
com sur™
the missing piece of CCTV
THE FOOTAGE WHISPERER
"SEE WHAT THE CAMERA SAW"
100+ TOPICS - AIRPORTS TO ZOOS

UTILITY VALUE OF COM-SUR™ FOR FORESTS

WELCOME

AUDIT HOURS OF FOOTAGE IN MINUTES FIND OUT HOW COM-SUR WILL HELP

Several forms of video surveillance are common in forests world over, but footage is often only reviewed reactively. Our company realized this problem early-on and has developed the world's only CCTV/other surveillance video footage auditing software that encourages daily auditing (hours in minutes) of footage, filling the gap for a complete "workflow". The software works with existing cameras and VMS, regardless of type/brand, and provides a standardized approach for intelligent incident reporting. Our software also offers exceptional investigative capabilities.

'COM-SUR' – THE WORLD'S ONLY CCTV/OTHER SURVEILLANCE VIDEO FOOTAGE AUDITING, SMART BACKUP, AND STANDARDIZED INTELLIGENT INCIDENT REPORTING SOFTWARE – THE MISSING PIECE OF CCTV/OTHER SURVEILLANCE VIDEO

COM-SUR is the world's only CCTV/other surveillance video footage auditing, smart backup, and standardized intelligent incident reporting software that serves as a complete workflow and force multiplier. It helps audit 24 hours of footage in minutes, reduces data size, creates standardized intelligent reports, and delivers business intelligence. COM-SUR helps unlock hidden information in CCTV/surveillance video footage and enables people to gain actionable intelligence, improve homeland security, prevent crime and losses, identify and mitigate threats and hazards, and improve operational efficiency. It empowers people to gain new jobs as CCTV/surveillance video footage auditors and start new businesses of auditing video footage. Like MS Office, COM-SUR is an enabler that makes it easy to work with CCTV and other surveillance cameras in a standardized way, leading to better decision-making. It also offers exceptional investigative capabilities.

HOW COM-SUR SMARTLY REDUCES 'VIDEO' STORAGE SIZE

COM-SUR employs an innovative approach to smartly reduce the amount of video to be audited and consequently the storage size of videos. Regardless of the video's frame rate, COM-SUR captures a single screenshot of the consolidated 'moment' of 'that' one second, when the I, P, and B frames come together. This method significantly reduces data size without sacrificing vital information. It goes without saying that when multiple cameras are displayed in a grid view, say 4x4, the storage size is further reduced since all the cameras are captured as a single image. Since no suggestion is being made to replace the actual video with screenshots, COM-SUR acts as a wonderful supportive technology both to audit (review) just 86400 frames representing 24 hours and reducing the data size at the same time.

CHALLENGES FACED BY FORESTS

1. Illegal logging:

Unauthorized and unsustainable logging activities pose a significant threat to forests. It results in deforestation, habitat destruction, and loss of biodiversity.

2. Wildlife poaching:

Poaching of endangered species for their body parts, fur, or as trophies can disrupt ecosystems and lead to the decline of vulnerable animal populations.

3. Forest fires:

Uncontrolled wildfires, whether natural or human-induced, can destroy large areas of forests, leading to the loss of vegetation, habitat destruction, and the release of carbon into the atmosphere.

4. Invasive species:

The introduction of invasive plant species, pests, or diseases can have a detrimental impact on native flora and fauna, disrupting natural ecosystems and reducing biodiversity.

5. Land use changes:

Conversions of forests into agricultural land, urban areas, or other land uses contribute to deforestation and habitat fragmentation, impacting the overall health of ecosystems.

6. Climate change:

Changes in temperature, precipitation patterns, and extreme weather events associated with climate change can stress forest ecosystems, affecting the distribution of plant and animal species.

7. Human encroachment:

Unauthorized settlements, agriculture, and infrastructure development can encroach upon forested areas, leading to habitat loss, increased human-wildlife conflict, and degradation of ecosystem services.

8. Air and water pollution:

Pollution from industrial activities, agriculture, and urban areas can negatively impact the air and water quality in forests, affecting the health of both flora and fauna.

9. Lack of sustainable management:

Inadequate or unsustainable forest management practices, including overharvesting and poor land-use planning, can contribute to the degradation of forest ecosystems.

10. Human-wildlife conflict:

As human activities encroach upon wildlife habitats, conflicts between humans and wildlife may arise, particularly when animals damage crops or pose threats to human safety.

11. Lack of public awareness:

Limited awareness about the importance of forests and sustainable practices may contribute to destructive activities. Public education and awareness campaigns are essential to promote conservation efforts.

12. Humongous growth of surveillance video:

The exponential growth of surveillance cameras has resulted in an unprecedented surge in surveillance video. Effectively managing this data has become a daunting challenge due to the massive storage capacity required, especially considering the prolonged retention periods necessary for security, incident investigation, or legal purposes.

Furthermore, the prevalence of high-resolution video with increasing megapixels compounds the storage demands, making efficient data management an urgent priority for organizations grappling with the immense volume of surveillance footage.

COVID-19 PANDEMIC

While the direct effects of the pandemic on forests are limited, it influenced human activities and policies, which, in turn, have had implications for forest ecosystems. In some regions, reduced monitoring and enforcement during the pandemic led to an increase in poaching, illegal logging, and other illicit activities in forests. Economic challenges during the pandemic affected funding for conservation initiatives and forest protection efforts. Guidelines were issued to prevent the spread of COVID-19, but outbreaks still occurred.

USE OF VIDEO SURVEILLANCE AT FORESTS

Here are the various types of video surveillance deployed at forests:

1. Fixed cameras:

a. Trail cameras: These are rugged, weather-resistant cameras commonly used for wildlife monitoring. They are often placed along animal trails in forests to capture images or videos of wildlife activity.

Camera traps, a form of trail cameras, are motion-activated devices equipped with cameras and, in some cases, additional sensors. They are widely used in ecological and wildlife research, to capture images or videos of animals and their behavior.

b. Pan-Tilt-Zoom (PTZ) cameras: These cameras can be remotely controlled to pan, tilt, and zoom, providing a wide range of coverage. They are useful for monitoring large areas.

2. Aerial surveillance:

a. Unmanned Aerial Vehicles (UAVs or Drones): Drones equipped with cameras are used to monitor large forest areas from above, providing a unique perspective. They are useful for rapid assessments, identifying potential threats, and mapping.

b. Satellite Imagery: While not exactly video surveillance, satellite imagery provides a broader view of large, forested regions. It helps monitor changes in land cover, detect deforestation, and assess the overall health of forests.

3. Mobile cameras:

a. Vehicle-mounted cameras: Cameras mounted on vehicles are driven through forests to monitor different areas efficiently.

b. Body cameras: Forest rangers or personnel may wear body cameras for on-the-ground surveillance, documenting their activities and encounters.

4. Underwater cameras:

In cases where water bodies are present within or near forests, underwater cameras are used to monitor aquatic life and activities.

5. Thermal cameras:

Thermal cameras play a vital role in detecting forest fires. These cameras are designed to detect heat signatures associated with intense fires. They are commonly used in fixed positions, mounted on drones, or integrated into surveillance systems to enhance early detection capabilities.

LIVE MONITORING – CHALLENGES

In some cases, there is a dedicated control room with operators, set up for live monitoring of cameras. However, live monitoring comes with its own set of challenges of video blindness, poor attention span, boredom, operator bias, false alerts, and so on.

Moreover, these cameras continuously capture and record humungous amounts of video data. It therefore becomes a daunting task for the operators to review and analyse this data whenever the need arises. Thus, it may be noted that benefits from video surveillance systems can accrue only when they are used optimally, suggestions for which are enumerated further on, in this document.

AUTOMATED SOFTWARE – WHY THEY WILL NOT WORK IN ISOLATION

In the wake of the Christchurch shooting incident, several high-profile places of worship considered deploying gun detection technology. However, there are concerns about its efficacy, since it may not be able to detect all types of weapons, or the perpetrator could still create damage before being detected. Similarly, automated systems like video analytics, AI/ML can only detect what they have been programmed for. What about the rest? Again, these technologies are prone to triggering huge amounts of false alarms. Also, since the permutation combinations of exceptions can be vast and varied, it becomes almost impossible to automate every kind of exception. Facial recognition technology also raises ethical and privacy concerns, and has been found to produce inaccurate results, especially for certain ethnic groups. Therefore, experts suggest that while automated technologies will continue to grow, human intervention and intelligence will still be necessary to verify alerts and ensure their efficacy.

"VIDEO SURVEILLANCE IS NOT ENOUGH – WE MAKE IT WORK FOR YOU"

While it is not being suggested that optimal usage of video surveillance can cure all issues, several issues of the following kind can be addressed by doing just a little 'more' with respect to making the optimal use of video surveillance systems:

- Animal welfare issues

- Illegal logging

- Wildlife poaching

- Forest fires

- Invasive species of plants and animals

- Issues due to climate change

- Recces/suspicious movements/activities

- Human encroachment

- Unauthorized/unlawful activities/visitors

- Potentially hazardous material

- Cameras/recorder malfunctions

So, what is the 'more' that needs to be done?

1) AUDIT SURVEILLANCE VIDEO FOOTAGE DAILY AS A STANDARD OPERATING PROCEDURE

'Auditing' means 'seeing' what the cameras 'saw'. Auditing of surveillance video footage should be done daily (continuous investigation) to identify potential issues and threats. Auditing is a dedicated and systematic process that helps address challenges related to live monitoring and alert-based systems. Auditing helps in evaluating analyzing incidents to improve existing policies, procedures, and processes. Concerned personnel should be trained to become video footage auditors, and the audit teams should be rotated to avoid complacency/collusion. Daily auditing of surveillance video footage can also help in adhering to the principles of Kaizen and TQM for business improvement.

2) DOCUMENT AUDIT FINDINGS/INCIDENTS

Audit findings/incidents should be documented in a standardized template to find the root cause to prevent future recurrences. Historical data of such findings/incidents can reveal patterns that can help take better informed corrective and preventive action. If stakeholders of all forests report incidents in a standardized template, relevant authorities can derive business intelligence from the data and take action for the collective benefit of all forests worldwide.

3) ENSURE DISASTER RECOVERY OF SURVEILLANCE VIDEO FOOTAGE – LIKE A 'BLACKBOX'

Surveillance video footage must be stored at multiple locations in order to ensure that even if the recorder/storage device is stolen, destroyed or tampered with the data is never lost. Further, any backed-up data must easily be searchable and retrievable; else, it is going to be a nightmare finding the relevant video.

4) DOCUMENT AND SHARE DYNAMIC INFORMATION

Document and share details of information that is dynamic in nature in. For example:

1. List of habitual offenders/suspects likely to visit the forest (a 'Watch out' list).

2. List of wildlife sightings in the respective areas of the forest (in order to track animal movements).

3. List of invasive species of plants and animals.

5) USE A POWERFUL NEW SIGNAGE

"WE AUDIT CCTV VIDEO FOOTAGE EVERYDAY".

One size, one color, one powerful message.
Across the nation.

CONCLUSION

“You see, but you do not observe” is a quote by Sherlock Holmes in A Scandal in Bohemia (1891, written by Sir Arthur Conan Doyle).
COM-SUR makes 'observation’ far effortless and effectual leading to superior results.

"Cameras don't lie" - but how will you know unless you 'see' what the cameras 'saw'?
Audit video - why suffer!

Get award-winning COM-SUR now. Don't wait for things to go wrong!