

19 August 1964

MEMORANDUM FOR THE DEPUTY SECRETARY OF DEFENSE

SUBJECT: Analysis of SIGINT in the Tonkin Gulf Operations

1. The selective attacks made against the North Vietnamese mainland on 5 August 1964 obviously involved a very precise timing between the dynamics of the attacks and the necessity to make public announcements not only to the American people but also to prevent escalation by emphasis on the selective nature of the operation.

2. SIGINT makes a major contribution to our knowledge of the [] North Vietnam air defense system, particularly its radar surveillance and weapons control features. The capability of this system, of course, would be an important ingredient in determining the points in the attack plan at which it could be assumed logically that the enemy had our airborne forces under surveillance.

NSA25X1
NSA25X3

3. In addition, it is possible from an exhaustive post mortem, using our own attack information and SIGINT, to reconstruct a reasonably accurate picture of how the attack looked from the enemy air defense point of view, including the time factors. Inclosure 1 is such a post mortem. I should emphasize that it is a first, quick look effort, and will need a lot of refinement as we study this case history more fully.

4. I should also like to emphasize the importance of not using this information to defend the validity of our assumptions at the time of the attack. This kind of SIGINT is useful for much more than writing history or doing Monday-morning quarterbacking. For example, it is the backbone of our world-wide system for warning peripheral reconnaissance flights of dangerous situations. As mentioned in

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paragraph 2, above, it is the major contributor to our knowledge of enemy air defense systems. In addition, there are other useful inputs to U.S. intelligence.

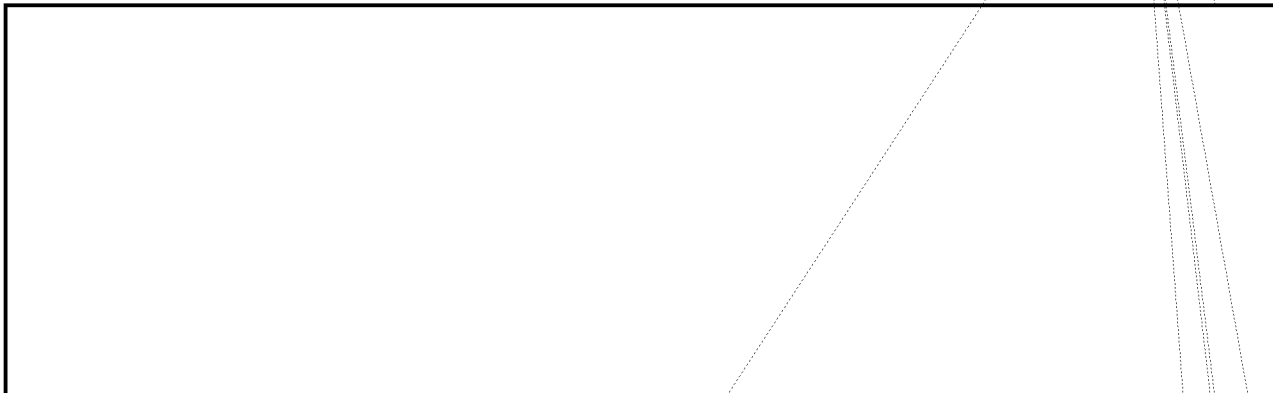
GORDON A. BLAKE
Lieutenant General, USAF
Director

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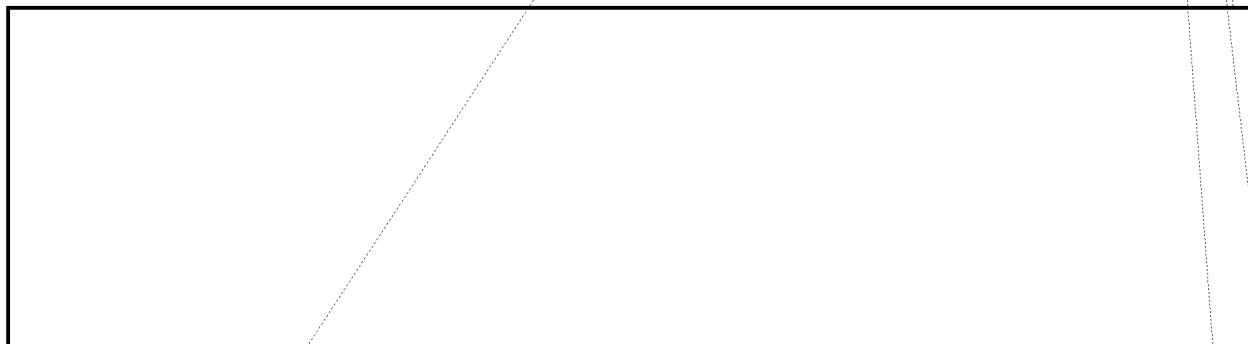
cc: Dr. Fubini, ASD

SIGINT Reflections of U.S. Aircraft Over the
Gulf of Tonkin

I. Background



Intercept of these communications is sporadic as the information is passed from the radar stations and becomes more continuous as the information flows through the chain of command. With regard to the activity in question, the majority of our data was from intercept of communications from [redacted]



[redacted] the North Vietnamese air warning system is not as sophisticated, [redacted]

[redacted] The radar stations report to the filter center which turn reports selected information to the Air Defense Headquarters at Hanoi. During the activity in question, the majority of surveillance was accomplished by radar stations in the Vinh, Vinh Son and Vinh Linh areas. The stations are known to pass two types of tracking reports, [redacted]

[redacted] One type gives the type of raid (hostile, friendly, etc), the raid number, aircraft location, number and type of aircraft, altitude and the time. The other gives the type of raid, raid number, azimuth from the reporting station (based on a 360 degree arc), distance from the reporting station, number and type of aircraft, altitude and the time.

II. General Reflections

[redacted] North Vietnamese facilities reflected "hostile" aircraft prior to and during the attacks. In all, 135 separate raids were noted.

[redacted]

During the period 050322 - 051033Z, North Vietnamese facilities reflected 47 separate raids with an unknown total of aircraft. These facilities reflected aircraft as far as 8 nautical miles inland and as far as 104 nautical miles from the coast. The majority of initial contacts occurred when the aircraft were less than 40 nautical miles from the coast.

The peak period of tracking by [redacted] North Vietnamese facilities coincided favorably with the peak period of launches. [redacted]

[redacted] which had never been subjected to such a concentration of aircraft, were obviously in a state of confusion. At one time they were noted identifying a raid as consisting of 60 aircraft. The normal accepted maximum capacity of the [redacted] system is 4 - 6 raids at one time. During the peak period the load was at least double this capacity. This state of confusion may have been the reason the [redacted] failed to react to some of the return flights which at one time were within 5 nautical miles [redacted]. Accepting the fact that the North Vietnamese are far less proficient [redacted] it is logical to assume they too were victims of over-taxed facilities which caused similar confusion, thus reducing effectiveness.

III. Specific Correlations

The Hon Gay strike (probably group 9 launched at 0630Z) was initially reflected at 0709Z [redacted] as one flight of four jets at 22,960 feet going in and as three raids, one

of two jets and the other two unidentified, coming out. North Vietnamese facilities did not reflect the strike going in but did reflect two unidentified raids coming out.

The Quang Khe strike (probably group 6 launched at 0434Z) was initially reflected at 0406Z by [redacted] as 3 jets and 1 large type at 16000 feet.

The Vinh strike (probably group 1 launched at 0243Z) was initially reflected at 0237Z as one jet at 19,080 feet. North Vietnamese facilities reflected this flight approximately on the coast at 0322Z.

The Loc Chao strike (probably group 10 launched at 0630Z) was reflected at 0712Z as an unknown number of aircraft at 32,000 feet by the North Vietnamese.