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Initial Response Organizer Manual

If It's Not Documented, It Didn't Happen

1st Edition, 1st printing

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Flagstaff, Arizona, USA

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Disclaimer

The purpose of this book is to support a course in managing a missing person incident conducted by competent search, rescue or emergency response leaders. It does not in itself constitute training in searching, search and rescue (SAR), search management or incident management either in its original form or in a modified form. SARAZ, Inc. cannot accept any responsibility for any outcome arising from the use of this book. SARAZ, Inc. may not be held liable in any way for any loss, cost, damage, liability or expense arising from the use of this book. SARAZ, Inc. cannot be held liable in any way for any occurrence in connection with an individual's use of the material contained in this book that may result in injury, death or other damages.

Preface

This Preface deals with this Manual. The remainder of this document deals with the software *IRO*.

This Manual

This manual is designed to be used with the Windows software program, *IRO*, which is free and can be downloaded from www.saraz.org/IRO/InstallIRO.exe. *IRO*, which stands for Initial Response Organizer, can be used by, for example, those taking or teaching the ASARCA¹ course based on the book “Initial Response Incident Commander: Wilderness SAR”.²

This manual is set out following the menu items in *IRO*. However, it need not be read chapter by chapter. For many readers starting at Chapter 1 on page 7, followed by Chapter 8 on page 33, and then Chapter 9 on page 46, will be beneficial, dipping into the other chapters as needed.

<i>Chapter 1 on page 7</i> ⇒ <i>Chapter 8 on page 33</i> ⇒ <i>Chapter 9 on page 46</i>
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Navigating the Digital Version of this Manual

This manual uses “hot” links allowing the reader to navigate easily. For example, if the text states that there is a Glossary with an abbreviated list of terms and acronyms commonly used in SAR in Chapter 13 on page 63, then clicking on that page number (63) takes the reader to the Glossary. (Try it!) The same is true for Chapter numbers, Section numbers, Figure numbers, and Page numbers. In the Table of Contents clicking on a Chapter or Section title (not the page number) immediately opens the associated chapter or section.

Most PDF readers have the facility to return to the previously viewed page, allowing the reader to follow a hot link and then return to the original page containing that hot link. For example, Adobe Reader[®], Foxit Reader, and Sumatra PDF, all use the keyboard combination   to return to the previously viewed page.

An apology to readers who are left-handed. Whenever the manual refers to “left-clicking” the mouse, please read “right-clicking”, and vice-versa.

Typeset

This book was typeset with MiKTeX, available from <http://miktex.org/>, using T_EXstudio as the front end, available from <http://texstudio.sourceforge.net/>.

¹ Arizona Search and Rescue Coordinators Association, Ltd.

² “Initial Response Incident Commander: Wilderness SAR” can be downloaded from www.saraz.org.

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Please email any corrections or suggestions to David Lovelock at dsl@math.arizona.edu.

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CHAPTER 1

Getting Started With IRO

Section 1.1

What Is IRO?

Initial Response Organizer (IRO) is a program designed to help with Route and Location Searches, primarily in wilderness environments, with special emphasis on the Initial Response phase of the search. IRO helps in two distinct, but interlocked ways.

- It documents the Route and Location Search by collecting all relevant information in a text file, called the IRO Note. See Chapter 8 on page 33.
- It guides the Incident Commander through the various steps that must be accomplished during the Initial Response to ensure nothing is left out or overlooked. See Chapter 9 on page 46.

IRO has its origins in Win CASIE III (WC3). However, WC3 is used not only in Route and Location Searches, but also in Area Searches. IRO deals only with Route and Location Searches.

IRO deals only with Route and Location Searches.

Users of WC3 will recognize a strong correlation between the IRO Note in IRO and the Initial Note in WC3. That is not surprising because the IRO Note is an upgraded version of the Initial Note. See Section 12.1 on page 61. One way to think of this is that ‘IRO Note’ and ‘Initial Note’ are different names for the same text file—one generated by IRO and the other by WC3. In fact, it is possible to migrate the IRO Note into WC3 in the event that a Route and Location Search transitions into an Area Search. See Section 12.2 on page 62.

What is a Route and Location Search?

First we need to clarify what the Initial Response phase is. The Initial Response phase of a search is the period between the time the Initial Response Incident Commander (IRIC), receives the initial report that someone is missing, and the start of the first full operational period, assuming the subject has not been found.

Initial Response → OP 1 (first full Operational Period)

The Initial Response phase of a search should last no longer than 16 hours, preferably less, because the IRIC's decision making ability deteriorates with fatigue.

The Initial Response period is usually characterized by the use of a few, highly skilled, independent resources searching likely routes and locations. A verbal Incident Action Plan (IAP) is most common during the initial response phase of the search.

The first Operational Period begins when the IRIC transitions the incident to a new Incident Commander (IC) and/or Incident Management Team (IMT) and a written IAP is developed and implemented.

A Route and Location Search starts with the Initial Response and ends when one of three things happens:

1. The subject is found.
2. The subject is not found and the search transitions to a Limited Continuous Search,¹ before the start of an Area Search.
3. An Area Search starts. An Area Search assumes the subject is stationary, involves segmenting the search area, and uses such concepts as Probability of Area (POA), Probability of Detection (POD), ROW, . . . , none of which are needed in a Route and Location Search.

A Route and Location Search may extend into one or more full Operational Periods (OP) before ending.

Section 1.2

Overview of IRO Menu Items

IRO is designed to help the IC during a Route and Location Search. This section provides a high-level overview of the Menu Items available to the user.

Opening Screen

Figure 1.1 is an image of the opening screen, displayed when you first run IRO. The first line contains the name of the program, *Initial Response Organizer*. The second line is the Main Menu and the third the Toolbar. We outline these items in turn.

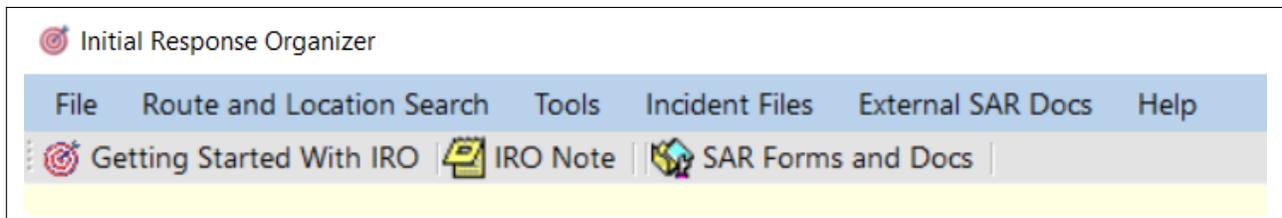


Figure 1.1: IRO Opening Screen

Main Menu

The Main Menu consists of the following items.

- **File.** This contains mostly disk-oriented menu items. See Chapter 2 on page 11.

¹ For an explanation of Limited Continuous Search, see Chapter 13 on page 63.

- **Route and Location Search.** This menu item is oriented towards Route and Location Searches. It includes items such as an urgency rating chart; lost person behavior and distance travelled; and a link to the IRO Note. This menu item is discussed extensively in Chapter 3 on page 13.
- **Tools.** This menu item is where numerous SAR-oriented forms and documents are available; risk assessment is discussed; scenarios are constructed; and various coordinate calculations are carried out. These are considered extensively in Chapter 4 on page 18.
- **Incident Files.** This is where completed incident documents and images can be imported into IRO. This menu item is discussed extensively in Chapter 5 on page 24.
- **External SAR Docs.** This menu item allows you to download SAR documents that are too large to include in IRO. See Chapter 6 on page 30.
- **Help.** This menu item provides some information on the general use of *IRO*. See Chapter 7 on page 31.

Toolbar

The toolbar consists of the following items.

- **Getting Started With IRO.** This opens a Help file that explains which menu items are useful during a Route and Location search. It also lays out the steps that the IRIC should take in initiating and managing a Route and Location Search. It is the recommended place to start for new users of IRO.
- **IRO Note.** This opens the IRO Note, the place where you can document the entire Route and Location Search. See Chapter 8 on page 33.
- **SAR Forms and Docs.** This menu item gives you access to over 200 SAR-related forms and documents. See Chapter 11 on page 58.

Section 1.3

Using the IRO During a Route and Location Search

The Initial Response phase of a search is the period between the time the IRIC receives the initial report that someone is missing, and the start of the first full operational period, Operational Period 1. The first Operational Period begins when the IRIC transitions the incident to a new IC and/or IMT, and a written IAP is developed and implemented. The Initial Response phase of a search should last no longer than 16 hours, preferably less, because the IRIC's decision-making ability deteriorates with fatigue.

A Route and Location Search starts with the Initial Response phase and then continues until either the search is resolved (the subject is found or the search is suspended) or the incident transitions to an Area Search. The IRO Note is used to document the Route and Location Search.

An ICS 201 form (Incident Briefing) should always be completed for every SAR incident. However, the IRO Note is the ICS 201 on steroids. So, the IRO Note replaces the ICS 201 on a Route and Location Search. In addition to what is usually recorded on the 201, the IRO Note has provisions for including details concerning the reporting party, the missing subject, lost person behavior, clues found, cell phone information, the urgency rating chart, scenarios, risk assessment, to name a few. It can also import completed incident documents—such as ICS forms, the Lost Person Questionnaire (LPQ), scanned debriefing forms—and images of important items like clues, the missing subject, the missing person flyer, maps of the search area, and so on. Finally, the IRO Note allows you to collect all this information about the Route and Location Search in a single place.

To see how to use the IRO Note—specifically during the Initial Response phase of a Route and Location Search, see Chapter 9 on page 46.

Using IRO to document other emergency incidents

In addition to use in a search incident, the IRO can be used to document other emergency incidents including rescues, evacuations, and other all-hazard situations. Several of the templates in the IRO Note can be used in an all-hazard incident including:

- Initial Report
- Size-Up, Objectives, Strategies
- Resources Ordered
- Assignment Started
- Assignment Completed
- Environment
- Incident Facilities
- Organization
- Imported Documents and Images
- Coordinate Calculations

Additionally, having ready access to the ICS forms can be very helpful when transitioning an all-hazard incident from the Initial Response to Extended Operations.

CHAPTER 2

The *File* Menu Item

Selecting **File** from the Main Menu displays Figure 2.1.

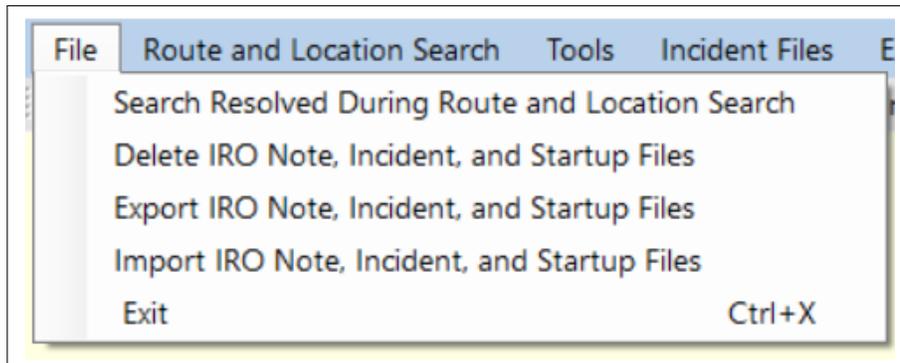


Figure 2.1: File Menu

- **Search Resolved During Route and Location Search.** This is used if a Route and Location Search is resolved either because the subject has been found, or the search has been suspended. It offers to copy the IRO Note, Incident, and Startup Files¹ to a location of your choice, and then deletes these files from IRO. IRO is then ready for another incident.
- **Delete IRO Note, Incident, and Startup Files.** This deletes the IRO Note, the Incident and the Startup Files¹ from IRO. IRO is then ready for another incident.
- **Export IRO Note, Incident, and Startup Files.** This allows you to export the IRO Note, the Incident and the Startup Files¹ for use on another computer.

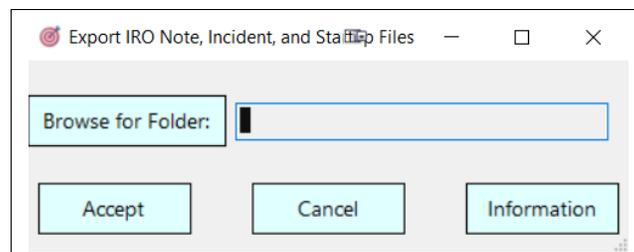


Figure 2.2: Export Initial Note, Incident, and Startup Files

¹ For an explanation of these terms, see Chapter 13 on page 63.

The **Browse for Folder** button allows you to select the drive and folder for the exported files. When the **Accept** button is clicked the files are placed in a subfolder of your selected folder, called 'IRONoteAndImages'.

This is also a way of backing up the IRO Note which should be done frequently. Finally, it is the basis of transferring the IRO Note to Win CASIE III, described in Chapter 9 on page 46.

- **Import IRO Note, Incident, and Startup Files.** This allows you to import the IRO Note, the Incident and the Startup Files¹ that have been exported from another computer.

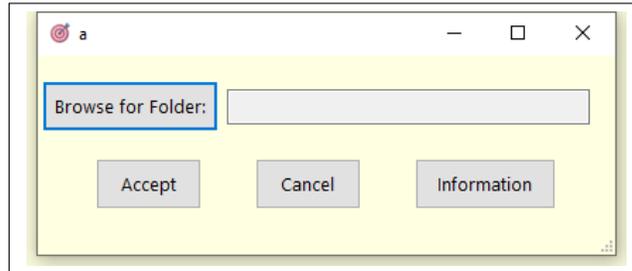


Figure 2.3: Import Initial Note, Incident, and Startup Files

The **Browse for Folder** button allows you to select the drive and folder containing the files to be imported. To use this select the folder containing the subfolder 'IROInitialNoteAndImages'. When the **Accept** button is clicked the exported files are imported.

- **Exit.** This closes IRO. The status of various choices, such as whether Military Time is OFF or ON, are saved in a Startup file,¹ which is automatically loaded the next time you start IRO.

CHAPTER 3

The Route and Location Search Menu Item

Selecting `Route and Location Search` from the Main Menu displays Figure 3.1.

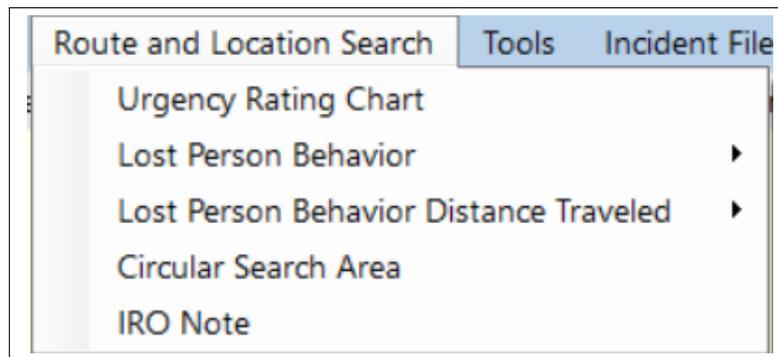


Figure 3.1: Route and Location Search Menu

- **Urgency Rating Chart.** This is the standard form used to estimate the urgency of a search. See Section 3.1 on page 14.
- **Lost Person Behavior.** This is where you can read files on Lost Person Behavior. The USA and Canadian files are taken directly from “Managing The Search Function”, with permission from the author, Ken Hill. The UK files come from Dave Perkins and Pete Roberts. See Section 3.2 on page 15.
- **Lost Person Behavior Distance Traveled.** This shows the distances traveled for various categories of lost persons in Arizona and Nova Scotia.
- **Circular Search Area.** This is where you can calculate the area between two circles with the same center, a donut. See Section 3.3 on page 16.
- **IRO Note.** This opens a very simple text editor, called IRO Note, specifically tailored to SAR incidents. It is the place where the Route and Location Search can be documented in depth. See Chapter 8 on page 33.

Section 3.1

Urgency Rating Chart

If you select **Urgency Rating Chart** under the **Route and Location Search** menu item, the Figure 3.2 opens.

Urgency Rating Chart

Age Of Subject

Very Young (1) Other (2)

Very Old (1) Other (3)

Medical Condition Of Subject

Known/Suspected injured, ill, or mental problem (1)

Known/Suspected injured, ill, or mental problem (2)

Healthy (3) Known fatality (3)

Number Of Subjects

One (1) More than one (unless separated) (2)

More than one (unless separated) (3)

Subject Experience Profile

Not experienced, does not know area (1)

Not experienced, knows area (1)

Not experienced, knows area (2)

Experienced, not familiar with area (2)

Experienced, knows area (3)

Weather Profile

Past and/or existing hazardous weather (1)

Predicted hazardous weather (less than 8 hrs.) (1)

Predicted hazardous weather (less than 8 hrs.) (2)

Predicted hazardous weather (more than 8 hrs.) (2)

No hazardous weather predicted (3)

Equipment Profile

Inadequate for environment and weather (1)

Questionable for environment and weather (1)

Questionable for environment and weather (2)

Adequate for environment and weather (3)

Terrain/Hazard Profile

Known hazardous terrain or other hazards (1)

Few or no hazards (2)

Few or no hazards (3)

Urgency Rating (between 7 and 21) **7**

Highest Urgency Lowest Urgency

The lower the numerical rating, the higher the relative urgency. All ratings are relative and the total from the chart indicates only a possible relative urgency. All other factors bearing on the incident need to be evaluated by the Incident Commander to establish the final urgency level.

Clipboard Cancel Information

Figure 3.2: Urgency Rating Chart

This mimics the Urgency Rating Chart that is found under **SAR Forms and Docs**. As various radio buttons are selected, the Urgency Rating changes, as does the amount of red in the progress bar. The more red the more urgent the incident. In the figure, all the most urgent items (the 1's in each case), have been selected, generating the greatest amount of urgency.

Clicking on the **Clipboard** button copies a summary of the completed chart to the clipboard, which can be pasted anywhere.

If this form is accessed from the **External Templates** in the **IRO Note** (described in Section 8.7 on page 40), the **Clipboard** button is replaced by a **To Note** button. The completed chart is then pasted in the **IRO Note**.

For additional help, click on the **Information** button.

Section 3.2

Lost Person Behavior

This is where you can read files on Lost Person Behavior (LPB). There are two choices: [USA and Canada](#) and [UK \(including distance traveled\)](#). In both cases you are presented with a screen that gives the typical behavior of a lost person, based on various characteristics.

USA and Canada

This information is taken directly from “Managing The Search Function”, with permission from Ken Hill. In Figure 3.3 we clicked on “Hikers” in the left panel, to show the information in the right panel.

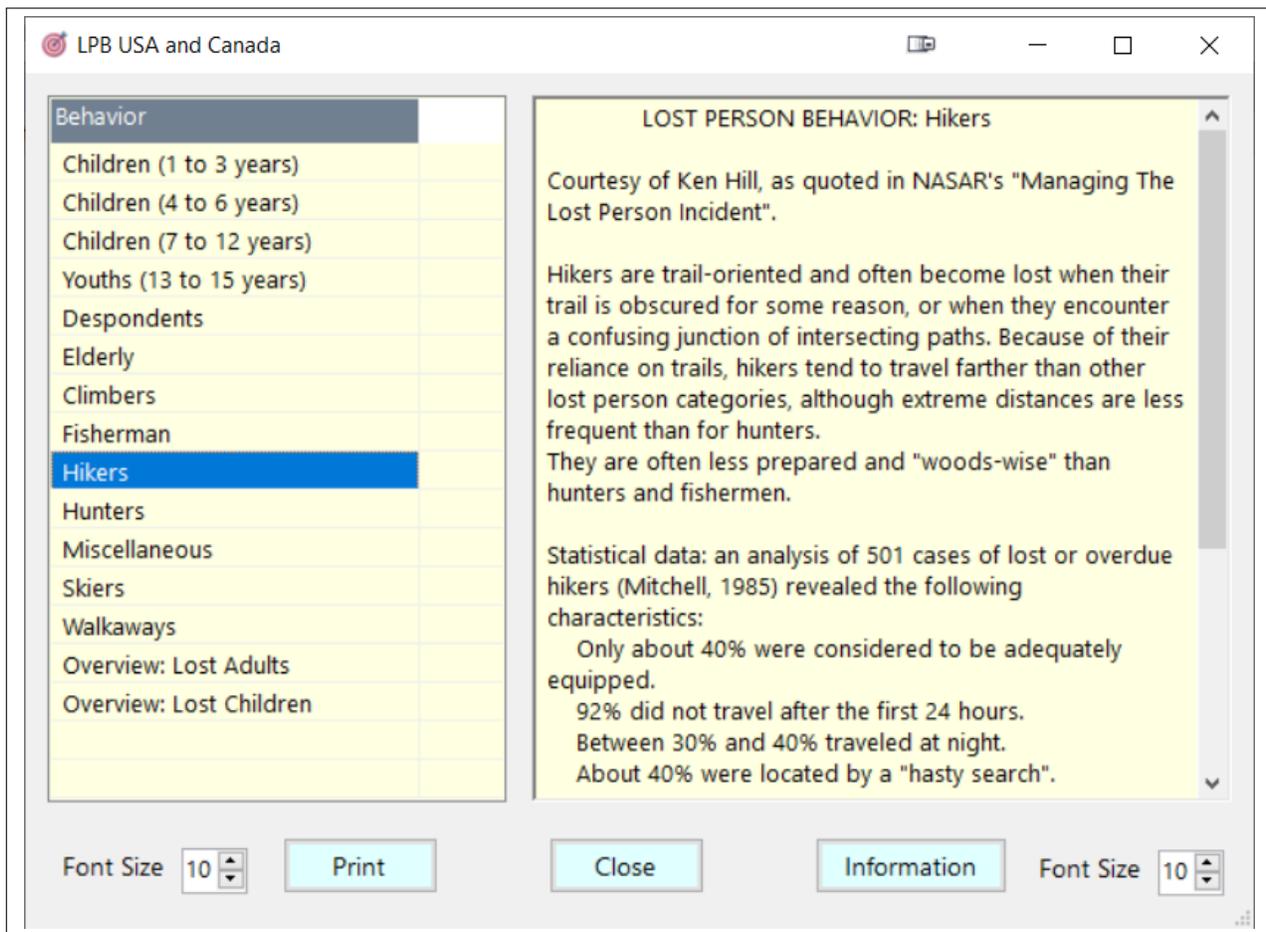


Figure 3.3: LPB USA and Canada

The size of the fonts used in the left- and right-panels can be adjusted. This is cosmetic and does not impact the font size when the selected document is printed.

UK (including distance traveled)

Selecting the option [UK \(including distance traveled\)](#) brings up the choices shown in Figure 3.4.

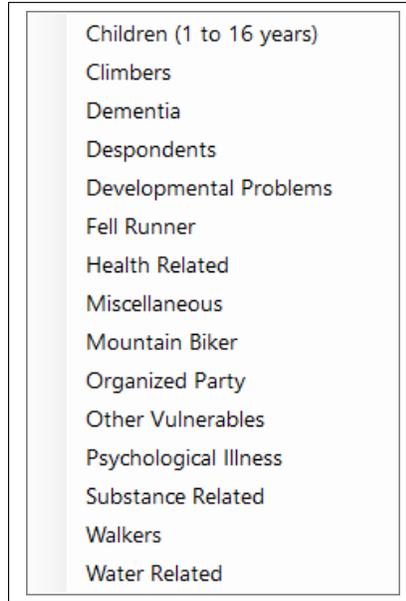


Figure 3.4: LPB UK Choices

Clicking on one of these options opens the appropriate PDF document, which includes the distance traveled.

Section 3.3

Circular Search Area

From the Main Menu, if you select **Route and Location Searches** > **Circular Search Area**, you are presented with Figure 3.5.

Figure 3.5: Circular Search Area

This is where you can calculate the area between two circles with the same center, a donut. By setting the “Inner Radius” equal to zero, the area of a circle of radius “Outer Radius” is calculated.

The units for the radii of the two circles can be feet, yards, meters, kilometers, and miles, while the units of the area can be sq. feet, sq. yards, sq. meters, acres, hectares, sq. kilometers, and sq. miles.

Clicking on `Accept` exposes the `Clipboard` button. Clicking on it copies the calculation to the clipboard, which can be pasted anywhere.

If this form is accessed from the `External Templates` in the `IRO Note`, the `Clipboard` button is replaced by a `To Note` button. The calculation is then pasted in the `IRO Note`.

CHAPTER 4

The *Tools* Menu Item

Selecting **Tools** from the Main Menu displays Figure 4.1.

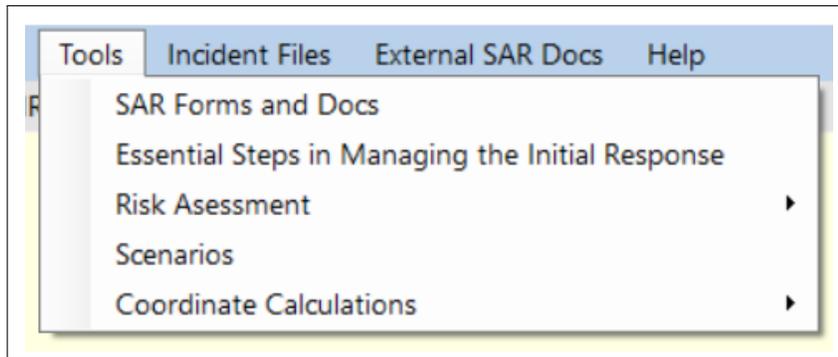


Figure 4.1: Tools Menu

- **SAR Forms and Docs.** This is where numerous forms and documents that are SAR oriented can be read, filtered, and printed. See Chapter 11 on page 58.
- **Essential Steps in Managing the Initial Response.** This opens a PDF document that describes the 16 steps that every IRIC should follow during the Initial Response phase of a Route and Location Search. It is extracted directly from Chapter 9 on page 46 and can also be accessed from [SAR Forms and Docs].
- **Risk Assessment.** SAR personnel are continually exposed to varying levels of risk during operational deployments. Risk management involves quantifying risk and then mitigating it through control measures. One way to quantify risk is to use models. IRO contains three different models: the SPE Model, the GAR Model, and the Complacency Model shown in Figure 4.2. See Chapter 10 on page 52.

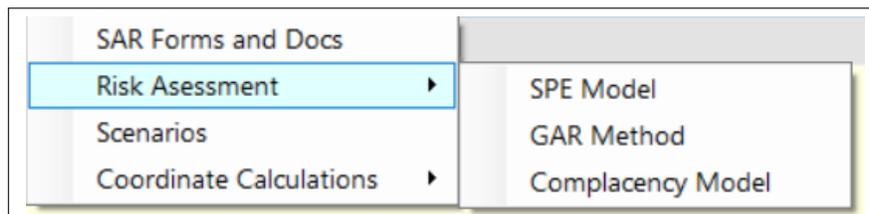


Figure 4.2: Risk Assessment Menu

- **Scenarios.** A scenario is an attempt at analyzing what the missing person might have done after leaving the IPP.¹ See Section 4.1.
- **Coordinate Calculations.** There are four choices: `Convert Lat/Long to UTM`, `Convert UTM to Lat/Long`, `Convert Between Coordinate Formats`, and `Distance Between Two Locations`. See Section 4.2 on page 20.

Section 4.1 Scenarios

Background Information

A Scenario Analysis is an attempt at analyzing what the missing person might have done after leaving the IPP. The analysis starts with developing several plausible scenarios and ends with analyzing and prioritizing each of them. Without IRO or the scenarios the IMT is doing little more than guessing where the missing person might be.

Before developing scenarios, the scenario preparer should be briefed about the subject and the known circumstances surrounding the incident. This should include the missing person profile, the incident history, a map analysis, and LPB information.

The preferred method is to generate a number of scenarios rather than relying on one. At least three scenarios should be generated. With fewer scenarios, some perfectly reasonable possibilities may be missed. It may be that different scenarios cover a range of possibilities that appear to contradict each other, but this is perfectly possible—discount nothing, accept anything that is “reasonable”, and avoid fantasy.

Instructions

Figure 4.3 shows the Scenario screen.

The screenshot shows a window titled "Scenarios" with a yellow background. It contains five identical panels for Scenario A through Scenario E. Each panel has a "Scenario X Details" label, a "Spell Check" button, a large text input field, and three dropdown menus: "Mobility" (set to "Mobile"), "Responsiveness" (set to "Responsive"), and "Priority" (set to "1"). At the bottom of the window, there is a "Prepared by:" text input field, and three buttons: "Clipboard", "Close", and "Information".

Figure 4.3: The Scenario screen

¹ For an explanation of IPP, see Chapter 13 on page 63.

- **Details:** Good scenarios include details such as a direction of travel, a route, and a likely location. The Details region for a scenario should be completed first. It can be spell-checked.
- **Mobility:** The options are `Mobile`, `Immobile`, and `Mobile & Immobile`. The last option is used if a group of subjects is missing, some of whom are mobile and others immobile.
- **Responsiveness:** The options are `Responsive`, `Unresponsive`, and `Responsive & Unresponsive`. The last option is used if a group of subjects is missing, some of whom are responsive and others unresponsive.
- **Priority:** The options are the numbers between 1 and 10 inclusive, with 1 being the highest priority. The higher the scenario's priority, the more likely that scenario is what happened. Different scenarios can be given the same priority.
- **Prepared by:** This is where the name of the preparer is inserted. It is a required field.

When the `Clipboard` button is clicked, it checks to ensure that there is text in both the `Scenario A Details` and the `Prepared by:` textboxes. A summary of the various scenarios is then created, sorted by priorities, and placed on the Clipboard. (Scenarios without text in the associated `Details` textbox are ignored.) The `Clipboard` button is renamed `To Notes` if it is called from the `IRO Note`. In that case, the output is automatically added to the `IRO Note`.

If you have more than five scenarios, then the additional scenarios can be included by rerunning the Scenarios screen, and importing them into the IRO Note following the previously inserted Scenarios. However the second set of scenarios will require changing the titles from 'Scenario A', 'Scenario B', ... to 'Scenario F', 'Scenario G', ..., and the entire set of scenarios will no longer be in priority order.

Section 4.2

Coordinate Calculations

Selecting `Coordinate Calculations` displays the four submenus shown in Figure 4.4.

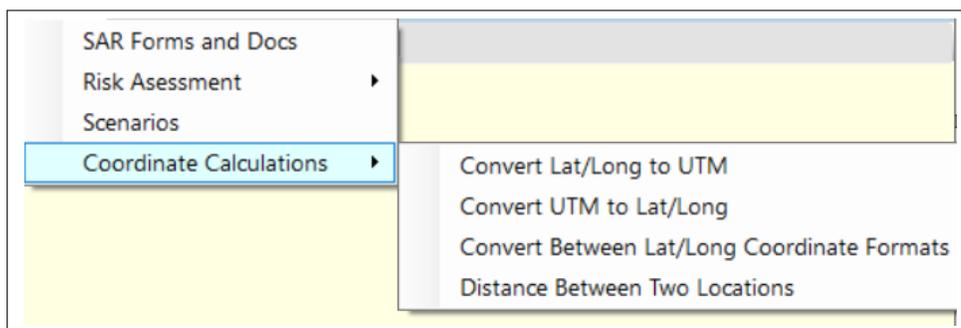


Figure 4.4: Coordinate Calculations Menu

Convert Lat/Long to UTM

This is where you can convert latitude and longitude in degrees to UTM coordinates.

From the Main Menu, if you select `Tools` » `Coordinate Calculations` » `Convert Lat/Long to UTM`, you are presented with Figure 4.5.

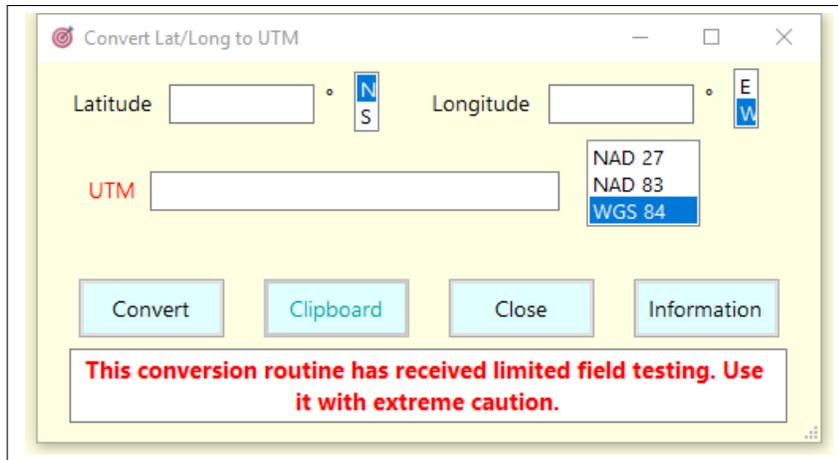


Figure 4.5: Convert Lat/Long to UTM

Note: Pay attention to the warning.

By clicking **Calculate**, the UTM coordinates are displayed. By clicking **Clipboard**, these results can be transferred to the clipboard for insertion anywhere.

If this form is accessed from the **External Templates** in the **IRO Note**, the **Clipboard** button is replaced by a **To Note** button. The results are then pasted in the **IRO Note**.

Convert UTM to Lat/Long

This is where you can convert a valid UTM coordinate to latitude and longitude in degrees.

From the Main Menu, if you select **Tools** >> **Coordinate Calculations** >> **Convert UTM to Lat/Long**, you are presented with Figure 4.6.

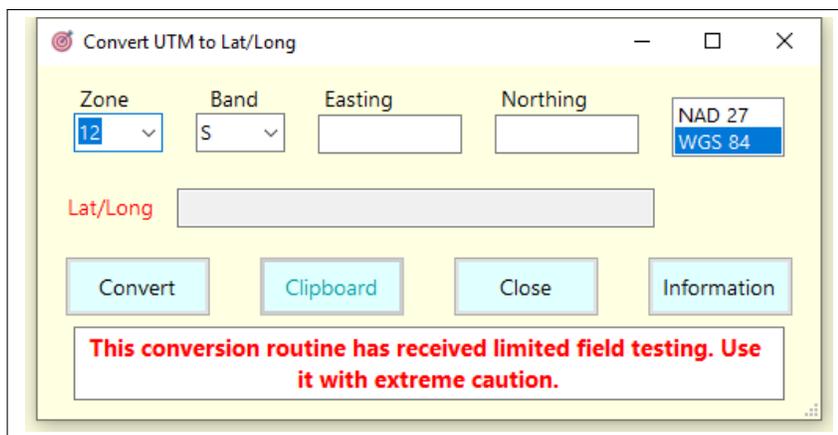


Figure 4.6: Convert UTM to Lat/Long

By clicking **Calculate**, the Lat/Long coordinates are displayed.

By clicking **Clipboard**, these results can be transferred to the clipboard for insertion anywhere.

If this form is accessed from the **External Templates** in the **IRO Note**, the **Clipboard** button is replaced by a **To Note** button. The results are then pasted in the **IRO Note**.

Convert Between Lat/Long Coordinate Formats

This is where you can convert latitude and longitude between three formats: degrees; degrees and minutes; and degrees, minutes, and seconds.

From the Main Menu, if you select **Tools** **Coordinate Calculations** **Convert Coordinate Formats**, you are presented with Figure 4.7.

The screenshot shows a window titled "Convert Between Coordinate Formats". It features three radio buttons for selecting the input and output formats. The "Input" radio button is selected. Below it is a text box labeled "Degrees" with a degree symbol. The "Output" radio button is unselected, and below it is a text box labeled "Degrees and Minutes" with two input fields separated by a degree symbol. The second "Output" radio button is unselected, and below it is a text box labeled "Degrees, Minutes, and Seconds" with three input fields separated by degree and minute symbols. At the bottom of the window are four buttons: "Calculate", "Clipboard", "Close", and "Information".

Figure 4.7: Convert Between Coordinate Formats

By clicking **Calculate**, the remaining two coordinates are displayed.

You can select the input by clicking on one of the three radio buttons, then filling in the appropriate text box or boxes.

By clicking **Clipboard**, these results can be transferred to the clipboard for insertion anywhere.

If this form is accessed from the **External Templates** in the **IRO Note**, the **Clipboard** button is replaced by a **To Note** button. The results are then pasted in the **IRO Note**.

Distance Between Two Locations

This is where you can estimate the (great-circle) distance between two locations where the latitude and longitude are given in degrees. This is the “as-the-crow-flies” distance, estimated using the Haversine formula, assuming the earth is a sphere of radius 6371 kilometers

From the Main Menu, if you select **Tools** **Coordinate Calculations** **Distance From Degrees**, you are presented with Figure 4.8.

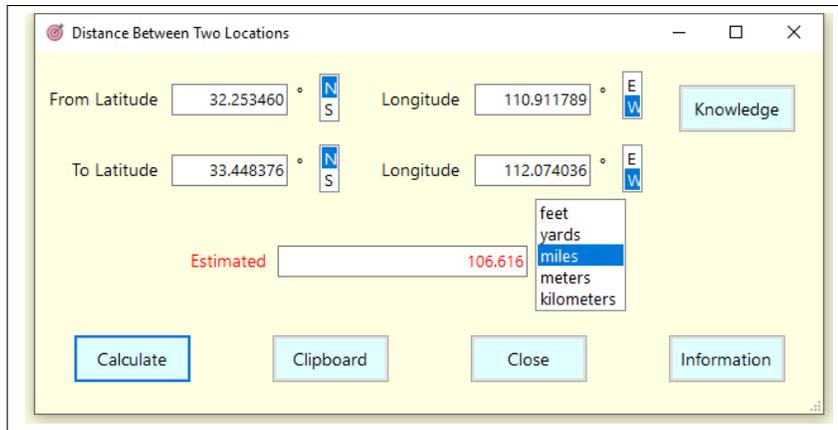


Figure 4.8: Distance Between Two Locations

Here we have entered the latitudes and longitudes of two locations (one in Tucson, AZ and the other in Phoenix, AZ) and clicked on **Calculate** to find they are about 107 miles apart.

By clicking **Clipboard**, this calculation can be transferred to the clipboard for insertion anywhere.

If this form is accessed from the **External Templates** in the **IRO Note**, the **Clipboard** button is replaced by a **To Note** button. The results are then pasted in the **IRO Note**.

Clicking on **Knowledge** brings up a window similar to Figure 4.9. The program has taken the first location, kept the whole number of degrees, and then estimated what a change in the fifth decimal place of degrees means in real terms.

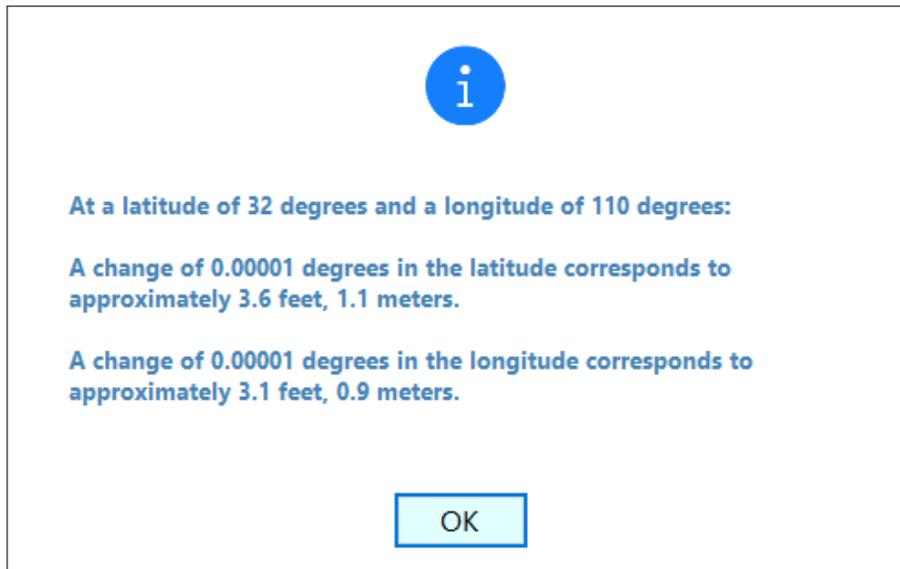


Figure 4.9: Knowledge Window

CHAPTER 5

The *Incident Files* Menu Item

This is where completed incident documents and images can be imported into IRO.

Selecting *Incident Files* from the Main Menu displays Figure 5.1.

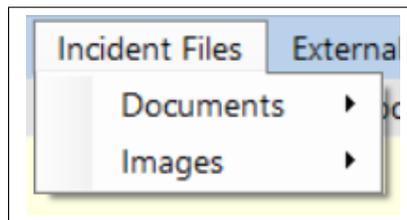


Figure 5.1: Incident Files Menu

There are two menu items, **Documents** and **Images**, which each contain submenus.

Section 5.1

Documents

Selecting **Documents** in Figure 5.1 displays Figure 5.2.

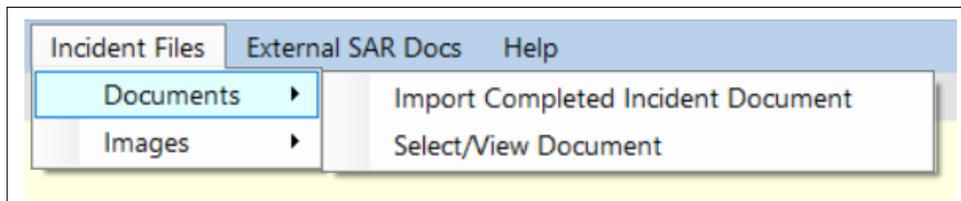


Figure 5.2: Documents Menu

Import Completed Incident Document

This menu item allows you to import certain files into IRO. These include document files with extensions .doc, .docx, .pdf, .xls, .xlsx, and .txt. IRO checks to make sure that a document with the same filename has not already been imported.

When IRO imports a document into IRO, it copies it but does not move it. Any subsequent changes or deletions made to the copied document in IRO does not impact the document from which it was copied in its original location.

After importing a document, you are given the opportunity to add information about this document to the IRO Note using the Imported Incident Document Information template.

Examples of documents that might be imported are an LPQ, completed ICS forms, scanned debriefing forms, completed XLS files such as a suspending the search spreadsheet, etc.

Select/View Document

This is where imported documents can be viewed and manipulated.

When the Select/View Document screen opens, the menu shown in Figure 5.3 is available.

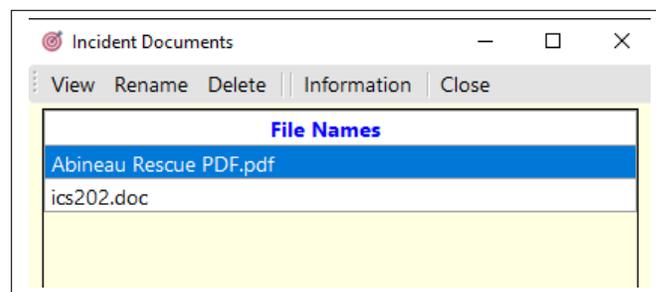


Figure 5.3: Select/View Document Menu

Here you can view, rename, or delete the document. A deleted document is not sent to the Recycle Bin, but is deleted permanently.

Section 5.2

Images

Selecting **Images** in Figure 5.1 displays Figure 5.5.

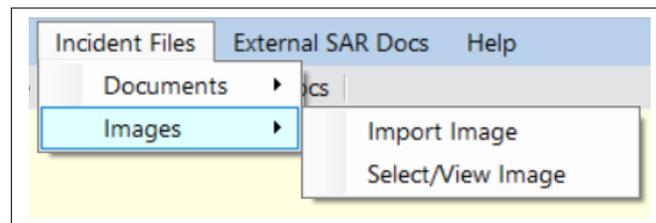


Figure 5.4: Images Menu

Import Image

This menu item allows you to import certain files into IRO. These include image files with extensions .jpg, .jpeg, .png, and .bmp. IRO checks to make sure that an image with the same filename has not already been imported.

When IRO imports an image into IRO, it copies it but does not move it. Any subsequent changes or deletions made to the copied image in IRO does not impact the image from which it was copied in its original location.

After importing an image, you are reminded to add information about this image to the IRO Note using the Imported Image Information template.

Typically these images would be of clues, the missing subject, the missing person flyer, and maps of the search area.

Select/View Image

This is where imported images can be viewed and manipulated.

When the Select/View Image screen opens, the menu shown in Figure 5.5 is available.

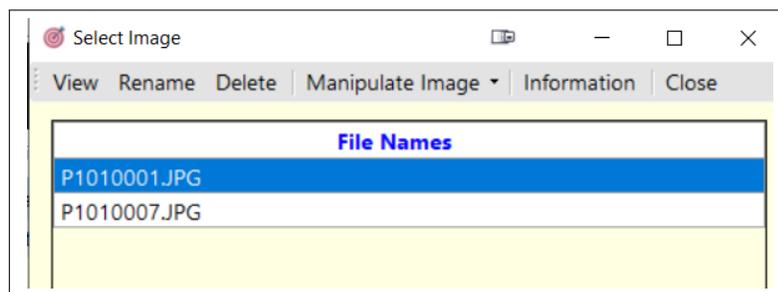


Figure 5.5: Select/View Image Menu

This displays a list of the filenames of all the images that have been imported into IRO. These include image files with extensions .jpg, .jpeg, .png, and .bmp.

View

After highlighting one of the items on the list it can be viewed either by clicking on that item, or selecting **View**.

When the View screen opens, Figure 5.6 is available.



Figure 5.6: View Menu

When an image is displayed, its viewing size is changed so the entire image is visible.

The name of the image file is in the top left-hand corner of the window.

The menu contains the following items.

- **Actual Size.** Selecting this changes the image to its actual size.
- **Zoom Out.** Clicking on this menu item allows you to see fewer details of the image.
- **Zoom In.** Clicking on this menu item allows you to see more details of the image.
- **Print Landscape.** This has a drop-down list with two options.
 - **Image From File.** This prints the original image in landscape mode to the selected printer. Initially the image is previewed.

- **Image From Window.** This prints an image to the selected printer in landscape mode. How much of the image in the window is printed depends on the printer and the paper used. Initially the image is previewed. This allows you to see whether you are capturing the image you want. If the previewed image is unacceptable, close the preview and adjust the size of the initial window and zoom level.
- **Print Portrait.** This has a drop-down list with two options.
 - **Image From File.** This prints the original image in portrait mode to the selected printer. Initially the image is previewed.
 - **Image From Window.** This prints an image to the selected printer in portrait mode. How much of the image in the window is printed depends on the printer and the paper used. Initially the image is previewed. This allows you to see whether you are capturing the image you want. If the previewed image is unacceptable, close the preview and adjust the size of the initial window and zoom level.
- **Metadata.** This opens a new screen in which some metadata of a selected jpeg/jpg file is displayed, if the data exists. Figure 5.7 shows typical Metadata data. The first two lines, giving the current images Filename and Location on the computer, are always present. Whether the remaining lines are shown depends on the image.

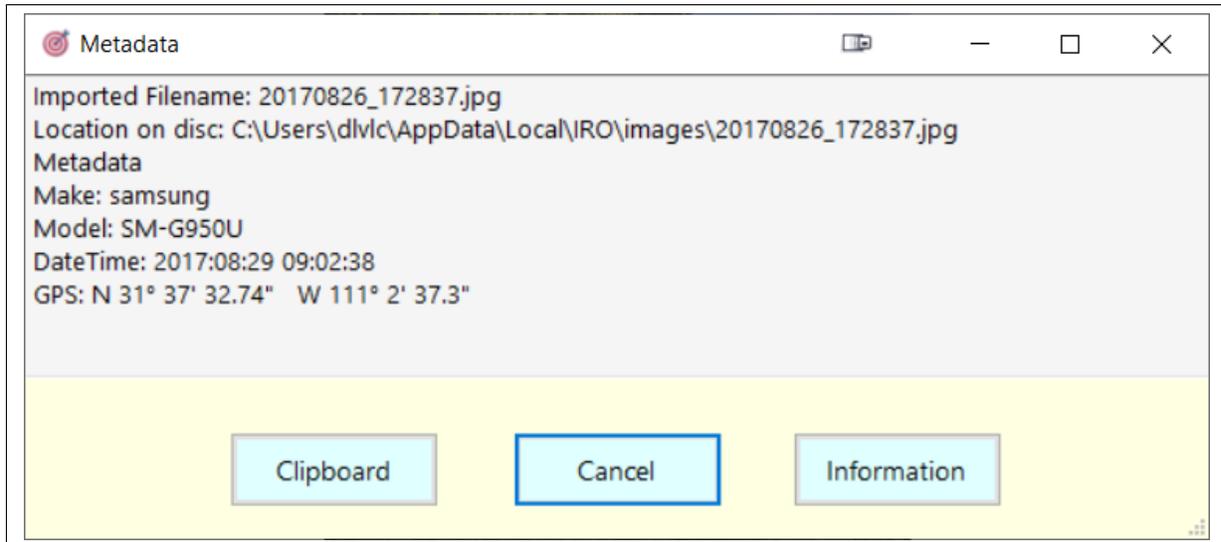


Figure 5.7: Metadata Screen

Clicking on the **Clipboard** button copies the metadata to the clipboard, which can be pasted anywhere, including into the IRO Note.

SAR and Metadata

Electronic clues are increasingly used to aid in search and rescue investigations. One of these clues that could yield valuable information is the metadata contained in digital photographs. Depending on the settings of the cell phone or camera that took the photo the metadata may include the make and model of the camera, the camera settings, the date and time the photo was taken, and the location from the GPS of the device.

The location information can be very important in determining where photos were taken which may provide guidance on where to search for a missing person who may have sent a photo to someone or posted a photo to a social media site. The location information from a photo may also be used to verify the location of a clue that a searcher or member of the public photographed. The make and model of the phone or camera could be useful to verify the type

of equipment that a search subject has. The date and time that the photo was taken could be a useful insight into the timeline involved in the incident. Not all of the metadata available is useful or necessary for the investigation.

It is important to get the original file either downloaded from a social media site or forwarded from a subject who received the photo. A screenshot of the photo will not contain the metadata that is needed for analysis.

There are a variety of programs and apps, including a feature native to IRO, that can display the metadata contained in a photo.

- **Orientation.** Some images, when viewed, do not appear “right-side-up”, as shown in the left-hand image in Figure 5.8. By selecting [Orientation](#), this is corrected, as shown in the right-hand image in Figure 5.8. In doing this, the image’s file is not edited—this is purely a cosmetic operation.

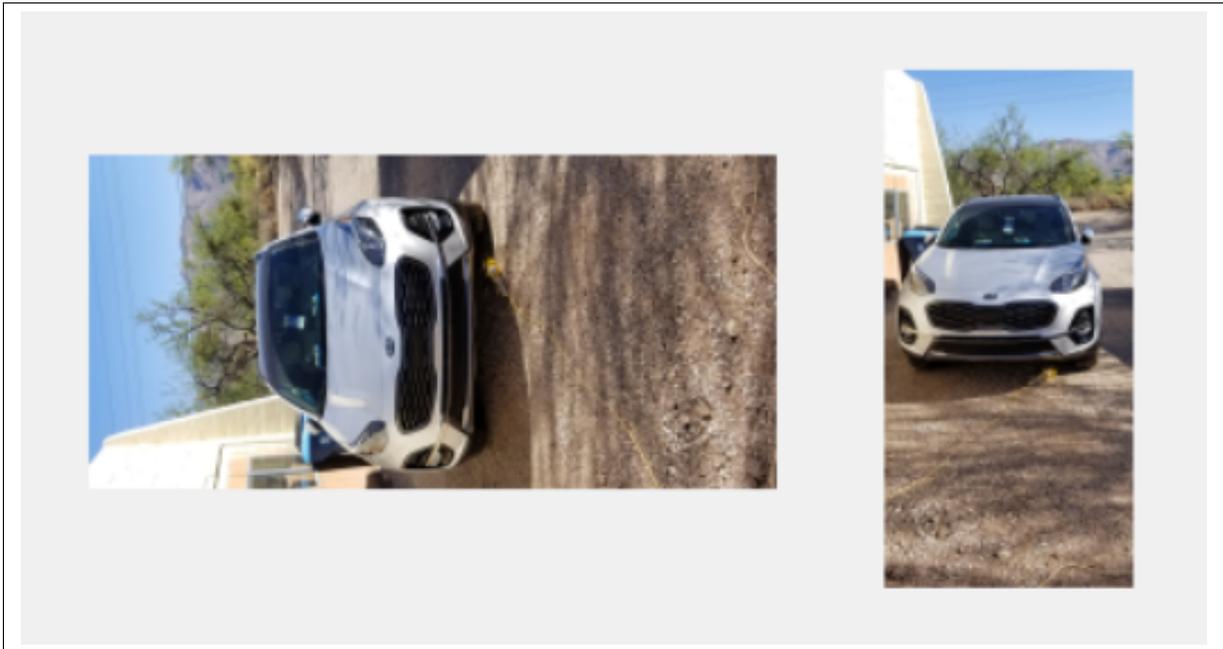


Figure 5.8: The effect of Orientation—Before and After

Other Options

Left-clicking on any point on the image, zooms in about that point. Right-clicking on any point on the image, zooms out about that point. The mouse scroll-bar zooms in and out.

If you are interested in a particular region of the image it is possible to concentrate on it by surrounding it with a rectangular area. To do this, left-click somewhere near the region and, holding the left-mouse button down, drag it across the region to create a rectangle. This rectangle will be shaded transparent blue. Releasing the left-click makes that rectangle fill the entire viewing area.

If you are looking at a negative, B&W, or rotated image the [Actual Size](#), [Print Landscape](#), and [Print Portrait](#) menu items are no longer available, but an extra menu item is visible, [Save Image](#). This item allows you to save the newly created image, which is then added to the list of images.

Rename

The menu item `Rename` allows you to change the name of the highlighted filename, but not the extension.

Delete

By selecting the menu item `Delete`, the highlighted file is deleted permanently, both from the list and from the computer. **It cannot be recovered.** Although the image stored in IRO is deleted, if the image is also stored in a location outside IRO it will **not** be impacted.

Manipulate Image

The menu item `Manipulate Image` takes the highlighted item and creates its negative, its B&W, or a rotated image, depending on which of the sub-menu items, `Create Negative`, `Create B&W`, `Rotate 90 degrees (counterclockwise)`, or `Rotate 90 degrees (clockwise)`, is selected. Depending on your computer, these can take some time to finish, because every pixel in the original image has to be recalculated and then changed. When completed the image is then displayed, where you are given the option of saving it back to this list.

Looking at a manipulated image version of an image may bring out details not noticeable in the original. For example, in Alaska, SAR teams often take photos from an aircraft of parts of Denali when searching for missing subjects. While footprints are difficult to see on the original, they stand out when viewing the negative or B&W version of that image. Sometimes a subject may be more visible in a rotated image than it is in the original orientation. Finally, people who are color-blind, often prefer images in B&W.

A color-blind searcher once observed "... [there was a time when] my colorblindness seemed a positive thing. When I was in the Navy during Vietnam, they used to use 'us' (colorblind folks like me) to interpret stereoscopic aerial images of the jungle. We could spot camouflage netting or camouflage of any type immediately whereas it all looked the same to a person with normal color vision."

CHAPTER 6

The *External SAR Documents* Menu Item

Selecting `External SAR Documents` from the Main Menu displays Figure 6.1.

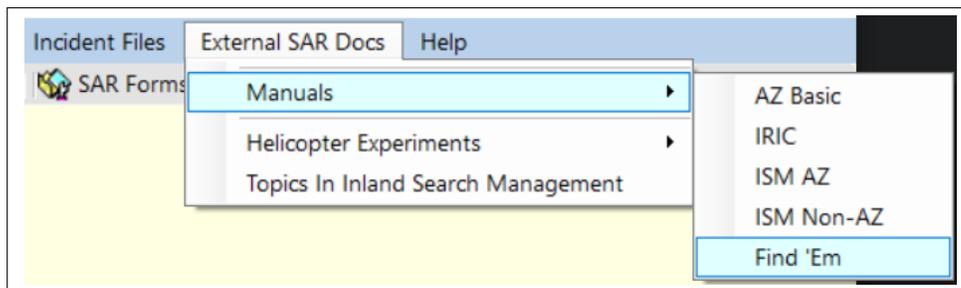


Figure 6.1: External SAR Documents Menu

This menu item allows you to download SAR documents that are too large to include in IRO, which otherwise would have been found under the menu item `Tools >> SAR Forms and Docs`.

Examples of External SAR Docs include various SAR manuals, details of the Helicopter experiments, and other SAR topics.

If you click on a document's name, you are given a description and the option to download the document from the internet. Of course, this requires an internet connection.

For example, selecting Find 'Em shows the screen in Figure 6.2.

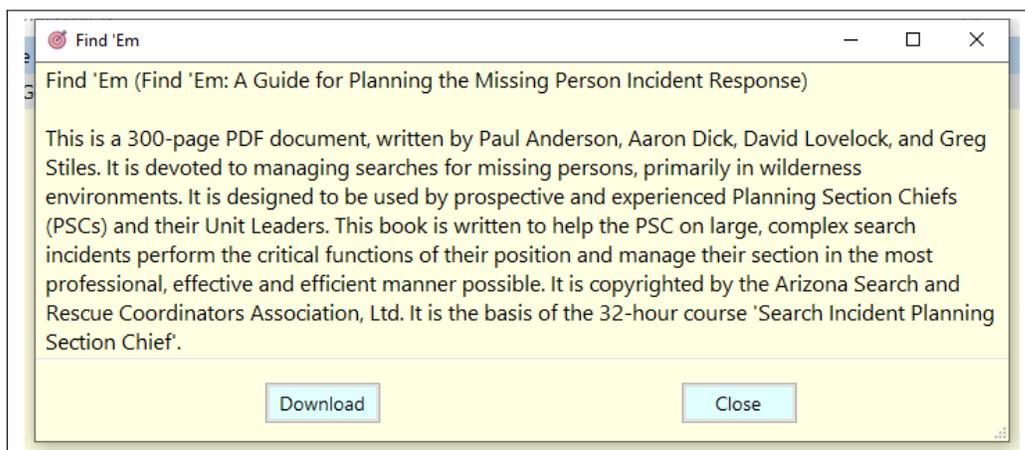


Figure 6.2: Find 'Em

CHAPTER 7

The *Help* Menu Item

Selecting `Help` from the Main Menu displays Figure 7.1.



Figure 7.1: Help Menu

- **Overview of IRO.** This leads to the material covered in Chapter 1 on page 7 of this document.
- **Magnifier.** This opens a window in which the text under the cursor is magnified. This might be useful when projecting IRO onto a screen in a large room, where some in the audience have difficulty reading the text directly from IRO. The default zoom factor is 50. This can be changed by clicking on any of the menu items *10, 20, 30, . . . , 90, 95*.
- **Credits.** IRO would not have been possible without the considerable help from: Stevan Chuk, Mike Ebersole, Gene Helper, Christine Hoekenga, Russ Hore, Marc Levesque, Mark Miraglia, Mike Motti, John T. Perchorowicz, Cody D. Pfeifer, Jeremy Ramirez, Aaron Wallace, Ian Williamson.

We also thank Henry Cortez Wu for permission to use the source code from his program, MagnifierXP, as the basis for our Magnifier code.

- **About.** IRO is copyrighted by Paul Anderson, Jen Dempsey, Aaron Dick, and David Lovelock. This program is dedicated to the memory of John M. Bownds.

Reporting Bugs

If you find any bugs, please cut and paste the error message (if any), describe what you were doing at the time, and email this information to: David Lovelock at dlvlck@gmail.com. Please include the IRO version number.

Legal Stuff

This program may be freely distributed by any means, provided that there is no fee or charge or consideration of any kind which is in excess of \$8. However, we retain all the rights of the program.

WARNING.

**THIS LATEST VERSION OF THE PROGRAM HAS RECEIVED VERY
LIMITED FIELD TESTING.
USE IT AT YOUR OWN RISK.**

DISCLAIMER: The software is provided AS IS without any warranty, either expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. The authors will not be liable for any special, incidental, consequential or indirect damages due to loss of data or any other reason.

CHAPTER 8

The *IRO Note* Menu Item

Section 8.1 Overview

IRO Note is a simple text editor. Anything in it can be deleted or changed. It is used at the beginning of a search. It is the place to document everything that is done during a Route and Location Search.

It typically contains the name and details of the missing subject, what the weather was like when they were last seen and when they were reported missing, which resources are available, which have been deployed, etc.

Additionally, the IRO Note is flexible enough to accommodate any information the user feels could be valuable throughout the Route and Location Search or beyond. The IRO Note provides a tool to aid in maintaining detailed documentation for a search which is critical in successful search management.

Finally, the IRO Note and the main IRO screen can be open at the same time. For example, while in the IRO Note it is possible to view the Incident Files, or, as another example, to view the “Essential Steps in Managing the Initial Response using the IRO Note” document.

Section 8.2 Chronology of Events

If the subject is found or the search is suspended, the IRO Note text file is a legal document that identifies what was done. Keeping that in mind, you should treat this document as a chronology of events on which you made your decisions at that time. For example, say you were informed at the beginning of the search, that the subject was in poor health. This might impact how far you would search from the IPP. Then, later, you find out that the subject is in perfect health. It is a mistake to change the initial report to reflect this new information. Rather, at this time you should enter this new information at the end of the current document (perhaps using the Message template discussed in Section 8.6 on page 36), indicating that this is corrected information. Then, from now on, your decisions will reflect this new knowledge.

Section 8.3

The IRO Note Menu

Selecting **IRO Note** under the Route and Location Search menu in the Main Menu, or from the Toolbar, opens a very simple text editor, specifically tailored for SAR incidents. See Figure 8.1.

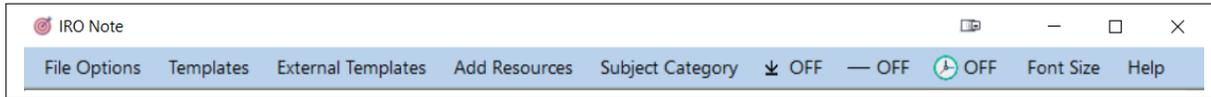


Figure 8.1: IRO Note Menu

However, if your screen is too narrow to display all the options, you might see Figure 8.2.

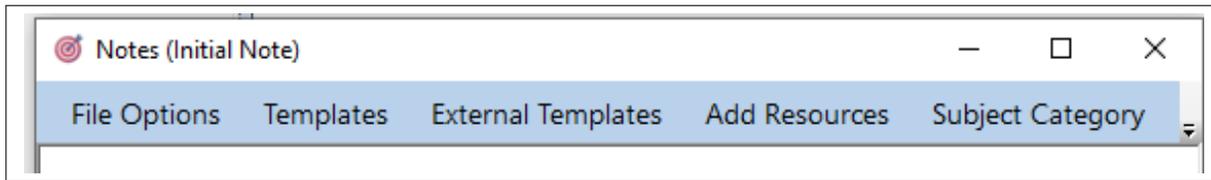


Figure 8.2: Truncated IRO Note Menu

Where are the other menu items? If you look at the right-hand side of Figure 8.2, you will see a small down arrow. Clicking on it displays the missing items as shown in Figure 8.3

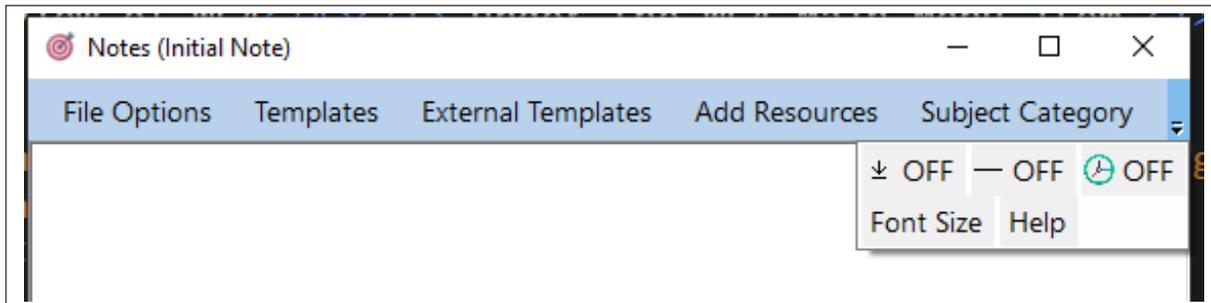


Figure 8.3: Truncated IRO Note Menu

Section 8.4

Overview of the Menu Items

We now discuss each of the menu items in turn.

- **File Options.** The menu items here allow you to save or print the IRO Note. It is also where you can import a text file. See Section 8.5 on page 35.
- **Templates.** This is where you can select from a variety of templates that you can insert and complete. They are the backbone of the IRO Note. These templates range from an 'Initial Report' to 'Found Subject', from 'Team Status' to 'Clue Found', from 'Resources Ordered' to 'Cell Phone Data'. See Section 8.6 on page 36.
- **External Templates.** External Templates are menu items that can be accessed from within the IRO Note and the results automatically imported into the IRO Note. See Section 8.7 on page 40.

- **Add Resources.** This shows a list of resource names. Clicking on any one of them inserts the name in the IRO Note at the location of the cursor. Of course, you do not have to select from this list—you can always enter your own resource at the location of the cursor in the IRO Note.
- **Subject Category.** This opens the list of categories described in Lost Person Behavior in Section 3.2 on page 15. Clicking on any one of them inserts the specific category and its details in the IRO Note at the location of the cursor.
- **± OFF** All the while this is OFF, every insert is placed at the position of the cursor. Clicking on this menu item toggles it to ON, in which case all inserts are placed at the end of the IRO Note. This choice is saved in the Startup File when IRO is closed, and reloaded when IRO is re-opened.
- **— OFF** This has no impact while it is OFF. When it is toggled to **— ON**, a line separator is placed above the next inserted template. This choice is saved in the Startup File when IRO is closed, and reloaded when IRO is re-opened.
- **🕒 OFF** This toggles between showing the time using a 12-hours clock (for example, 1:30 PM) or military time (1330). When **🕒 ON**, military time is used. This will not impact any previously-entered times. This choice is saved in the Startup File when IRO is closed, and reloaded when IRO is re-opened.
- **Font Size.** This allows you to change the font size used in the IRO Note from 8 to 18. It is purely cosmetic and has no impact when the IRO Note is Saved or Printed.

Section 8.5

File Options

Selecting **File Options** opens the menu shown in Figure 8.4.

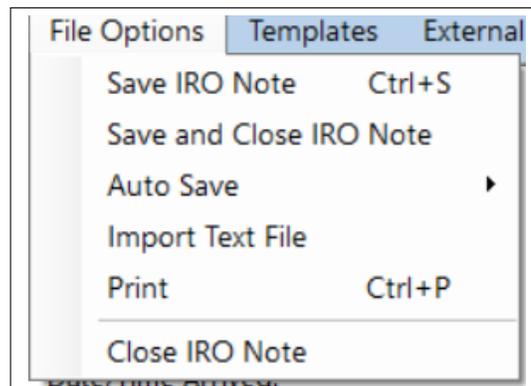


Figure 8.4: File Options

- **Save.** This saves the IRO Note file under the name “IRONote.txt”, and leaves the IRO Note open.
- **Save And Close Editor.** This saves the file under the name “IRONote.txt”, and closes the IRO Note. If you close the IRO Note, and then select IRO Note, the file “IRONote.txt” is automatically opened.
- **Auto Save.** This has the following choices
 - **Disabled**, which does not automatically save the contents of the IRO Note. The default.
 - **Every 1 Minute**, which automatically saves the contents of the IRO Note every minute.
 - **Every 5 Minutes**, which automatically saves the contents of the IRO Note every 5 minutes.

- **Every 10 Minutes**, which automatically saves the contents of the IRO Note every 10 minutes.
- **Import Text File.** This allows you to import any text file. The file is inserted at the cursor position in the IRO Note, unless the menu item **OFF** is ON.
- **Print.** This prints the IRO Note to a printer.
- **Close IRO Note.** This closes the IRO Note.

Section 8.6

Templates

This is where you can select from a variety of templates that can be inserted into the IRO Note and completed.

The Templates are the heart and backbone of the IRO Note. Without these the IRO Note is just a poor-man's text editor. The list of templates is shown in Figure 8.5.

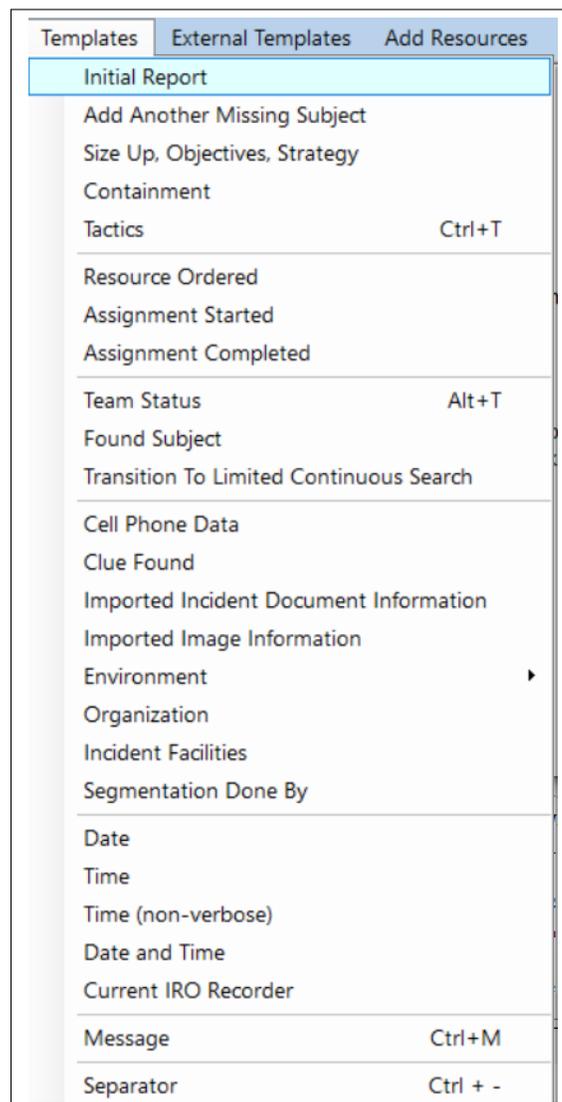


Figure 8.5: Templates

- **Initial Report.** This is the first template that should be used at the start of every SAR incident. It contains entries where you can insert details of the reporting party, of the missing subject(s), of the weather when the subject was reported missing, of the weather when the subject was last seen, of the search urgency, etc.
- **Add Another Missing Subject.** Occasionally, when searching for a single subject, you find out that there is more than one person missing. This allows you to enter details of the second subject.
- **Size Up, Objectives, Strategy.** This template allows you to enter a sizing-up of the incident, and to add the Objectives and Strategy to be used during the search.
- **Containment.** An estimate has to be made for the radius of a containment ring. This template allows you to enter information that led to your estimate.
- **Tactics.** This template allows you to enter details of the resource requested, the date/time it was ordered, its ETA, the date/time it arrived, its assignment, the date/time its assignment started, and the date/time its assignment was completed. It combines the three templates, `Resource Ordered`, `Assignment Started`, and `Assignment Completed` into one template.
- **Resource Ordered.** This template allows you to enter details of a resource requested, its ETA, its availability, and its deployment details. It is not necessary to use this template if the `Tactics` template has been started.
- **Assignment Started.** This template allows you to enter details of a resource's name and their assignment. It is not necessary to use this template if the `Tactics` template is underway.
- **Assignment Completed.** This template allows you to enter details of a resource's completed assignment. The Comment section could contain debriefing information that has not been captured elsewhere. It is not necessary to use this template if the `Tactics` template has been started.
- **Team Status.** This template allows you to enter details of a team's name, status, and location.
- **Found Subject.** This template allows you to enter details of the found subject: the name (there may be others who have not yet been found), the condition when found, the location, the distance from the IPP, who found the subject, details of the planned evacuation, etc.
- **Transition To Limited Continuous Search.** If the subject has not been found the IC may decide to suspend the search, entering a Limited Continuous Search mode. This template allows you to enter the reasons that went into that decision.
- **Cell Phone Data.** This template allows you to enter the phone number, the coordinates, the confidence factor, and the provider of the subject's cell phone.
- **Clue Found.** This template allows you to enter the details of a clue that has been found: a description of the clue, the location, the team that found the clue, the individual who found the clue, and the disposition of the clue. Any images of the clue can also be described here.
- **Imported Incident Document Information.** It is possible to import completed SAR documents into IRO, by using the `Incident Files >> Documents >> Import Completed Incident Document` menu item from the Main Menu. See Section 5.1 on page 24. This template allows you to enter the details of the imported document, including its name, a description, the author, and the filename.
- **Imported Image Information.** It is possible to import images into IRO, by using the `Incident Files >> Images >> Import Image` menu item from the Main Menu. See Section 5.2 on page 25. This template allows you to enter details of the image including the date and time taken, the photographer's name, a description of the image, where the image was taken, and the imported image's filename.

- **Environment.** This template allows you to enter the details of sunrise and sunset, low and high tides, and the weather (past, present, and future).
- **Organization.** This template allows you to enter the current ICS management organization, including the names of the Incident Commander, the Planning Section Chief, the Operations Section Chief, the Finance/Administration Section Chief, the Logistics Section Chief, the Liaison Officer, the Safety Officer, and the Public Information Officer.
- **Incident Facilities.** This template allows you to enter the location and directions to the designated ICP,¹ Staging Areas, the Incident Base, Helibases, Helispots, and Camps.
- **Segmentation Done By.** The final operation that takes place before finishing the IRO Note and starting an Area Search, is to segment the search area. This template allows you to add the names of the people who did that segmentation.
- **Date and Time.** This inserts the current date and time.
- **Time (non-verbose).** This inserts just the current time.
- **Current IRO Recorder.** The same person will not be running IRO constantly. This is where the name of the current recorder can be entered.
- **Message.** This allows messages to be added, including the type of message (phone/memo/mail/email/document/radio/page/verbal), who it is from, who it is to, the subject of the message, and the contents.
- **Separator.** This inserts a separator (a line consisting of 50 dashes). Using the separator to divide the note into different sections makes the note easier to read.

Templates for Requesting and Assigning Resources

To meet the Objectives and Strategy, the IRIC needs to decide what actions to take and the associated resources to order. There are two different ways to document this in IRO.

Using the *Tactics* Template

Using this approach, a Tactics template, see Figure 8.6, is inserted for each resource.

TACTICS:
Date: Friday, July 30, 2021
Time: 0617 hrs
Resource: |
Identifier:
Date/Time Ordered:
ETA:
Date/Time Arrived:
Assignment:
Date/Time Assignment Started:
Comments:
Date/Time Assignment Completed:
Comments:

Figure 8.6: Tactics Template

¹ For an explanation of ICP, see Chapter 13 on page 63.

To start this template, the resource requested, the date/time it was ordered, and its planned assignment are inserted. The remaining items (ETA, arrival, when assignment was started, when completed) are added later as the information comes in.

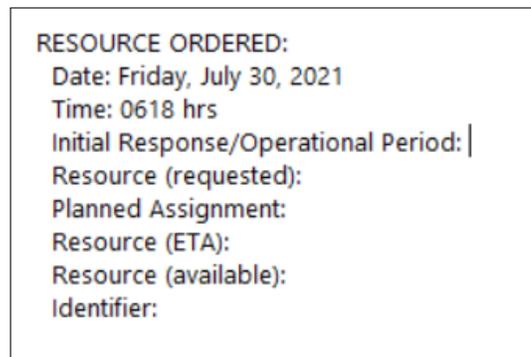
However, between these updating events much more will have been added to the *IRO Note* before jumping back to the appropriate *Tactics* template to fill in any additional details. Finding that template is easy using the **Find Words** menu item in the *IRO Note* context menu (see Section 8.8) or the keyboard shortcut **Ctrl F**.

The advantage of this process is that all the information about a particular resource is in one place. The disadvantage is that the *IRO Note* is no longer in chronological order, and it is not trivial to reconstruct the actual sequence of events, if requested.

Using the *Resource Ordered*, *Assignment Started*, and *Assignment Completed* Templates

This approach requires the use of three templates.

Initially a *Resource Ordered* template is opened for each resource. See Figure 8.7. The first three blank items can be completed immediately, and the final three items when the information becomes available.



RESOURCE ORDERED:
Date: Friday, July 30, 2021
Time: 0618 hrs
Initial Response/Operational Period: |
Resource (requested):
Planned Assignment:
Resource (ETA):
Resource (available):
Identifier:

Figure 8.7: Resource Ordered Template

Later, once a resource has arrived, the *Assignment Started* template is inserted, and completed. See Figure 8.8.



ASSIGNMENT STARTED:
Resource: |
Identifier:
Assignment:
Start Date: Friday, July 30, 2021
Start Time: 0619 hrs
Comments:

Figure 8.8: Assignment Started Template

Finally, the *Assignment Completed* template is inserted and completed. See Figure 8.9.



Figure 8.9: Assignment Completed Template

The advantage of this process is that (aside from the ETA insertion in the Resource Ordered template) the IRO Note is in chronological order. There are two disadvantages. The first is that information such as Resource and Assignment have to be entered more than once. The second is that all the information about a particular resource's request, assignment started and completed is not in one place. However, finding the templates associated with a specific resource is easy using the **Find Words** menu item in the IRO Note context menu (see Section 8.8) or the keyboard shortcut **Ctrl** **F** .

Section 8.7

External Templates

There are menu items that are accessible from the main IRO menu that are useful in the IRO Note, namely Urgency Rating Chart and Circular Search Area (under **Route and Location Search**) and Risk Assessment, Scenarios, and Latitude and Longitude (under **Tools**).

External Templates allows us to access these items from within the IRO Note as seen in Figure 8.10.

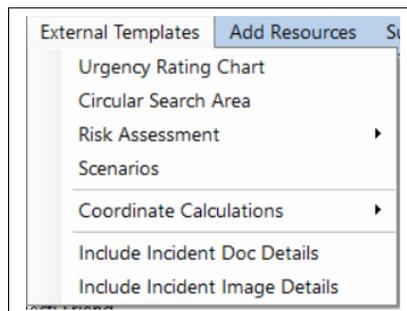


Figure 8.10: External Templates

- **Urgency Rating Chart.** See Section 3.1 on page 14.
- **Circular Search Area.** See Section 3.3 on page 16.
- **Risk Assessment.** SAR personnel are continually exposed to varying levels of risk during operational deployments. Risk management involves quantifying risk and then mitigating it through control measures. One way to quantify risk is to use models. IRO contains three different models: the SPE Model, the GAR Model, and the Complacency Model. See Chapter 10 on page 52.
- **Scenarios.** A scenario is an attempt at analyzing what the missing person might have done after leaving the IPP. See Section 4.1 on page 19.
- **Coordinate Calculations.** This option contains four submenus:

- **Convert Lat/Long to UTM.** This is where you can convert latitude and longitude to UTM. See Section 4.2 on page 20.
- **Convert UTM to Lat/Long.** This is where you can convert UTM to latitude and longitude. See Section 4.2 on page 20.
- **Convert Between Coordinate Formats.** This is where you can convert latitude and longitude between three formats: degrees; degrees and minutes; and degrees, minutes, and seconds. See Section 4.2 on page 20.
- **Distance Between Two Locations.** This is where you can estimate the (great-circle, “as-the-crow-flies”) distance between two locations where the latitude and longitude are given in degrees. See Section 4.2 on page 20.
- **Include Incident Doc Details.** If any incident documents have been imported using **Incident Files > Documents > Import Completed Incident Document**, see Chapter 5 on page 24, then this menu item allows you to include, in the IRO Note, the filename and location on disc of the selected file. See on page 41.
- **Include Incident Image Details.** If any incident images have been imported using **Incident Files > Images > Import Image**, see Chapter 5 on page 24, then this menu item allows you to include, in the IRO Note, the filename, the location on disc, and any metadata of the selected file. See on page 42.

Include Incident Doc Details

This allows you to select a document that has been imported into IRO, and then include its filename and location on disc into the IRO Note, at the location of the cursor. See Figure 8.11.

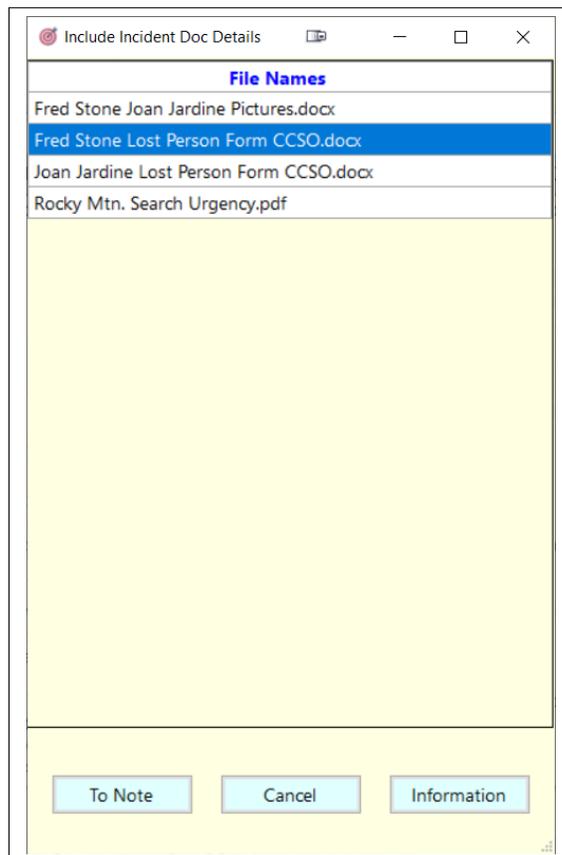


Figure 8.11: Include Incident Doc Details

After clicking the **To Note** button, or by double-clicking on the documents name, the information is transferred to the IRO Note. See Figure 8.12.

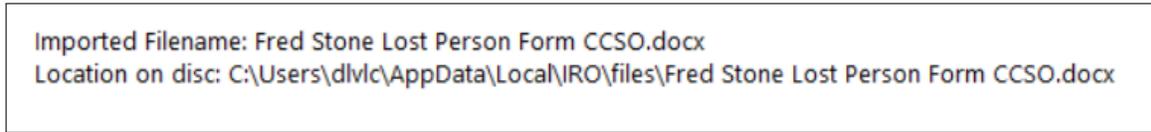


Figure 8.12: Sample Incident Doc Details in IRO Note

Include Incident Image Details

This allows you to select an image that has been imported into IRO, and then include its filename, location on disc, and metadata into the IRO Note, at the location of the cursor. See Figure 8.13.

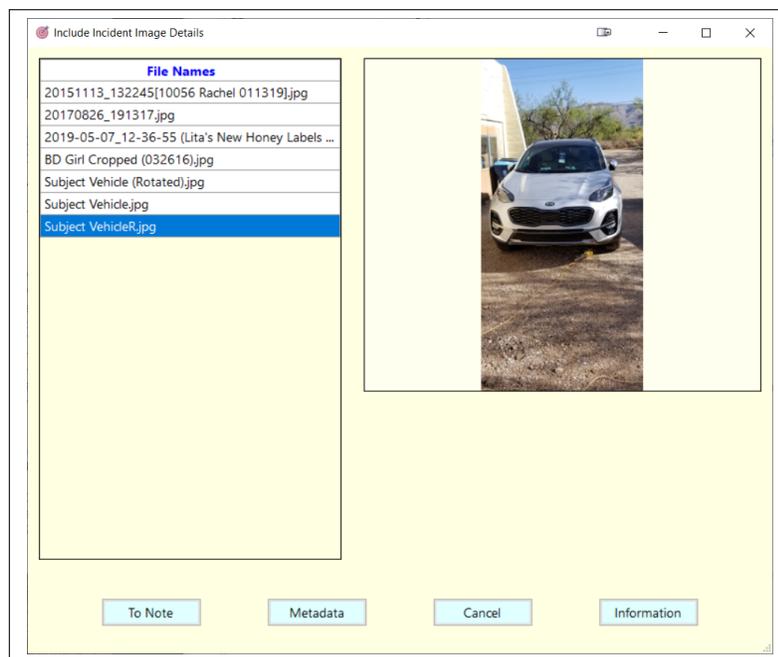


Figure 8.13: Include Incident Image Details

After clicking the **To Note** button, or by double-clicking on the documents name, the information is transferred to the IRO Note. See Figure 8.14.

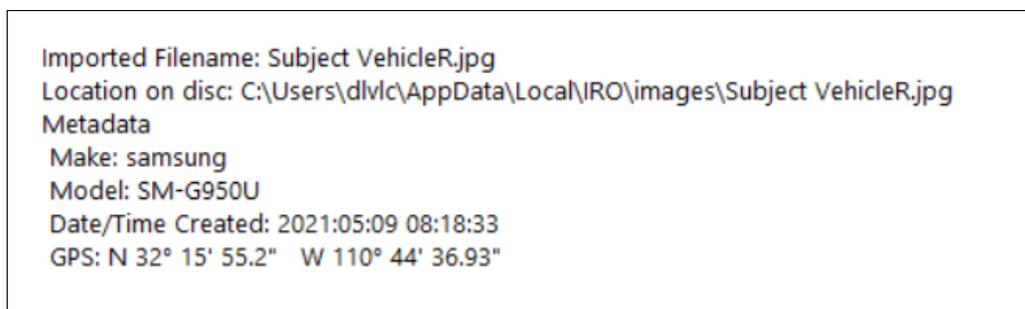


Figure 8.14: Sample Incident Image Details in IRO Note

It is possible to see the metadata before sending it to the IRO Note by pressing the **Metadata** button. See Figure 8.15.

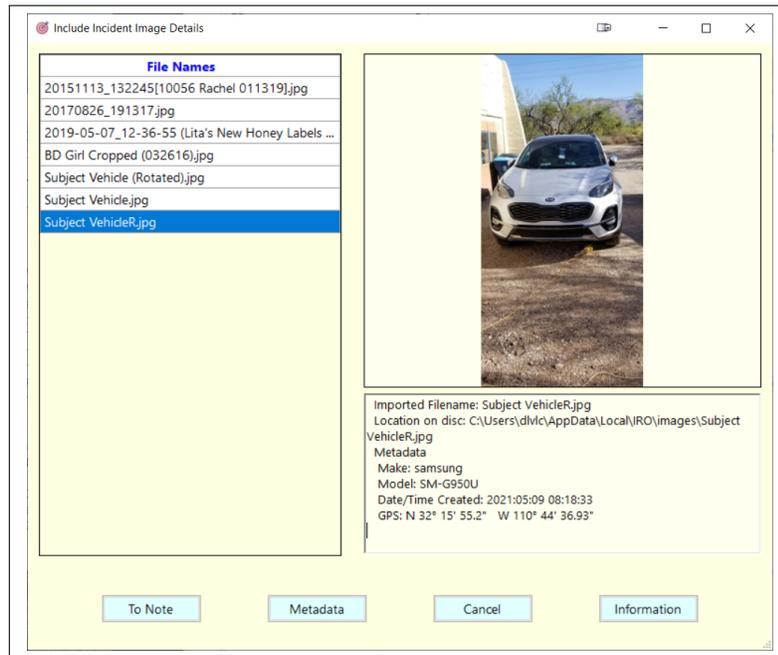


Figure 8.15: Include Incident Image Details With Metadata

Section 8.8

Context Menu

Right-clicking on the text area of the **IRO Note** brings up its context menu, shown in Figure 8.16.

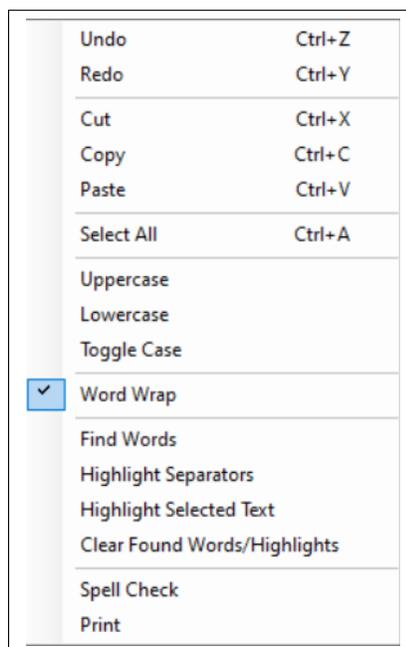


Figure 8.16: Context Menu

The menu items from **Undo** to **Select All** should be well-known to you.

- **Uppercase.** This converts the highlighted text to uppercase.
- **Lowercase.** This converts the highlighted text to lowercase.
- **Toggle Case.** This toggles the highlighted text—uppercase characters replaced by lowercase and vice-versa.
- **Word Wrap.** This is checked by default. When checked, this feature automatically splits long lines so they are visible on the screen.
- **Find Words.** This allows you to search for any words in the text. You can also filter the search by looking for only whole words, or case-sensitive words. See Figure 8.17.

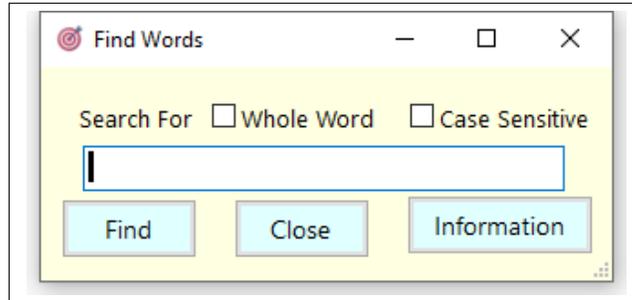


Figure 8.17: Find Words

After clicking **Find**, you are advised how many words were found, and those words are then highlighted, and the first one selected.

When you have finished your search, you can remove the highlights by using the context menu item **Clear Found Words/Highlights**. Alternatively, you can leave these highlights and search for another word.

- **Highlight Separators.** This highlights all the separators, and makes the IRO Note easier to read. See Figure 8.18. This is a temporary feature, and is ignored when saving or printing the note. Newly added separators are not highlighted, unless this option is selected again. You can remove the highlights from the separators by using the context menu item **Clear Found Words/Highlights**.

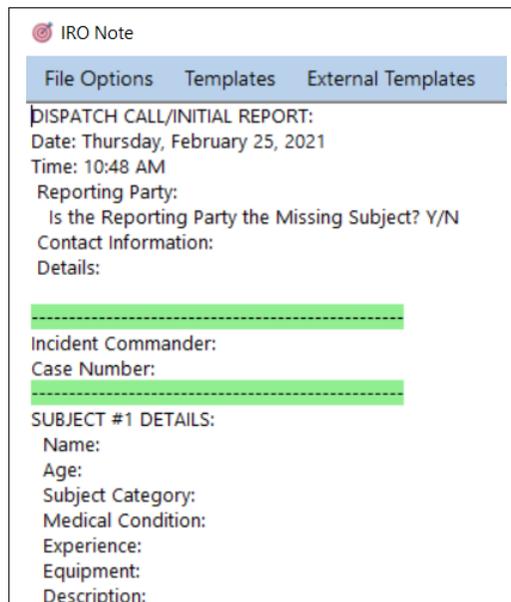


Figure 8.18: Highlighted Separators

- **Highlight Selected Text.** To highlight text in the IRO Note, first select the text by left-clicking and dragging the mouse to choose the text to be highlighted. Then select `Highlight Selected Text` from the context menu. This is a temporary feature, and is ignored when saving or printing the note. You can remove the highlights from the separators by using the context menu item `Clear Found Words/Highlights`.
- **Clear Found Words/Highlights.** This removes the highlights from the found text, the selected text, and the separators.
- **Spell Check.** This checks the spelling of the text, and offers alternatives. The code for this item is copyrighted by Paul Welter who requires the following notice be included.

“NetSpell.SpellChecker

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Neither the name of the ORGANIZATION nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.”

- **Print.** This prints the IRO Note. The printed copy contains an initial sentence identifying its origin, namely, the IRO and its version.

CHAPTER 9

Essential Steps in Managing the Initial Response using the IRO Note

Section 9.1

Documenting the Initial Response

In this chapter we show how to use the IRO Note specifically during the Initial Response phase of a Route and Location Search. It is strongly recommended that you go through this step-by-step.

1. Take the Initial Report.

One of the first things that needs to occur is to document the Initial Report. During this there can be a lot of information to sort through and process. The recommended steps to take are shown below, but information might not always be given to you in the same order or level of detail. Be sure to document the information that you receive and when you receive it. You can always add more detail about the missing person(s) later in the report, see Section 8.2 on page 33 for more information.

- The first thing to do is to select a Lost Person Questionnaire (LPQ) to record the Initial Report Information. IRO contains a number of different LPQs. To choose one select **SAR Forms and Docs** from the Toolbar. Right-click on the long list of documents, select the filter “LPQ” and choose your preferred LPQ form. It is easiest to use a DOC file because it can be printed as a blank form, or filled, saved, and manipulated electronically.
- Save the file to your computer and name it, then complete it with the Initial Report Information.
- When the LPQ is complete, it can be imported as a file into IRO using **Incident Files > Documents > Import Completed Incident Document**. See Section 5.1 on page 24.

Now is the time to start an investigation and continue with it until the incident is resolved. While initially this is done by the IRIC, a full-time Investigator should be requested as soon as possible, and then recorded in the IRO Note using the Tactics template, **Template > Tactics**.

To use the IRO Note:

- Open the IRO Note, either by selecting **IRO Note** from the Toolbar or by going to **Route and Location Search > IRO Note** from the Main Menu.

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- The default times in the IRO Note are shown using the 12-hour clock, characterized by  OFF in the menu bar. To switch to military time (the 24-hour clock) click on  OFF so it reads  ON.
- The first template to use is the **Initial Report**, which can be inserted into the IRO Note by selecting **Templates >> Initial Report**. Select the number of persons missing. For each missing person, you will receive a template that includes Subject Details, and Weather information.
- Fill in as many blanks as you can, or as is appropriate, with the information you receive from Dispatch or the Reporting Party. For Subject Category, go to **Subject Category** and select the Category that best fits your subject. IRO will insert the appropriate Lost Person Behavior information in the IRO Note at the cursor location.
- Don't forget to mark the IPP on the Incident Map.

If the missing person has a cell phone go to **Templates >> Cell Phone Data** and complete as much detail as is available.

As information comes in from the investigation, it can be documented in the IRO Note by using **Templates >> Clue Found** or **Templates >> Message**, as appropriate.

Important. In the IRO Note, all inserts are placed at the cursor location unless the menu item  OFF is toggled  ON. In that case all templates are inserted at the end of the document. If you inadvertently insert text in the wrong location, pressing the **Ctrl** **Z** keys undoes the previous operation. Alternatively, the text can be moved by cutting and pasting it using the Context Menu.

Important. The templates are just text so, after they have been imported into the IRO Note, they can be edited. If there is part of a template that is not appropriate in the current context, consider deleting that part. It will reduce the length of the IRO Note.

2. Determine Search Urgency.

In the IRO Note, go to **External Templates >> Urgency Rating Chart**. Fill it out for your subject. It can then be inserted in the IRO Note at the cursor's position by using the **To Note** button. See Section 3.1 on page 14.

3. Identify Possible Scenarios and Likely Routes or Spots.

In the IRO Note, go to **External Templates >> Scenarios**. Develop at least 3 possible scenarios that are reasonably likely to have occurred with the missing person. Record all of the requested information for each Scenario. Use the **To Note** button to transfer that information to the IRO Note. See Section 4.1 on page 19.

4. Size up the Incident and Identify Initial Incident Objectives and Strategy.

In the IRO Note, go to **Templates >> Size Up, Objectives, Strategy, Tactics**. Either choose Objectives and Strategies from the lists of Common Objectives and Strategies, or write your own. Remember, no more than five Objectives!

Common Objectives

Common Initial Response incident objectives are:

- Provide for the safety of all involved personnel throughout the incident.

- Find the missing person within 12 hours.
- Establish and maintain containment by [time and date].
- Search all high probability routes and likely spots with a high coverage by [time and date].

Sample Strategies

Strategies are usually concise and direct. Some examples are:

- Locate the PLS or LKP¹ and protect it.
- Determine the missing person's direction of travel from the PLS.
- Determine the initial search area and routes.
- Establish containment in a location that will effectively contain the person within the search area.
- Quickly and efficiently search the high probability routes and locations.
- Gather more information about the subject and situation to use in additional planning.

Each strategy lends itself to specific tactical assignments for the Initial Response resources.

Risk Assessment

This is where a Risk Assessment, [External Templates >> Risk Assessment](#), could be performed. See Chapter 10 on page 52.

5. Designate the ICP and Staging Areas.

Notify the Dispatcher and all responders of location of the ICP and Staging Areas, and mark on the Incident Map. Enter these facilities and locations in the IRO Note using [Templates >> Incident Facilities](#).

6. Develop a Search Plan to Meet Your Objectives.

Don't forget to contain the probable search area. From the Main Menu go to [Route and Location Search >> Lost Person Behavior Distance Travelled](#) and look at the charts. Enter the relevant information in the IRO Note by selecting [Templates >> Containment](#), to estimate how far from the IPP to place your Containment.

Now select [Templates >> Tactics](#). (For an alternative approach, see *Templates for Requesting and Assigning Resources* on page 38.) At this stage you will complete just two items in that template: *Assignment* and *Resource*. Use the *Assignment* item to document the individual tactical assignment that you intend to use to achieve the Incident Objectives. Then complete the *Resource* item to identify the resource you need to carry out that Assignment. When that is done, turn to the remaining assignments in your search plan. Select [Templates >> Tactics](#) for each of these and complete their respective *Assignment* and *Resource* items. Don't forget to include any Containment tactics as one or more assignments. (Later, when you order the various resources needed to implement your plan, you can complete additional items in that resource's Tactics template. As the incident progresses, more items can be filled in.)

¹ For an explanation of PLS and LKP, see Chapter 13 on page 63.

7. Order the Necessary Resources and Begin Tracking Them.

- If you have resources already on scene, make sure you record their assignments in the IRO Note by using either **Templates >> Tactics** or **Templates >> Assignment Started**, but not both.
- If you order new resources, use either **Templates >> Tactics** or **Templates >> Resource Ordered** to document them.

8. Prepare and Distribute the Missing Person Flyer.

- Through the Dispatcher, put out an Attempt to Locate or a Be On the Lookout notification.
- A Missing Person Flyer template can be obtained from the Toolbar menu item **SAR Forms and Docs >> Missing Person Flyer**. Save the DOC file to your computer, and edit it with the correct photos and information. Import it into IRO by using **Incident Files >> Documents >> Import Completed Incident Document**.
- The Missing Person Flyer should be distributed to the searchers, the media, the public in the area of the search, and posted in public places in and around the search area. This will ensure that everyone is aware that the search is going on, who the missing person is, and what to do if they see or hear anything that might be pertinent to resolving the incident.

9. Brief and Assign Resources When They Arrive.

Make sure their assignments are recorded in the IRO Note by using either **Templates >> Tactics** or **Templates >> Assignment Started**. This is where a Risk Assessment, **External Templates >> Risk Assessment**, could be performed. See Chapter 4 on page 18.

10. Document Significant Actions and Events in the IRO Note as They Occur.

These might include:

- Clue Found. **Templates >> Clue Found**.
- Cell Phone information. **Templates >> Cell Phone Data**.
- Teams status and assignment completed. **Templates >> Team Status** or **Templates >> Assignment Completed**.
- Subject Found. **Templates >> Subject Found**.
- Search Suspended. **Templates >> Transition To Limited Continuous Search**.

11. Communicate Incident Actions to the Dispatcher as Appropriate.

Follow your agency's protocol.

12. Deal with Media and Family as Needed

Leverage a Public Information Officer or other trained resources if necessary.

13. Begin Planning for the Next Operational Period and the Required Transition to an Incident Management Team

Ask for additional resources and help planning early on if needed.

14. Debrief Resources when they Complete their Assignments and/or are Released from the Incident.

- Often in the Initial Response, the debriefing information is entered into the IRO Note under the Comments section of either [Templates](#) >> [Tactics](#) or [Templates](#) >> [Assignment Completed](#).
- An alternative is to use a written debriefing form which could then be imported as a pdf into the IRO Note. An example Debriefing Form can be found in [SAR Forms and Docs](#).
- Either the resource or the debriefer can fill out the Debriefing Form at debriefing. It should be filled out carefully and completely as it contains crucial information for future search planning.

15. Evaluate the success of the Initial Response efforts.

Here we carefully analyze the information gleaned from the Debriefing, and decide how it impacts our future efforts.

16. Brief the Incoming IC or Incident Management Team.

Done properly and completely, the IRO Note serves as an excellent briefing document for this purpose.

Note. There is a simple exercise on using the IRO Note at [SAR Forms and Docs](#) >> [IRO Note Exercise](#).

Section 9.2

Tips From Users Concerning the IRO Note

The IRO Note is just a text file, so the font-size is fixed and words cannot be bold-faced, colored, underlined, and so on.

Sometimes users personalize the way they view and enter information into the IRO Note. Here are some of those, not all of which are consistent.

- Use IRO as often as possible on small incidents and find the techniques that work best for you. Don't wait for your first large-scale search to figure out how to use the IRO Note.
- By default, the IRO Note is not saved automatically. As soon as you enter the IRO Note go to [File Options](#) >> [Auto Save](#) and select [Every 1 Minute](#).
- If the cursor is at the end of a line, the [Tab](#) key positions the cursor at the end of the following line. If the cursor is not at the end of a line, the [Tab](#) key positions the cursor at the end of the current line.
- Enter important user-entries in uppercase.
- Surround important user-entries by a special character, such as * or _, which makes them easy to locate using the [Context Menu](#) item [Find Words](#) and searching for * or _. See Section 8.8 on page 43. It is possible to distinguish between “Important” and “Very Important” words by surrounding the word with * for the first type and ** for the second type. The characters “**” are easily found using [Find Words](#).
- Templates that are incomplete might need to be identified to be completed in the future. For example, the [Clue Found](#) template has a [Clue Validated](#) entry. At the time the clue is entered, the

clue may not have been validated. In that case, entering something like “???” as the **Clue Validated** entry stands out and is easily found using **Find Words** when the information becomes available.

- The templates are just text so they can be edited. Delete any part of a template that is not appropriate in the current context.
- When viewing the IRO Note, highlight the separators by using the **Context Menu** item **Highlight Separators**.
- While it is possible to insert the degree symbol using the key sequence **Alt** **0** **1** **7** **6** on the keypad, it might be better to use a substitute symbol that is easier to type and remember, such as the ***** key.
- Identify the teams by labeling them in numerical order, including the resource names, such as *Dog Team 1, Tracking Team 2, Dog Team 3, Ground Team 4, . . .* Note, there is no Dog Team 2. Team 2 is a tracking team.
- To ensure everything is in chronological order, use the template **Time (non-verbose)**, which inserts only the current time, on successive lines, interspersed with other templates. For example

1050: Arrived on scene.

1055: Spoke to reporting party.

1125: Completed LPQ.

DISPATCH CALL/INITIAL REPORT:

Date: Friday, June 28, 2019

Time: 1126 hrs

Reporting Party: John Henry

Is the Reporting Party the Missing Subject? N

Contact Information: 520 123 4567 (cell phone)

Details: Brother, Adam Henry, did not return from overnight camping trip

. . .

CHAPTER 10

Risk Assessment

Tragically, many accidents in search and rescue operations are the result of a failure to adequately identify and manage risk. SAR personnel are continually exposed to varying levels of risk during operational deployments. Risk management involves quantifying risk and then mitigating it through control measures. One way to quantify risk is to use models.

IRO contains three different models: the SPE Model, the GAR Model, and the Complacency Model.

Section 10.1

The SPE Model

The Process

In this model risk is assessed by multiplying three numbers together: the **S**everity of a hazard resulting in adverse event, the **P**robability of an event occurring, and the degree of **E**xposure, which is expressed in the following formula.

$$\text{Risk Assessment} = \text{Severity} \times \text{Probability} \times \text{Exposure.}$$

The numbers to use in this formula are determined as follows.

- **Severity.** A measure of the event's potential consequences.
 - 1 = Negligible
 - 2 = Minimal
 - 3 = Significant
 - 4 = Major
 - 5 = Catastrophic
- **Probability.** A measure of the likelihood of the threat or hazard occurring.
 - 1 = Impossible or remote under any conditions
 - 2 = Unlikely under normal conditions
 - 3 = About 50/50
 - 4 = Greater than 50%
 - 5 = Very likely to happen

- **Exposure.** A measure of the amount of time, number of occurrences, number of people, and/or the amount of equipment involved in an event, expressed in time, proximity, volume, or repetition.

- 1 = None or below average
- 2 = Average
- 3 = Above average
- 4 = Great

The value for Risk Assessment derived from this formula should be compared to the SPE Guidance Table, Table 10.1, to determine a recommended action.

Table 10.1: SPE Guidance Table

VALUE	DEGREE OF RISK	GUIDANCE
80-100	Very High	Discontinue, Stop
60-79	High	Correct Immediately
40-59	Substantial	Correction Required
20-39	Possible	Attention Needed
1-19	Slight	Probably Acceptable

The Application

Figure 10.1 shows the screen when SPE Model is selected under **Tools >> Risk Assessment**.

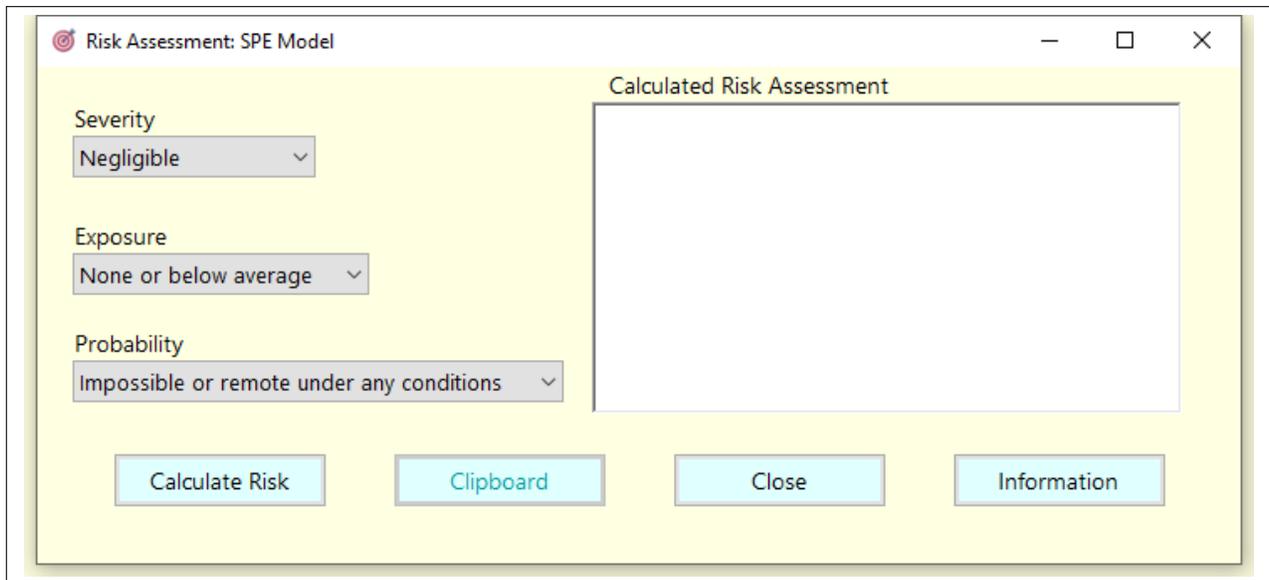


Figure 10.1: SPE Risk Assessment

You first select an option for each of the 3 boxes on the left, then press **Calculate Risk**. The risk assessment is displayed in the box on the right.

By clicking **Clipboard**, these results can be transferred to the clipboard for insertion anywhere.

If this form is accessed from the **External Templates** in the **IRO Note**, the **Clipboard** button is replaced by a **To Note** button. The results are then pasted in the IRO Note.

GAR Risk Assessment Model

The Process

The GAR (Green, Amber, Red) Risk Assessment Model is a powerful “Go”-“No Go” decision tool. The primary difference between this model and the SPE model is that the GAR model incorporates the opinions of several personnel involved while the SPE model is performed by one person.

Using the GAR model the respondents independently assign a risk score between 1 (no risk) and 10 (maximum risk) to eight different elements.

1. **Supervision.** The presence of qualified, accessible and effective supervision on the incident. A clear chain of command is in place.
2. **Planning.** Adequate incident information is available and clear. There is sufficient time to plan, operational guidelines are current, briefing of personnel is being conducted, and team input solicited.
3. **Contingency Resources.** Backup resources that can assist if needed. Evaluate shared communications plan and frequencies. Has an alternative plan been evaluated?
4. **Communication.** Evaluate how well personnel are briefed and communicating. How effective is the communication system and is there an established communication plan? Does the operational environment value input?
5. **Team Selection.** Team selection should consider the qualifications and experience level of the individuals. Consider the experience for the mission being performed.
6. **Team Fitness.** Consider physical and mental state of the crew. Evaluate team morale and any distractions.
7. **Environment.** Consider factors affecting performance of personnel and equipment such as time, temperature, precipitation, topography, and altitude. Evaluate site factors such as narrow canyons, forest canopy, technical terrain, snow, swiftwater, etc.
8. **Incident Complexity.** Evaluate severity, exposure time, and probability of mishap. Assess difficulty of the mission and proficiency of personnel.

The scores are summed and then compared to the GAR Risk Assessment Table. A comparison of each individuals GAR score should be conducted to see where the majority of the scores fall in the GAR Risk Assessment Table, Table 10.2.

Table 10.2: GAR Risk Assessment Table

1–35	36–60	61–80
GREEN	AMBER	RED
Go—Proceed With Mission	Caution—Mitigate Hazards Before Proceeding	NO GO—Stop. Do Not Proceed With Mission

The Application

Figure 10.2 shows the screen when GAR Model is selected under Tools » Risk Assessment.

Figure 10.2: GAR Risk Assessment

You first select a numerical value between 1 and 10 for each of the 8 boxes on the left, then press **Calculate Risk**. The risk assessment is displayed in the box on the right.

By clicking **Clipboard**, these results can be transferred to the clipboard for insertion anywhere.

If this form is accessed from the **External Templates** in the **IRO Note**, the **Clipboard** button is replaced by a **To Note** button. The results are then pasted in the **IRO Note**.

Section 10.3

Complacency Model

The Process

Complacency is defined by dictionary.com as “a feeling of quiet pleasure or security, often while unaware of some potential danger, defect, or the like”.¹ This model examines the factors of **R**epetition, **C**onfidence, and **E**xperience as they relate to risk using the formula developed by Craig E. Geis, California Training Institute, www.cti-home.com.²

$$\text{Risk} = \text{Repetition} \times \text{Confidence} \times \text{Experience.}$$

- **Repetition**

- 1 = I Rarely Do It.
- 2 = I Seldom Do It.
- 3 = I Do It Occasionally.

¹ www.dictionary.com.

² See Reference [?].

4 = I Do It Often.

5 = I Do It All The Time.

- **Confidence**

1 = I Am Very Concerned.

2 = I Am Nervous About The Task.

3 = So, So. I've Had Close Calls Before.

4 = I'm Pretty Sure It Won't Be A Problem.

5 = Positive, Never Had A Problem Before.

- **Experience**

1 = Less Than 3 Years.

2 = From 3 To 5 Years.

3 = From 6 To 15 Years.

4 = Greater Than 15 Years.

The Risk calculated with the formula is then compared to Table 10.3 to determine what type of error may result and the corrective actions.

Table 10.3: Risk Values

Value	Recommendation
1—19	Low Skill: Stop and Get Help
20—39	Moderate Skill: Review Procedures
40—59	Safety Zone: Proceed
60—79	Moderate Complacency: Review Procedures
80—100	High Complacency: Stop and Think

The Application

Figure 10.3 shows the screen when Complacency Model is selected under **Tools > Risk Assessment**.

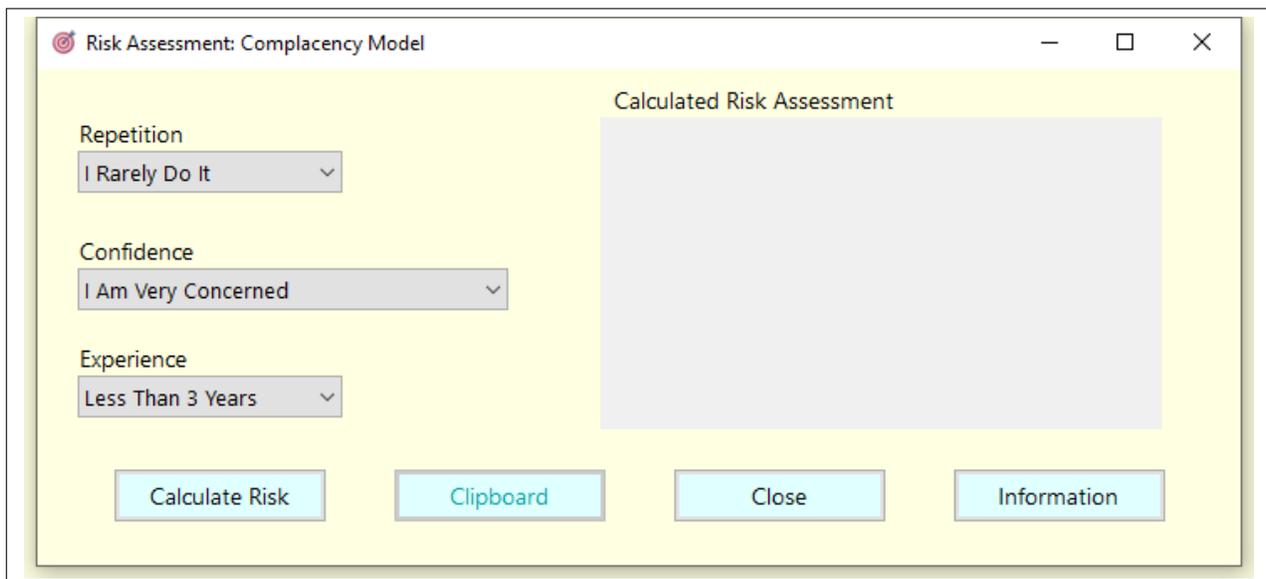


Figure 10.3: Complacency Risk Assessment

You first select an option for each of the 3 boxes on the left, then press `Calculate Risk`. The risk assessment is displayed in the box on the right.

By clicking `Clipboard`, these results can be transferred to the clipboard for insertion anywhere.

If this form is accessed from the `External Templates` in the `IRO Note`, the `Clipboard` button is replaced by a `To Note` button. The results are then pasted in the `IRO Note`.

Section 10.4

Why do the models work?

The ability to assign numerical scores or color codes in the GAR Model, SPE Model, and Complacency Model is not the key ingredient in how this process performs effective risk assessment. Rather, the key ingredient occurs when team members discuss their post-scoring results together, because it generates valuable discussion toward understanding the risks and how the team will manage them. The models should also raise the level of awareness for the Incident Management Team and prompt discussions of appropriate strategies and tactics.

The National Park Service has created a Risk app called “Risk: SPE, ORMA, and GAR Calculator” that is freely available in the Apple App Store. The British Columbia Search and Rescue Association has also created an app called “RADeMS” which also calculates a risk and response capability score which is available on both the Apple App Store and Google Play.

CHAPTER 11

The *SAR Forms and Docs* Menu Item

When you select **SAR Forms and Docs**, whether from the Toolbar or from **Tools**, Figure 11.1 opens.

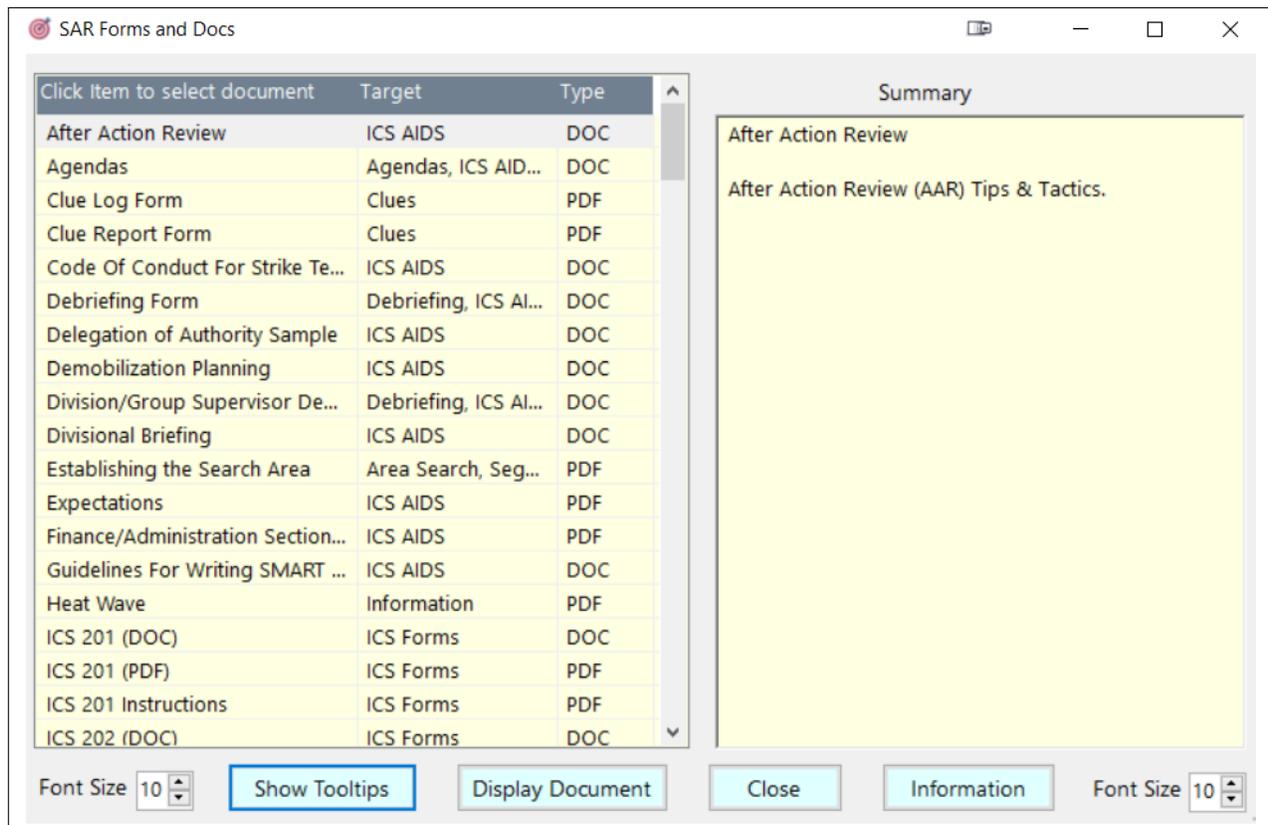


Figure 11.1: SAR Forms and Docs Menu

There are about 200 documents listed, including “IRO Manual”, the 60-page PDF documentation for using IRO, and “Essential Steps in Managing the Initial Response using the IRO Note”, a must read for all IRICs.

Clicking on a heading in the left-panel sorts the column in alphabetical order. Clicking again sorts the column in reverse alphabetical order.

The three headings are:

- **Click Item to select document.** Below this heading is a list of available documents. When the document name is clicked, the panel on the right gives a summary of its contents.
- **Target.** This column indicates the target audience for the displayed document. Examples are: ICS Forms, Initial Response, Clues, Debriefing, etc. A document may have more than one target. For example, look at the Target for Agendas.
- **Type.** This column describes the format of the appropriate document. There are three types.
 - **DOC** means it is a Microsoft Word compatible file. These documents can be edited and printed using any program that opens DOC and DOCX documents. If you try to edit an MS Word document from this list you will be advised that this document is read-only so that it can be re-used later. To edit it, as soon as your editor opens you should:
 1. Use the **Save As** option under the File menu in your editor to save the document under a different name. The new document will not be read-only so it can be edited.
 2. Switch to **Overwrite** mode (by pressing the **Ins** key) to retain the formatting of the document.
 - **PDF** means it is a PDF document. These forms can be completed and printed in any program that opens PDF documents, such as Adobe Acrobat Reader.
 - **XLS** means it is an Excel document. These documents can be edited and printed using any program that opens XLS and XLSX documents.

Some of the items across the bottom are:

- **Font Size.** The size of the fonts used in the left- and right-panels can be adjusted. This is cosmetic and does not impact the font size when the selected document is printed.
- **Show Tooltips.** This is initially off. Clicking on it changes the button's name to **Hide Tooltips**. Now, whenever the mouse hovers over any object in the left-hand panel, its contents are shown. This is especially useful for long document names and multiple targets.
- **Display Document.** This opens the selected document using the default DOC, DOCX, PDF, or XLS viewer application. The opened document can be downloaded using the application's **Save As** option.

Right-clicking when the mouse is over the left-hand panel, brings up the Filter Menu, shown in Figure 11.2 on page 60.

Selecting any of the items between “All” and “Find” filters the Target column by the selected item.

Selecting “Find” allows you to search the “Click Item to select document” column for any text. The search is not case-sensitive, and is not restricted to whole words. Only those rows containing the search text are retained.

Selecting “Find in Summary” allows you to search the Summary panel for any text. The search is not case-sensitive, and is not restricted to whole words. Only those summaries containing the search text are retained.

Selecting “All” removes any filters and restores all documents.

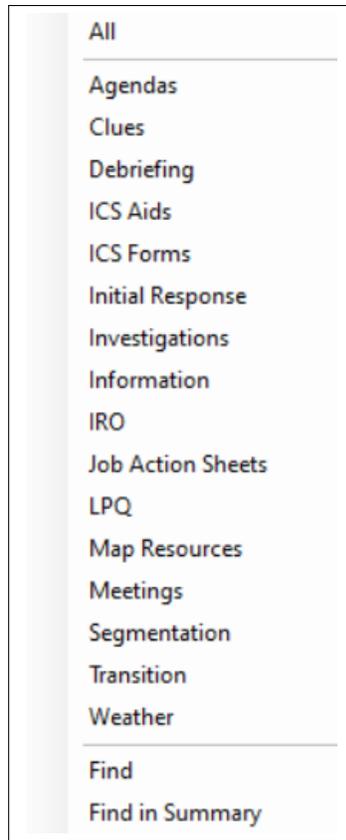


Figure 11.2: Filter Menu

CHAPTER 12

IRO and Win CASIE III

Section 12.1

Differences Between IRO and Win CASIE III

IRO is an upgraded version of the pre-Area Search parts of WC3, that is, the Route and Location Search parts. The major changes are these.

- All the IRO Note templates are in one place. See Section 8.6 on page 36.
- The previous templates have been streamlined, and many new templates have been added. See Section 8.6 on page 36.
- Completed incident documents can be imported into IRO. See Section 5.1 on page 24.
- Incident images can be imported into IRO, and then manipulated. See Section 5.2 on page 25.
- The IRO Note context menu has been expanded to include searching for words, highlighting separators, printing the document, and spell checking the text. See Section 8.8 on page 43.
- A new menu item, [Essential Steps in Managing the Initial Response](#), opens a PDF document that describes the 16 steps that every IRIC should follow during the Initial Response phase of a Route and Location Search. It is extracted directly from Chapter 9 on page 46 and can also be accessed from [SAR Forms and Docs](#). See Section 9.1 on page 46.
- The menu item [SAR Forms and Docs](#), called [Access Forms](#) in Win CASIE III, has been extended in many ways. The number of documents has been increased to over 200. It is now possible to filter and search the titles and summaries of the documents. See Chapter 11 on page 58.
- A new menu item, [Risk Assessment](#), contains three different models that help to quantify risk: the SPE Model, the GAR Model, and the Complacency Model. See Chapter 10 on page 52.
- A new menu item, [Scenarios](#), allows you to analyze what the missing person might have done after leaving the IPP. The analysis starts with developing several plausible scenarios and ends with analyzing and prioritizing each of them. See Section 4.1 on page 19.
- A new menu item, [Convert Lat/Long to UTM](#), is where you can convert latitude and longitude in degrees to UTM coordinates. See Section 4.2 on page 20.
- A new menu item, [Convert UTM to Lat/Long](#), is where you can convert a valid UTM coordinate to latitude and longitude in degrees. See Section 4.2 on page 20.
- A new menu item, [External Templates](#) allows you to access, from within the IRO Note, the menu items [Urgency Rating Chart](#), [Circular Search Area](#), [Risk Assessment](#), [Scenarios](#), and [Coordinate Calculations](#). The output from these items can be imported into the IRO Note automatically. See Section 8.7 on page 40.

Section 12.2

Transferring the IRO Note to Win CASIE III

In the event the incident is not resolved in the Route and Location Search phase the IRO Note will need to be imported into Win CASIE III as part of the Audit Trail for complete documentation. To do that follow these steps.

- Save the IRO Note from within the IRO Note. File Options » Save IRO Note
- Close the IRO Note. File Options » Close IRO Note
- Export the IRO Note (IRO main screen: File » Export IRO Note, Incident and Startup Files.) Save the exported files on the Desktop.
- Close IRO
- Open Win CASIE III. (See <http://www.wcasie3.com/> for details.)
- Open a Win CASIE III Initial Note
- Select File » Import Text in Initial Note
- Navigate to the Exported Folder where the IRO Note was saved (Desktop)
- Select the IRO Note in that Exported Folder (click open or double click) and the IRO Note will be copied to the Initial Note.
- Save the Initial Note. It will automatically save to the Desktop
- Close the Initial Note.
- Click Start New search on the Win CASIE III toolbar
 - Provide the Incident Name
 - Select Folder (recommend saving to Desktop)
 - Provide Filename
 - Enter Number of Segments
 - Enter Number of Respondents
 - Complete the Consensus entries
 - Accept the Consensus
- When Win CASIE III asks if you want to import the Initial Note click “Yes”
- The Initial Note will then be added to the Win CASIE III Audit Trail.
- **Note.** Win CASIE III does not have the ability to import the Incident Files (Documents and Images) from IRO. The Incident Files folder should be copied to the Folder that will ultimately contain other official documents, such as the IAPs. In that way they will be included in the final search incident documentation.

CHAPTER 13

IRO Glossary

201	ICS 201—Incident Briefing. A four-page document prepared during the Initial Response phase of a search. Page 1 contains a map associated with the incident. Page 2 contains the current and planned objectives and actions. Page 3 shows the current organization chart. Page 4 is a summary of the resources—those requested and their assignments. It is a precursor to the ICS 215.
204	ICS 204—Assignment List. Part of the IAP. Describes the resources' assignments, transcribed from the ICS 215.
214	ICS 214—Activity Log. Records details of activities at any ICS level.
215	ICS 215—Operational Planning Worksheet. Contains resources requested and their tentative assignments for the next operational period. The ICS 204s flow from this important document.
IAP	Incident Action Plan. An oral or written plan containing general objectives reflecting the overall strategy for managing an incident. There is only one IAP for each operational period.
ICP	Incident Command Post. The field location at which the primary tactical-level, on-scene incident command functions are performed.
ICS	Incident Command System. A standardized on-scene emergency management system. Also, Investigate, Confine, Search—which dictates the order of initial actions.
IMT	Incident Management Team. The IMT is the overhead team responsible for managing the search and devising an Incident Action Plan for finding the lost person.
Incident Files	Chapter 5 on page 24 explains how to import completed incident documents (for example, an LPQ, completed ICS forms, scanned debriefing forms, completed XLS files such as a suspending the search spreadsheet) and images (for example, images of clues, the missing subject, the missing person flyer, maps of the search area) into IRO. These are the Incident Files.
IPP	Initial Planning Point. The first LKP or PLS.

IR	Initial Response. The Initial Response phase of a search is the period between the time the Initial Response Incident Commander, IRIC, receives the initial report that someone is missing, and the start of the first full operational period, assuming the subject has not been found.
IRIC	Initial Response Incident Commander.
Limited Continuous Search	This is the state of an incident where no active searching is done but if clues are discovered they are investigated and, if warranted, active searching resumes.
LKP	Last Known Position. The last known location of the missing subject determined by physical evidence such as a vehicle, a discarded object, or a footprint.
LPB	Lost Person Behavior. An analysis of how lost subjects behave by putting them into different categories.
LPQ	Lost Person Questionnaire. A written document that describes all available physical and mental characteristics of a lost person.
OP	Operational Period.
PLS	Place Last Seen. The location where the missing subject was actually seen by another person.
Risk Assessment	Risk Assessment involves quantifying risk and then mitigating it through control measures.
Route and Location Search	A Route and Location Search starts with the Initial Response and ends when one of three things happens: 1. The subject is found; 2. The subject is not found and the search transitions to a Limited Continuous Search before the start of an Area Search; 3. An Area Search starts.
Startup File	This is where the status of various choices, such as whether Military Time is OFF or ON, are saved. This file is automatically loaded the next time IRO starts, and is automatically saved when IRO is closed.

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