Defense Intelligence Agency

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All Source Intelligence Environment (Alien)

An Interoperability Framework Supporting Joint Vision 2020

Functional User's Guide

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<u>Authorization Memorandum (U)</u>

(U) I have fully read and carefully assessed this document, *"ALIEN User's Guide"*.

<u>Management Certification</u>

(U) Please check the appropriate statement.

☐ The document is accepted.
☐ The document is accepted pending the changes noted.
☐ The document is not accepted; see explanation.

(U) My signature below indicates my approval of the policies and procedures as stated herein. Changes to this baseline can be made through the project's defined change process.

Thomas M. Sasala, Project Manager, McDonald Bradley, Inc.	Date

William Pulsipher, Division Director, McDonald Bradley, Inc.	Date

Stephen West, Program Manager/COTR, Defense Intelligence Agency	Date

Table of Contents (U)

Figures (U)

<u>Tables (U)</u>

1   Introduction (U)

1.1   What is ALIEN? (U)

(U) The All-Source Intelligence Environment (ALIEN) is a standards-based, knowledge integration and SOA framework that covers the implementation of standards, DoD/Net-Centric architectural compliance, SOA infrastructure, analytical tools and interoperable information sharing across DoDIIS data repositories and services.

(U) The purpose of ALIEN is to provide a standards-based, service-oriented architecture enabled environment that will facilitate intelligence analysis, information discovery, knowledge object management, and seamless data sharing. ALIEN lays the foundation for analysts to easily and transparently navigate between different intelligence data sources while integrating and semantically displaying the data using a common analytic tool set.

(U) ALIEN will integrate and make interoperable all of the DoD Intelligence Production Council's analytical and dissemination systems within a network-centric architecture, especially where DIA supports the SCI and Collateral efforts.

1.2   What is the ALIEN web application? (U)

(U) The ALIEN web application is just one tool that can be used to access ALIEN services and search connected data sources. This document represents the basic concept for understanding and using the ALIEN web application.

1.3   What can be done with the ALIEN web Application? (U)

(U) The ALIEN web application provides the capability to perform a menu driven also known as a guided search of ALIEN data sources, allowing users to quickly find pertinent resources by the people, places, organizations and events they are interested in. Keyword search of data sources is also supported through the web application.

1.4   What data sources are searchable with ALIEN? (U)

(U) In the first release of ALIEN, Web Intelligent Search Engine (WISE) messages with metadata tags will be accessible as well as the ARTEMIS counter-proliferation data base. Additional data sources will be added in subsequent ALIEN upgrades.

1.5   What are the system requirements to use ALIEN? (U)

(U) The ALIEN web application supports the following web browsers: Internet Explorer 6, Netscape Navigator 7, or Firefox 1.5. Later versions are also supported.

1.6   Revision Procedures (U)

(U) This is considered a living document and will be updated/revised as additional information becomes available and tools/applications are developed or added to the web application. These procedures were written while running the web application in Internet Explorer. Any browser specific deviations should be reported.

1.7   Copyright (U)

(U) This document is the property of the U.S. Government, produced by McDonald Bradley Incorporated under contract to DIA. It may not be copied in whole or in part, or presented to other parties without the prior written consent of the U.S. Government.

1.8   References (U)

Document	Version	Date
Protecting Sensitive Compartmented Information within Information Systems, DCID 6/3, FOUO	Final	12 April 2002
DoDIIS DDL Statement of Objectives	3.0	22 Aug 2005
ALIEN Functional Requirements Document	0.3	26 Jul 2006

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Table 1 – References (U)

2 Using the ALIEN User Guide (U)

(U) This document represents a basic concept for understanding and using ALIEN.

2.1 Conventions (U)

(U) Clickable items on ALIEN will be referenced by bold print in the Functional User Guide.

3 Accessing the ALIEN Web Application (U)

(U) The ALIEN web application is accessible only on the Joint Worldwide Intelligence Communication System (JWICS) network. Click on the link below or type the address in a web browser to access to ALIEN.

JWICS ALIEN URL:

Actual URL to be placed here

(U) Once the appropriate JWICS URL is clicked or entered, the DoD Computer System Disclaimer displays (Figure 1). Click on the **ACCEPT TERMS** button to move on to digital certificate selection.

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[ACCEPT TERMS]

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Figure 1 - DoD Disclaimer Window (U)

3.1 Public Key Infrastructure (PKI) Certificate Information (U)

(U) The PKI is a system of digital certificates and other registration authorities that verifies and authenticates the validity of each party involved in an Internet transaction. A PKI certificate ensures secure, tamper-proof communication on the Internet.

(U) Access to ALIEN will be by DoDIIS PKI certificate authentication only. If only one PKI certificate is loaded on the computer workstation, the main ALIEN web page will display automatically. If there are multiple PKI certificates installed on the computer workstation, the Digital Certificate window (Figure 2) will display. Select the appropriate certificate and click **OK** to start using ALIEN.

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Figure 2 -Digital Certificate Window

(U) If the certificate is invalid, an error will appear. Please contact the local security officer if this occurs.

4 Conducting Searches (U)

4.1 What is Guided Navigation?

(U) Guided navigation is basically a way to discover products by filtering out irrelevant results. The application offers menu items (also known as filters) on people, places organization and events. Results are filtered out by choosing things from the menu items. For example: looking for information on a person with the last name of Grigorev. Go to the person filter section and choose the last name Grigorev from the menu list. The application removes all the records that don't have a match for last name Grigorev. The application also reconfigures to display additional items to filter on. There may be several people with the last name Grigorev, but the application will now only show the first names of the Grigorev's to filter on as well as only the events and locations that the Grigorev's are associated with. When all selected filters are applied, results matching the filtered query appear at the bottom of the application and can be selected and viewed individually. The next sections will step through the process.

Caution on filtering

Not all data sources support the same information fields; therefore, not all data sources can support the same filtering options.

For example, data source "A" may contain a record for John Smith with his phone number and address while data source "B" has John Smith's, height, weight, and hair color.

If "First Name: John", "Last Name: Smith" are selected, two records will appear, one from data source A and one from B. However, adding "Hair Color: Brown" to the filter list would produce only one record from data source "B", since that is the only data source that supports "hair color". The record on the same John Smith that had his home address and phone number is now excluded.

Changing or removing some filter selections may be necessary to get the desired results/returns. ALIEN's future capability for semantic integration will resolve much of this.

4.2   Using Guided Navigator (U)

(U) After login, the Guided Navigator pane appears. (Figure 3)
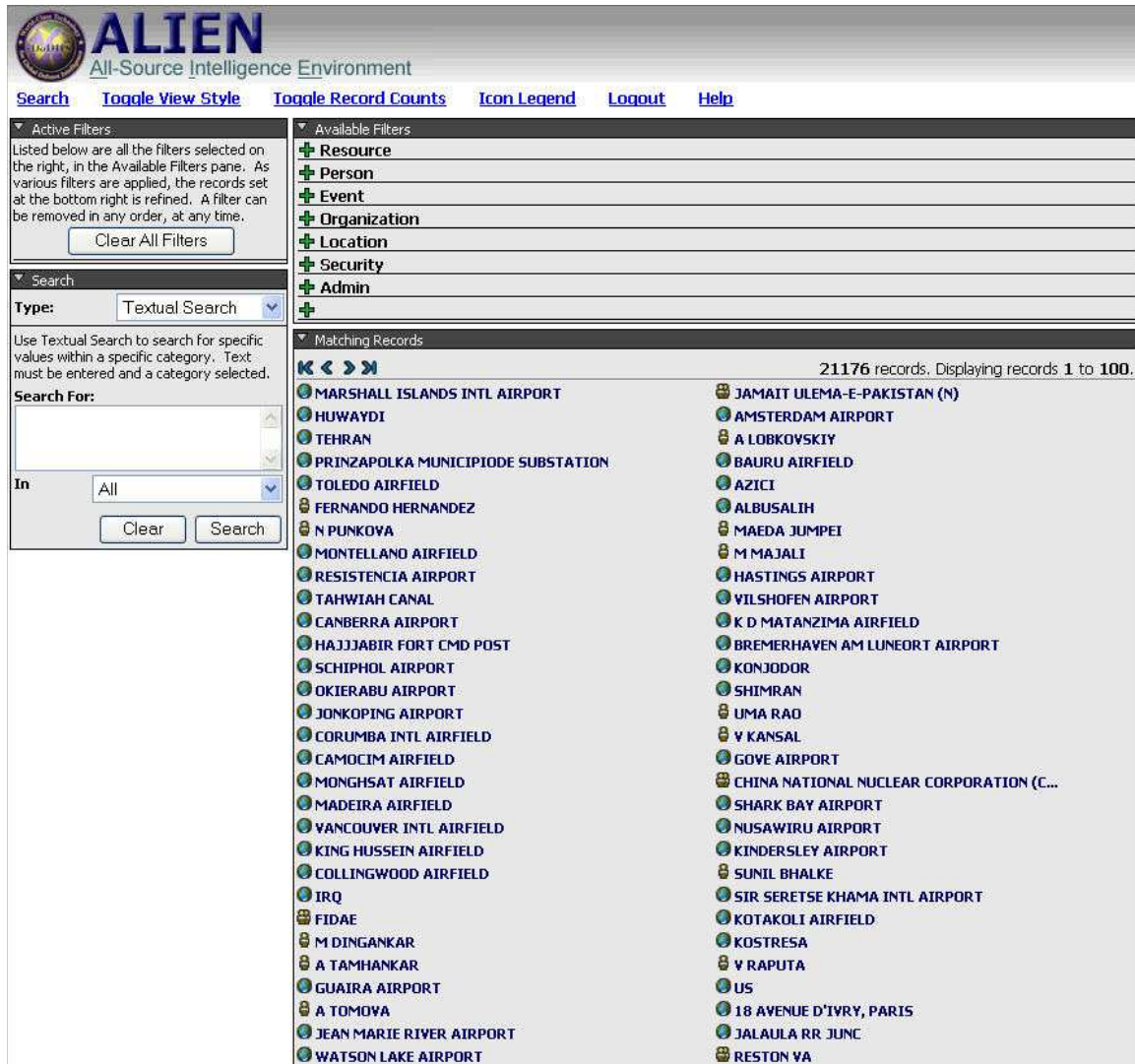
Figure 3 - Guided Navigator Pane (U)

1. In the Available Filters box (Figure 4), there is a list of the available filters, such as **Admin**, **Location, and People**. Click on the plus sign next to the selected filter to expand it.
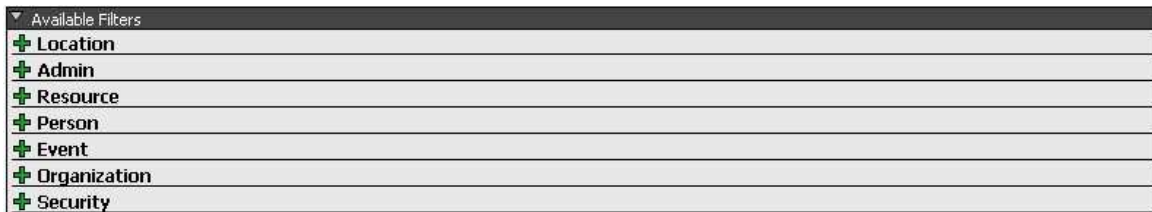
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Figure 4 - Available Filters Box (U)

2. A list of categories associated with that filter will be displayed. The Available Filters box may be viewed in either a Table (Figure 5) or Flat view (Figure 6). To change the format, click on the **Toggle View Style** at the top of the page.

3. The Record Count is in parentheses following each category. This indicates the number of records that the search term or filter is found in that category. This is shown by default. To hide the Record Counts, click on **Toggle Record Counts** at the top of the page**.**

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Figure 5 – Available Filters Pane in Table View (U)
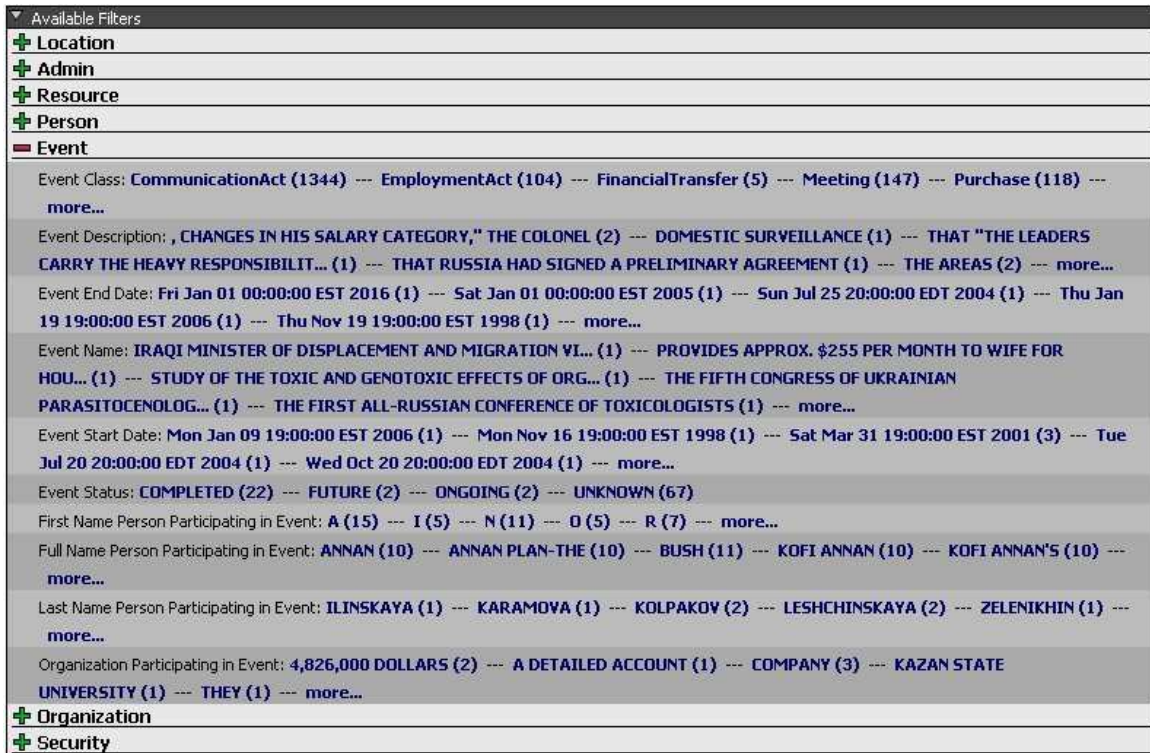
Figure 6 - Available Filters Pane in Flat View (U)

4. A list of categories associated with that filter will be displayed. Each category has a partial to full list of specific values that can be selected. Clicking on **more** will produce a box listing all the values under that specific category (Figure 7). Scroll down to see the full list and click on the value to apply the filter.
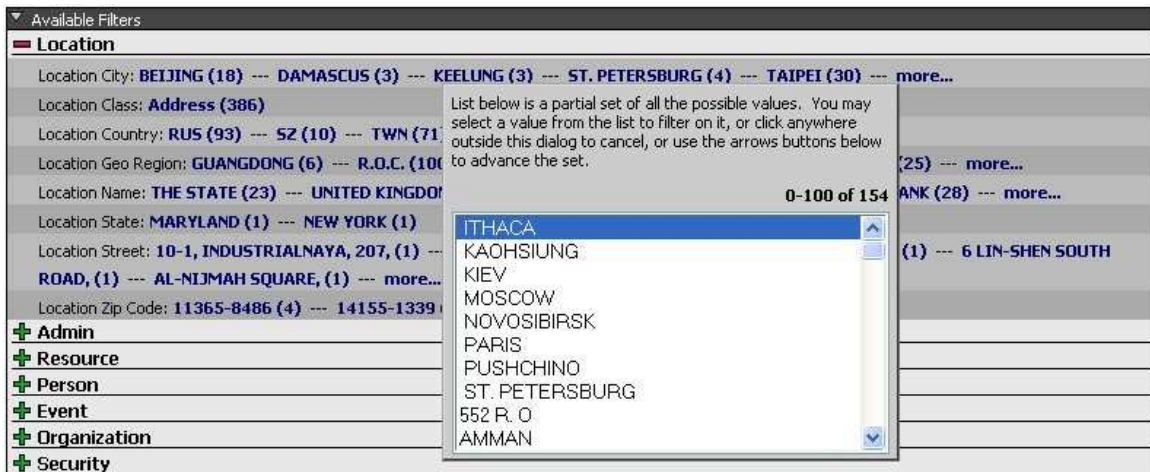
Figure 7 – Location Filter with More Value List (U)

5. The Matching Records box (Figure 8) will then display a list of records that meet the selected search criteria. The icons associated with the record indicate the basic type of result: *Person icon = Person; Box icon = Object; Globe icon = Place or Location; Multiple Person icon = Group; Thread Spool icon = Resource; Clock icon = Event; Hammer icon = Thing.*

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**Figure 8 - Matching Records Box (U)**

6. The Active Filters box (Figure 9) will list the filters that were selected. To remove a filter, click on the red X next to the filter category. The results list will change appropriately based on the remaining filters. Click the **Clear All Filters** button to remove all filter settings. The browser back button cannot be used to return to a previous result list or to remove a filter.
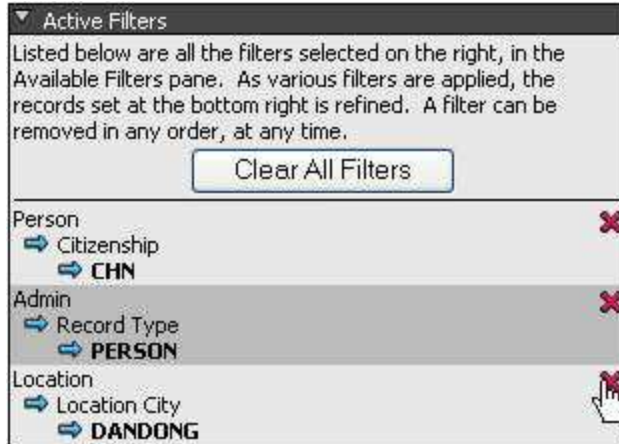
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Figure 9 - Active Filters Box (U)

7. A search may also be performed within the Guided Navigator pane. In the Search box (Figure 10), select the "Type" of search by clicking on the down arrow and then selecting **Textual Search**, **Temporal Search** or **Location Search**.
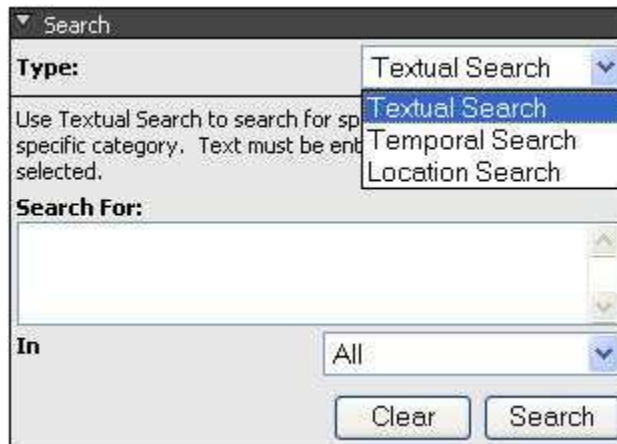
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Figure 10 - Guided Navigator Search (U)

8. To start a search, type the query in the "Search for:" box. A category must be selected from the "In" drop down menu. Then click on the **Search** button.

9. Clicking on a record link will produce the record with all the metadata tags identified as well as key information such as Title, Source and Date Published. (Figure 11)

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Figure 11 - Sample Record (U)

4.3   Using Search (U)

(U) Clicking on the **Search** link at the top of the Guided Navigator Pane opens the Search pane (Figure 12).
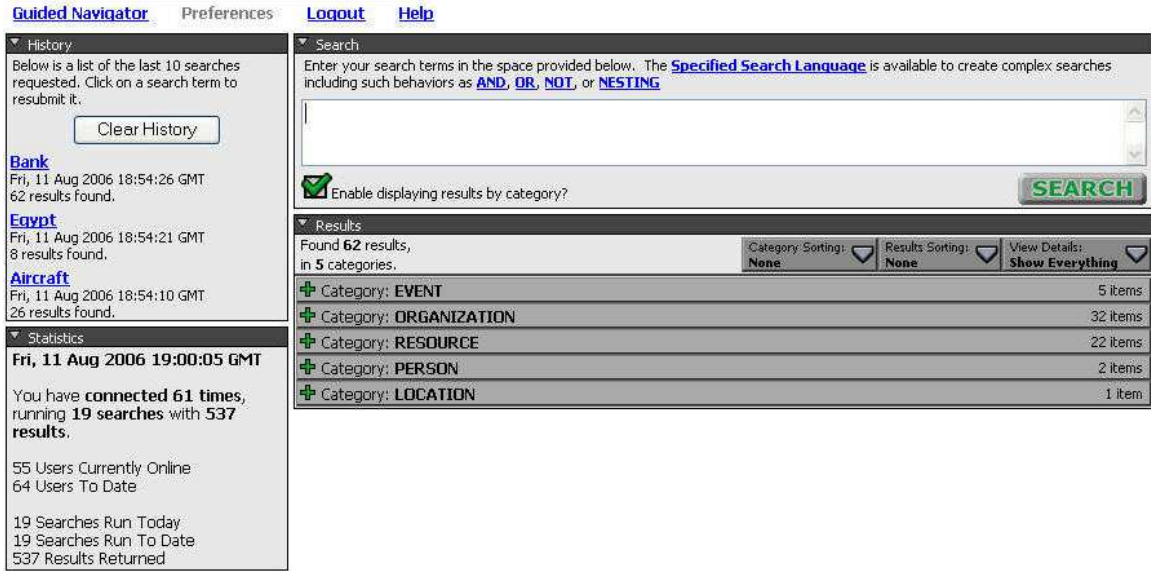
Figure 12 - Search Pane (U)

1. There will be four boxes showing information about the search: History, Statistics, Search and Results.

2. Enter search terms in the blank area of the Search box. Searches may include Boolean terms. For more information on search language, click on the **Specified Search Language** link. Clicking on the **AND**, **OR**, **NOT** or **NESTING** links will add them to the typed query. To see the results grouped by categories, click the check box in the left bottom corner of the Search box (Figure 13). Then click on the **SEARCH** button.
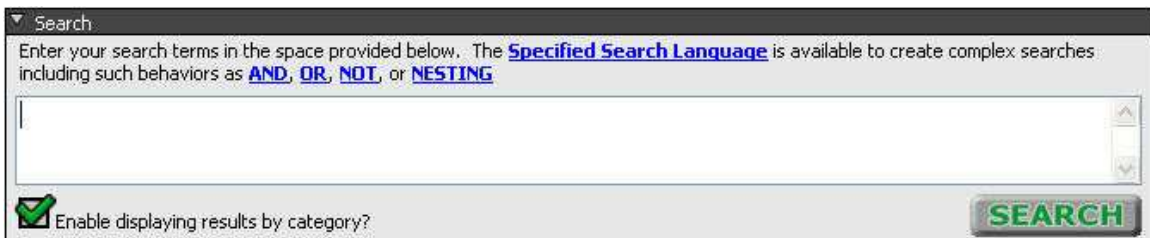
Figure 13 - Search Box (U)

3. Results will start appearing in the results box grouped by category if that option was checked. The application will continue to search all categories for results unless the **STOP** button is clicked. Before a new search is started, the previous search must be stopped or completed.

4. Results may be sorted by category or result (Figure 14). Clicking on the Category Sorting arrow provides a menu of the different ways to sort the categories. Clicking on the results arrow provides a menu of the different ways to sort by results.

Figure 14 - Category and Results Menus (U)

5. The amount of results detail can be specified. Clicking on the View Details arrow lists **Title Only**, **Title, Time Source** and **Show Everything**.

6. Clicking on the plus sign of any category will provide the link and the link details of the record(s) that match the entered search criteria.

7. The History box will list the last 10 searches. Each listed search can be clicked on to retrieve the results for that search.

8. Clicking on a record link within the search results will produce the record with all the metadata tags identified as well as key information such as Title, Source and Date Published. (Figure 11)

9. To return to the Guided Navigator pane, click on the **Guided Navigator link** at the top of the Search pane.

4.4   Key Word Search Hints (U)

4.4.1   Automatic "AND" (U)

(U) It is important to remember that Search, by default, only returns results that contain **all** of the submitted search terms. There is no need to include the word AND between terms, this is automatically assumed.

4.4.2   OR (U)

(U) To broaden a search, the word OR may be included between search terms. For example: *IED OR Insurgent.* In this case, ALIEN Search will return results that contain at least one of the query terms.

4.4.3   NOT or Negative terms (U)

(U) To exclude something from the search, include the word NOT between search terms. For example: *Insurgent activity Iraq NOT Mosul,* would display results concerning insurgent activity in Iraq with the exception of activity in Mosul.

4.4.4   Exact Phrases (U)

(U) To receive results that contain a specific phrase, include quotation marks around the search terms. For example: **"***Operation Iraqi Freedom*".

4.4.5   Capitalization (U)

(U) Searches are not case sensitive.

5   Frequently Asked Questions (FAQs) (U)

(U)   Q: What can be done with the records of interest to an analyst?
A: At present, the records can be copied and pasted to another application such as MS Word.

(U)   Q: What do I do if I login and get no data back?
A: There could be a missing, invalid, or revoked certificate on the client machine. Check with a System Administrator to determine if there is a certification issue and how to correct it.
Parts of the ALIEN infrastructure may not be responding. Notify a System Administrator of the issue.

(U)   Q: How do I obtain a user certificate?
A: Contact your local security or system administrator to request a user certificate.

(U)   Q: What do the Metadata Extraction and Tagging Service (METS) icons mean?
A: Click on **Icon Legend** link at the top of the page to get a listing of the icon names and meanings.

(U)   Q: Why do some matching records have alphanumeric titles?
A: This is due to the lack of metadata describing the knowledge object. The User Interface substitutes the document identification (ID) for knowledge objects created from METS documents.

(U)   Q: What is the difference between a "Guided Navigator" search and a "Search" search?
A: "Guided Navigator" search is part of the Guided Navigation process of applying iterative filters (see FAQ entry, "What is meant by Guided Navigation"). "Search" is an implementation of a simple text-based search (e.g. Google, Yahoo!).

(U)   Q: What is meant by Guided Navigation?
A: Guided Navigation presents to the user a series of categories that can be used to iteratively filter a set of records until data is exhausted or an answer is found.

(U)   Q: Why doesn't the Back button work?
A: The Back button returns a user to the Login page of the Alien UI. To undo a filter action in the Guided Navigation mode, simply click the **Remove** button in the Active Filters list.
In the Search mode, select from the History list to repeat a submitted search.

(U)   Q: What, exactly, are "Available Filters"? Can I add my own?
A: Available Filters are predefined categories of information. Currently, they are defined as:

- Resource
- Person
- Event
- Organization
- Location
- Security
- Admin

Search results are categorized based on these filters. A user cannot redefine, update, add, or delete the list of Available Filters.

(U)   Q: How do "Active Filters" differ from "Available Filters"?
A: Active Filters can be user defined and are based on a submitted search term. For example, entering "bomb" in the Search pane with a category of "All" will populate the Active Filters pane with a filter labeled Search->All->bomb. Active Filters can also be selected from subcategory values listed under Available Filters. Selecting a subcategory value will populate it in the Active Filters list. As an example, in the Available Filters pane, expanding Organization and choosing "Commercial Business" under the subcategory "ORGANIZATION COMMENTS", will populate the Active Filters pane with a filter labeled Organization->Organization Comments->COMMERCIAL BUSINESS.

(U)   Q: What do the numbers mean next to each of the items under "Available Filters" mean?
A: The numbers indicate the count of records matching the filter subcategory. For example, under the "Resource" Available Filter, there could exist several subcategories. One of those subcategories could be "PARAGRAPH TITLE". That subcategory could contain several values such as "CHINA: DOD REPORT … (83)", "PROGRAM SUMMARY: … (28)", and "RUSSIA: RF ARMED… (67)". The count in parentheses refers to the number of matching records for that subcategory value.

(U)   Q: Can Boolean search terms be used when entering search criteria?
A: Yes, both in "Guided Navigation" and "Search" mode.
Click on **Specified Search Language** link for further information.

(U)   Q: What happens to the search history after ten searches have been submitted?
A: The search history will wrap, i.e. the eleventh search will replace the first, etc.

(U)   Q: What is the difference in view styles?
A: One style lists the filters in a sequential line. The other style groups the filters by category.

(U)   Q: Why do I have to close my browser after I logout?
A: The browser maintains a connection with the ALIEN system even after logging out from the UI. Closing the browser closes that connection.

A. ACRONYMS (U)

Acronym	Definition
ALIEN	All-source Intelligence Environment
CM	Configuration Management
DCID	Director, Central Intelligence Directive
DDL	DoDIIS Data Layer
DIA	Defense Intelligence Agency
DoD	Department of Defense
DoDIIS	DoD Intelligence Information System
ESB	Enterprise Service Bus
FAQs	Frequently Asked Questions
FOUO	For Official Use Only
IA	Information Assurance
ICMSP	Intelligence Community Metadata Standard for Publications
JWICS	Joint Worldwide Intelligence Communication System
METS	Metadata Extraction and Tagging Service
PKI	Public Key Infrastructure
SCI	Sensitive Compartmented Information
SIPRNET	Secret Internet Protocol Router Network
SOA	Service Oriented Architecture
UI	User Interface
URL	Uniform Resource Locator
US	United States