



**(S//SI) Expanding Joint US-Ethiopian SIGINT Collection**

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Run Date: 04/06/2006

(S//SI) The joint US - Ethiopian HF collection system, Operation Lions Pride, has been such a lucrative source for SIGINT reports that a little over a year ago the Country Team and the Ethiopian partners decided to expand the capability to meet additional intelligence needs in the region. The CT and Sub-Saharan Africa Divisions requested that current collection from eastern Sudan be expanded into the south and west - in particular, into the Darfur region - and collection from Somalia be extended down to Mogadishu.

(S//SI) As with every request we have presented to the Ethiopian partners, they were eager to cooperate and assist. They offered a couple of locations on their military bases in eastern Ethiopia for potential sites. After emissions testing and hearability studies were conducted, and multiple other factors were considered, the site of Dire Dawa was selected as the location with the highest probability of success for collecting the targeted HF frequencies.

(S//SI) Since the requirement spanned such a large geographic area and yet also required close-in collection for terrorists in eastern Ethiopia, NSA antenna expert [REDACTED] designed an antenna collection system that is a combination of eight turnstile antennas to collect close range HF signals and DF and 32 beamformed loop array antennas to collect the long-range signals.

(S//SI) The Ethiopians prepared the site: land was cleared of trees, tunnels for cables were dug, concrete pads were poured, a fence to surround the antenna field was put up, a guard shack was constructed. To perform the installation, a large US team was formed and included electricians from ETC (European Technical Center), engineers from RFO (Radio Frequency Operations - S331) and MINUTEMAN (S33142), a VSAT expert from Information Technology Directorate, a technical liaison manager, an engineer, and the SIGINT Liaison Officer from the Foreign Affairs Directorate. Members of the 741st Military Intelligence Battalion in-country provided logistics support, and two contractors from SWRI assisted in proving the DF capability. The installation team was deployed in January 2006.

[REDACTED]

*(U) Installation team*

(S//SI) This was a major undertaking and was executed in a harsh environment. The US team worked side-by-side with Ethiopians and completed the installation ahead of schedule. The system at Dire Dawa is now operational and is called LADON. The state-of-the art antenna field surrounded by camels and donkey-drawn carts is a sight to behold. The Ethiopians, with help from the on-site 704th personnel, are now scanning through beams to determine the frequencies of highest priority for collection.

[REDACTED]

*(U) Backup transportation capability at HF antenna field*

(S//SI) The joint US-Ethiopian team will consider LADON a success when NSA releases the first SIGINT report that sheds light on the genocide in Darfur or terrorist activities in the region. Given our past experience with this very enthusiastic partner, we may not have to wait long!

[REDACTED]

*(U) HF antenna field*

[REDACTED]

(U) VSAT comms dish

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(U//FOUO) This article is reprinted from the *Foreign Affairs Digest* , March edition.

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DERIVED FROM: NSA/CSSM 1-52, DATED 08 JAN 2007 DECLASSIFY ON: 20320108