

Site Profile G – (U) RAINFALL

(U) This site profile is to be used in conjunction with [USSID SE5330](#),
“SIGINT Mission of the NSA/CSS Enterprise Radio Frequency Collection Sites,” dated 14 March 2012.

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SECTION 1 - (U) TASKED ACTIVITY

(U) Tasked Activity 1.1. (S//TK//REL) USJ-599 is the Signals Intelligence (SIGINT) Activity Designator

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(SIGAD) assigned to the National Security Agency/Central Security Service (NSA/CSS) activity at Joint Defence Facility Pine Gap (JDFPG), unclassified coverterm RAINFALL, located in Alice Springs, Australia. The unclassified coverterm RAINFALL is used in this site profile for solely NSA/CSS activities at JDFPG. The abbreviation JDFPG is used for all activities taking place at the JDFPG facility to include NSA/CSS activities and non-NSA/CSS activities, such as logistical support, research and development, and spacecraft operations controlled by the National Reconnaissance Office (NRO) and the Government of Australia (GOA). JDFPG is also known as Australia Mission Ground Station (AMGS). The site is governed by the Implementing Arrangement between the United States Central Intelligence Agency (CIA) and the Australian Department of Defence on behalf of the Government of Australia (GOA) (1966, 1988) as well as the Implementing Agreement between the Director, National Security Agency/Chief, Central Security Service (DIRNSA/CHCSS); Director, National Reconnaissance Office (NRO); and Deputy Director for Science and Technology, CIA for Assignment of NSA/CSS Personnel to RAINFALL (dated 23 December 1997).

1.2. (S//REL) JDFPG is a unique facility that is jointly staffed by both U.S. and Australian personnel. The U.S. contingent comprises NSA/CSS civilian, contractor, and Service Cryptologic Component (SCC) personnel from the U.S. Army, Navy, and Air Force, as well as civilian, military, and contractor personnel from the CIA and NRO. GOA personnel include both civilian and military personnel from the Defence Signals Directorate (DSD) and the Australian Defence Forces (ADF). The GOA personnel are assigned to RAINFALL under agreement between the U.S. and Australian Governments. Employees of other FIVE EYES SIGINT agencies may be assigned to RAINFALL on a case-by-case basis.

1.3. (S//SI/TK//REL) RAINFALL is responsible for SIGINT collection, processing, analysis, forwarding, and reporting derived from the Mission 7600 and Mission 8300 (M7600/M8300) (US-903) Radio Frequency (RF) collection systems.

- a. (U) Location: Alice Springs, Australia
- b. (U) Security Classification: TOP SECRET//SI/TK
- c. (U) Cryptologic Risk Assessment: Minimal
- d. (U//FOUO) Producer Designator Digraph (PDDG): ZZ (Zulu Zulu)
- e. (U//FOUO) Integrated Broadcast System (IBS) Simplex Digraph:
 - JW (Juliatt Whiskey) for COMINT and ELINT
 - JZ (Juliatt Zulu) for Interactive ELINT Processor
- f. (S//TK//REL) The following Satellite Designators are associated with M7600/M8300 and assigned to RAINFALL:
 - Mission 7605 - US-903D
 - Mission 7606 - US-903E

- Mission 7607 - US-903F
 - Mission 8301 - US-903H
 - Mission 8303 - US-903J
- g. (U//FOUO) NSA/CSS Organizational Designator: F78.

SECTION 2 - (U) MISSION

(U) Mission

2.1. (S//SI//REL) The major RAINFALL mission components are:

- (U) Foreign Instrumentation Signals Intelligence (FISINT)
- (U) Electronic Intelligence (ELINT)
- (U) PROFORMA
- (U) Communications Intelligence (COMINT)
- (U) SIGINT Development (SIGDEV)/Search and Survey
- (U) Support to Military Operations (SMO)

2.2. (U//FOUO) With assigned resources, RAINFALL will:

- a. (U//FOUO) Conduct cryptologic activities in support of U.S. and Second Parties, departments, agencies, commands, and activities. Provide cryptologic service and support to authorized recipients in response to their requirements.
- b. (C//REL) Conduct COMINT, ELINT, FISINT, and PROFORMA collection, analysis, and reporting against assigned targets in accordance with (IAW) applicable USSIDs and other tasking directives in response to the guidance and tasking of the Overhead Collection Management Center (OCMC).
- c. (C//SI//REL) [REDACTED]
- d. (C//REL) Perform SIGDEV on all nature of signals in support of customer needs and requirements.
- e. (S//REL) Collect data exfiltration signals IAW tasking.
- f. (TS//REL) [REDACTED]
- g. (U//FOUO) Participate in the planning for and deployment of new collection and processing systems to be installed and tested at USJ-599.

(U) Unclassified

2.3. (U//FOUO) The following unclassified mission statement, without further expansion

Mission Statement or explanation, may be released orally by the Chief of Operations:

(U) "The JOINT DEFENCE FACILITY PINE GAP (JDFPG) is a joint U.S./Australian defense facility whose function is to support the national security of both the U.S. and Australia."

NOTE: (U) Avoid any implication that this statement is only a sanitized portion of a larger classified effort.

SECTION 3 - (U) CONTROL

(U) Control 3.1. (U) RAINFALL is subject to the control outlined in Section 3 of [USSID SE5330](#).

(U) Oversight and Compliance Australian Restrictions 3.2. (C//REL) In addition to U.S. Intelligence Oversight and Compliance restrictions, ([USSID SE5330](#), Section 3, paragraph 3.12), RAINFALL must comply with both the Australian [Intelligence Services Act 2001 \(ISA\)](#) and the [Telecommunications \(Interception and Access\) Act 1979 \(TIA Act\)](#), as well as other applicable DSD Compliance policies in all operations involving the production and handling of SIGINT. These provisions take precedence over any existing collection, processing, or reporting guidance.

SECTION 4 - (U) SIGINT PRODUCTION AND MANAGEMENT STRUCTURE

(U) Information Needs (INs) 4.1. (U//FOUO) RAINFALL responds to national Information Needs (INs) under the National SIGINT Requirements Process (NSRP).

(U) Collection 4.2. (C//REL) RAINFALL will conduct collection operations, including sustained collection and search and geolocation, IAW formal mission tasking as issued by the OCMC.

(U) Signals Analysis 4.3. (C//REL) RAINFALL will perform on-line and off-line signals analysis on collected signals. On-line signals that remain unresolved for 24 hours may be sent to the off-line area. Off-line signals that remain unresolved for 7 days may be sent to NSA/CSS for further analysis.

(U) Cryptanalysis 4.4. (S//REL) RAINFALL may perform limited cryptanalysis, cryptanalytic research, and development of enciphered signals of interest to NSA/CSS Signals Intelligence Directorate (SID) and DSD.

(U) Data 4.5. (S//SI//REL) Using SIGINT systems and techniques, RAINFALL conducts data

Exfiltration

exfiltration operations to provide a communications path for special customers.

4.6. (S//REL) [REDACTED]

(U) Foreign Instrumentation Signals (FIS) Analysis

4.7. (S//REL) RAINFALL will detect, collect, demodulate, decommutate, and analyze FIS associated with missile, target, unmanned aerial vehicle, aircraft, and space vehicle activity.

4.8. (S//REL) RAINFALL is occasionally tasked with support to selective U.S. space launches and programs, and additional processing instructions may be included in OCMC tasking.

4.9. (S//REL) RAINFALL was selected as a test site for development supporting the concept of a consolidated FIS Operations Center. The site will support the concept through development of the associated Test Plan, Concept of Operations (CONOP), bandwidth requirements, and distributed processes supporting this mission area.

(U) Electronic Intelligence (ELINT) Analysis

4.10. (S//REL) RAINFALL detects, identifies, geolocates, and reports ELINT signals of interest IAW tasking and by utilizing targets of opportunity. Technical ELINT (TECHELINT) is performed with the Interactive ELINT Processor (IEP) system, which generates digitized files containing Pulse Descriptor Words (PDWs) and Continually Digitized Intermediate Frequencies (CDIFs). These files are used by site to perform data analysis, selection, and reporting IAW specific tasking and technical guidance. Operational ELINT (OPELINT) is performed with the SIGINT Processing Emitter Mapping Architecture (SPECTRE) system, which allows site to aggressively pursue cross-site geolocations and reporting.

(U) PROFORMA Analysis

4.11. (S//REL) RAINFALL detects, collects, records, processes, analyzes, and reports on PROFORMA signals collected from tasked target entities. The focus of the PROFORMA mission at USJ-599 is search and discovery of new signals or new use of known signals.

(U) Geolocation

4.12. (S//REL) One of RAINFALL's primary mission areas is the detection and geolocation of COMINT, ELINT and FISINT signals. The site has a number of tools available for performing geolocations, providing a broad range of geolocation capabilities either with USJ-599 resources or in conjunction with other overhead, tactical, and fixed site systems.

(U) Reporting - SIGINT Products

4.13. (U) RAINFALL is authorized to issue:

- a. (U//FOUO) CRITIC Reports IAW [USSID CR1501](#), "Handling of Critical Information," dated 13 August 2009, revised 23 March 2012.
- b. (U) KLIEGLIGHTS and Tactical Reports (TACREP) IAW [USSID CR1500](#),

“Time-Sensitive SIGINT Reporting,” dated 7 June 1996.

c. (U//FOUO) Distress Signal Reports IAW [USSID CR1521](#), “Reporting of Distress Signals,” dated 20 December 2010, as required.

**(U) Reporting -
Technical Reports**

4.14. (U//FOUO) RAINFALL is authorized to forward unevaluated and unminimized (raw) SIGINT data and issue a number of technical reports. RAINFALL may also issue reports in support of the Developmental Signals Collection and Analysis (DSCA) Program. (See [USSID DA3495](#), “Developmental Signals Collection and Analysis (DSCA) Program,” dated 4 March 2010.)

4.15. (U//FOUO) The Collection Management Authority requires all Signals Analysis resources to produce standardized reporting vehicles (e.g., [USSID DA3611](#), “Standard Technical Report Using Modules (STRUM),” dated 6 April 2006), and serialized technical documentation (e.g., monthly notes, Informal Technical Notes (ITNs), Telecommunications Information Reports (TELIRs), web-based technical reports, and signals analysis narratives).

(U) SIGDEV

4.16. (C//REL) The scope of SIGDEV encompasses not only traditional target and technology development, but also discovery of points of vulnerability and identification of best points of access to guide United States SIGINT System (USSS) investment choices in anticipation of target technology trends. Using primarily Overhead assets, RAINFALL’s SIGDEV efforts will follow guidelines set forth in [USSID SD4000](#), “Signals Intelligence Development,” dated 6 April 2011, and [USSID DA3495](#). RAINFALL will concentrate on search and survey, signals analysis, signals development, and network knowledge, which is information pertaining to telecommunications media networks/infrastructures to include logical and physical networks. RAINFALL will also share information and assist in identifying access points with other elements/sites.

(U) Discovery

4.17. (S//REL) RAINFALL maintains close continuity on all site collection resources to optimize planning, collecting, processing, and forwarding of all signals of interest in the site's collection environment. Serving as a forward-deployed NSA/CSS and DSD Operations element, signals analysts work closely with mission planners, collection operators, intelligence analysts, and off-line signals analysts to coordinate and satisfy developmental tasks and to resolve unidentified signals in concert with the Overhead Collection Manager (OCM) and the Office of Primary Interest (OPI) elements at the respective Headquarters. Special emphasis is also given to assisting these offices in isolating new and more sophisticated signals via focused search tasks implemented by SIGINT Development analysts against an ever-growing global target set.

**(U) Organizational
Structure**

4.18. (U//FOUO) JDFPG consists of three divisions: Support, Engineering, and Operations (RAINFALL).

(U) JDFPG Senior

4.19. (S//TK//REL) The Chief of Facility (COF) exercises on-site responsibility for

Leadership

overall management, operations, and administration of JDFPG. The COF is accountable to Director, National Reconnaissance Office (DNRO).

4.20. (U//FOUO) The Deputy Chief of Facility (DCOF) is the senior DSD official assigned to the JDFPG in order to advise, assist, and support the COF in managing JDFPG and its activities, and acts as the COF during the absence of the COF.

(U) Engineering Division, Chief of Engineering (COE)

4.21. (S//REL) The COE is an NRO official who exercises responsibility for operation and maintenance of the operational baseline, as it is delivered and documented, in support of the site's SIGINT mission. The COE is also responsible for interacting with and assisting the NRO development community to ensure timely integration of new capabilities required by the site. The COE is accountable to the COF for engineering-related matters at site.

(U) Support Division, Chief of Support (COS)

4.22. (S//TK//REL) The COS is an NRO official who is responsible for logistics and building maintenance in support of JDFPG's mission. This includes JDFPG's powerhouse, water supply, and other critical elements necessary to perform the mission.

(U) Operations Division, Chief of Operations (COP)

4.23. (C//REL) The COP, an NSA/CSS official, exercises on-site responsibility for the SIGINT collection, processing, exploitation, forwarding and dissemination of signals collected at RAINFALL. The COP receives normal supervision and support from the COF and operational direction from the NSA/CSS SIGINT Director. The COP is responsible to DIRNSA/CHCSS for all RAINFALL SIGINT operations and to the COF for matters such as the management of the Operations Department. The COP is the senior NSA/CSS representative at RAINFALL. As such, this individual will be the principal advisor to the COF and the JDFPG chain of command on all NSA/CSS and SIGINT issues. As the senior NSA/CSS representative, the COP will be afforded the opportunity to provide comments to performance evaluations for all U.S. Department of Defense personnel assigned.

(U) Mission Director (MD)

4.24. (C//REL) The MD, the senior on-watch manager, is responsible for on-going watch operations and acts in the capacity of the COF, DCOF, and COP during non-business hours. The MD serves as the senior facilities, engineering, and support representative after normal duty hours and coordinates with appropriate senior management for availability of mission critical support during unforeseen and/or emergency circumstances.

SECTION 5 - (U) SIGINT OPERATIONAL RELATIONSHIPS

(U) SIGINT Operational Relationships

5.1. (U//FOUO) In addition to the SIGINT operational relationships outlined in Section 5 of [USSID SE5330](#), RAINFALL has the following relationships:

**(U) Cryptologic Centers/
Cryptologic Center Concept Partners (CCCPs)**

5.2. (S//TK//REL) Coordination of collection resources with CCCPs is predominantly handled via the Integrated Overhead Space Architecture Remote Collection Coordinator (IRCC), who is located at [USJ-751](#) (Colorado) for routine, tasked mission. Intelligence coordination, activity tip-off and fusion of COMINT, ELINT, and FISINT activity between RAINFALL, the Cryptologic Centers, the CCCPs, and other SIGINT and Intelligence Community (IC) watch operations is handled primarily by the Mission Situational Awareness (MSA) Cell at USJ-751. Coordination with remote partners in response to non-routine events or resolution of resource conflicts is performed by the MD in concert with Senior Watch Officers at the remote facilities.

(U) Government of Australia

5.3. (C//REL) As stated in the Implementing Arrangement between governments, the right to task RAINFALL by GOA will be accomplished through the USSS IAW existing U.S./Australian SIGINT arrangements. RAINFALL SIGINT analysts will only have access to data releasable to at least the U.S. and Australia per Australian rules governing Full Knowledge and Concurrence (FK&C). RAINFALL will not be operated for any purpose without the FK&C of the GOA. The GOA has the right of access to the full product of the facility through procedures established in NSA/CSS-DSD agreements and practices. The U.S. and Australia agreed to the principles of FK&C in the 1976 Implementing Arrangement for JDFPG. FK&C is important so that the Australian Government can assure the Australian Parliament and the Australian people that all activities conducted at JDFPG are managed with the GOA's full agreement and understanding.

(U) Third Party Liaison

5.4. (U//FOUO) RAINFALL maintains no Third Party relationships.

SECTION 6 - (U) TRAINING

(U) Training

6.1. (U//FOUO) In addition to the training requirements outlined in Section 6 of [USSID SE5330](#), RAINFALL has the following requirements.

(U) Cryptologic Training

6.2. (U//FOUO) As a remote facility with limited training opportunities, RAINFALL relies on the recruitment process to receive fully trained operators on site. RAINFALL specifically:

- a. (C//REL) Provides limited specialized operational training for personnel in signals collection, processing, signals and target analysis, and reporting.
- b. (C//REL) Develops and maintains positional training programs and training aids to assist signals collectors and analysts in the skill areas necessary to fulfill RAINFALL's mission.
- c. (U//FOUO) Ensures classification guidance training is provided, to include web classification standards and guidance, in coordination with NSA/CSS classification

requirements.

d. (U//FOUO) In coordination with site leadership, provides a mechanism for ensuring personnel awareness of mandatory training requirements, e.g., records management, information assurance, computer security, physical security, etc.

e. (U//FOUO) In conjunction with the Intelligence Oversight Program Manager, ensures intelligence oversight (IO) training is accomplished IAW annual requirements, to include familiarization with IO regulations, orders, rules, and policies.

SECTION 7 - (U) COMMUNICATIONS

(U) Network Access 7.1. (C//REL) The site host, NRO/CIA, is responsible for ensuring availability of adequate secure communications facilities at RAINFALL with the exception of the following for which RAINFALL operates:

- a. (U) Various enterprise-wide collaboration tools; and
- b. (U//FOUO) Video-teleconferencing (VTC) via NSA/CSS's Medianet system.

7.2. (U//FOUO) RAINFALL has access to the following communications networks through the NRO/CIA or DSD:

- a. (U) NSANet;
- b. (U) Critical Intelligence Communications System (CRITICOMM);
- c. (U) Special Operations Communications (SOCOMM);
- d. (C//REL) SECRET Internet Protocol Router Network Releasable FIVE EYES (SIPRNet REL);
- e. (U) Non-CLASSIFIED Internet Protocol Router Network (NIPRNet); and
- f. (U) Secure Terminal Equipment (STE).

SECTION 8 - (U) CONTINGENCY AND READINESS PLANNING

(U) Requirements 8.1. (U//FOUO) RAINFALL's contingency and readiness planning requirements will follow those outlined in Section 8 of [USSID SE5330](#). In the event of severe loss or disruption of facilities infrastructure, RAINFALL will follow the procedures listed in the AMGS Contingency Operations (COOP) Operating Instruction dated May 2012.

SECTION 9 - (U) SECURITY

(U) Security 9.1. (U//FOUO) All of RAINFALL's security requirements are outlined in Section 9 of [USSID SE5330](#).

SECTION 10 - (U) REFERENCES

(U) NSA/NRO Memorandum of Agreements (MOAs) 10.1. (S//REL) An [MOA between DIRNSA/CHCSS, DNRO and the Deputy Director for Science and Technology/CIA](#), dated 30 December 1997, describes assignment of personnel to RAINFALL. The MOA and accompanying annexes and appendices define policies, procedures, and conditions concerning the assignment of NSA/CSS civilian and Service Cryptologic Component (SCC) military personnel and family members on permanent change of station (PCS) assignment to RAINFALL.

10.2. (S//TK//REL) An [MOA between the NSA/CSS and the NRO for System Requirements and SIGINT Satellite Operations](#), dated 20 February 2006, describes the operational responsibilities at RAINFALL.

a. (S//TK//REL) NSA/CSS and NRO will share the responsibility for the responsive operation of the SIGINT satellite and ground systems at SIGINT Mission Ground Stations (MGSs). This cooperative enterprise will take advantage of the strengths of each organization.

b. (C//REL) NSA/CSS will have responsibility for SIGINT collection, processing, analysis, and reporting operations and related mission and system resource management at each MGS. The DIRNSA/CHCSS will appoint a senior representative at each MGS to execute this responsibility, acting as Chief of (SIGINT) Operations. There are no prescribed limits on number of personnel assigned; they will be consistent with mission requirements in support of SIGINT customers and consistent within the limits imposed by funding, infrastructure, and good management practice.

c. (C//REL) NSA/CSS and NRO will share responsibility for MGS mission planning, training, and other activities in order to efficiently and effectively manage the MGS in the performance of its mission. Specific roles and responsibilities not otherwise designated within the MOA will be agreed upon separately for each MGS.

10.3. (S//TK//REL) An MOU between the NRO's Network Operations Group and NSA/CSS's Technology Directorate dated October 2010 describes the operational and maintenance responsibilities for NSA-specific communications equipment at RAINFALL.

10.4. (U//FOUO) Additionally, the following areas will adhere to NRO policy:

a. (U//FOUO) Financial Management. NRO will accept Military Interdepartmental Purchase Request funds from NSA/CSS for expenses incurred by NSA/CSS site personnel. Budget and travel policy, including Temporary Duty (TDY) and Rest &

Recuperation processing, will be executed consistent with Joint Federal Travel Regulations, the NSA/CSS Personnel Management Manual, State Department guidance, and site policy. TDY and PCS travel funded by NSA/CSS will follow established NSA/CSS guidelines.

b. (U//FOUO) All NSA/CSS civilian and military personnel assigned to site will be under the operational control of the COF for host responsibilities, ensuring compliance with applicable federal, state, and local environmental and safety laws and regulations and applicable host nation laws and regulations. Personnel management for NSA/CSS personnel assigned to site will be the responsibility of the COP. The COP, in conjunction with NSA/CSS, will ensure resource allocations are commensurate with the mission as tasked.

c. (U//FOUO) Property Management will be the responsibility of the NRO and NSA as appropriate.

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[NSA](#) | [Director](#) | [SID](#) | [SID Staff](#) | [SID Policy](#) | [USSID Index](#)

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