

**(S//SI//REL) Starting Up a New Mission at the European Security
Operations Center: End-to-End SIGINT**

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Run Date: 12/05/2007

(S//SI//REL) When considering possible TDY and deployment locations, many of my Intelligence Analysis Development Program (IADP) colleagues have opted for Iraq,

Afghanistan, or an [SCS](#) site. At least for now, I chose to avoid the heat and sand and took advantage of a different opportunity for my fourth IADP tour. From May-September 2007, I completed a TDY from Ft. Meade to the European Security Operations Center (ESOC) in Darmstadt, Germany.

(U//FOUO) The ESOC

(S//SI//REL) ESOC, which stood up in April 2004 (see [some background](#)), is a joint Army/NSA SIGINT operations center and serves as the S2/Analysis & Production arm of NSA/CSS Europe (NCEUR). ESOC's personnel mix consists of 105th MI Battalion soldiers, a small Marine detachment, contractors, Department of the Army civilians, and NSA civilians in Darmstadt and Stuttgart in Germany as well as in Molesworth, England, and Mons, Belgium. ESOC's missions include African Regional Targets, North African and European Counter-Terrorism missions, Force Protection/Indications & Warning, and theatre SIGDEV.

(S//SI//REL) During my tour, I was assigned to the Africa Division and provided ESOC with target development support for the Gulf of Guinea Hydrocarbon Security mission, consisting primarily of Nigerian and Angolan targets. My particular focus was to launch the Africa Division's energy security mission covering Angola.

(S//SI//REL) Working African missions often present unique challenges, and both the Nigerian and Angolan energy sectors were certainly no different. While ESOC had worked the [Nigerian](#) energy security mission for over two years, due to resource constraints, relatively little development work had been done against the [Angolan](#) target. The larger Gulf of Guinea Hydrocarbon mission consisted of several analysts, a branch manager, and a technical leader, but it was largely up to me to do the bottom-up target development work in building the Angola mission.

(U) The Gulf of Guinea and surrounding region

(S//SI//REL) The task was somewhat daunting. Angola's state-owned oil firm, Sonangol, is a massive entity with its own airline, logistical service firms, and importantly, its own telecommunications subsidiary. Sonangol partners with several major Western and Chinese oil companies, and Chinese firms are heavily involved in the telecommunications sector. Our collection was minimal, and our day-to-day Angola team was essentially one deep: me.

(S//SI//REL) We compiled a detailed assessment and established good baseline knowledge of our current SIGINT posture in Angola. We reviewed existing SCS First Instance Reporting, and had several fruitful exchanges with SCS Luanda in Angola. We also worked closely both with ESOC's in-house SIGDEV elements and the European Technical Center to begin a target templating process and draft collection requirements. Through collaboration with CIA and EUCOM JAC*. Africa Division's understanding of our customer and partner requirements improved significantly.

(S//SI//REL) In order to gain a SIGINT window into Angola's telecom sector and energy industry, we chose to continue to chip away at Sonangol. Relying on skills and contacts acquired in previous IADP tours, I conducted intensive SIGINT

research on Sonangol seed selectors using chaining, metadata analysis, and visualization tools such as Cmap and [Renoir](#). My target development work spanned both the DNI and DNR realms. We were able to identify and unlock Sonangol target domains, locate and task e-mail selectors in [CADENCE](#), and identify several new targets in the Angolan oil and telecommunications sectors.

(S//SI//REL) A key part of my tour at ESOC was identifying new potential collection accesses. Using open source, [PINWALE](#), [BLACKPEARL](#), [NKB](#), [ROADBED](#), and [SURREY](#), I successfully located, identified, and submitted several new targets for [FORNSAT](#) and SCS collection. Partnering with ESOC SIGDEV, SCS, and FORNSAT collection staff at Ft. Meade and elsewhere, we were able to draft and submit the first collection requirement for the Angola energy mission. By the end of my tour ESOC had seen a significant increase in Angola energy traffic. We also were able to issue the first product of the Angola mission, a jointly issued report between the Africa division and ESOC SIGDEV.

(S//SI//REL) My tour at ESOC was an excellent exercise in end-to-end SIGINT to include initial research and target development, collection access discovery and tasking, and issuing products. My understanding of the SIGINT process improved greatly during my time at ESOC. The recent stand-up of the [U.S. African Command](#) (AFRICOM), co-located with EUCOM in Stuttgart, Germany is certain to create even more opportunities for analysts to support ESOC's missions in a dynamic environment.

(U) Notes:

* (U) EUCOM JAC = the European Command Joint Analysis Center

