



Part 4

SIGINT Collection



Collection



During collection, organic, attached, and supporting SIGINT elements collect and deliver information to the appropriate processing or production element.



In some instances (e.g., immediate threat) the information will be delivered directly to the local commander for immediate action.



COMINT collection is performed using equipment that intercepts adversary communications signals.



Simple signals (e.g., unencrypted single-channel voice) can be received by ordinary receivers.



More complicated signals or those that are encrypted require more sophisticated equipment to fully exploit the signals for their intelligence value (i.e., external SIGINT processing and production centers).

COMINT Collection



Initially, a concentrated intercept search, signals analysis, and target development program is carried out to catalog the electromagnetic environment and identify the desired threat SOIs (signals of interest).



In many cases, prior knowledge of some technical characteristics,, will enhance and streamline the COMINT search effort.



When SOIs are acquired that are readily exploitable, SIGINT collection operators prepare a gist of the transmission. Recording of the entire intercepted signal using tape recorders may also occur.

Multichannel Transmissions



Multichannel transmissions are first divided by SIGINT operators into their component parts or separate channels and then processed channel by channel.



The acquired data are rapidly assessed against standing PIRs for items of immediate tactical intelligence value and reported in accordance with reporting and dissemination criteria to:



Designated commanders.



Production elements for detailed analysis and reporting.



All-source analysis and production.

Direction Finding



RADIO DF USES ELECTRONIC EQUIPMENT TO OBTAIN THE LOCATIONS OF ADVERSARY EMITTERS BY DETERMINING THE DIRECTION OF ARRIVAL OR THE TIME DIFFERENCE OF ARRIVAL OF THE RADIO WAVES.



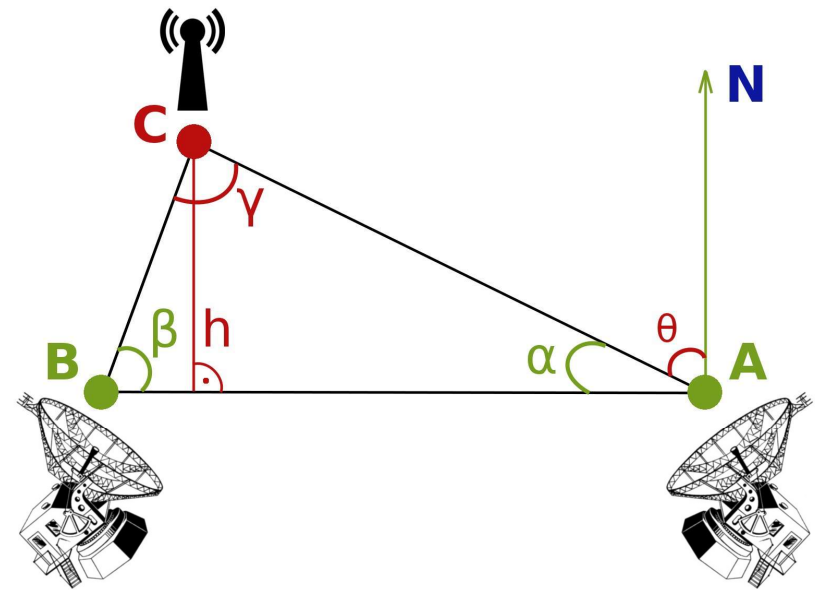
IN IDEAL CONDITIONS, DIRECTION FINDERS ARE ARRAYED IN A NETWORK ALONG A PREDETERMINED BASELINE CONSISTING OF AT LEAST THREE COLLECTION AND DF STATIONS, ONE OF WHICH ACTS AS NET CONTROL.



THE DF SITES MUST BE PLACED CAREFULLY SO THAT ALL STATIONS CAN HEAR THE TARGET SOI AND MUTUALLY SUPPORT THE MISSION.

ELINT Collection and Direction Finding

- Automated search, acquisition, identification, and a single DF line of bearing of radars and other noncommunications emitters.
- Mission management, reporting, and dissemination are usually handled similarly to COMINT DF operations.
- Additionally, in support of its strike escort mission, different elements collect ELINT information that can be used by intelligence producers.
- Technical capabilities within the ELINT collection system allow for DF operations to occur from a single aircraft or multiple aircraft. Acquired signals are recorded and then provided for post mission analysis, production, and reporting.





Production

- Production is the conversion of raw information into SIGINT product reports through the evaluation, integration, and interpretation of the information derived during the processing and exploitation effort.
- The results of the analysis are correlated by SIGINT analysts and reporters to form the basis for SIGINT reports.
- These reports are provided directly to tactical commanders when appropriate for the further analysis and production of all-source intelligence, and to the staff sections for future operations planning.

SIGINT Production Planning and Management

- SIGINT production planning and management are closely coordinated with all-source intelligence production planning and management to:
 - Determine the scope, content, and format for each product.
 - Develop a plan and schedule for the development of products.
 - Assign priorities among the various SIGINT product requirements.
 - Allocate SIGINT processing, exploitation, and production resources.
 - Integrate production efforts with all-source collection and dissemination activities.
- The production goal is the effective and efficient use of limited resources while focusing on established SIGINT priorities.





Evaluation and Integration

- **Evaluation**

- SIGINT analysts evaluate the raw SIGINT information to determine its pertinence to intelligence requirements.
- Further evaluation is made to judge the reliability and accuracy of the information and to isolate significant elements.

- **Integration**

- The information derived from traffic analysis, cryptanalysis, linguistic analysis, signal analysis, ELINT analysis, and radio DF must be fully integrated into a fused SIGINT product to develop a complete SIGINT picture.
- Integration of SIGINT processing and production with ongoing all-source intelligence processing and production is essential to achieve a complete, effective, and current intelligence estimate while using the strengths and results from the other intelligence disciplines to improve SIGINT operations.

Interpretation



The information derived from SIGINT collection is interpreted to form logical conclusions and estimates of enemy capabilities, intentions, and future actions.



This step completes the translation of the raw SIGINT information into usable intelligence.

Dissemination



- Dissemination is the provision of SIGINT information in a timely manner and in a usable form to commanders, other decisionmakers, or all-source intelligence analysts. Because of security requirements, dissemination of COMINT information is made primarily to SIGINT and all-source intelligence production elements.
- Proper SIGINT C2 and supporting CIS architectures that provide accurate situational awareness, along with effective IRs and tactical requirements management, enable proper dissemination.

CIS= communications and information systems

SIGINT Dissemination Planning and Management

- SIGINT dissemination planning and management involves establishing dissemination priorities, stipulating dissemination and reporting criteria, selecting dissemination means, and monitoring the flow of SIGINT reporting.
- The ultimate dissemination goal is to deliver SIGINT products to the appropriate user in the proper form and at the right time, while concurrently preventing the dissemination of irrelevant products and avoiding information overload.
- Reporting consists of providing the SIGINT products in standardized, easily usable formats needed to satisfy tasked requirements in a timely manner.
- The nature of the SIGINT effort requires timely reporting to effectively exploit its intelligence value.
- SIGINT reports generally fall into two categories, product reports and technical reports.
- Standardized formats are used in the preparation and transmission of these reports for speed and compatibility.

SIGINT Product Reports

Product reports are prepared by all SIGINT producers for commanders, planners, and all-source intelligence analysts. A product report contains timely, accurate, thorough, relevant, and useful SIGINT information about the adversary in response to the supported commander's PIRs and IRs. (IPR=intelligence production requirement; IR=intelligence requirement)

Reports may be sent periodically or may be sent whenever highly perishable data is acquired in accordance with specified intelligence reporting criteria.

SIGINT Product Reports



Generally, SIGINT product reports will fall into one of three categories.



SIGINT Report



Non-Codeword Report



Sanitized Report

SIGINT Report



In SIGINT reports, the source of information is clearly SIGINT by the content and classification markings. Such reports generally contain the SIGINT assessment along with pertinent SIGINT technical information.



These reports are handled within SCI-controlled (sensitive compartmented information) facilities and communications channels.



When pertinent, either these reports will be fused within all-source intelligence products for further dissemination within the organization or dissemination will occur via SCI courier or briefings.

Non- Codeword (NCW) Report

The principal value of NCW reporting is to allow time-sensitive dissemination of critical SIGINT information to a broader audience during high tempo operations. In NCW reports, the source of information is clearly SIGINT.

However, unlike standard SIGINT product reports, the NCW report is passed directly to commanders without SIGINT markings or SI (special intelligence) security controls to allow immediate tactical use (e.g., I&W (indications and warning), support to targeting, support to force protection).

Example of the format is the standard size, activity, location, unit, time, and equipment (SALUTE) report.

Sanitized Report

Sanitized SIGINT reports contain SIGINT information that does not reveal SIGINT as the source of the information.

The level of sanitization authority allowed is established by DOD Directive TS-5105.21-M-2, Sensitive Compartmented Information (SCI) Security Manual, Communications Intelligence (COMINT) Policy.

Actual sanitization of SIGINT reports is generally performed by designated intelligence personnel under the guidance and supervision.

Technical Reports

Technical reports consist of the SIGINT technical elements required by SIGINT collectors, analysts, and technical support and production agencies external (e.g., call signs, frequencies, operating schedules).

SIGINT technical reporting requires SCI-secure connectivity with pertinent organizations.

Utilization

SIGINT, as all intelligence, has no inherent value. Its value is realized only through its effective support of the commander's intelligence requirements or other operational requirements.

We must continuously evaluate SIGINT operations, products, and reports for timeliness, usefulness, and overall quality and responsiveness to stated IRs.

SIGINT utilization provides guidance for future intelligence and SIGINT operations and management.

