Usecase ID: UC_001
Usecase Name: Register (Add) Users
Actors: Administrator
Importance Level: High
Usecase Description:
This use case enables administrators to register new users into the system.
Pre-condition:
The administrator must be logged into the system.
Post-condition:
The new user is successfully registered in the system.

Basic Course of Action:

1. The administrator accesses the system by visiting the website (Get Web).
2. The administrator logs into the system using their credentials.
3. After successful login, the administrator navigates to the specified button for registering users.
4. The administrator enters the new user's details (username, password, role, security level).
5. The system validates the entered data.
6. If the data is valid, the system registers the new user.

Alternative Course of Action:
If the entered username is already in use:

1. The system prompts the administrator to choose a different username.
2. The administrator selects a unique username for the new user.
3. The system revalidates the entered data.
4. If the data is now valid, the system registers the new user.
5. If the data remains invalid, the system displays an error message, and the process stops.

Relationship:

1. Generalization: None
2. Association: Admin
3. Include: None
4. Extends: None

Usecase ID: UC_002
Usecase Name: Login
Actors: All Users (Administrator, Analyst, Operator, First Responder)
Importance Level: High
Usecase Description:
This use case enables users to log into the system using their credentials.
Pre-condition:
The user must access the system interface (e.g., website).

Post-condition:
The user is successfully logged into the system.

Basic Course of Action:

1. The user accesses the system by visiting the website (Get Web).
2. The user enters their username and password.
3. The system validates the entered credentials.
4. If the credentials are correct, the system logs the user into the system interface.

Alternative Course of Action:
If the entered credentials are incorrect:

1. The system displays an error message indicating invalid credentials.
2. The user is prompted to re-enter their username and password.
3. The user re-enters their credentials.
4. Steps 3-4 are repeated until the correct credentials are provided, or the user chooses to exit.

Relationship:

1. Generalization: None
2. Association: All Users (Administrator, Analyst, Operator, First Responder)
3. Include: None
4. Extends: None

Usecase ID: UC_003
Usecase Name: Logout
Actors: All Users (Administrator, Analyst, Operator, First Responder)
Importance Level: Medium
Usecase Description:
This use case enables users to log out of the system, terminating their current session.
Pre-condition:
The user must be logged into the system.
Post-condition:
The user is successfully logged out of the system.

Basic Course of Action:

1. The user selects the option to log out from the system interface.
2. The system terminates the user's session and redirects them to the login page.

Alternative Course of Action:
None.

Relationship:

1. Generalization: None
2. Association: All Users (Administrator, Analyst, Operator, First Responder)
3. Include: None
4. Extends: None

Usecase ID: UC_004
Usecase Name: Generating Reports
Actors: Analyst
Importance Level: High
Usecase Description:
This use case enables analysts to generate reports based on surveillance findings, spatial analysis results, and causality insights.
Pre-condition:
The analyst must be logged into the system.
Post-condition:
The report is successfully generated.

Basic Course of Action:

1. The analyst accesses the system by visiting the website (Get Web).
2. The analyst logs into the system using their credentials.
3. After successful login, the analyst navigates to the specified button for generating reports.
4. The analyst enters the required report details and findings into the designated fields.
5. The system validates the entered data.
6. If the data is complete, the system generates the report.

Alternative Course of Action:
If the entered data is incomplete or invalid:

1. The system prompts the analyst to correct the errors in the entered data.
2. The analyst corrects the errors and resubmits the report details.
3. The system revalidates the corrected data.
4. If the data is now complete and valid, the system generates the report.
5. If the data remains incomplete or invalid, the system displays an error message, and the process stops.

Relationship:

1. Generalization: None
2. Association: Analyst
3. Include: Identify Correlations and Trends to Feed the AI, Configure Parameters
4. Extends: None

Usecase ID: UC_005
Usecase Name: Analyze Footage
Actors: Analyst
Importance Level: High
Usecase Description:
This use case enables analysts to analyze footage captured by surveillance systems.
Pre-condition:
The analyst must be logged into the system.
Post-condition:
The footage is successfully analyzed by the analyst.

Basic Course of Action:

1. The analyst accesses the system by visiting the website (Get Web).
2. The analyst logs into the system using their credentials.
3. After successful login, the analyst navigates to the specified button for analyzing footage.
4. The analyst selects the footage to be analyzed from the available options.
5. The system processes the selected footage for analysis.

Alternative Course of Action:
If the selected footage is corrupt or inaccessible:

1. The system displays an error message indicating the issue with the footage.
2. The analyst selects an alternative footage for analysis.
3. Steps 4-5 are repeated until a suitable footage is selected, or the analyst chooses to exit.

Relationship:

1. Generalization: None
2. Association: Analyst
3. Include: None
4. Extends: Send Compressed Footage (Image)

Usecase ID: UC_006
Usecase Name: Conduct Data Mining
Actors: Analyst
Importance Level: High
Usecase Description:
This use case enables analysts to conduct data mining operations on the system's database.
Pre-condition:
The analyst must be logged into the system.
Post-condition:
The data mining operation is successfully completed by the analyst.

Basic Course of Action:

1. The analyst accesses the system by visiting the website (Get Web).
2. The analyst logs into the system using their credentials.
3. After successful login, the analyst navigates to the specified button for conducting data mining.
4. The analyst enters the search criteria for the data mining operation.
5. The system processes the entered criteria and retrieves relevant data.

Alternative Course of Action:
If the entered search criteria yield no results:

1. The system displays a message indicating that no data matches the specified criteria.
2. The analyst modifies the search criteria to broaden the search.
3. Steps 4-5 are repeated until relevant data is retrieved, or the analyst chooses to exit.

Relationship:

1. Generalization: None
2. Association: Analyst
3. Include: None
4. Extends: Send Compressed Footage (Image)

Usecase ID: UC_007
Usecase Name: Extract Image from Satellite Image Module
Actors: Analyst
Importance Level: Medium
Usecase Description:
This use case enables analysts to extract images from the satellite image processing module for further analysis.
Pre-condition:
The analyst must be logged into the system.
Post-condition:
The image is successfully extracted from the satellite image processing module.

Basic Course of Action:

1. The analyst accesses the system by visiting the website (Get Web).
2. The analyst logs into the system using their credentials.
3. After successful login, the analyst navigates to the specified button for extracting images.
4. The analyst selects the desired image from the satellite image processing module.
5. The system retrieves and displays the selected image for further analysis.

Alternative Course of Action:
If the selected image is unavailable or corrupt:

1. The system displays an error message indicating the issue with the image.
2. The analyst selects an alternative image for extraction.

3. Steps 4-5 are repeated until a suitable image is selected, or the analyst chooses to exit.

Relationship:

1. Generalization: None
2. Association: Analyst
3. Include: None
4. Extends: None

Usecase ID: UC_008
Usecase Name: Identify Correlations and Trends to Feed the AI
Actors: Analyst
Importance Level: High
Usecase Description:
This use case enables analysts to identify correlations and trends in surveillance data to improve AI algorithms.
Pre-condition:
The analyst must be logged into the system.
Post-condition:
The correlations and trends are successfully identified and fed into the AI algorithms.

Basic Course of Action:

1. The analyst accesses the system by visiting the website (Get Web).
2. The analyst logs into the system using their credentials.
3. After successful login, the analyst navigates to the specified button for identifying correlations and trends.
4. The analyst selects the relevant data sets for analysis.
5. The system processes the selected data sets to identify correlations and trends.

Alternative Course of Action:
If the selected data sets are insufficient or irrelevant:

1. The system displays a message indicating that the selected data sets are not suitable for analysis.
2. The analyst selects alternative data sets for analysis.
3. Steps 4-5 are repeated until suitable data sets are selected, or the analyst chooses to exit.

Relationship:

1. Generalization: None
2. Association: Analyst
3. Include: None
4. Extends: None

Usecase ID: UC_009
Usecase Name: Access and Review Reports
Actors: Operator
Importance Level: High
Usecase Description:
This use case enables operators to access and review generated reports within the system.
Pre-condition:
The operator must be logged into the system.
Post-condition:
The operator successfully accesses and reviews the requested reports.

Basic Course of Action:

1. The operator accesses the system by visiting the website (Get Web).
2. The operator logs into the system using their credentials.
3. After successful login, the operator navigates to the specified button for accessing reports.
4. The operator selects the desired report from the available options.
5. The system retrieves and displays the selected report for review by the operator.

Alternative Course of Action:
If the selected report is unavailable or inaccessible:

1. The system displays an error message indicating the issue with accessing the report.
2. The operator selects an alternative report for review.
3. Steps 4-5 are repeated until a suitable report is selected, or the operator chooses to exit.

Relationship:

1. Generalization: None
2. Association: Operator
3. Include: Set Casualty Rate
4. Extends: None

Usecase ID: UC_010
Usecase Name: Set Casualty Rate
Actors: Operator
Importance Level: Medium
Usecase Description:
This use case enables operators to set the casualty rate threshold within the system.
Pre-condition:
The operator must be logged into the system.
Post-condition:
The casualty rate threshold is successfully set within the system.

Basic Course of Action:

1. The operator accesses the system by visiting the website (Get Web).
2. The operator logs into the system using their credentials.
3. After successful login, the operator navigates to the specified button for setting the casualty rate.
4. The operator enters the desired casualty rate threshold into the designated field.
5. The system validates the entered threshold and updates the casualty rate accordingly.

Alternative Course of Action:
If the entered threshold is invalid or out of range:

1. The system displays an error message indicating the issue with the entered threshold.
2. The operator adjusts the threshold to fall within the valid range.
3. Steps 4-5 are repeated until a valid threshold is entered, or the operator chooses to exit.

Relationship:

1. Generalization: None
2. Association: Operator
3. Include: None
4. Extends: None

Usecase ID: UC_011
Usecase Name: Assign First Responders
Actors: Operator
Importance Level: High
Usecase Description:
This use case enables operators to assign first responders to specific incidents or tasks within the system.
Pre-condition:
The operator must be logged into the system.
Post-condition:
First responders are successfully assigned to the specified incidents or tasks.

Basic Course of Action:

1. The operator accesses the system by visiting the website (Get Web).
2. The operator logs into the system using their credentials.
3. After successful login, the operator navigates to the specified button for assigning first responders.
4. The operator selects the incident or task to which first responders need to be assigned.
5. The operator assigns the appropriate first responders to the selected incident or task.

Alternative Course of Action:
If the selected incident or task has no available first responders:

1. The system displays a message indicating that no first responders are currently available.

2. The operator selects an alternative incident or task for assignment.
3. Steps 4-5 are repeated until first responders are successfully assigned, or the operator chooses to exit.

Relationship:

1. Generalization: None
2. Association: Operator
3. Include: None
4. Extends: Access and Review Reports

Usecase ID: UC_012
Usecase Name: Access Report
Actors: First Responder
Importance Level: High
Usecase Description:
This use case enables first responders to access and view reports related to specific incidents or tasks within the system.
Pre-condition:
The first responder must be logged into the system.
Post-condition:
The first responder successfully accesses and views the requested reports.

Basic Course of Action:

1. The first responder accesses the system by visiting the website (Get Web).
2. The first responder logs into the system using their credentials.
3. After successful login, the first responder navigates to the specified button for accessing reports.
4. The first responder selects the desired report from the available options.
5. The system retrieves and displays the selected report for viewing by the first responder.

Alternative Course of Action:
If the selected report is unavailable or inaccessible:

1. The system displays an error message indicating the issue with accessing the report.
2. The first responder selects an alternative report for viewing.
3. Steps 4-5 are repeated until a suitable report is selected, or the first responder chooses to exit.

Relationship:

1. Generalization: None
2. Association: First Responder
3. Include: None
4. Extends: Save Report

Usecase ID: UC_013
Usecase Name: Save Report
Actors: First Responder
Importance Level: Medium
Usecase Description:
This use case enables first responders to save reports related to specific incidents or tasks within the system.
Pre-condition:
The first responder must be logged into the system.
Post-condition:
The report is successfully saved by the first responder for future reference.

Basic Course of Action:

1. The first responder accesses the system by visiting the website (Get Web).
2. The first responder logs into the system using their credentials.
3. After successful login, the first responder navigates to the specified button for saving reports.
4. The first responder selects the report to be saved from the available options.
5. The first responder saves the selected report to their designated folder or location within the system.

Alternative Course of Action:
If the selected report cannot be saved due to system error:

1. The system displays an error message indicating the issue with saving the report.
2. The first responder attempts to save the report again.
3. If the issue persists, the first responder contacts the system administrator for assistance.

Relationship:

1. Generalization: None
2. Association: First Responder
3. Include: None
4. Extends: None

Usecase ID: UC_014
Usecase Name: Raise Issue to Operator
Actors: First Responder
Importance Level: High
Usecase Description:
This use case enables first responders to raise issues or concerns to the operator for further action within the system.
Pre-condition:
The first responder must be logged into the system.
Post-condition:

The issue or concern raised by the first responder is successfully communicated to the operator for resolution.

Basic Course of Action:

1. The first responder accesses the system by visiting the website (Get Web).
2. The first responder logs into the system using their credentials.
3. After successful login, the first responder navigates to the specified button for raising issues.
4. The first responder describes the issue or concern in detail in the provided form or dialogue box.
5. The system notifies the operator about the raised issue or concern.

Alternative Course of Action:
If the issue cannot be raised due to system error:

1. The system displays an error message indicating the issue with raising the concern.
2. The first responder contacts the operator directly via alternative communication channels (e.g., phone, email) to report the issue.
3. If necessary, the first responder escalates the issue to higher authorities within the organization.

Relationship:

1. Generalization: None
2. Association: First Responder
3. Include: None
4. Extends: None

Usecase ID: UC_015 - Upload Ground Footage

- **Actors:** First Responder
- **Importance Level:** Medium
- **Description:** First responders upload ground footage or additional evidence related to specific incidents.
- **Pre-condition:** First responder logged in.
- **Post-condition:** Footage uploaded and associated with the relevant incident.
- **Basic Course of Action:**
    1. Access system.
    2. Log in.
    3. Navigate to upload button.
    4. Select footage to upload.
    5. System processes and uploads footage.
- **Alternative Course of Action:**
    - If files are corrupted or incompatible:
        1. System displays error.

2. Responder selects alternative files.
3. Repeat steps 4-5.

- **Relationship:**
    1. Generalization: None
    2. Association: First Responder
    3. Include: None
    4. Extends: None

Usecase ID: UC_016 - Send Searched Data

- **Actors:** Data Mining Engine
- **Importance Level:** High
- **Description:** Engine sends searched data results to requesting user or component.
- **Pre-condition:** Engine has database access.
- **Post-condition:** Searched data successfully transmitted.
- **Basic Course of Action:**
    1. Receive search query.
    2. Process query against database.
    3. Retrieve relevant data.
    4. Format and transmit results.
- **Alternative Course of Action:**
    - If query execution fails:
        1. Engine generates error.
        2. User refines query or contacts admin.

- **Relationship:**
    1. Generalization: None
    2. Association: First Responder
    3. Include: None
    4. Extends: Conduct Data Mining

Usecase ID: UC_017 - Send Compressed Footage (Image)

- **Actors:** Satellite Image Processing Module
- **Importance Level:** High
- **Description:** The satellite image processing module sends compressed footage (image) data to the requesting user or system component.
- **Pre-condition:** The satellite image processing module has access to the relevant image data and compression algorithms.
- **Post-condition:** Compressed footage (image) data is successfully transmitted to the requesting user or system component.
- **Basic Course of Action:**
    1. Receive request for compressed footage (image).
    2. Retrieve relevant footage (image) data.
    3. Apply compression algorithm to the footage (image) data.

4. Transmit the compressed footage (image) data to the requesting user or system component.

- **Alternative Course of Action:**
  - If compression process fails:
    1. Generate an error message indicating the issue.
    2. Retry the compression process.
    3. If unsuccessful, notify the requesting user or system component of the failure.

- **Relationship:**
  1. Generalization: None
  2. Association: First Responder
  3. Include: None
  4. Extends: Conduct Data Mining

Usecase ID: UC_018 - Configure Parameters

- **Actors:** Analyst
- **Importance Level:** Medium
- **Description:** Analysts configure system parameters to tailor the system to their needs.
- **Pre-condition:** Analyst is logged in.
- **Post-condition:** Parameters are successfully configured.
- **Basic Course of Action:**
  1. Access system.
  2. Log in.
  3. Navigate to parameter configuration.
  4. Adjust parameters as needed.
  5. Save changes.
- **Alternative Course of Action:**
  - None.

- **Relationship:**
  5. Generalization: None
  6. Association: First Responder
  7. Include: None
  8. Extends: Conduct Data Mining