MEMORANDUM FOR DR. McLUCAS

SUBJECT: SIGINT Satellite Support during Hôiphong Mining Operations

On the night that President Nixon announced the mining of Hôiphong there was a flurry of messages and phone calls in the middle of the night which resulted in a redirection of all our ELINT satellites to try and ascertain any reaction to our mining of North Vietnam.

As of 21 November we returned all our systems to normal tasking. Although this latest change was in fact coordinated through SORS the basis for the request was the attached Commander in Chief Pacific Fleet message. The message is worth reading as it provides an actual crisis response time through the SORS mechanism for changing tasking from user request to satellite turn on) and secondly it illustrates that at least one of our "customers" appreciates our collection efforts.

I have prepared some view graphs which are attached and a talking paper (Tab B) for your use at a Friday morning breakfast.

David D. Bradburn
Brigadier General, USAF

Attachments
Tab A - message
Tab B - Talking paper & V-Gs
1 December 1972

Talking Paper

Chart 1 - I would like to discuss briefly the activities of SIGINT satellites at the time of the President's announcement of the mining of H'Phong. The message here is not so much what the satellites achieved as it is the way the satellites appeared to be taking their place as a regular part of our intelligence collection process.

Chart 2 - Here is the sequence of events showing how our satellites were brought on line. Within 24 hours, special tasking instructions had been implemented for POPPY. STRAWMAN and TRIPOS.

On the following day, special tasking was initiated with

Chart 3 - The special tasking areas are shown in cross-hatching. They were selected by CINCPACFLT to provide insight into reactions to the mining. The narrow orange slot represents a typical field of view of STRAWMAN and the wider orange slot a typical pass by TRIPOS. At the right is a summary of reports for these two systems. During the six-week period preceding 9 May, there were five reports giving locations. During the six-week period after 9 May, there were 58 reports giving identifications. This increase is probably due partly to increased activity and partly due to turning on these satellites over wider areas.
Chart 4 - Here are the same areas of interest with the field of view of POPPY shown in orange. This coverage is provided by the stations at

Again, notice the activity during the six weeks before 9 May, 157 locations. Six weeks after 9 May, 455 locations.

Chart 5 - Here is another picture of the POPPY reporting, showing the increase in activity after the announcement on 9 May and the reduction in that activity by 20 June.

Chart 6 - A word on results: not much in the COMINT area from ___________ No significant activity received by ___________ But the low altitude SIGINT vehicles did achieve good reporting times on the average as shown.

TRIPOS
STRAWMAN
POPPY

Chart 7 - Here is a message from CINCPACFLT on 21 Nov 72. Again, my message is that we are learning to use our SIGINT satellites routinely. I think this is a good thing.
Addendum to Talking Paper

Chart A - I'm going to talk this morning about the use of SIGINT satellites in support of military operations. This is a capability which has been evolving rapidly during the past few years. It was first used by STRAWMAN in 1968 in support of our operations in North Vietnam as shown on this chart. The satellite first passed over the target area as shown here reading in by listening for radar signals. A short time later, perhaps 45 minutes or a little over two hours later depending on whether it was on the satellite's exact path, it passed over a tracking station at Vandenberg and the information was read out by command. The information was sent immediately by microwave to the Satellite Tracking Center in Sunnyvale and immediately relayed to our special computer facility called [50X1 in the same area. After some computer processing the messages describing North Vietnamese radar locations and operating characteristics were sent to SAC and (via NSA) to 7th Air Force at Ton Son Nhut. The time from observation of North Vietnam to arrival of the finished information at Ton Son Nhut varied from three to eight hours. This is highly competitive with the time it takes to get the same kind of information from airplanes flying in the theater of operations.
Chart B - More recently we have had many short specific exercises to demonstrate timeliness of satellite SIGINT reporting. On this chart, TANGIBLE and ROPEVAL were special exercises in which our First Fleet, on maneuvers, was the target. Other short exercises were directed against actual intelligence targets.

Chart C - Here are the collection projects currently on the books. Project FLAVOR, the oldest, has produced some of the key information about Soviet air-to-surface missile radars in

Chart D - In addition to developing a quick reporting capability, which we have been working on, the intelligence community has improved the procedures for starting up a special collection effort. A SORS telephone vote used to be needed (pre 1972). Now NRO and NSA can react to requests from any SORS member, subject to further confirmation. So these capabilities, both of the satellites and of our administrative procedures, are improving. This morning I will show how these resources were applied during the mining of Haiphong.