OCC Operator Update Training

Release 5.3.1

DOCUMENT INFORMATION

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Update Training Concept

For the OCC Release 5.3.1, EMS has re-examined our training material. The existing training guides from the OCC 5.3 remain valid for the OCC 5.3.1. This Update Training Package describes the new functionality and changes available in the OCC Release 5.3.1.

It is our intention to migrate the material in the existing training guides into a slide format presentation set similar to what is presented here.

We look forward to discussing this concept with you at the Users Group Meeting at JC-20 in Montreal.

OCC Release 5.3.1 Material

- OCC 5.3.1 Executables
- Documentation
  - Operator Guide (EMS-MN-1066-16015)
  - System Manager Guide (EMS-MN-1066-16022)
  - Reference Guide (EMS-MN-1066-16021)
  - Operator Update Training Slides (EMS-MN-1066-16036)
  - System Manager Update Training Slides (EMS-MN-1066-16035)
  - Release Notes (EMS-RP-1066-16033)
  - Operator's Manual (EMS-SM-OCC-41503)
  - System Manager's Manual (EMS-OM-OCC-41502)

New Features and Changes

- Incident Reporting — System
- Monitor Interferer — System
- Query Enhancements — System
- Saving QUERY Form Settings — Operator
- Character Limitations on SIT 915 and SIT 605 — Operator
- Text Overlays Enhancements — Operator
- Configuration Files Updated — Operator

Documentation

- See Section 6.0 of Release Notes for changes.

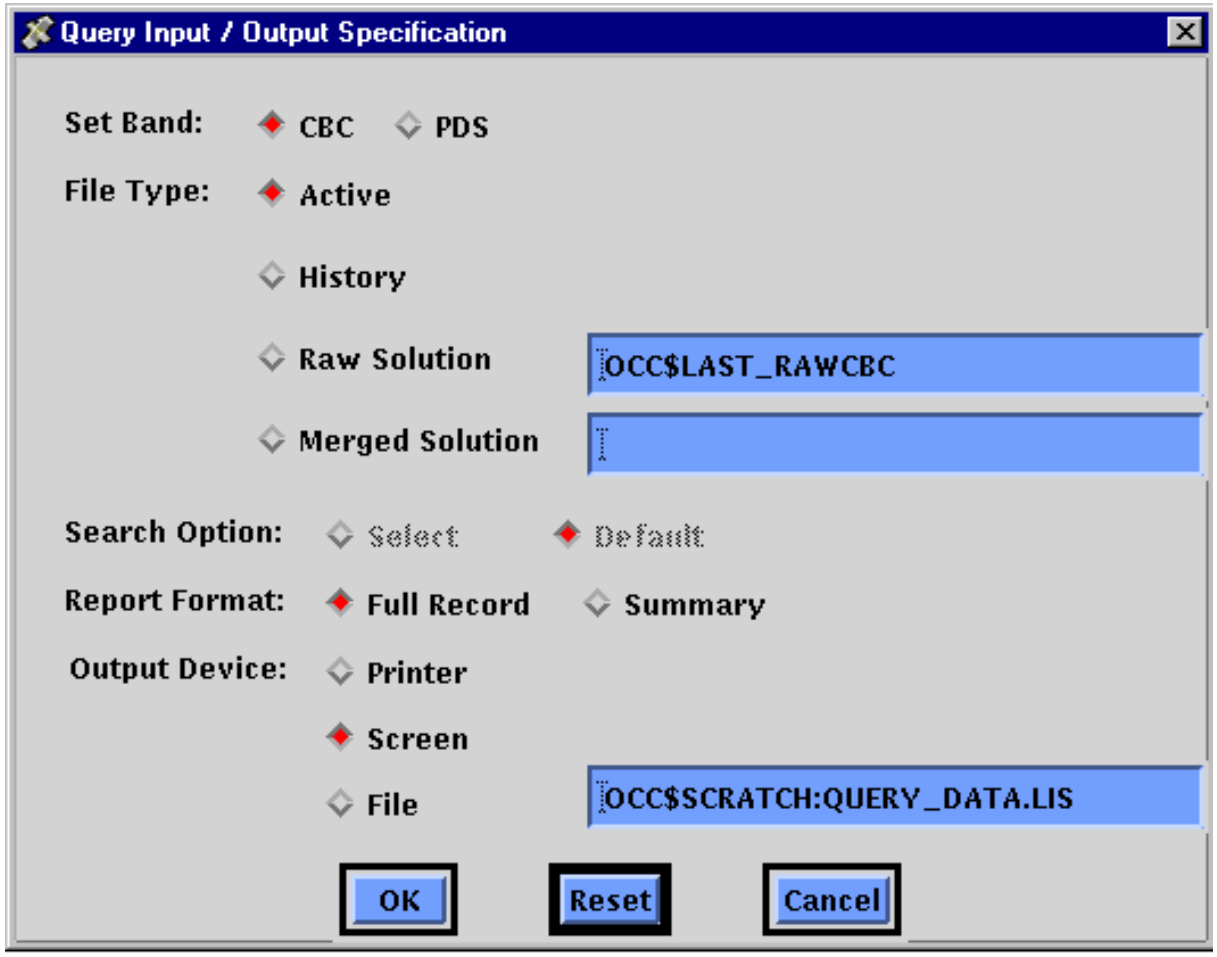
Overview of New Functionality

- Query Form Settings
- Text Overlay Enhancements
- Narrative Message Enhancements
- Incident Manager GUI

Query Form Setting

- Operators will have their last Query setting restored if the OPINT is restarted.
- **Reset** button available to restore to default Query settings.

Query Form Setting



Text Overlay

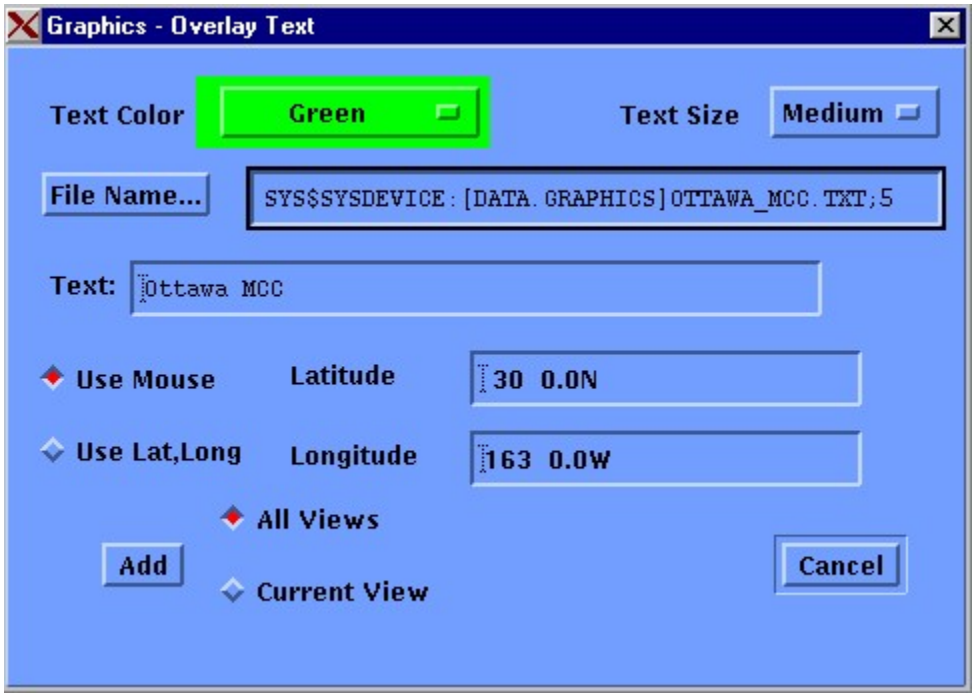
- When an operator wishes to add a text overlay to the GRAPHICS window, they have the option of entering a file name or selecting an existing file.

- The following feature was added to remind the operator that using an existing file name will result in that file being updated.

- If a file name exists, then an Update button will be shown.

- If a file name does not exist, then an Add button will be shown.

Text Overlay



Narrative Message Enhancements

COSPAS/SARSAT regulations restrict the characters that can be used in narrative SIT messages (SIT 915 or 605) to those that can be used by AFTN networks. (C/S A.002 MCC Standard Interface Description).

The Send Narrative option of the OCC Operator Interface has been modified to detect and filter unaccepted characters when a message is transmitted.

If non-AFTN characters are detected in a message, the user will be prompted with the option:

1. Canceling the transmission to correct the message
2. Allow the program to replace the characters automatically.

(See the Section 7.0 of Operator Guide for more information).

Narrative Message Enhancements

Narrative Message Enhancements

The Send Narrative window has also been modified to notify the operator that the transmit request has been accepted and the SIT message file has been forwarded to the Router process for transmission.

Incident Reporting

Overview

- The Cospas-Sarsat Secretariat produces annual Report on System Status and Operations.
- Each operational MCC is required to report to the Secretariat the data associated with distress incidents in their SAR area.
- Incident reports: Annex B of the Cospas-Sarsat document System Monitoring and Reporting, A.003.
- The OCC has an incident database and a managing process for collecting and storing the necessary information for creating these reports.

Incident Manager GUI Overview

- What is the Incident Manager?
- Introduction to Incident Manager GUI
- Starting Incident Manager GUI Manager
- Displaying the Record List
- Printing the Record List
- Exporting the Record List
- Filtering the Record List
- Deactivating the Filter Function
- Sorting the Record List
- Deactivating the Sort Function
- Displaying PDS Incident Data with Open or Closed Status
- Displaying CBC Incident Data with Open or Closed Status
- Working with CBC/PDS Incident Data with Pending Status
- Exit Incident Manager GUI

What is the Incident Manager?

- A new feature which collects data regarding the disposition and nature of Cospas-Sarsat Incidents.
- This data collection, allows for the automatic data generated by the OCC to be combined with Incident feedback received at the MCC by their RCCs and SPOCs.
- This process is intended to reduce the manual manipulation of data required for annual Cospas-Sarsat Reporting.

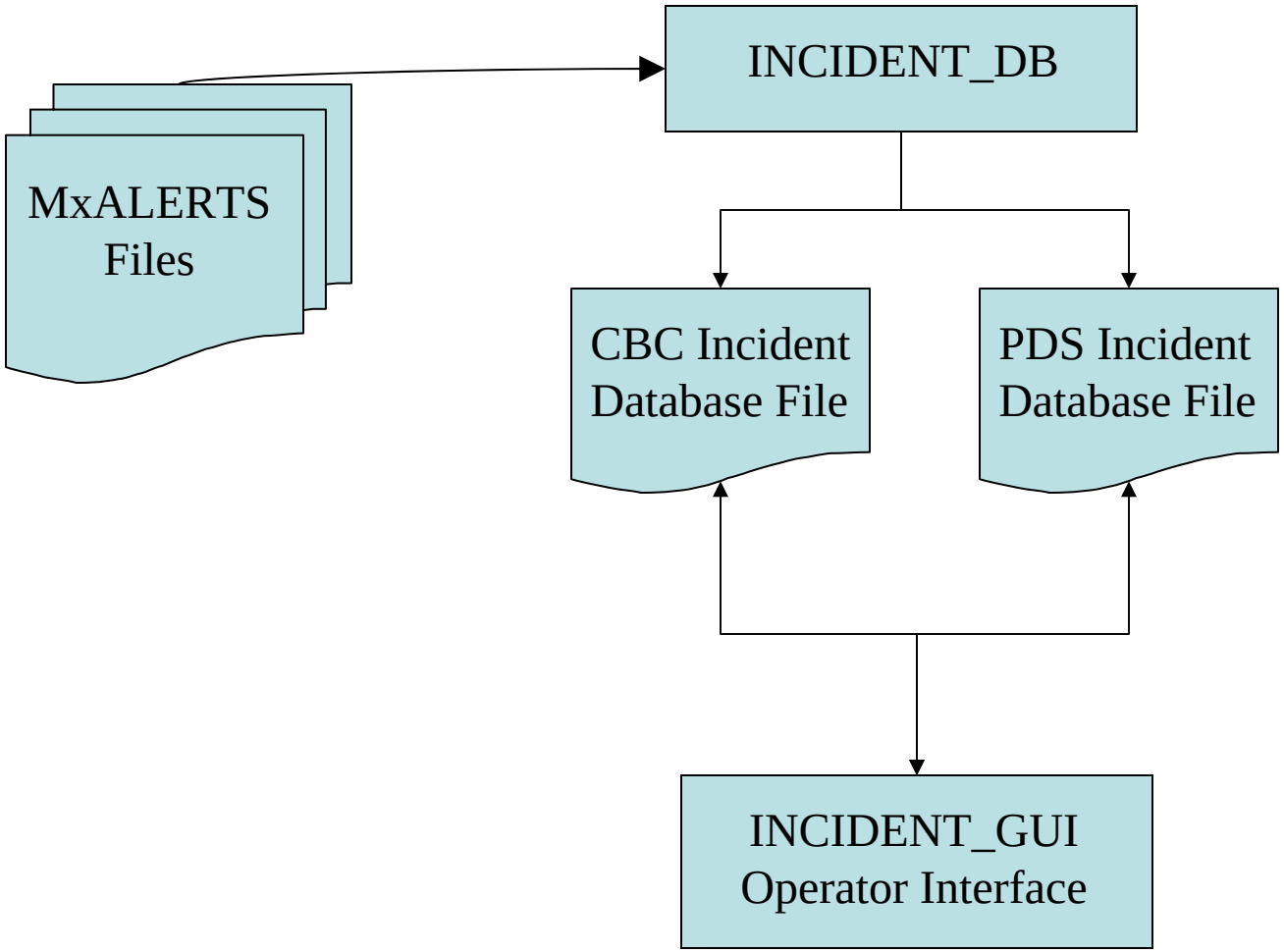
Incident Manager (1)

- Analyzes the MxALERTS files for 406 and CBC and updates the Incident Database.
- Several filtering options are available to restrict the entry by SRR, Country Code, Solution Type (Blown, Conflict, etc.), etc.
- Once in the database, the alerts will automatically update the details of the related incident if possible.

Incident Manager (2)

- Under certain conditions, the automatic process can not determine if the data matches a particular incident and the Operator will need to resolve the uncertainty of the match or create a new incident.
- The Operator will also need to enter any feedback on the nature of the Incident (Distress, Accidental, etc.).
- The data from the Incident Databases (406 and CBC) can then be exported into a CSV file and used to assist in the generation of the annual report required by Cospas-Sarsat.

Incident Manager (3)

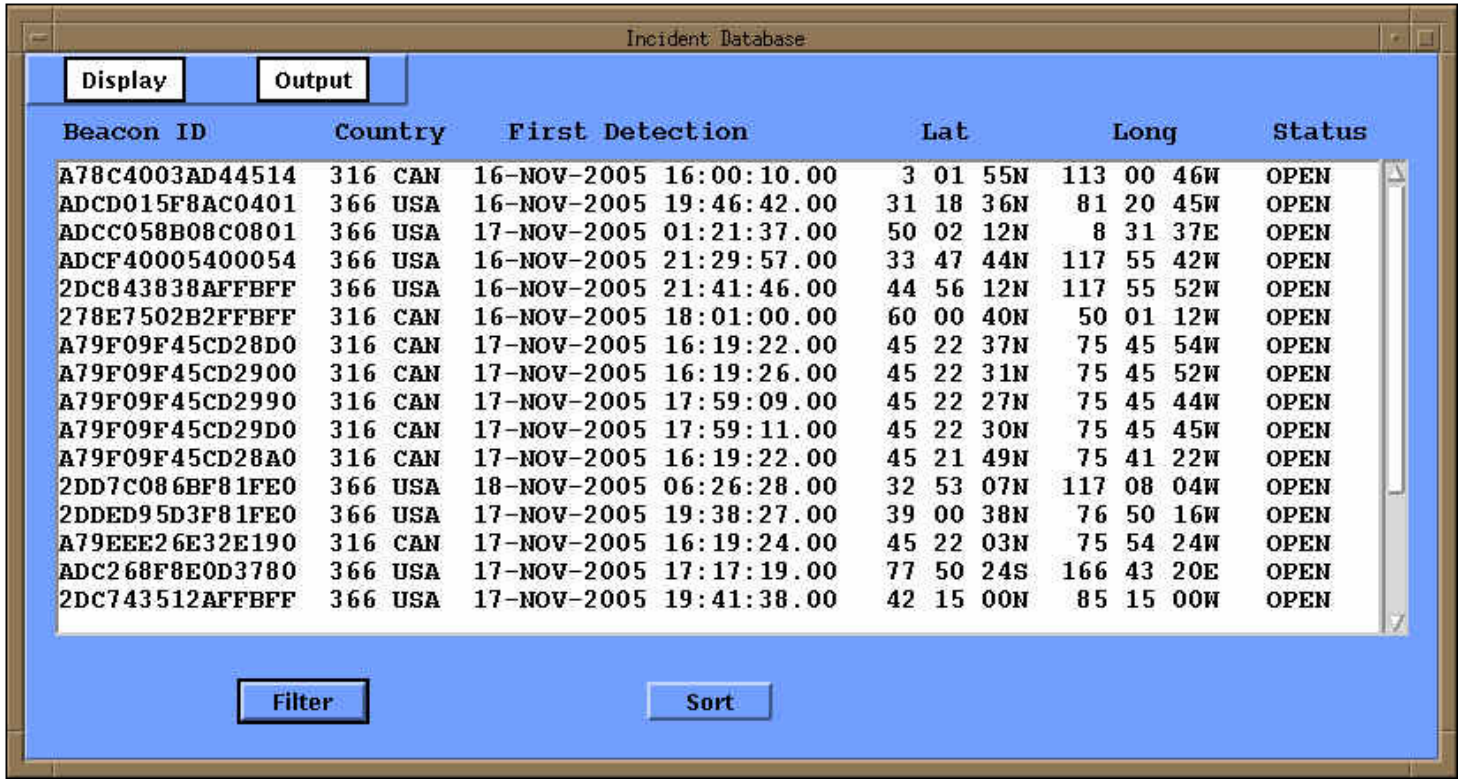


Introduction to Incident Manager GUI

- Allows user to display and manipulate the data in the Incident database.
- Interacts with the Incident Manager task for updates to records.
- Each incident will have a status of:
  - **Open:** incident is active and possibly receiving new data.
  - **Closed:** incident has been closed by the operator.
  - **Pending:** there is ambiguity associated with this record. The operator is required to indicate how the data should be handled.
- Pending incidents will require operator response.

Starting Incident Manager GUI

- From the Session Manager window, select **Operator Control Console** and then **Incident GUI**. The Incident Database window appears.

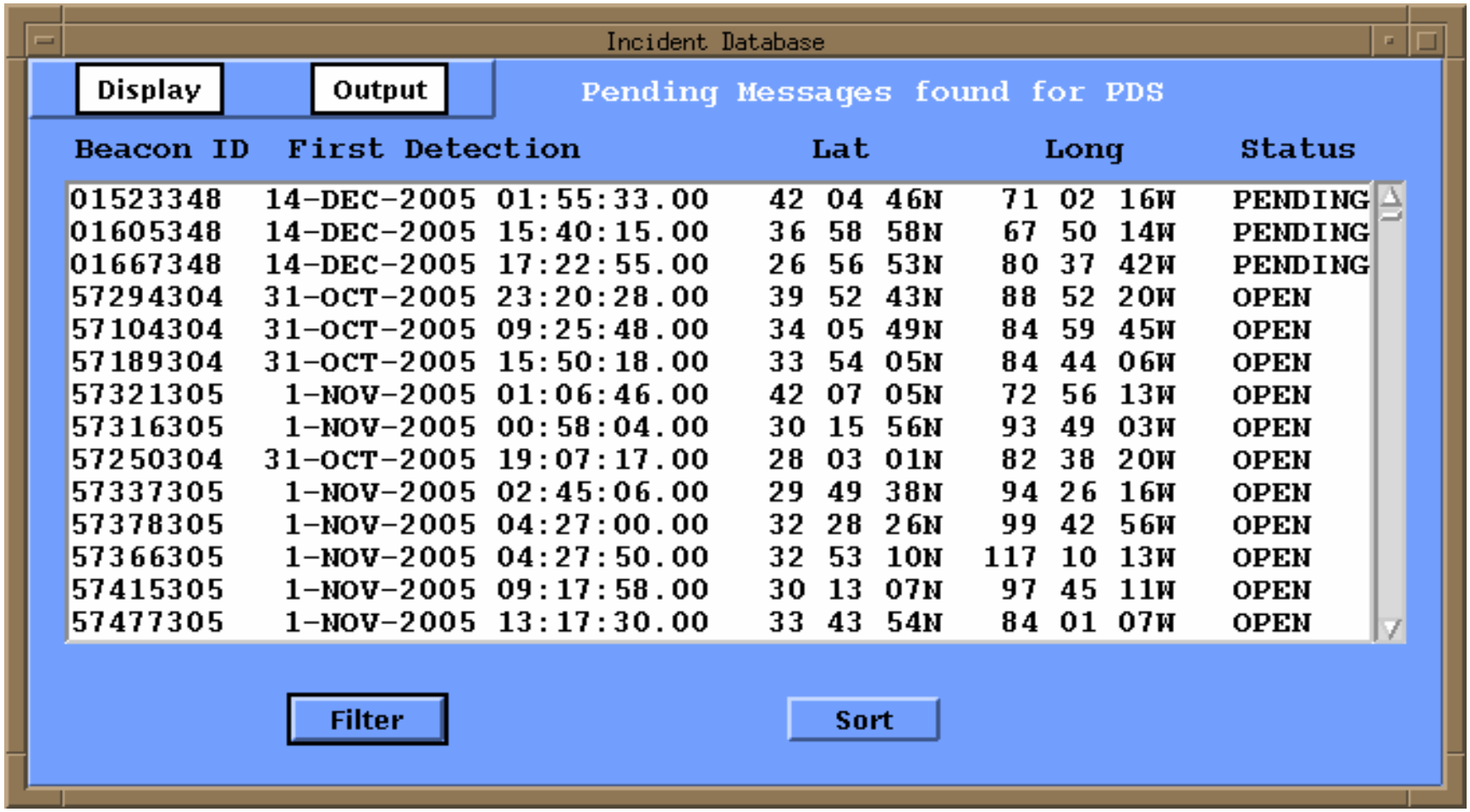


Displaying the Record List

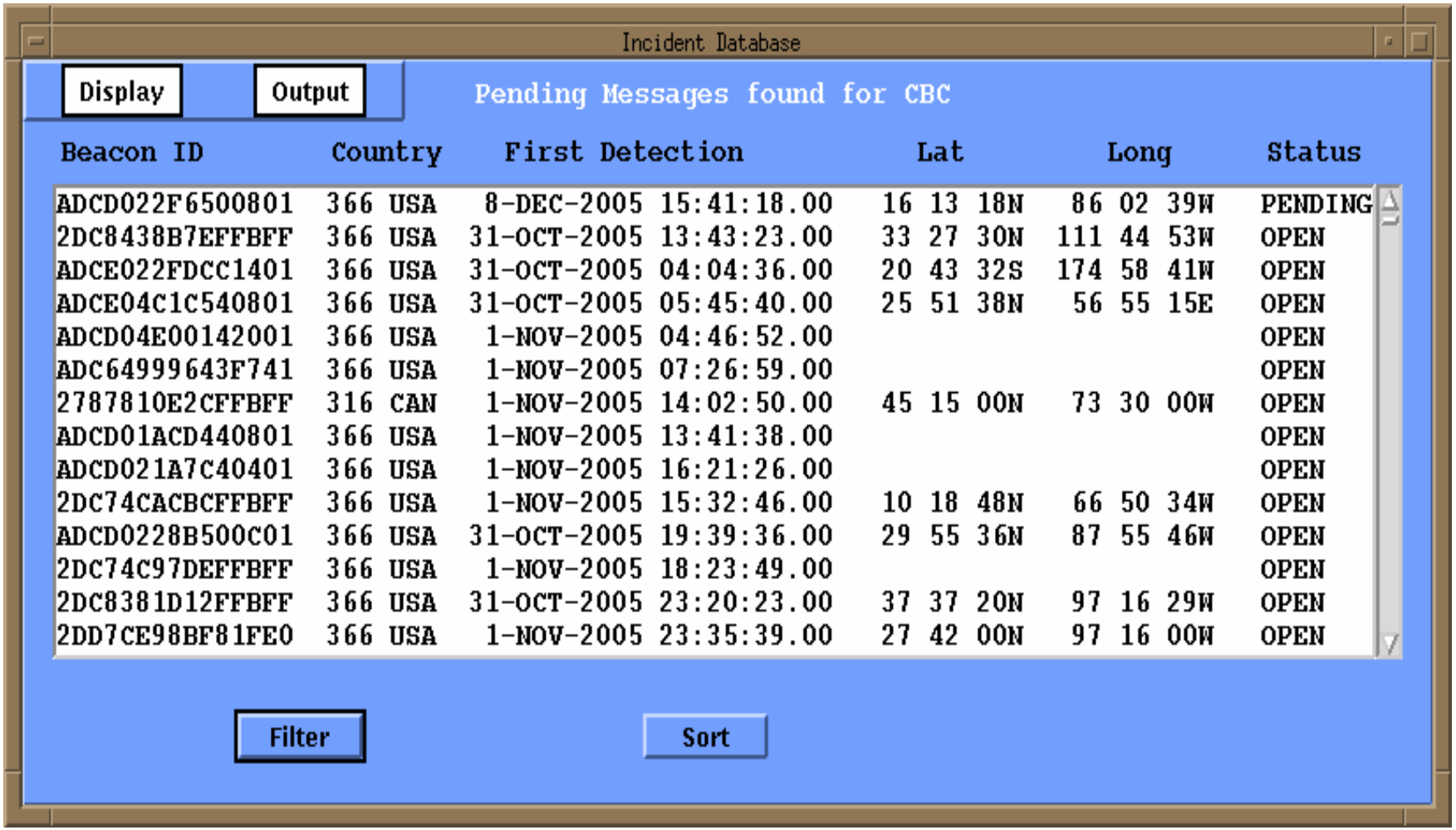
- To view CBC or PDS incidents, click **Display** on the Incident Database window, and then **CBC** or **PDS**.

  Note: If the record list is set to one band (e.g. PDS) and there are pending records on the other band (i.e. CBC) then a message will appear at the top of the window indicating there are pending records.

Displaying the Record List CBC



Displaying the Record List PDS



Printing the Record List

- On the Incident Database window, click **Output**, and then **Print**.

Exporting the Record List (1)

1. Select data type of interest (e.g. CBC or PDS).

2. To export the Record List in a comma delimited (CSV) file, click **Output**, and then **Export**. The Export Options form appears.

3. Select **Summary** for the Summary record fields. Or select **Full** to have all the data fields.

4. The File Name field displays the default file name and directory of the file to be exported.

5. Click **OK**.

Exporting the Record List (2)

Fields in Exported Record Lists in CSV format (1)

Field	Description	Comments
PRIMARY KEY	The record identifier made up of the creation date, beacon ID and a daily incident number.	For 406 MHz, the 15 hex beacon ID is used. For 121.5 MHz, the Merge ID is used along with a Julian day number.
TCA	TCA of the most recent beacon detection.	
CREATION DATE	Date when the incident is created.	
FIRST DETECTION	Time when the beacon is first detected.	
LAST DETECTION	Time when the beacon is last detected.	
BEACON ID	The identification of the beacon.	For 406 MHz, the 15 hex beacon ID is used. For 121.5 MHz, the Merge ID is used along with a Julian day number.
30 HEX ID	The 30 hex beacon ID.	406 MHz beacon only.
ENCODED LATITUDE	The encoded latitude of the beacon.	406 MHz beacon only.
ENCODED LONGITUDE	The encoded longitude of the beacon.	406 MHz beacon only.
COUNTRY	The country code of the beacon's country of registration.	406 MHz beacon only.

Fields in Exported Record Lists in CSV format (2)

Field	Description	Comments
LATITUDE	The latitude of the beacon as determined by the OCC.	If only a single detection, then this is the A side. If ambiguity has been resolved, then this is the resolved location.
LONGITUDE	The longitude of the beacon as determined by the OCC.	If only a single detection, then this is the A side. If ambiguity has been resolved, then this is the resolved location.
LATITUDE B	The B side latitude as determined by the OCC.	Single detection only.
LONGITUDE B	The B side latitude as determined by the OCC.	Single detection only.
BAND	The band of the beacon, 406, 121.5 or 243 MHz.	1 - 121.5 2 - 243 3 - 121.5/243 4 - 406 SARP 5 - 406 combined LEO/GEO with SARP 6 - 406 combined LEO/GEO with SARR 7 - 406 combined LEO/GEO with SARP and SARR 8 - 406 SARR 9 - 406 combined SARP and SARR
REFERENCE POINT	The reference point of the beacon.	The reference points are defined in the REF_POINT.DAT file.
REFERENCE DIRECTION	The reference direction of the beacon.	The reference direction is generated from the values of the reference point defined in the REF_POINT.DAT file.

Fields in Exported Record Lists in CSV format (3)

Field	Description	Comments
FREQUENCY BIAS	The frequency bias of the beacon recorded by OCC.	
REFERENCE DISTANCE	The reference distance of the beacon.	The distance between the reference point and the beacon location.
REPORTING MCC	The MCC which reported the incident.	The 6 character MCC name.
CLOSED STATUS	Indicates if this incident is Open (active) or Closed (inactive).	1 - Closed 0 - Open
NUMBER INVOLVED	Number of persons involved in the incident.	
NUMBER RESCUED	Number of persons involved who were rescued.	
BEACON TYPE	Beacon type.	0 - Unknown 1 - ELT 2 - EPIRB 3 - PLB
ALERT TYPE	Is this a real (distress alert), an accidental activation, or unknown alert.	0 - Unknown 1 - Accidental 2 - Real
KNOWN LATITUDE	Actual beacon latitude as reported by RCC.	
KNOWN LONGITUDE	Actual beacon longitude as reported by RCC.	

Fields in Exported Record Lists in CSV format (4)

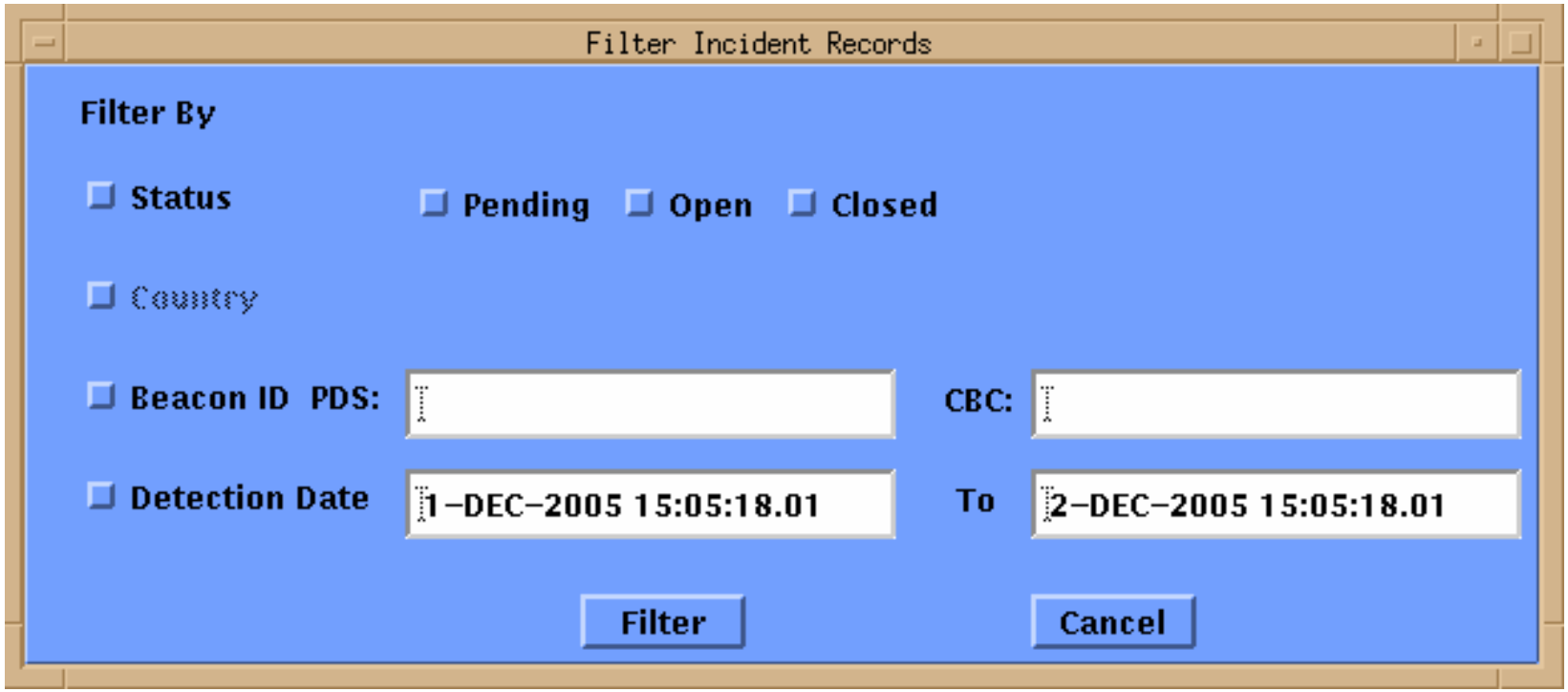
Field	Description	Comments
COSPAS-SARSAT ASSISTED	The search and/or rescue operation was assisted by Cospas-Sarsat system.	T – C-S assisted F – Not C-S assisted
BEACON REGISTERED	Is the beacon registered?	T – Registered F – Not registered
IN SRR	Is this incident in your Search and Rescue Region?	T – In SRR region. F – Not in SRR region.
AUTO	Was the beacon automatically activated?	T – Auto F – Other
EVENT TYPE	Type of incident.	AVI - Aviation MAR - Maritime PLB - Land OTH - Other
VEHICLE	The type of vehicle involved.	FV - Fishing Vessel MV - Merchant Vessel PV - Pleasure Vessel SV - Sailing Vessel AV MIL - Aviation Military AV CIV - Aviation Civilian OTH - Other
DISTRESS CIRCUMSTANCES	Name and type of vehicle involved in the incident.	Name and type.
ALERT NATURE	What was the nature of the assistance provided by the Cospas-Sarsat System?	ONLY - Only Alert FIRST - First Alert SUP - Supporting Data

Fields in Exported Record Lists in CSV format (5)

Field	Description	Comments
FALSE REASON	Accidental activation qualifiers as defined in C/S A.003 Appendix B.1.	UNK - Unknown MIS - Mishandling MAL - Malfunction MOU - Mounting Failure ENV - Environmental Conditions INT - Interferer PRO - Processing Anomaly
ADDRESSEE	Where were the alerts sent?	
BEACON MANUFACTURER	Beacon manufacturer.	
BEACON MODEL	Beacon model.	
REGISTRATION	Name on beacon registration.	
INFORMATION	Text field for the addition of details surrounding an incident.	
COMMENTS	Additional comments provided by operator.	

Filtering the Record List (1)

To filter the Record List, click **Filter** on the Incident Database window. The word **Active** appears next to the Filter button to indicate that the Record List has been filtered.



Filtering the Record List (2)

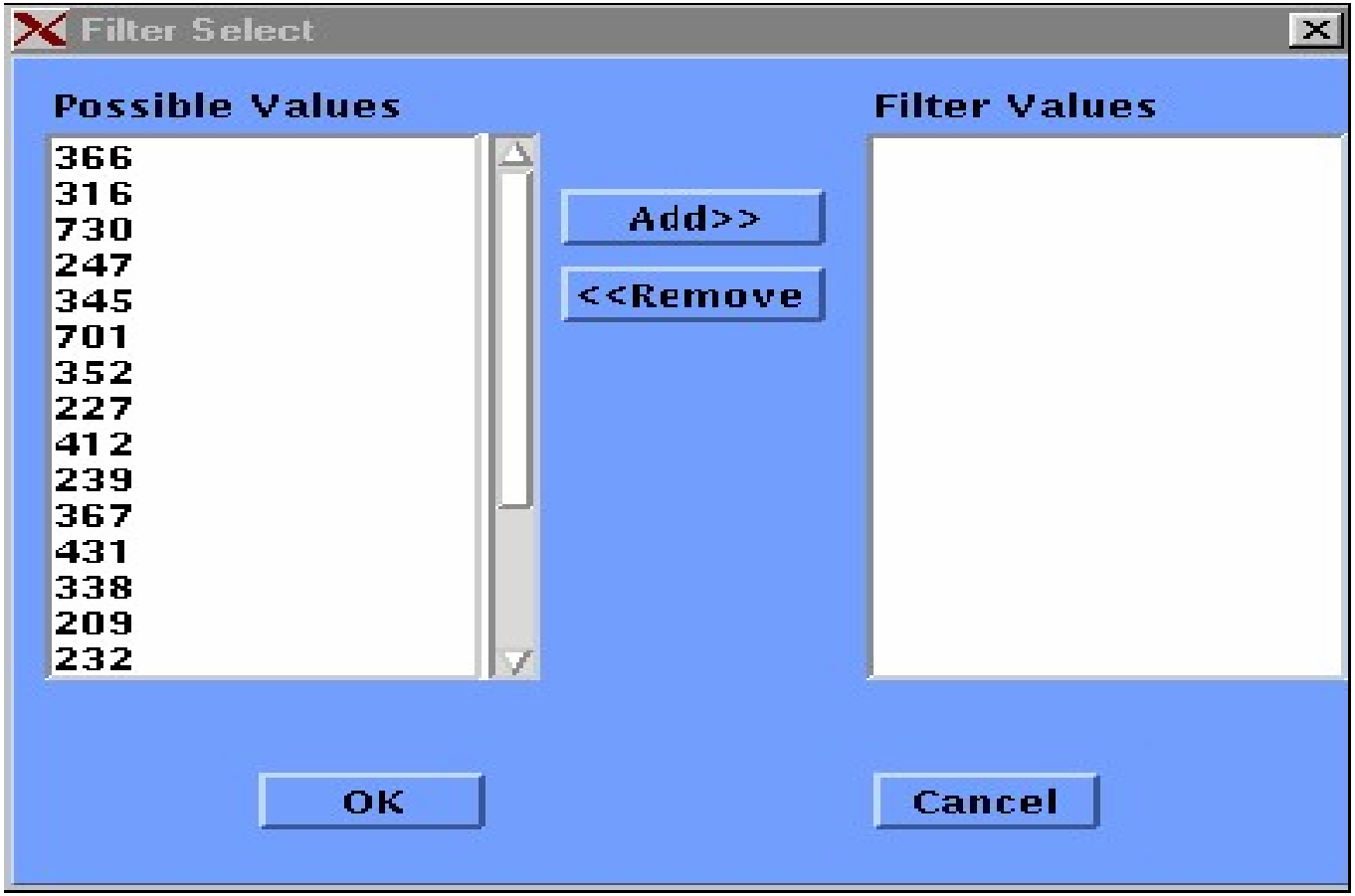
To filter by Status:

1. Click **Status**.
2. Select any combination of **Pending**, **Open**, and **Closed**.
3. Click **OK**.

To filter by Country (**Note**: For PDS only):

1. Click **Country**. The Filter Select form appears.
2. Select the country codes from the **Possible Values** section and click **Add** to add to the **Filter Values**. Selected countries may be removed by selecting them in the Filter Values section and clicking **Remove**.
3. Click **OK**.

Filtering the Record List (3)
Filter: Country Selection



Filtering the Record List (4)

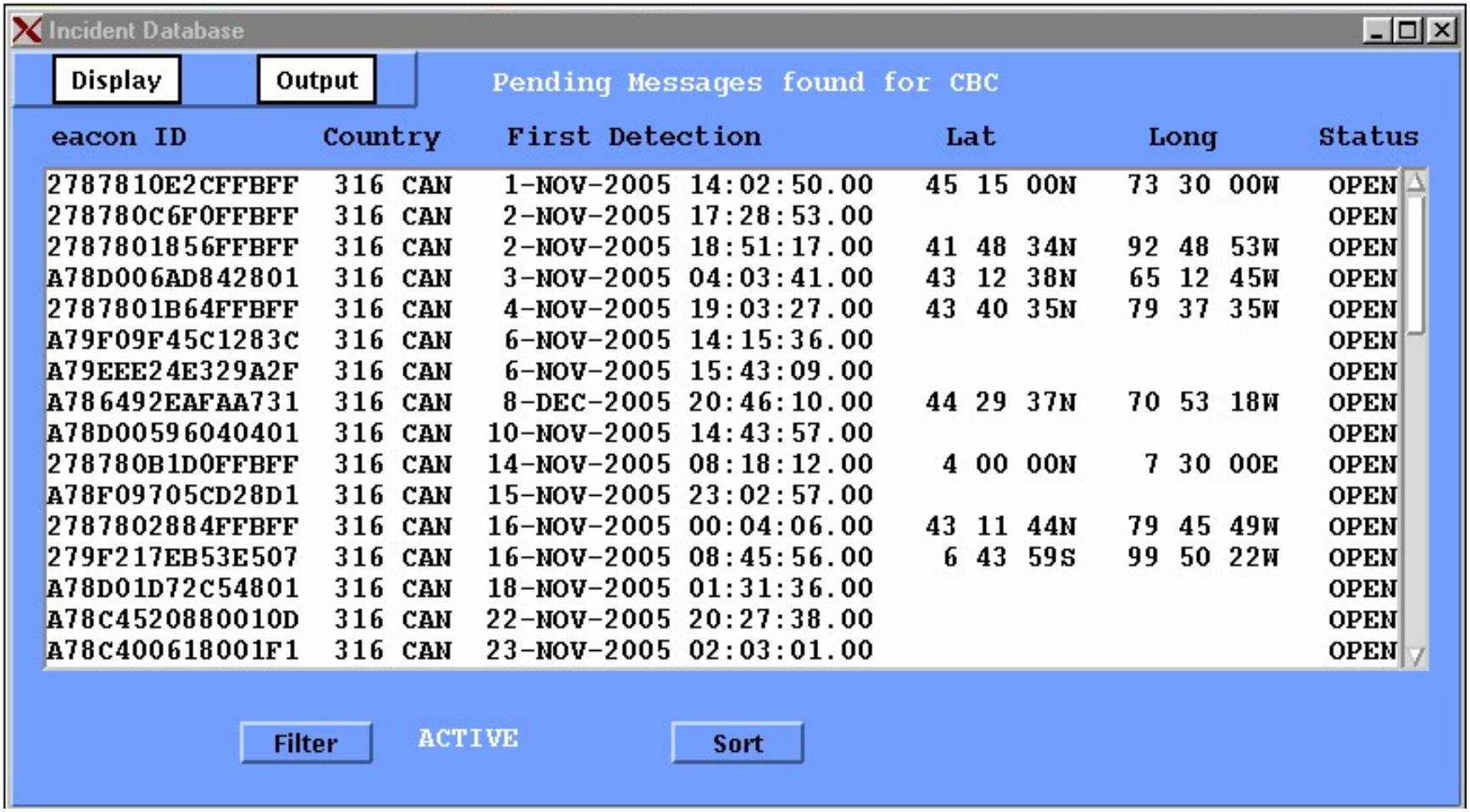
To filter by Beacon ID:

1. Click **Beacon ID.**
2. Enter the beacon ID in the **PDS** or **CBC** field. Partial beacon Ids may be entered.
3. Click **OK**.

To filter by Detection Date:

1. Click **Detection Date**.
2. Define the dates in the fields.
3. Click **OK**.

Filtering the Record List (5)
Record List after Filtering

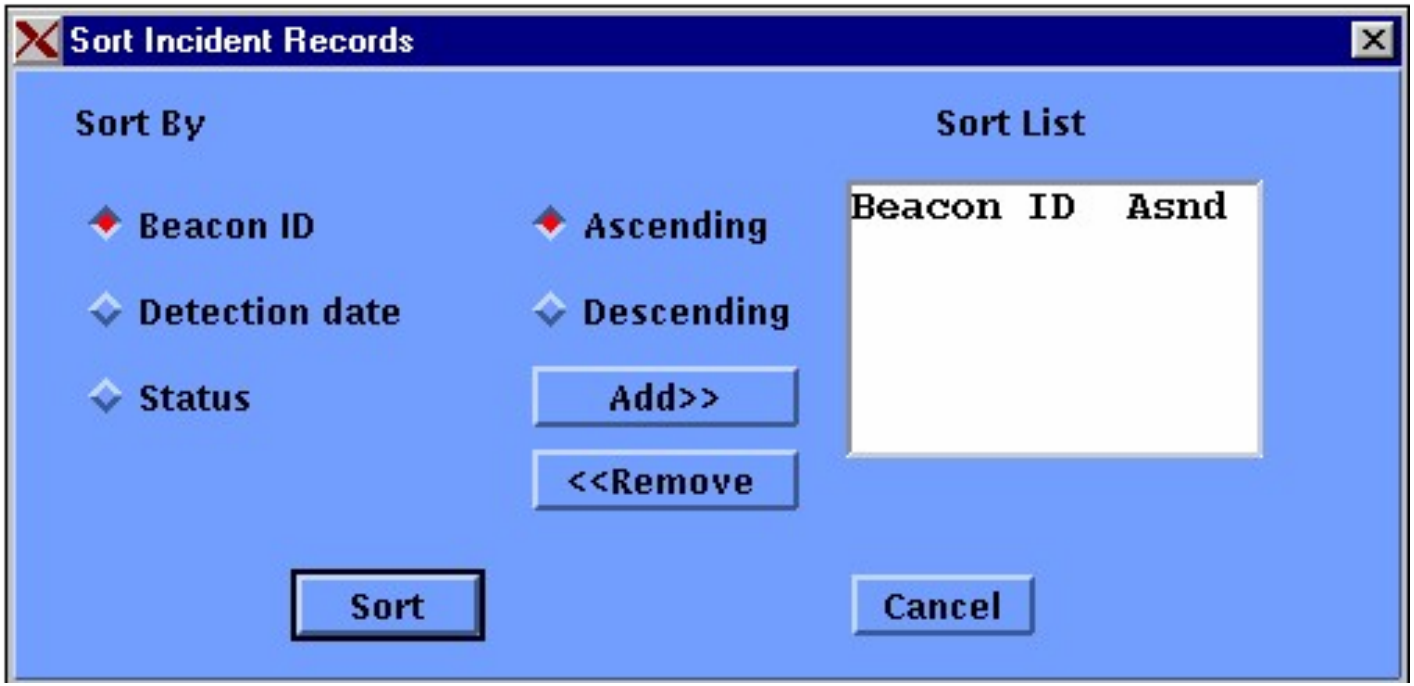


Deactivating the Filter Function

1. Clear the selected Status, Country, Beacon ID, or Detection Date field.
2. Click **Filter**.

Sorting the Record List (1)

To sort the Record List, click Sort on the Incident Database window.



Sorting the Record List (2)

To sort by Beacon ID:

1. Select **Beacon ID.**
2. Select **Ascending** or **Descending** for the sort order.
3. Click **Add** to add to the Sort List section.
4. Click **Sort**.

To sort by Detection Date:

1. Select **Detection date.**
2. Select **Ascending** or **Descending** for the sort order.
3. Click **Add** to add to the Sort List section.
4. Click **Sort**.

To sort by Status:

1. Selected **Status.**
2. Select **Ascending** or **Descending** for the sort order.
3. Click **Add** to add to the Sort List section.
4. Click **Sort**.

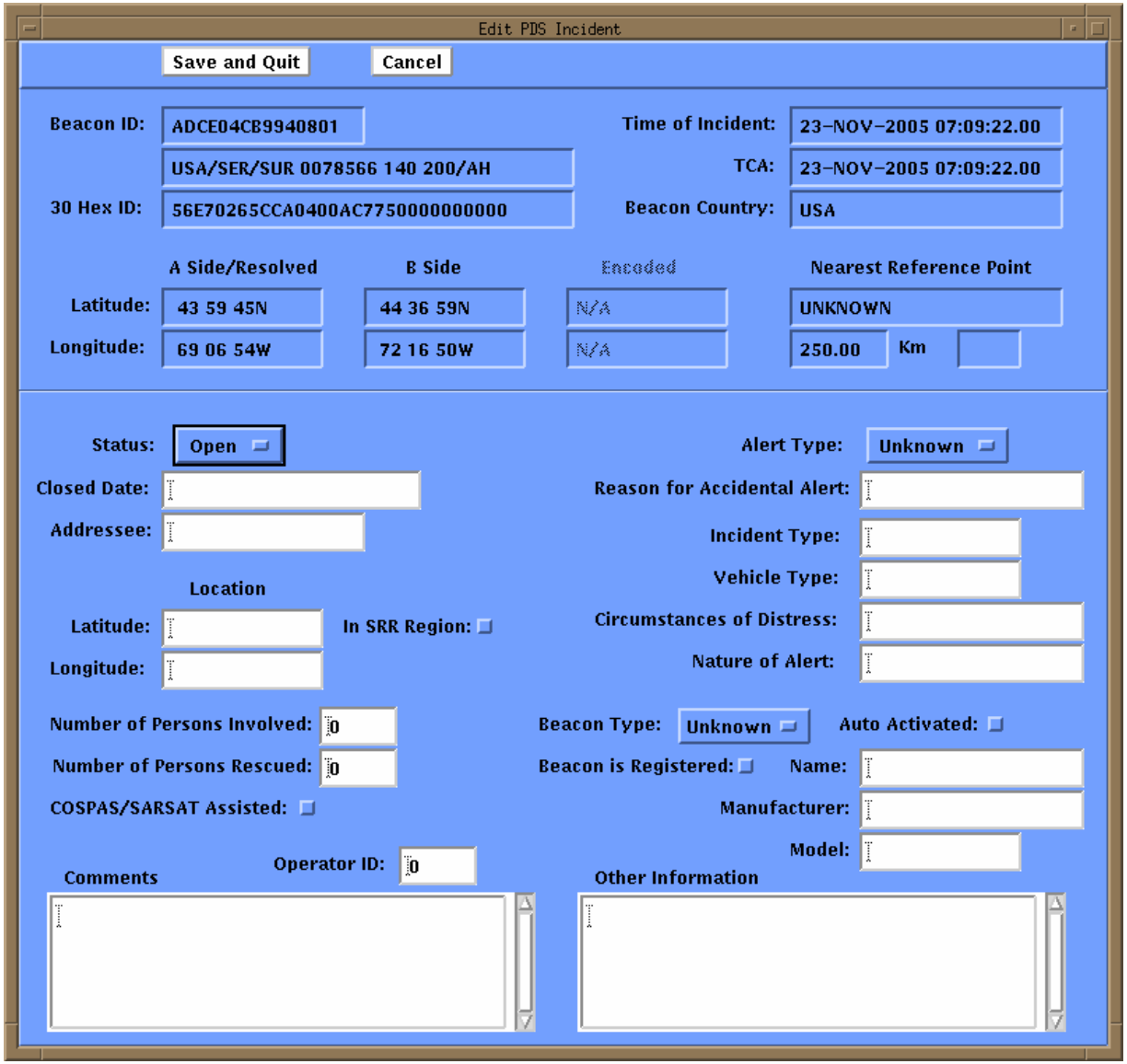
Deactivating the Sort Function

1. Select the sort selections from the Sort List and click **Remove**.
2. Click **Sort**.

Displaying PDS Incident Data with Open or Closed Status (1)

- On a PDS Incident Record List, click on an incident with Open or Closed status. The **Edit PDS Incident** window appears.
- Upper section displays the system generated data for the incident which cannot be modified.
- Lower section contains input fields, which can be edited.

PDS Incident Data with Open or Closed Status (2)



Displaying PDS Incident Data with Open or Closed Status (3)

1. Fill in the desired fields. (see Operators Guide, Table 9-2)

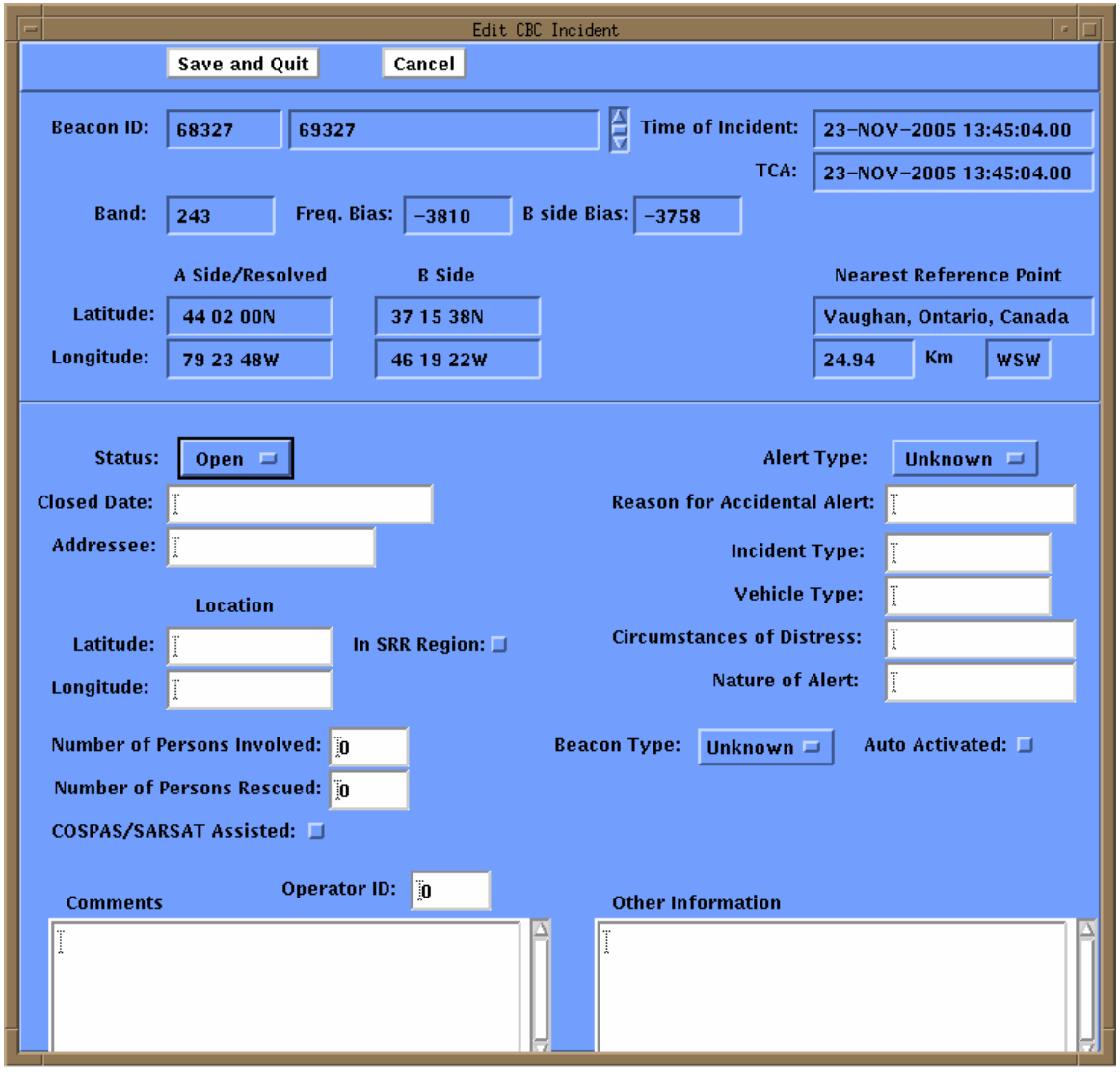
2. Click **Save and Quit** to save the data and close the window.

3. Click **Cancel** to close the window without saving any changes to the form

Displaying CBC Incident Data with Open or Closed Status (1)

- On a CBC Incident Record List, click on an incident with Open or Closed status. The **Edit CBC Incident** window appears.
- Upper section displays the system generated data for the incident which cannot be modified.
- Lower section contains input fields, which can be edited.

CBC Incident Data with Open or Closed Status (2)



Displaying CBC Incident Data with Open or Closed Status (3)

1. Fill in the desired fields. (See Operators Guide, Table 9-2.)

2. Click **Save and Quit** to save the data and close the window.

3. Click **Cancel** to close the window without saving any changes to the form.

Working with CBC/PDS Incident Data with Pending Status (1)

Pending Status means that the system is not able to automatically match the new data record to an existing incident. This could be caused by conditions such as:

- Similar incident location being closed
- Multiple matching open incident
- Blown or conflicting solutions.

Under these circumstances the Operator must examine the available matches and select the “best match” or create a new incident.

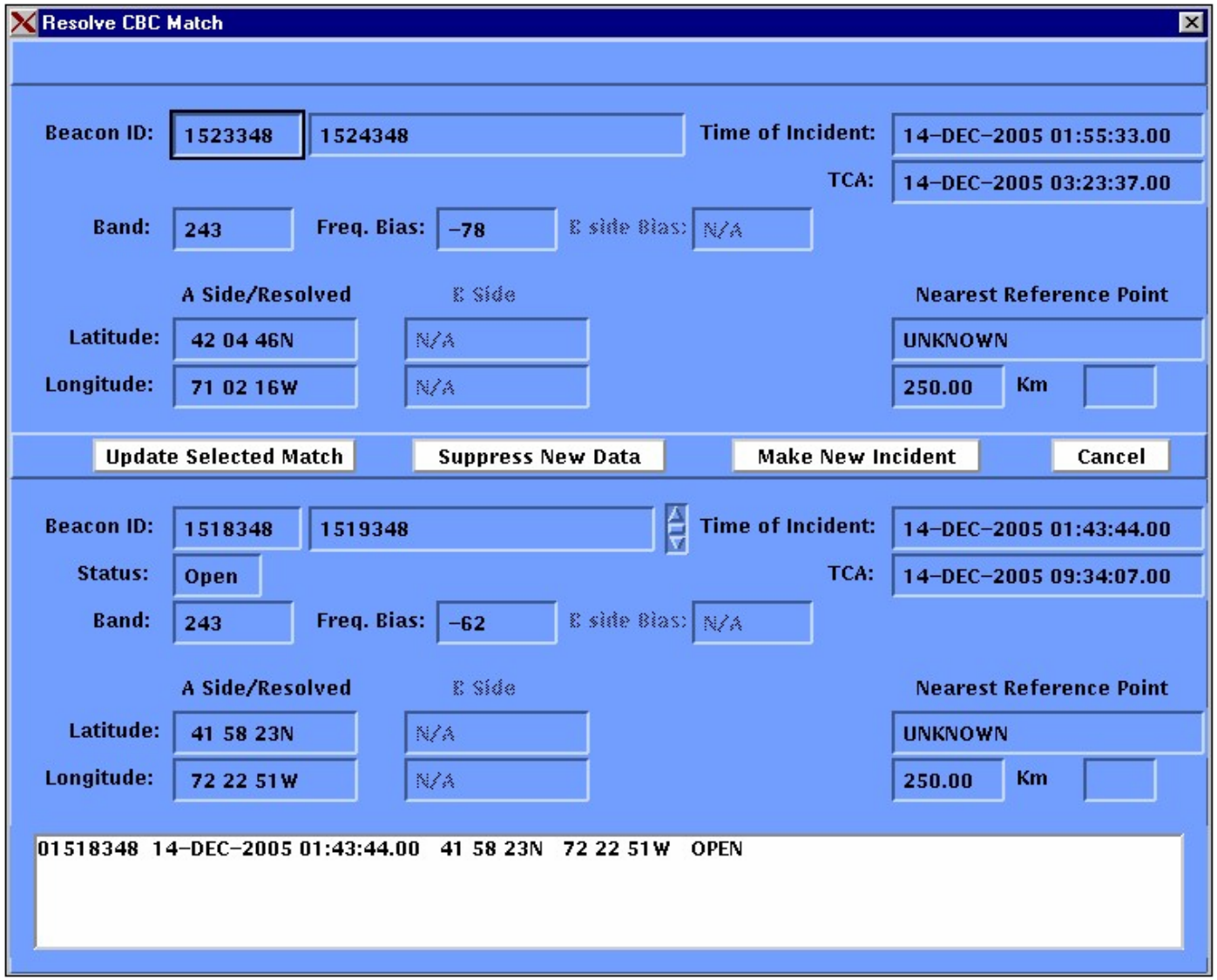
This process is described in the following slides.

Working with CBC/PDS Incident Data with Pending Status (2)

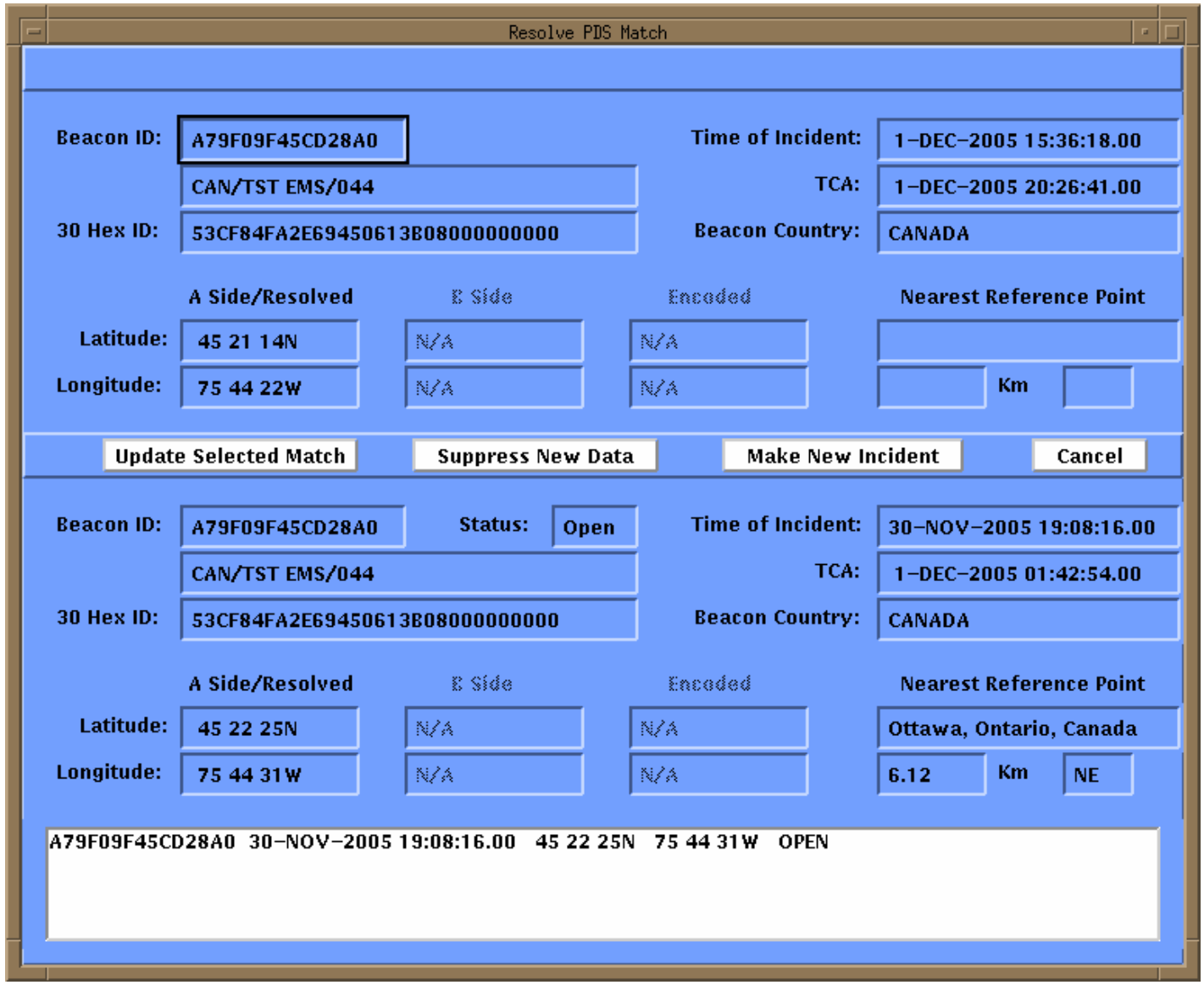
Resolved CBC/PDS Match window displays data for an incident and its possible matching records. The window contains two sections.

- Upper section displays the data from the Pending record.
- Lower section displays the details of an existing record that is a possible match. The bottom of this window displays a list of possible matching records.

CBC Incident Data with Pending Status



PDS Incident Data with Pending Status



Working with CBC/PDS Incident Data with Pending Status (2)

1. Select the desired band (e.g. CBC or PDS).

2. Click on an incident with Pending status. The **Resolve CBC Match** or **Resolve PDS Match** window appears. An example of the **Resolve PDS Match** window is shown below.

3. Click on the records at the bottom part of the lower section to compare the records with the record in the upper section.

   For CBC record, use the frequency and bands for the comparison; and for PDS, use the Beacon IDs and 30 Hex IDs.

Working with CBC/PDS Incident Data with Pending Status (3)

4. Based on the result of your comparison, highlight the record and select one of the following:
   - **Update Selected Match** to use the new record to update the selected existing incident record.
   - **Suppress New Data** to prevent the new record from being used to update any existing incident records.
   - **Make New Incident** to save the new record as a new incident. Both incidents will remain in the database.
   - **Cancel Button** to close the form without saving any changes.

Exiting Incident Database

1. Select **Display.**
2. Click **Exit**.