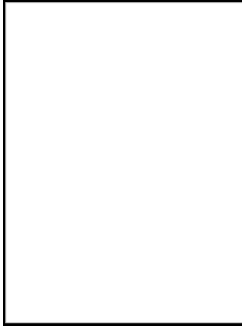




**(U) Ben Ardisana -- A SIGINT Pioneer**

FROM: Al Gray  
Deputy Director, Meade Operations Center (F74)  
Run Date: 12/12/2006



(U) There are a number of SIGINT processes today which are taken for granted, processes which were started years ago but the thread of attribution seems to have faded from collective memory. I felt it opportune therefore to reflect back upon the creative talents of one SIGINT pioneer, a man who stimulated ideas which were "leading edge" when he originally promoted those initiatives.

(U//FOUO) Air Force Brigadier General Ben Ardisana (pictured) has left his impact on a number of SIGINT tools and techniques. I recall one development which at the time caused quite some turmoil. Back in the 1950s, there were two levels of cryptologic clearances. Those with a SIGINT clearance and those authorized to work in Communications Centers. We had red badges; the Comm Center workers had blue badges, connoting "extra sensitive" access. Very few possessed both and these "special" people had badges which reflected both colors, diagonally dividing the badge from top left to bottom right, one color on each triangle. Anyone who worked with crypto materials, keys, or even the Kleinschmidt and MOD-28 teletypewriters had to have the crypto clearance.

(C//REL) With this as background, one can see how the proposal Ben made to install a Kleinschmidt teletypewriter within Operations spaces, to allow analysts to pass SIGINT technical reports from the Chicksands Operations spaces to the 6901st Special Communication Group at Zweibrucken, Germany caused considerable upheaval. It was blasphemy!

(U//FOUO) Nevertheless, Ben pursued his proposal, overrode the objections of those Comm Center gurus who objected, and the installation was accomplished. As a result, analysts were able to create technical summaries of intercept, make a five-level paper tape of those reports, and immediately transmit them to other analysts at Zweibrucken, allowing for timely review there.

(U) This led to informal "chats" between analysts, and created the impetus to improve timeliness of intercept forwarding and reporting. Today, this type of timely analytic exchange is recognized as a normal way of doing business.

(S//REL) Then, Ben had an additional idea. Why not connect all of the Air Force sites in Europe in just such a network? It took some time, but it happened. Then, he developed a proposal to structure some of this reporting into formatted messages, the intent being to pass alerts between the USAFSS sites reflecting air movements by Soviet aircraft between our various areas of intercept responsibility. It was at the time routine for Soviet Long Range aircraft to make extended flights throughout the USSR, and we all had a piece of the action.

(S//SI//REL) What we now know as KLEIGLIGHT reporting started off as Ben's project and he gave it the unlikely name of BULLMOOSE. These tip-offs allowed for a unit intercepting a Soviet Navigational Air request to turn on navigational beacons to alert a sister USAFSS (US Air Force Security Service) unit responsible to collect Long Range Aviation communications to watch for portending movements, and for yet another unit to seek Air Defense tracking of those movements. Needless to say, it was a very successful initiative, so successful that NSA decided to make it a national requirement, applicable to all services. And thus, the process was renamed to what some believed was a more dignified name, KLEIGLIGHT.

(U) NSA soon followed by creating a worldwide network of operations communications (OPSCOMMS), recognizing the efficacy of that instant, informative connection.

(U//FOUO) Ben also was an inquisitive reader and after he read a book on a new technique called "Management by Objectives," he worked to apply those techniques to the collection of intercept. He firmly believed that intercept operators would strive harder in a competitive way to meet the goals of the tasking authority if only they were made aware of specifically which types of intercept the tasker sought. In the days of assigning tasks with only a Case Notation as guidance, and not much more than "Copy Full" instructions, operators were not empowered to make any decisions on how many times they should intercept a station which mostly sent only its callsign, and occasionally some valid traffic. Did the tasker want all of that repetitive chatter, only a sample to confirm callsign use, or only the occasional valid message?

(U//FOUO) Ben devised methods of tagging traffic so analysts could sort through tons of chaff in order to find the occasional desired intercept. For the time of the development, it was a revolutionary idea, and recognizing the opportunity to develop metrics, NSA adopted also this practice for worldwide application.

(U) I, for one, miss Ben Ardisana's great ideas. He departed this world at too young an age.

---

(U//FOUO) See a [biography of Brig Gen Ardisana](#) . Also, the General was inducted into the National Cryptologic Museum's Hall of Honor this month. See the related [NSA daily article](#) .

(U//FOUO) Do YOU have any memories of working with Brig Gen Ardisana? If so, please post your thoughts on the [SID today blog](#) .

**"(U//FOUO) SIDtoday articles may not be republished or reposted outside NSANet without the consent of S0121 ([DL sid comms](#))."**

---

DYNAMIC PAGE -- HIGHEST POSSIBLE CLASSIFICATION IS  
TOP SECRET // SI / TK // REL TO USA AUS CAN GBR NZL  
DERIVED FROM: NSA/CSSM 1-52, DATED 08 JAN 2007 DECLASSIFY ON: 20320108