

Training

Geospatial journalism: investigate, verify and illustrate with satellite imagery

*Satellite imagery and open-access data for
the environment, climate and other current affairs*

Overview

Satellite imagery and geospatial data give journalists new ways to observe a territory, document change, verify information, or show audiences phenomena that are difficult to capture from the ground.

Especially powerful for investigating environmental issues and the climate crisis, these techniques can also enhance many other stories: disasters, conflicts, urbanisation, infrastructure, industrial or maritime activity, agricultural change, and land-use planning.

The training combines satellite imagery, geospatial data, open-source research, fact-checking, mapping and image analysis. Fully customisable, it is adapted to the participants' level, needs and topics.

Target audience

Journalists and information and communication professionals, educators, trainers, researchers, NGOs and other professionals who want to use satellite imagery and geospatial data to investigate, verify, document or explain a topic.

Prerequisites

No specific technical prerequisites are required for introductory formats beyond everyday Internet use. Advanced modules can be adapted for participants already familiar with online research, mapping or geospatial data.

Learning objectives

Objectives are selected and adapted for each session. Depending on the needs identified, the training can enable participants to:

- search for and compare satellite imagery and geospatial data relevant to a journalistic topic.
- understand what these images show, their main characteristics and their limitations.
- observe and document how a territory or phenomenon changes over time.
- cross-check satellite imagery, geospatial data and open sources to verify information or build an investigation.
- present findings through maps, comparisons or visual sequences that are clear to audiences.

Training content

The programme is built from modules selected according to participants' level, objectives and available time. The emphasis is on hands-on practice using real cases.

1. Read a territory from space

- find relevant imagery, understand its date, resolution and limitations, and identify what it can reveal.

2. Reveal change over time

- compare imagery over time to document changes in a place: deforestation, fires, urbanisation, infrastructure, disasters, mining or maritime activity.

3. Cross-check the evidence

- overlay maps, open data and thematic databases, then compare observations with documents, online content, testimony and other sources.

4. Go beyond visible imagery

- depending on the level, explore infrared, multispectral, radar or thermal data, and learn to choose the right approach without over-interpreting results.

5. Verify, tell and visualise

- geolocate, contextualise and test a hypothesis, then turn findings into maps, before-and-after comparisons, animations or explanatory sequences.

Depending on the duration, the training can focus on an introduction to satellite imagery or offer a more complete geospatial investigation pathway.

Tools and platforms covered

Tools are selected according to the objectives and case studies, and updated as they evolve. They may include:

- **Google Earth and Google Earth Pro:** explore a territory, take measurements and look back in time.
- **Copernicus Browser:** search for and compare Sentinel imagery.
- **NASA FIRMS:** identify and track fires and thermal anomalies.
- **Global Nature Watch** (formerly Global Forest Watch): track deforestation and land-use change.
- **Global Fishing Watch:** analyse fishing activity and vessel movements.

Duration

From 2 hours to several days, depending on the objectives, participants' level and the number of modules covered. As a guide, a focused introduction to satellite imagery can be delivered in half a day; in-depth practical training generally requires one day or more.

Training format

Training can be delivered in person at the client's premises or another agreed venue, or remotely by videoconference. The format is defined according to the objectives, number of participants and desired amount of practical work.

Access arrangements and lead time

Training requests can be made by phone or email. A discussion with the client, supplemented if necessary by a pre-training questionnaire, is used to assess needs and define the programme, duration and quotation. The date is agreed according to availability.

Equipment required

Each participant needs a computer connected to the Internet and a recent browser. Any accounts, software or resources required for exercises are specified before the training. For in-person sessions, a projector and reliable Internet connection are required.

Teaching methods

The training prioritises hands-on learning and may include:

- methodological input illustrated with investigations, data and real cases.
- guided demonstrations of selected techniques and tools.
- practical exercises using satellite imagery, maps, data and open sources.
- scenarios in which participants build and test investigative hypotheses.
- discussion, collective analysis and feedback tailored to participants' needs.

Assessment methods

Assessment is adapted to the objectives selected for each session. It may include:

- a pre-training assessment of participants' needs and level.
- practical exercises assessing the ability to search for, interpret and cross-check geospatial sources.
- knowledge checks or quizzes during the training.
- a practical scenario or case study to assess achievement of the objectives at the end of the session.
- a separate satisfaction questionnaire on the quality and usefulness of the training.

Accessibility for people with disabilities

Specific needs are identified in advance so that reasonable adjustments can be considered. For in-person training, accessibility of the venue is organised with the host institution. Training materials and teaching methods can be adapted where possible. Any specific requirement can be raised when making contact so that appropriate solutions can be explored.

Training recognition

This is a non-certifying training course. Participants who complete the session receive a certificate of completion.

Funding

The training may be eligible for funding by an employer or funding body, depending on the beneficiary's situation and the funder's rules. Funding is not automatic. A customised quotation and programme can be provided to support a funding application.

Outcome indicators

Satisfaction and achievement indicators are based on end-of-training assessments. Available consolidated results and the calculation method are published and updated periodically on bourgoing.com.

Fee

By quotation. The cost depends on the duration, number of participants, in-person or remote format, level of customisation, specific preparation required and any travel expenses. The final fee is stated in the proposal sent to the client.

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