

# OBSCAPE

Rain Gauge

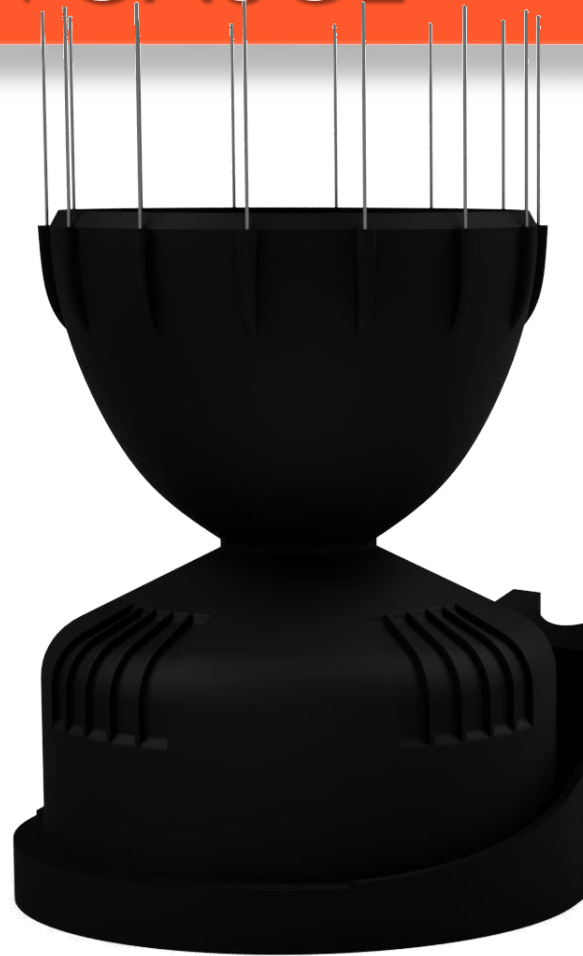
# RAIN GAUGE

Obscape's Rain Gauge delivers real-time rainfall measurements.

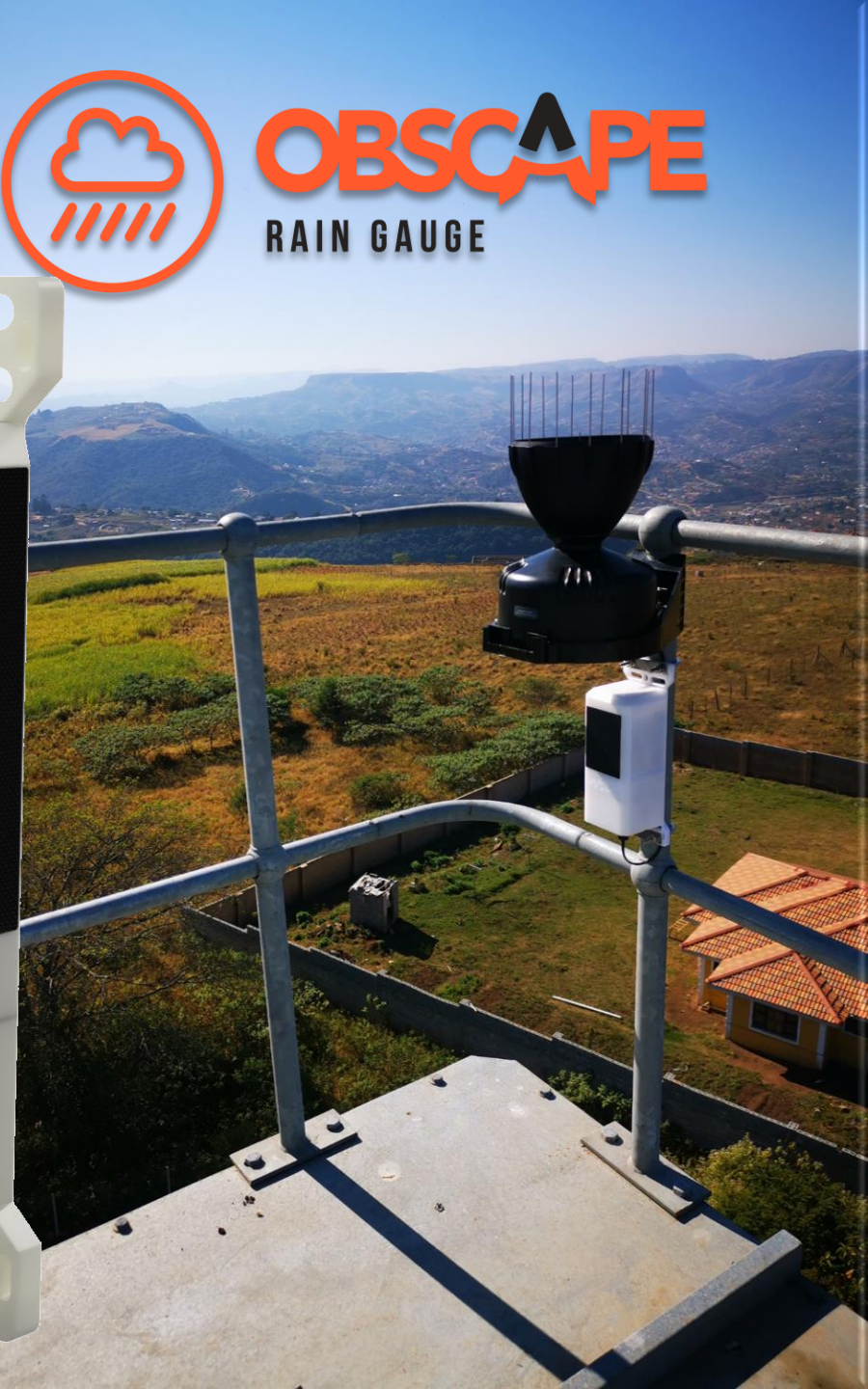
Its industry-standard rain Collector is connected to Obscape's Power and Telemetry Module to create a completely wireless real-time rain gauge.

## KEY FEATURES

- 0.2 mm resolution
- Robust design
- Completely wireless
- Industry-standard rain collector
- Accurate rainfall intensity measurements



**OBSCAPE**  
RAIN GAUGE



The Rain Collector utilised on the Obscape Rain Gauge is designed to meet the guidelines of the World Meteorological Organization.

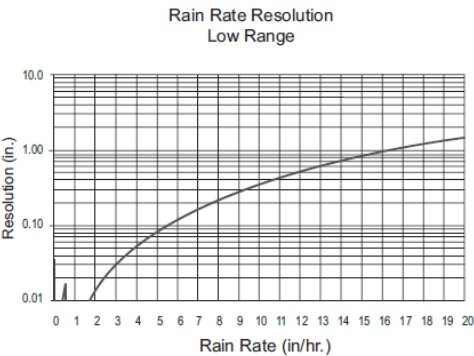
Rain enters the collector cone, passes through a debris-filtering screen, and collects in one chamber of the tipping bucket. The bucket tips when it has collected an amount of water equal to the increment in which the collector measures (0.01" or 0.2 mm). As the bucket tips, it causes a switch closure and brings the second tipping bucket chamber into position. The rainwater drains out through the screened drains in the base of the collector.

The collector is designed for years of accurate, trouble-free service. The shape is aerodynamically designed to minimize rainfall catch reduction caused by high winds. The body and base of the collector are constructed of tough, UV resistant plastic; the tipping bucket pivots on bearings that minimize friction and wear. Stainless steel adjustment screws under each chamber of the tipping bucket allow you to fine-tune the calibration of the Rain Collector.

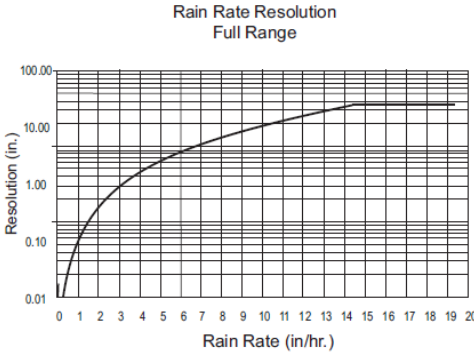
The rain collector comes with a mounting base that can be mounted to a pole or post and is factory-calibrated to report 0.2 mm per tip.

Specifications

Sensor Type .....	Tipping bucket with magnetic switch
Accuracy .....	For rain rates up to 4"/hr (100 mm/hr): ±4% of total or ± 1 tip of the bucket (0.01"/0.2 mm), whichever is greater
Housing Material .....	UV-stabilized ABS plastic
Dimensions	
Rain Collector .....	6.5" opening diameter (16.5 cm) x 9.5" (24 cm) high without bird spikes
Collection Area .....	.33.2 in2 (214 cm2)



Low Range Rain Rate Resolution



Full Range Rain Rate Resolution





# Site specific precipitation

While flood reports and forecasts are freely available sources from third parties via the media, and internet based, the main parameter that cannot be confirmed by third parties is the exact flood levels at the deployed location, because this is highly dependent on measurement-based data derived from exact conditions onsite. Obscape Rain Gauges can be deployed on onsite to report real time ground truthing of Rain intensity.

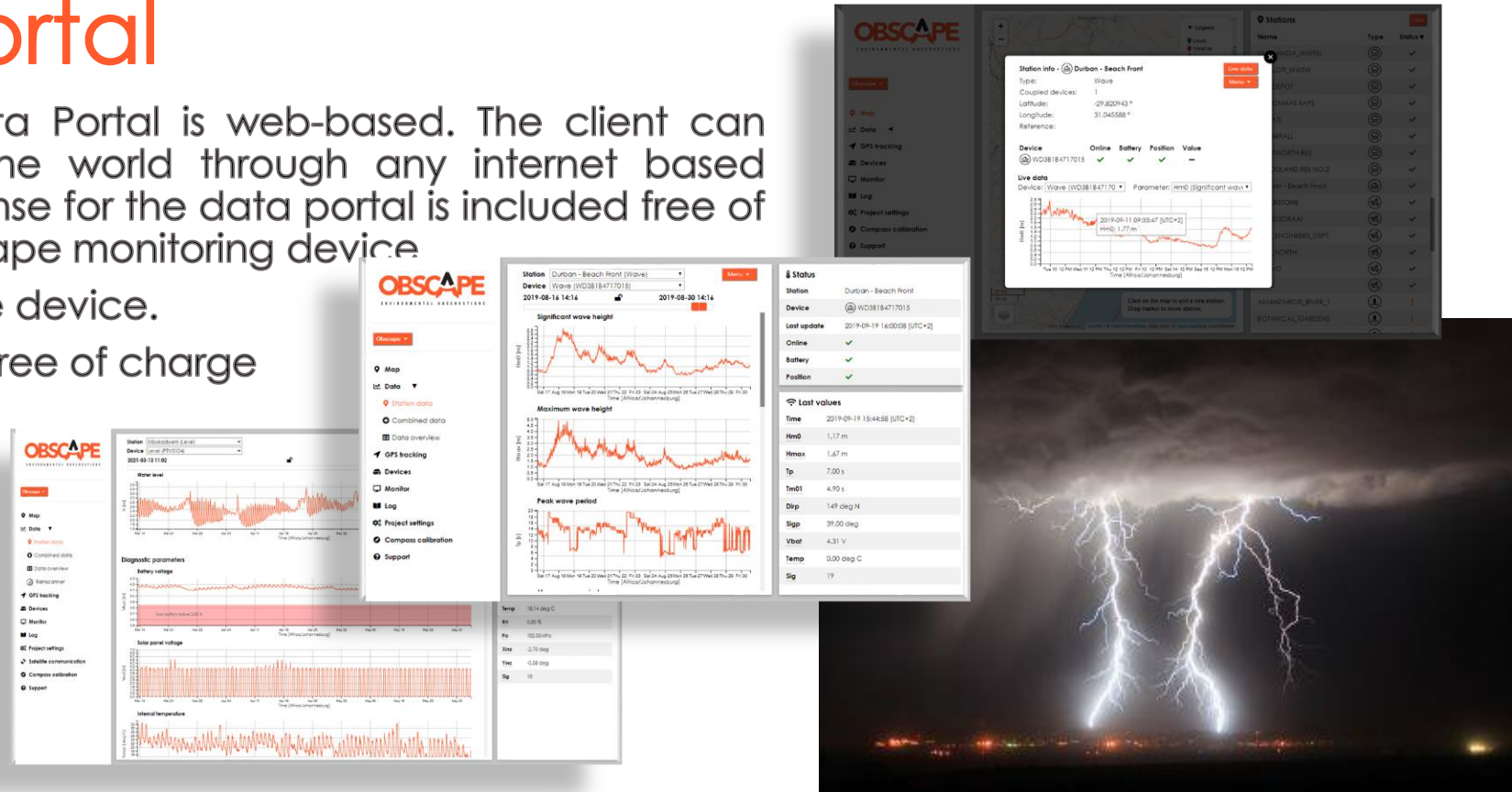
## Obscape Data Portal

The free and powerful Obscape Data Portal is web-based. The client can securely log in from anywhere in the world through any internet based electronic device. An unrestricted license for the data portal is included free of charge when you purchase any Obscape monitoring device

and will remain so for the lifetime of the device.

The following secure data is available free of charge on the Obscape Data Portal:

- Real-time precipitation data
- Downloadable reports
- Flood alerts
- Device manuals,
- Easy to follow Quick Start-up and deployment guides and videos





# PERRY JOHNSON REGISTRARS, INC.

## Certificate of Registration

Perry Johnson Registrars, Inc., has audited the Quality Management System of:

**Davis Instruments Corporation**  
3465 Diablo Avenue, Hayward, CA 94545 United States

(Hereinafter called the Organization) and hereby declares that  
Organization is in conformance with:

**ISO 9001:2015**

This Registration is in respect to the following scope:

**Design and Manufacture of Weather Instruments and Marine Products**

This Registration is granted subject to the system rules governing the Registration referred to above, and the Organization hereby covenants with the Assessment body duty to observe and comply with the said rules.



*Terry Boboige*  
Terry Boboige, President

Perry Johnson Registrars, Inc. (PIR)  
755 West Big Beaver Road, Suite 1340  
Troy, Michigan 48064  
(248) 358-3388

The use of the UKAS accreditation symbol is in respect to the activities covered by the Accreditation Certificate Number 0105.

The validity of this certificate is dependent upon ongoing surveillance.

Effective Date:  
May 29, 2021

Expiration Date:  
May 28, 2024

Certificate No.:  
C2021-01395

# DAVIS

## NIST Traceable Sensors

### What is NIST?

In the USA, the National Institute of Standards & Technology (NIST) develops and maintains the standards of measurement to which all others are ultimately traced. Numerous calibrations, tests, and measurement assurance programs are delivered directly to about 10,000 companies. From these companies, NIST-traceable intermediate service providers are the next link in a network that joins together the makers and users of precision instruments. NIST-traceability is typically required by public agencies monitoring weather conditions, private industry with strict tolerances for acceptable environmental conditions, and companies providing goods or services to the government. For more information about NIST, check out their website at [www.NIST.gov](http://www.NIST.gov).

### How does Davis Instruments relate to NIST?

Each of our weather stations is carefully manufactured in our California factory. For those users who require NIST-traceability, certification and recertification of new and previously-owned sensors is now available. See the price list for applicable fees. Each NIST-traceable sensor includes a certificate showing that the unit has been compared against a NIST-traceable reference standard, and that it is within its stated specifications. The certificate also shows the range of conditions under which the instrument was tested, the date the test was performed, and the expiration date of the certification (one year from the date of the test).

### How is the NIST program different from what Davis was already doing?

We have always made an effort to make sure that our instruments meet our stated specifications. Our manufacturing and calibration procedures are under continual review by our engineering, technical support, repair, and manufacturing departments. Many of our procedures include calibration and checking against known standards of equal or higher accuracy, including NIST-traceable instruments. NIST-traceable simply provides an extra level of documentation certifying the accuracy of your weather stations.

### What sensors are available for NIST certification, and what are the specifications?

Sensor	Checked & Verified Accuracy	Check Points
Inside Humidity	±5% RH between 33% RH & 90% RH	33% RH, 80% RH, 90% RH
Outside Humidity	±3% RH between 33% RH & 90% RH	33% RH, 80% RH, 90% RH
Inside Temperature	±1°F (0.5°C) between 40°F (4°C) and 110°F (43°C) ±2°F (1°C) between 110°F (43°C) and 140°F (60°C)	40°F (4°C), 60°F (15°C), 80°F (27°C), 100°F (38°C), 140°F (60°C)
Outside Temperature	±1°F (0.5°C) between -50°F (-48°C) and 110°F (43°C) ±2°F (1°C) between 110°F (43°C) and 140°F (60°C)	-50°F (-48°C), -15°F (-26°C), 0°F (-18°C), 40°F (4°C), 60°F (15°C), 80°F (27°C), 100°F (38°C), 140°F (60°C)
Barometric Pressure	±0.05" Hg (1.7 hPa) between 20" Hg (677 hPa) and 30" Hg (1016 hPa)	20.00" Hg (677 hPa), 22.25" Hg (753 hPa), 25.00" Hg (847 hPa), 27.75" Hg (940 hPa), 30.00" Hg (1016 hPa)
Wind Speed	±2 mph (0.9 m/s) below 40 mph (18.0 m/s), ±5% above 40 mph (18.0 m/s)	6 mph (2.7 m/s), 12 mph (5.4 m/s), 25 mph (11.2 m/s), 40 mph (18.0 m/s), and 75 mph (33.8 m/s)
Rain	±4% + 1 tip up to 2"/hr (50.8 mm/hr). Available for model measuring in 0.01" increments only. If metric measurement is desired, use UNITS button to convert to the nearest 0.2 mm.	2.00" total at 2"/hr (50.8 mm/hr)

Specifications are subject to change.

**Davis Instruments** 3465 Diablo Ave., Hayward, CA 94545-2778 USA  
(510) 732 9229 • Fax (510) 732 9188 • [sales@davisnet.com](mailto:sales@davisnet.com) • [www.davisnet.com](http://www.davisnet.com)





### Declaration of Conformity to RoHS Directive (EU) 2015/863

The following products manufactured by Davis Instruments Corporation are in compliance with the European Union Directive (EU) 2015/863: restriction on Hazardous Substances in EEE (RoHS).

These products do not contain any of the following substances in more than the following concentrations in any of the homogeneous materials.

Substance	Maximum Limits
Cadmium (Cd)	0.01% by weight of homogeneous material* 100mg/kg 100ppm
Lead (Pb)	0.1% by weight of homogeneous material* 1000mg/kg 1000ppm
Mercury (Hg)	0.1% by weight of homogeneous material* 1000mg/kg 1000ppm
Hexavalent Chromium (Cr6+)	0.1% by weight of homogeneous material* 1000mg/kg 1000ppm
Poly Brominated Biphenyls (PBB)	0.1% by weight of homogeneous material* 1000mg/kg 1000ppm
Poly Brominated Diphenyl Ethers (PBDE)	0.1% by weight of homogeneous material* 1000mg/kg 1000ppm
Bis(2-ethylhexyl) phthalate (DEHP)	0.1% by weight of homogeneous material* 1000mg/kg 1000ppm
Butyl benzyl phthalate (BBP)	0.1% by weight of homogeneous material* 1000mg/kg 1000ppm
Dibutyl phthalate (DBP)	0.1% by weight of homogeneous material* 1000mg/kg 1000ppm
Diisobutyl phthalate (DIBP)	0.1% by weight of homogeneous material* 1000mg/kg 1000ppm

\*Homogeneous material is a material that cannot be mechanically disjoined into different materials

After evaluation of the RoHS requirements, I hereby declare that the following products meet the RoHS requirements:

271 & 271C Turbo Meters	6671 Shelter Angle Bracket
6152C, 6152CEU, 6152CUK, 6152CM, 6162EU, 6162UK, 6162C & 6162CM Cabled Vantage Pro2 & Vantage Pro2 Plus	6673 Sensor Mounting Shelf
6312C, 6312EU, 6312UK Cabled Vantage Pro2 Console	6710 AC Charger Kit
6322C, 6322CM, 6327C, 6327CM, 6820C, 6820CM, 6825C & 6825CM Cabled Vantage Pro2, Vantage Pro2 Plus, and GroWeather Sensor Suites	6714 Optional USB Power Cord
6316C, 6316CEU, 6316CUK Weather Envoy	6830, 6832 & 6834 Temperature/Humidity Sensors
6410, 6415 & 7911 Anemometers	6838 24-Hour Fan Aspirated Radiation Shield
6420 Leaf Wetness Sensor	6860 RJ Connector for EnviroMonitor
6440 Soil Moisture Sensor	7716 & 7716A Mounting Tripod and 7717 Mounting Pole Kit
6450 Solar Radiation Sensor	7714 Radiation Shield
6461, 6462, 6464, 6464M, 6466, 6466M, 7852.804, 7852.804M Rain Collectors	7656 & 7660 Omni and Yagi Antennas
6470, 6475 & 6477 Temperature Probes	7676 & 7678 Long Range Antennas for EnviroMonitor
6490 UV Sensor	7720EU & 7720UK Rain Collector Heater
6510SER & 6510USB WeatherLink Data Loggers	7721EU, 7721UK Rain Collector Cone and Heater
6612 & 6614 Solar Power Kits	7747 Daytime Fan-Aspirated Radiation Shield Kit
6616 Extra Solar Panel Kit	7758 & 7758B Motor Kit
6618 Universal Shelter	7876-008, -040, -100, -200 Standard Cables & 7692-025 Long Range Antenna Cable
6627 USB Power Cord	7905L Wind Cups
6670 Universal Mounting Bracket	7906L & 7904 Wind Vanes

Business Name and Address: Davis Instruments Corporation, 3465 Diablo Avenue, Hayward, CA 94545, USA

Signed:

Bruce Walter, Compliance Engineer, May 1, 2023



### Davis Instruments REACH Statement European Union (EU) Regulation (EC) No 1907/2006, REACH

The Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) is an EU initiative aimed to improve the protection of human health and the environment through safe usage of chemical substances contained within preparations and articles. With respect to the REACH initiative, we offer the following information regarding Davis Instruments' products:

#### 1. Article 7 – Registration

Articles produced by Davis Instruments do not contain substances intended to be released under normal or reasonably foreseeable conditions of use and do not contain any Substances of Very High concern (SVHC) that exceed 1 ton per year. As such, Davis Instruments is not required to notify ECHA under Article 7(1).

#### 2. Article 33 (1) – Communication of Substance Information

Article 33(1) requires a supplier to inform its customers if an article contains a substance(s) on the Substances of Very High Concern (SVHC) Candidate List in excess of 0.1% by weight of that article.

Davis Instruments continues to evaluate supplier and material composition declarations and through internal material review, Davis Instruments, to the best of its knowledge has determined the other SVHC are not present above the 0.1% weight in any article of Davis Instruments' products or packaging material.

Please refer to the following ECHA list for the most current candidate list of substances:

<https://echa.europa.eu/candidate-list-table>

#### 3. Article 67 Substance Restrictions and Article 56 Authorization

Under Articles 67 and 56, substances listed in Annex XVII and Annex XIV are restricted for use by application or require an authorization prior to use. Davis Instruments, to the best of its knowledge and belief, has determined that there are no known Annex XVII restricted substances or Annex XIV substances subject to authorization contained in Davis Instruments products and packaging.

Christopher Sullivan, President

June 1, 2023

**Davis Instruments®** 3465 Diablo Ave., Hayward, CA 94545-2778 USA  
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# ALL-IN-ONE DATA PORTAL

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IN AND  
EASY TO USE  
PORTAL



AUTOMATED  
FORWARDING  
OPTIONS



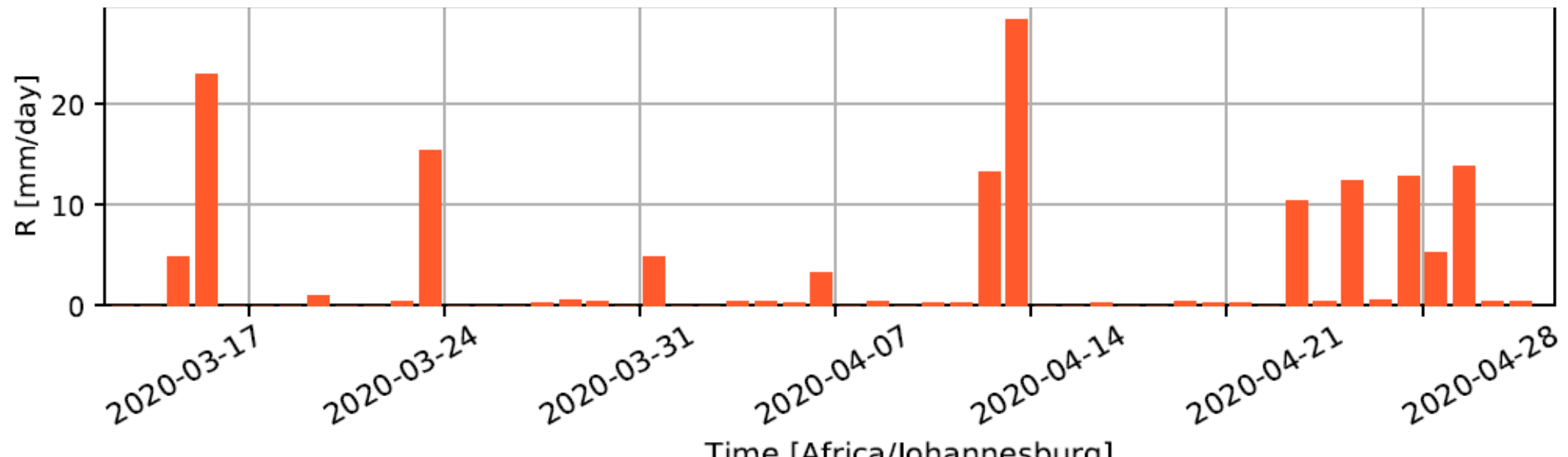
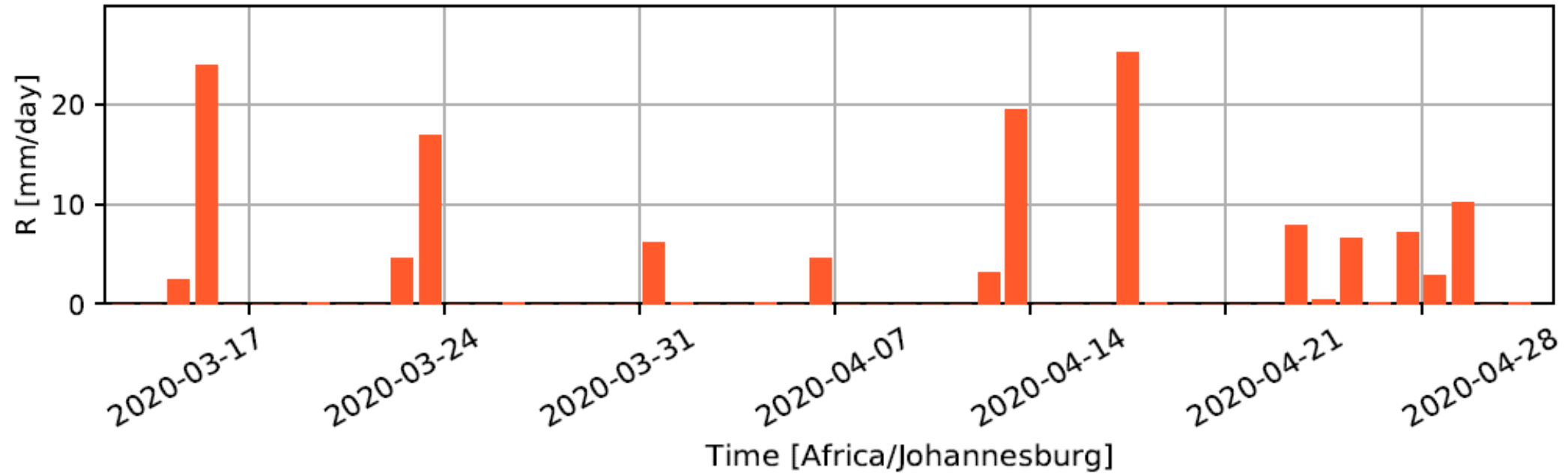
WHITE  
LABELLING



UNLIMITED DEVICES  
UP TO 50 USERS  
PER PROJECT

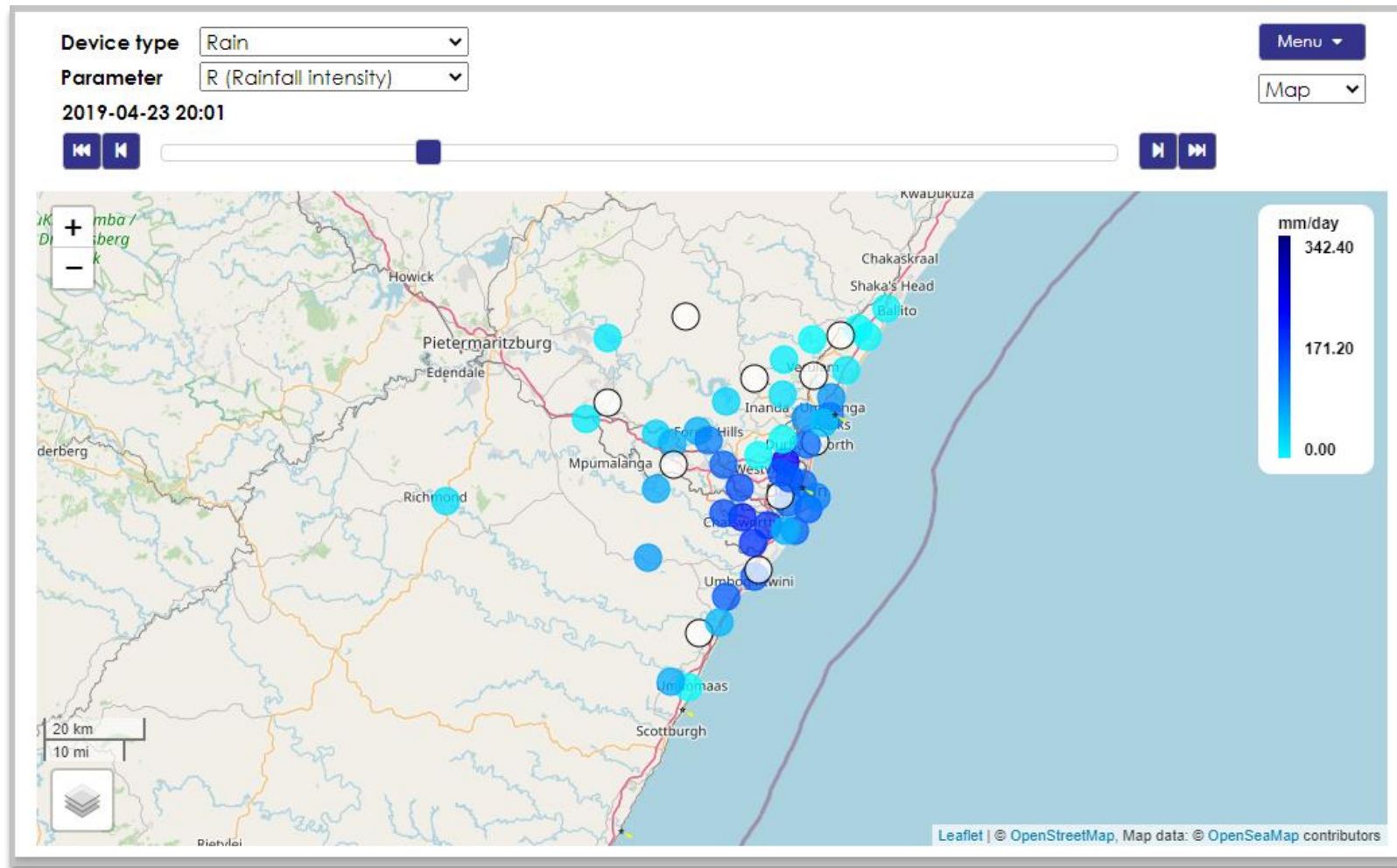


# Dataportal measurement examples





# Dataportal example of flooding



# Highway flooding





# Informal settlement flooding





# Harbour flooding





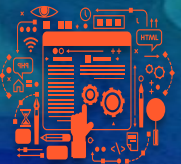


ENVIRONMENTAL OBSERVATIONS

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MANY THANKS FOR YOUR CONSIDERATION.



Paul Groves

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[www.obscape.com](http://www.obscape.com)

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ENVIRONMENTAL OBSERVATIONS