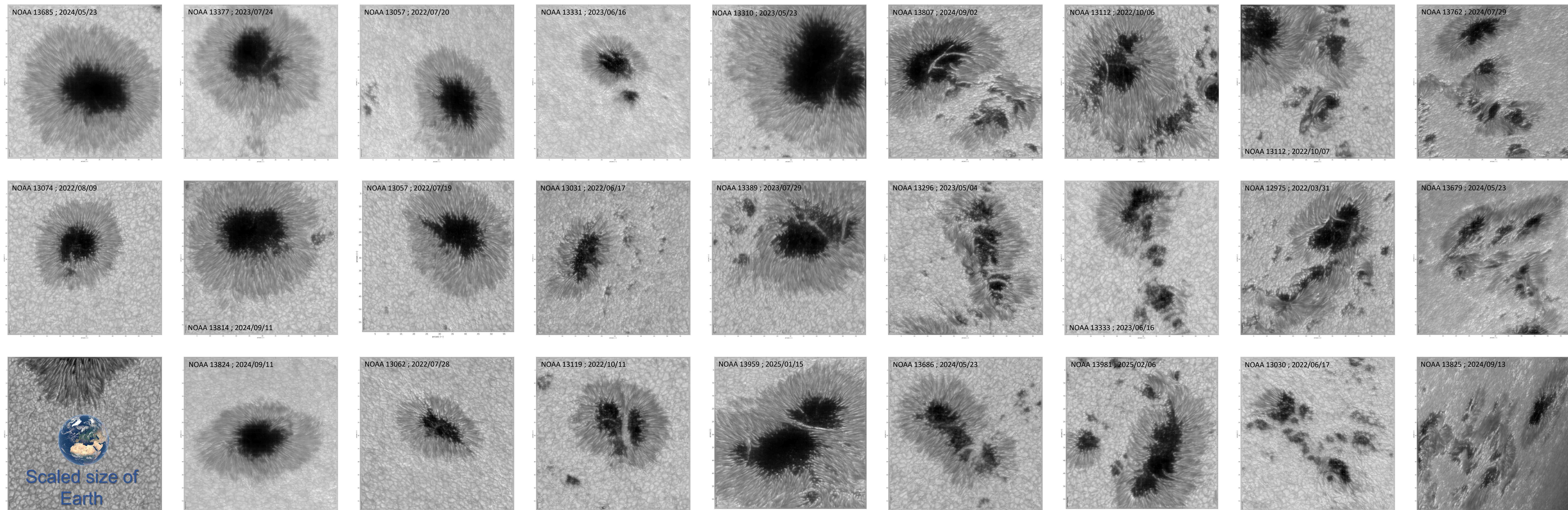


# THEMIS Sunspots collection



Each image corresponds to a field-of-view of  $\sim 55'' \times 55''$  which is equivalent to  $\sim 40\,000\text{ km} \times 40\,000\text{ km}$  on the Sun. The images have been captured in the white-light red continuum ( $\sim 10\text{ nm}$  passband centered around  $650\text{ nm}$ ). The images have been produced thanks to a Knox-Thompson image reconstruction from a series of 100 snapshots.

**Active regions** are transient features of the Sun's atmosphere. They are a source of the violent solar eruptions that can affect the magnetic environment of the Earth. They are characterized by a strong and complex magnetic field.

**Sunspots** are the signature of the presence such intense magnetic fields. As the most intense magnetic field concentrations inhibit the transport of energy, such regions are cooler & emit less light. They thus appears darker than the quiet solar surface. Measurements of the sunspot's magnetic field is at the core of THEMIS expertise.

