

**com**<sup>TM</sup>  
**sur**

the missing piece of CCTV

# THE FOOTAGE WHISPERER

# "SEE WHAT THE CAMERA SAW"

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100+ TOPICS - AIRPORTS TO ZOOS

GAUTAM D. GORADIA



UTILITY VALUE OF  
COM-SUR™ FOR  
PORTS

WELCOME



AUDIT HOURS OF FOOTAGE IN MINUTES  
FIND OUT HOW COM-SUR, THE BEST  
'MOUSETRAP' WILL HELP

["Seeing is believing - See what the camera saw"](#)

CCTV surveillance is common in ports world over, but footage is often only reviewed reactively. Our company realized this problem early-on and has developed the world's only CCTV video footage auditing software that encourages daily auditing (hours in minutes) of CCTV 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 VIDEO  
FOOTAGE AUDITING, SMART BACKUP, AND  
STANDARDIZED INTELLIGENT INCIDENT  
REPORTING SOFTWARE – THE MISSING PIECE  
OF CCTV

COM-SUR is the world's only CCTV 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 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 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 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 PORTS

##### 1. Customs and border control:

Ports serve as points of entry for international trade, requiring robust customs and border control measures. Effective inspection procedures, accurate documentation, and cooperation between customs authorities are necessary to prevent illicit activities and ensure compliance with trade regulations.

##### 2. Illegal immigration and human trafficking:

Ports can be used as entry points for illegal immigration and human trafficking. Authorities need to be vigilant in detecting and preventing the smuggling of individuals across borders or the exploitation of vulnerable populations.

##### 3. Drug trafficking:

Ports are prime locations for drug trafficking due to the large volume of cargo and extensive transportation networks. Law enforcement agencies must work diligently to identify and

intercept drug shipments.

##### 4. Cargo theft and pilferage:

Ports handle valuable cargo, making them susceptible to theft and pilferage. Criminal elements often attempt to steal goods during transit or exploit vulnerabilities in cargo handling and storage areas.

##### 5. Piracy and maritime security:

Ports in regions prone to piracy face unique challenges in ensuring the safety of vessels, crews, and cargo. Security measures such as naval patrols, surveillance systems, and cooperation with international maritime security organizations are necessary to combat piracy.

##### 6. Environmental risks:

Ports handle hazardous materials and face potential environmental risks such as oil spills, chemical leaks, or contamination incidents. Adequate safety measures, emergency response plans, and regular inspections are critical to mitigating these risks.

##### 7. Terrorism and security breaches:

Ports are potential targets for terrorist attacks or security breaches. Unauthorized access to port facilities, smuggling of contraband or weapons, and sabotage of port infrastructure are significant concerns. Perpetrators often conduct pre-operational surveillance of the target area, making it important to detect suspicious activity during this phase to prevent an incident.

##### 8. Port congestion and efficiency:

Ports often face challenges related to congestion, which can impact efficiency and

security. Managing the flow of vessels, optimizing cargo handling processes, and ensuring smooth logistics operations are essential for minimizing disruptions and maintaining security.

#### 9. Insider threats:

Ports have to deal with insider threats from disgruntled employees or even unwitting staff who fail to follow proper security and safety measures.

#### 10. 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

The pandemic severely impacted the operations of ports worldwide. Several ports had to scale down their operations, thereby compromising the global maritime supply chain and connectivity. Guidelines were issued to prevent the spread of COVID-19, but outbreaks still occurred.

#### USE OF VIDEO SURVEILLANCE AT PORTS

Most ports have video surveillance covering the following areas:

- Entry and exit points
- Dockyards and berths
- Loading and unloading areas
- Cargo handling and storage areas
- Container yards
- Offices
- Terminal areas
- Customs facilities
- Maintenance areas
- Parking areas
- Ticketing and baggage collection areas, restaurants, retail stores and security clearance areas (in case of cruise ports)
- Areas which house expensive equipment
- Other areas deemed important

Further, the concerned stakeholders at ports generally need to review and analyze recorded CCTV video footage from time to time in order to track possible offenders, reconstruct the chain of events that lead to a particular incident/accident, as well as assist Police/other Law Enforcement Agencies.

In addition, drones are deployed to monitor areas of the port that cannot be covered by CCTV cameras.

#### LIVE MONITORING – CHALLENGES

Several ports have a dedicated control room



with operators, set up for live monitoring of CCTV 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.

#### COMPLIANCE - GENERAL

Conformity or compliance in any organization means adherence to laws and/or rules and regulations, various standards, as well as data storage and security requirements as laid down by government bodies, governing bodies of the respective industry, or the management of the organization. When an organization complies with the requirements mandated by government and/or governing bodies, then it is termed as 'regulatory compliance' which enables the organization to run in a legal and safe manner.

#### COMPLIANCE - AUDITS

Several organizations carry out compliance audits on a regular basis to avoid the potential consequences of non-compliance. A compliance audit examines how well an organization adheres to compliance requirements. Some organizations use video surveillance to monitor compliance issues and audit recorded CCTV video footage from time to time for investigating and preventing

compliance issues. Auditing CCTV provides actionable insights on the level of compliance within the organization.

#### 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.

#### “CCTV 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:

- Illegal immigration attempts/human trafficking/drug trafficking
- Fraud/loss/pilferage/theft
- Port congestion
- Recces/suspicious movements/activities
- Insider job/security lapses
- Unauthorized/unlawful activities/visitors
- Accidents/Causes of potential accidents
- Potential causes of fire
- Exceptions during VIP movements
- Unclaimed/unattended baggage/objects
- Human rights violations
- Staff negligence
- Inattentive staff (e.g. guard sleeping)
- Unruly passengers/staff
- Issues with female staff/passengers
- Compliance issues
- Health and safety issues
- Housekeeping issues
- Cameras/recorder malfunctions

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

### 1) AUDIT CCTV VIDEO FOOTAGE DAILY AS A STANDARD OPERATING PROCEDURE

'Auditing' means 'seeing' what the cameras 'saw'. Auditing of CCTV 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 CCTV video footage auditors, and the audit teams should be rotated to avoid complacency/collusion. Daily auditing of CCTV 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 the entire industry reports incidents in a standardized template, relevant authorities can derive business intelligence from the data and take action for the collective benefit of all ports.

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

CCTV video footage must be stored at multiple locations in order to ensure that even if the recorder 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) DISPLAY DYNAMIC INFORMATION AT RELEVANT PLACES

Document and display details of information that is dynamic in nature in relevant areas.

For example:

1. List of officials on duty (who can be contacted in case of any emergency/grievance).
2. List of authorized security personnel deployed at the port.
3. List of habitual offenders/suspects likely to visit the port's premises (a 'Watch out' list).

#### 5) USE A POWERFUL NEW SIGNAGE

**"WE AUDIT CCTV VIDEO FOOTAGE EVERYDAY"**

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

#### DE-CENTRALIZED SURVEILLANCE + CENTRALIZED SURVEILLANCE = OPTIMAL RESULTS

Organizations with multiple locations struggle with centralized video surveillance due to infrastructure cost, internet bandwidth, and operator limitations. De-centralized surveillance offers higher accountability at each location and better situational awareness, leading to more chances of discovering exceptions.

#### 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 CCTV - why suffer!

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

Finally, allow us to present three important mantras that change the landscape of video surveillance:

1. Auditing is fundamental – everything else is peripheral.
2. Cameras have lenses – humans have eyes.
3. Let's make cameras 'accountable'.