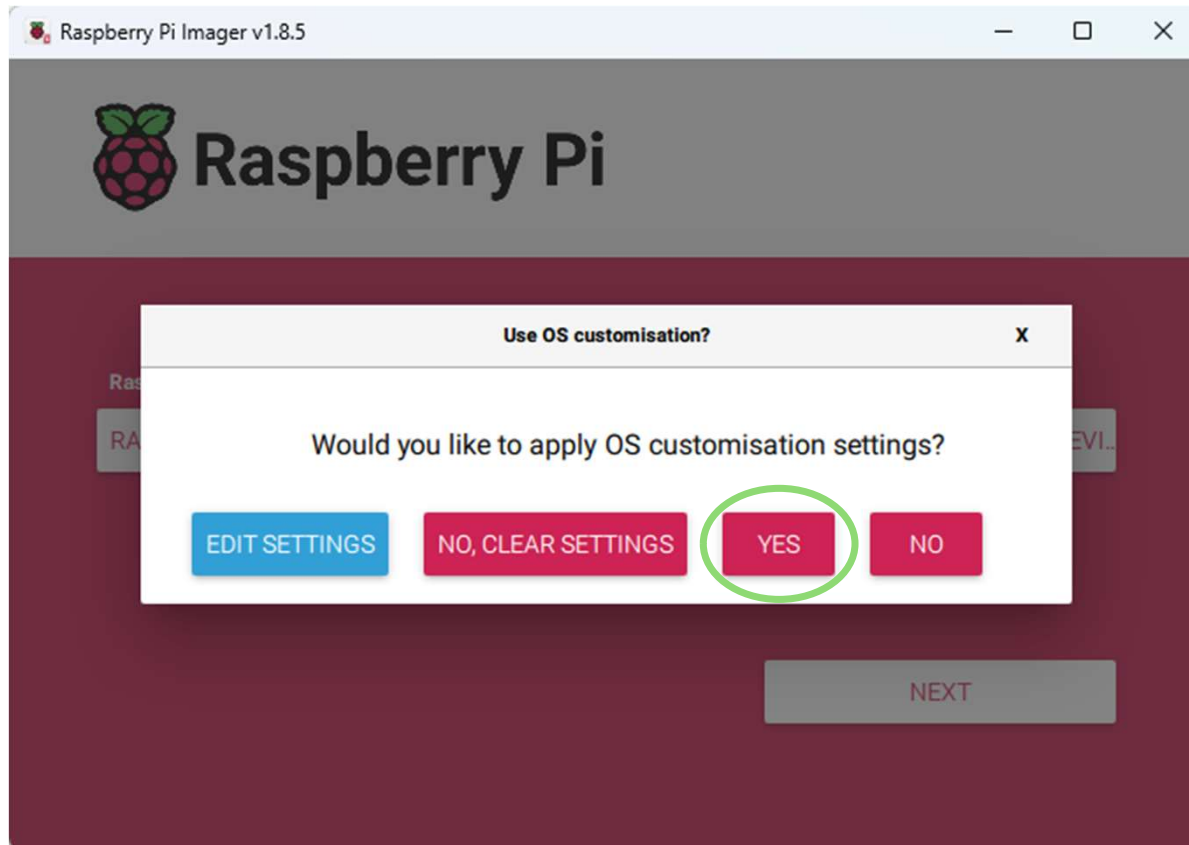
Use password authentication

Allow public-key authentication only

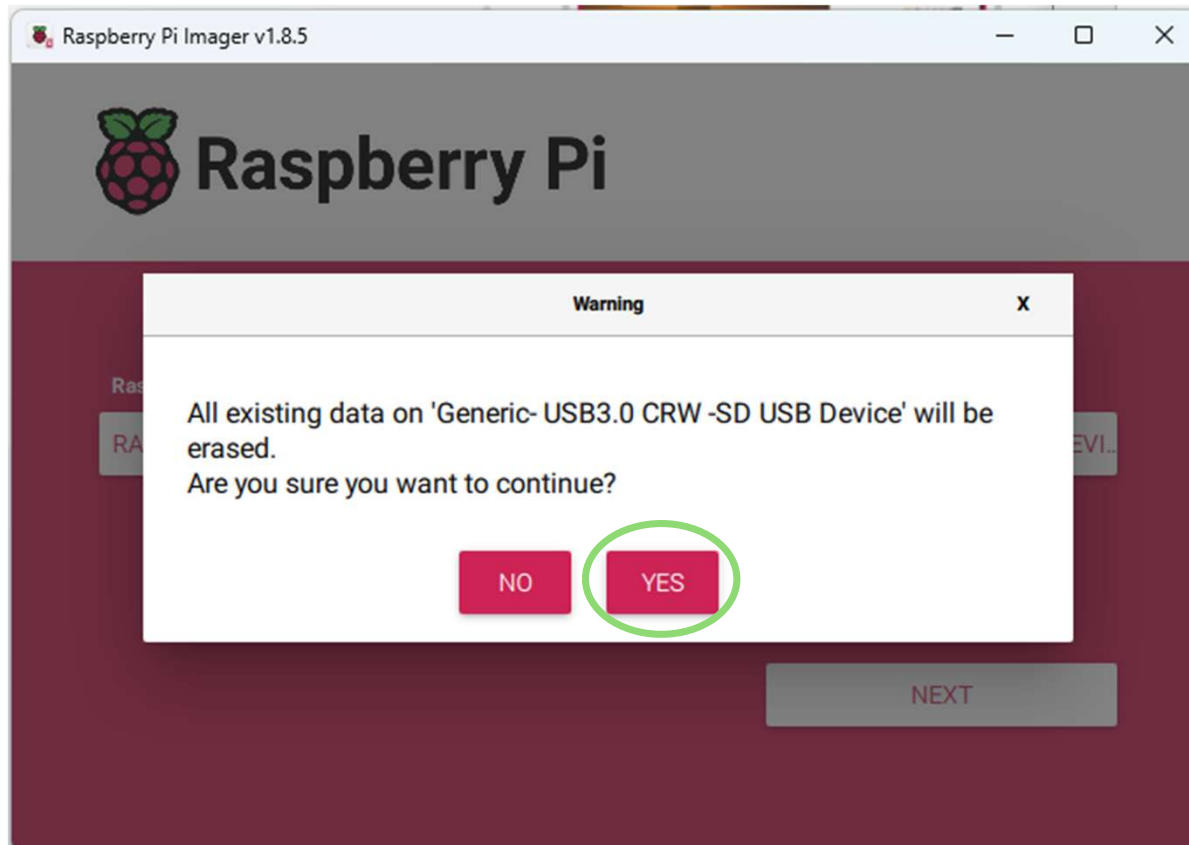
Set authorized\_keys for 'la6csa':

RUN SSH-KEYGEN

SAVE







Raspberry Pi Imager v1.8.5



Warning

X

All existing data on 'Generic-USB3.0 CRW -SD USB Device' will be erased.  
Are you sure you want to continue?

NO

YES

NEXT

Raspberry Pi Imager v1.8.5



# Raspberry Pi

Raspberry Pi Device

RASPBerry PI 1

Operating System

RASPBerry PI OS (32-BIT)

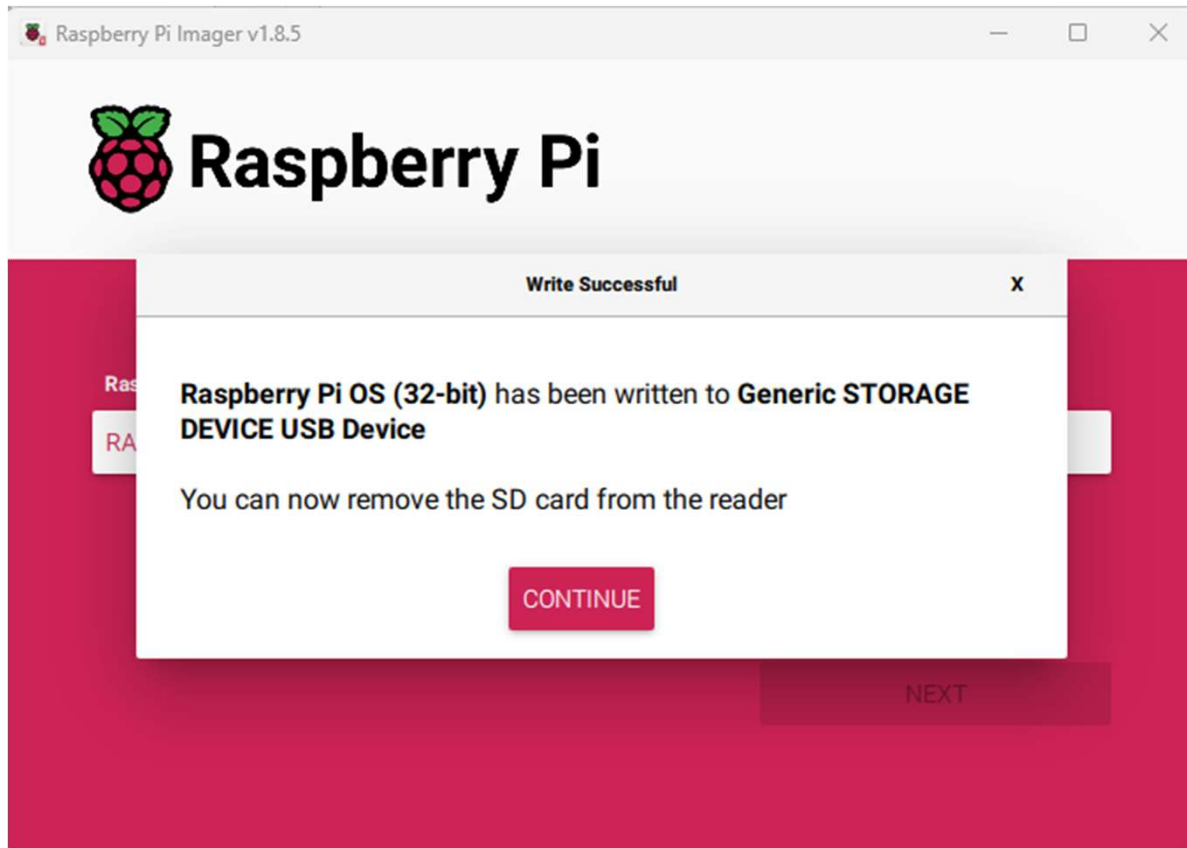
Storage

GENERIC STORAGE DEVICE USB DEVI...

Writing... 44%



CANCEL WRITE



Raspberry Pi Imager v1.8.5



# Raspberry Pi

Write Successful

X

Ras

RA

**Raspberry Pi OS (32-bit)** has been written to **Generic STORAGE DEVICE USB Device**

You can now remove the SD card from the reader

CONTINUE

NEXT

# Velg riktig localisation

- Start Raspberry Pi Configuration fra Start -> Preferences
- Velg arkfane «Localisation»
- Trykk på «Set Locale...»
  - Language = nb (Norwegian Bokmål)
  - Country = NO (Norway)
  - Character Set = UTF-8
- Trykk på «Set Timezone...»
  - Area = Europe
  - Location = Oslo
- Trykk på «Set Keyboard...»
  - Model = Generic 105-key PC
  - Layout = Norwegian
  - Variant = Norwegian eller Norwegian (Windows)

Restart maskinen etter at instillingene er endret:

- `sudo reboot now`

# Første oppstart og installasjon av oppdateringer

Start Terminal og skriv kommandoene:

- `sudo apt update`
- `sudo apt upgrade -y`
- `sudo apt autoremove -y`
- `sudo reboot now`

# Installere HamClock

Start Terminal og skriv kommandoene:

- `curl -O https://www.clearskyinstitute.com/ham/HamClock/install-hc-rpi`
- `chmod u+x install-hc-rpi`
- `./install-hc-rpi`
  
- «This script will install HamClock on Raspberry Pi OS». Velg «y» og trykk enter
  
- «Build for web access only (no hardware display)? Velg «n» og trykk enter
  
- Velg skjermstørrelse ut fra hva som passer best til din skjerm
  
- «Install HamClock Desktop icon?» Velg «y» og trykk enter
- «Install User Guide on Desktop?» Velg «y» og trykk enter
- «Start HamClock automatically each time Pi is booted?» Velg «y» og trykk enter

# Start Hamclock

- Start HamClock ved å dobbeltklikke på ikonet
- Fullfør konfigureringen

# Autostart av HamClock

pi = brukernavnet som du valgte ved installasjon av OS på minnekortet

- `mkdir /home/pi/.config/autostart`
- `nano /home/pi/.config/autostart/hamclock.desktop`

## Innhold i filen:

```
[Desktop Entry]
Name=HamClock
Exec=/bin/sh -c 'sleep 5; /usr/local/bin/hamclock -k -f on -w 80 -d /home/pi/.hamclock'
Icon=/home/pi/.hamclock/hamclock.png
Terminal=false
Type=Application
Categories=HamRadio
```

Justeres til et høyere tall dersom HamClock ikke starter riktig i fullskjerm

Bestemmer portnummer for intern webserver. Default er 8081.

For å lagre trykk CTRL + X og trykk deretter «Y»

- `chmod +rwx /home/pi/.config/autostart/hamclock.desktop`



# Skru av skjermsparerer

- Start «Raspberry Pi Configuration» fra Start -> Preferences
- Velg arkfane «Display»
- Sjekk at «Screen Blanking» er skrudd av

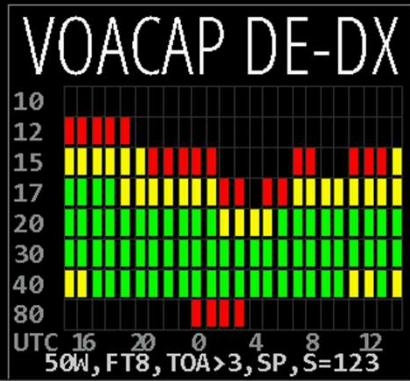
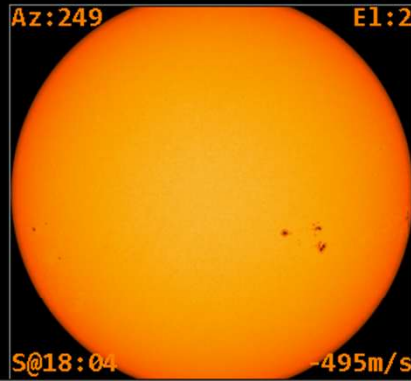
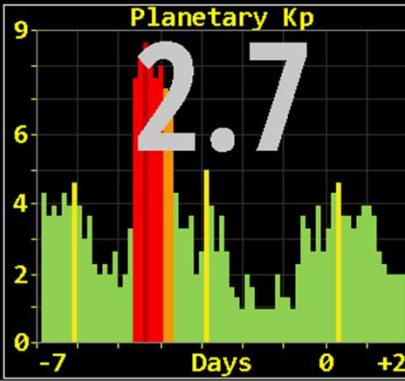
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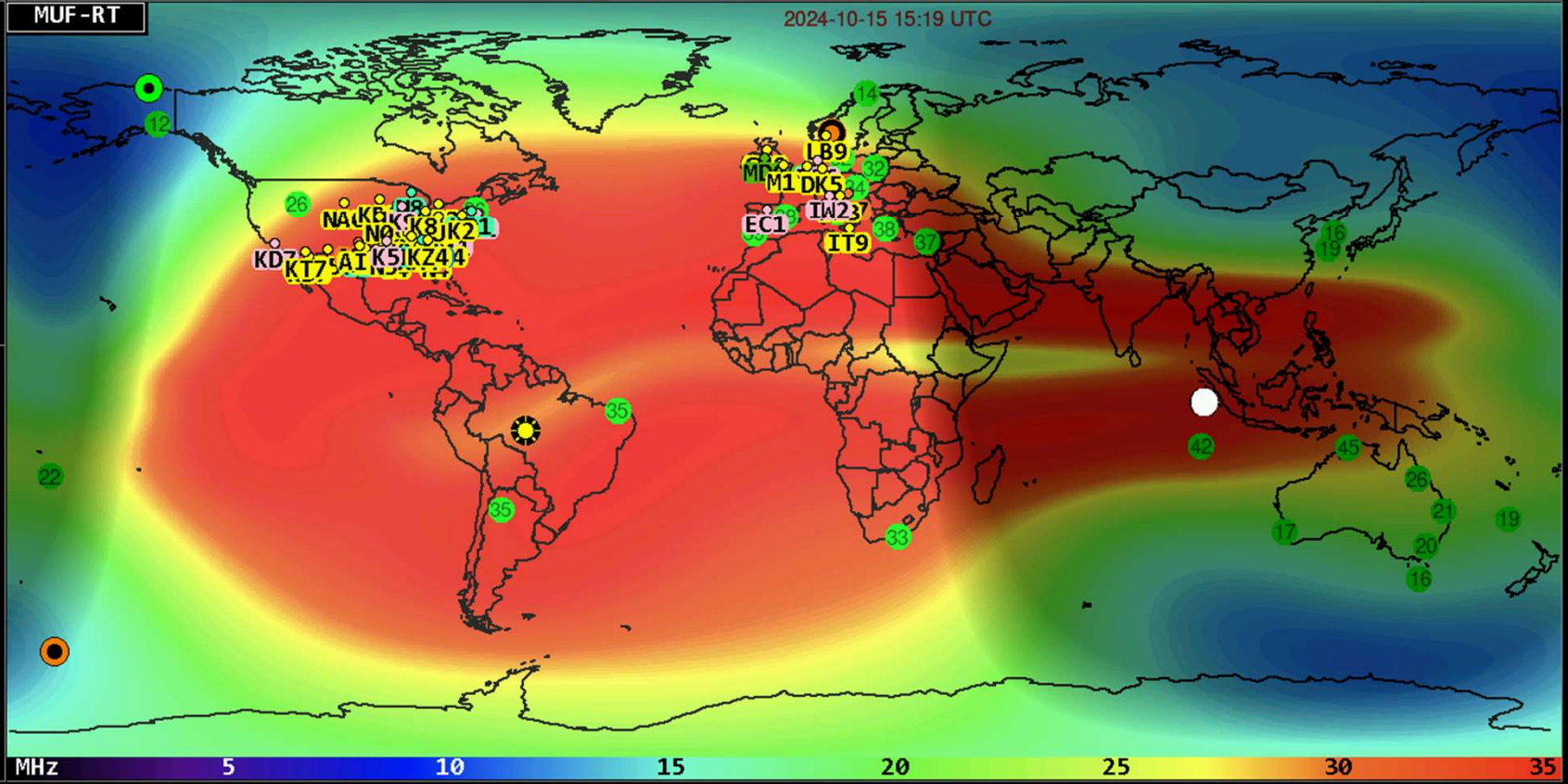
UTC



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BQ60 R in 1:27  
S 13:47 ago  
5423<sub>m</sub>@350<sub>SP</sub>



# Oppdatere HamClock til ny versjon

- Dersom ny versjon er tilgjengelig, vil installert versjonsnummer stå med rød tekst.
- Klikk på versjonsnummeret i HamClock
- Velg «Yes» for å oppdatere til ny versjon

