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16 January 1967

MEMORANDUM FOR: The President

SUBJECT : Bombing Casualties in North Vietnam

1. On 9 January I met with the CIA Subcommittee of the Senate to present one of our regular briefings on current matters of intelligence interest. As you know, Senator Russell invited Senators Mansfield, Fulbright, and Hickenlooper to attend this session.

2. In my presentation, I did not discuss bombing in North Vietnam, but when this subject was raised in the questioning, I spoke from the paper attached as Tab A. This paper is a gist of the conclusions reached jointly by CIA and the Defense Intelligence Agency in the latest of a series of monthly assessments of the bombing prepared for Secretary McNamara.

3. Further questions from the Senators attending led to the subject of civilian casualties from bombing in the North. To respond to these questions, we used

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the findings of several studies produced by CIA at the request of Secretary McNamara. (A detailed account of these findings, the methodology used, and our reasons for thinking them valid is attached as Tab B).

4. In summary, we believe, and told the Russell Subcommittee, that the bombing of North Vietnam had produced about 29,000 total casualties (killed and injured) from the beginning of the Rolling Thunder program in February 1965 through September 1966. About 11,000 were military and 18,000 were logistics workers and other civilians. A large proportion of these 18,000--we judge about two thirds--were males engaged in truck driving, bridge repair, and other war-related activities. The 18,000 figure adds up to about one war-worker or civilian killed or injured per US attack mission, a remarkably low figure. Of the 29,000 total casualties, we think about 45 percent were killed and 55 percent injured.

5. Our total figures for killed and injured are derived from exhaustive study of all the information which we can gather. [redacted]

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6. We have considerable confidence that our totals are in the right ball-park, although obviously we cannot claim that they are accurate to the nearest thousand. To put them in perspective there are three factors which should be considered:

a. The figure of 18,000 killed and injured, most of whom were engaged in war-related activities such as transport of personnel and supplies into Laos and South Vietnam, is about one per attack mission (about 17,100 attack missions were flown through September 1966). This low ratio was

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achieved despite the dense population and the concentration of armed reconnaissance missions along heavily populated lines of communication.

b. The figure of 18,000 logistic workers and other civilians must also be compared with statistics on South Vietnamese civilians killed, wounded and kidnaped by Communist terrorism. US authorities in Saigon have reported a minimum of about 9,600 South Vietnamese killed and 41,800 kidnaped since 1957. This gives a rough total of 51,400 plus an unknown but obviously large number of wounded.

c. Much non-official commentary on the war has emphasized bombing damage to non-military objectives. There is, however, a body of evidence [REDACTED] summarized in Tab C, that our attacks in the North have been directed at military objectives and conducted with all the care that a pilot under intense antiaircraft fire could hope to exhibit. [REDACTED]

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Richard Helms  
Director

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Richard Helms  
Director

Attachments: a/o

Concur:

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H. J. SMITH  
Deputy Director for Intelligence

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Tab A

EFFECTIVENESS OF BOMBING IN NORTH VIETNAM

1. The cumulative effects of the air raids on North Vietnam continue to limit the capability of the North Vietnamese forces for overt aggression, but they have not reduced the ability to support military activity in South Vietnam and Laos, either at present or increased levels of combat and manpower.

2. The bombings appear to be having some deleterious effect on public morale. We have reports of consumer shortages, and the extensive evacuation of civilian personnel has caused some economic difficulties. There is no good evidence, however, that the leadership's resolve to continue the war has been weakened.

3. The bombings have forced the diversion of major resources and work forces to repair damage. North Vietnam has been denied the use of larger coastal carriers, and is severely limited in the use of established port facilities. Measurable losses to the economy and military establishment are estimated at \$184 million.

4. On the other hand, POL supplies have not dropped below 60-day levels since September 1, and attacks on rail, highway and waterway transportation have reduced efficiency but have not stopped movement. Energetic construction of replacement and alternate bridges have rail capabilities at their highest level since the bombing stand-down a year ago.

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Tab B

CASUALTIES RESULTING FROM THE BOMBING OF  
NORTH VIETNAM

I. Total Casualties

1. The cumulative killed and injured attributable to the bombing of North Vietnam, estimated through September 1966, total about 29,000, of which 18,000 are believed to be logistics workers and other civilian personnel. Some 13,200 of the total casualties occurred in 1965, of which 6,000 were in the "civilian" category. During the first nine months of 1966 we estimate total casualties of 15,700 of which about 11,900 were civilians. (See Table I). On the basis of sample data through September 1966 the total casualties in 1966 are estimated to have been about 40 percent killed and 60 percent injured. This division is based on averages derived from the sample cases for which we have hard evidence.
2. The composition of the casualties resulting from the 1966 air campaign differs notably from that in 1965. Over 75 percent of the casualties in 1966 were logistics workers and other civilians, compared with 45 percent in 1965. Armed reconnaissance against military supply routes, which accounted for only 52 percent of the casualties in 1965 accounted for an estimated 93 percent of the total in 1966.
3. The increase in casualties during 1966 is a function of the growing scale of the air campaign, the greater emphasis on armed reconnaissance against lines of communications and the selection of a few fixed targets located in more heavily populated areas. Despite the increase in casualties, however, the number per mission has remained about stable.



4. The preponderance of civilian casualties resulting from the acceleration of armed reconnaissance has in large measure involved those civilians working at military targets or directly engaged in the maintenance and operation of the logistics system which moves supplies and personnel into Laos and South Vietnam. Hence, it is heavily weighted with transport repair crews, truck drivers, and personnel operating logistic craft on the rivers. The bombing campaign has generally been quite selective. The few official North Vietnamese statements protesting the extent of civilian casualties, while vigorously presented, actually cite very small numbers of personnel. The May 1966 North Vietnamese letter to the International Red Cross claimed only 239 civilian casualties since 31 January 1966, although implying many more. The Education Ministry in October 1966 stated that 300 students and 30 teachers had been killed since the bombings began. The well-publicized propaganda statement on the attacks against Nam Dinh, where heavy casualties would be expected, indicated that 37 percent of total casualties were innocent victims of the war--women, children and the aged. One would expect this propaganda statement to make the maximum claim possible. Even if the specific casualty claims for Nam Dinh were accurate, this percentage would not seem unduly high. Nam Dinh is a heavily defended population center subjected to heavy attacks and with many of its military targets located in densely populated areas. It is hardly a typical case, and this percentage should probably be regarded as the upper limit for casualties sustained by so-called innocent victims.

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III. Applicability of the Nam Dinh Claims

7. Total casualties at Nam Dinh

The propaganda statement\* distributed by the DRV Ambassador to foreign correspondents in Moscow early in November 1966 claims that from early 1965 to September 20, 1966, air attacks against Nam Dinh killed 89 persons among them 23 children and 39 women. Wounded numbered 405, including 41 children and 81 women.

The methodology used in calculating casualties in urban areas in the CIA report An Evaluation of Allied (US and GVN) Air Attacks Against North Vietnam CIA SC No. 11394/65, 8 November 1965, was based on the city of Nam Dinh, which was used as a case study. The casualties at Nam Dinh in November 1965 were computed using composite estimates based on pre-strike estimates prepared for the JCS; a DIA estimate, assuming warning and based on examination of post-strike photography; and an estimate drawn from World War II experience. The latter was based on a review of casualties in bombed German cities during 1943, before blockbusters were used and fire storms were created. It was concluded that casualties (killed and wounded) for each air strike in urban areas would range from a minimum of 1 per 18,000 in population exposed to a probable of 1 per 12,000 to a maximum of 1 per 8,333. Applying these factors to the population of Nam Dinh (about 90,000)\*\* and to the six air strikes that had been launched against this city in November 1965, casualties were estimated as follows:

\*Report on US War Crimes in Nam Dinh, by Committee for the Investigation of US Imperialists War Crimes in Viet Nam of Nam Ha Province.

\*\*Based on a city with a population of 90,000 casualties per air strike range from a minimum of 5 and a probable of 7.5 to a maximum of 10.8.

Minimum 30 Probable 45 Maximum 65

The propaganda statement mentioned above claims that from early 1965 to 20 September 1966 a total of 47 day and night air strikes were completed against Nam Dinh, killing and wounding a total of 494 persons. Applying the estimating methodology used in the November 1965 CIA report to the number of air strikes claimed by the Communists produces casualty estimates as follows:

Minimum 235 Probable 352 Maximum 507

In a press conference on 29 December 1966, a Pentagon spokesman stated that military targets in Nam Dinh had been struck 64 times. Our methodology, described above, based on this number of strikes would produce casualty estimates as follows:

Minimum 320 Probable 480 Maximum 691

On the basis of these various methods of measuring probable casualties, we conclude that official North Vietnamese claims on Nam Dinh may be accurate as to total numbers.

#### 8. Casualties Among Women and Children

Armed reconnaissance sorties accounted for more than 99 percent of the total attack sorties flown in the first nine months of 1966, compared with about 75 percent of those flown in 1965. The emphasis on armed reconnaissance rather than attacks on fixed targets during 1966 resulted in armed reconnaissance accounting for an estimated 93 percent of total casualties, compared with 52 percent in 1965. The

[REDACTED]

swing away from attacks on JCS-designated fixed targets had several notable results in terms of casualties in North Vietnam. In 1965 a greater emphasis on attacks on fixed targets, which are predominantly military, resulted in military personnel accounting for about 55 percent of total casualties. In 1966, however, military personnel accounted for only about 24 percent of total casualties.

The preponderance of civilian casualties resulting from the acceleration of armed reconnaissance has in large measure involved those civilians who are most directly engaged in maintenance and operation of the logistic system moving supplies and personnel into Laos and South Vietnam. Through September 1966, over 20,000 units of transport equipment and miscellaneous transport facilities have been destroyed or damaged by armed reconnaissance missions.

Armed reconnaissance missions also have destroyed or damaged over 10,000 miscellaneous military facilities such as barracks, supply warehouses, antiaircraft sites, radar and communications sites.

Through 30 September 1966 only 175 JCS fixed targets of all types had been attacked, of which 93 were direct military targets and 54 were railroad and highway bridges. There were less than 30 JCS fixed targets struck in the built-up areas where one might reasonably expect to find some concentration of women and children.

This is not to say that there have been no casualties among women and children as a result of substantial damage to military and transport facilities and equipment, including railroad and highway bridges. But by the nature of the functions these targets perform and their relative isolation from civilian activities

the probability of there being women and children in the target areas should not be high. This probability must be substantially less where men's work is being done, even by Vietnamese standards, than it would be in attacks on the more important economic targets in built-up areas. In the case of Nam Dinh the Communists claim that over one-third of the casualties to 20 September 1966 were women and children. There is no way of confirming or denying this statement. Nevertheless, it would appear to establish an upper limit to the percentage of this type of casualties in urban attacks. The attacks against Nam Dinh are not typical of the preponderance of the air strikes against North Vietnam. It would be logical to characterize the attacks against Nam Dinh as one extreme, and the bulk of the armed reconnaissance attacks against transport and military targets as the other extreme. In the aggregate of casualties, therefore, women and children would not be a large element.

Casualties among women and children would come from those too imprudent to stay away from repair activity, or those so unfortunate as to be present when our pilots have had to dump their bomb loads in order to avoid operational disasters.

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Table I

Casualties Resulting from the Bombing of North Vietnam

	<u>1965</u>	<u>January- September 1966</u>	<u>Total</u>
Civilians	<u>6,000</u>	<u>11,900</u>	<u>17,900</u>
Attacks on fixed targets	2,000	700	2,700
Attacks on armed recon- naissance missions	4,000	11,200	15,200
Military	<u>7,200</u>	<u>3,800</u>	<u>11,000</u>
Attacks on fixed targets	4,300	400	4,700
Attacks on armed recon- naissance missions	2,900	3,400	6,300

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Tab C

EVIDENCE OF THE GENERAL ACCURACY OF US AIR STRIKES ON  
NORTH VIETNAM

1. Post-strike photography provides good evidence that US air strikes have generally been accurate. There have been some occasions when ordnance was off target as a result of aircraft being hit and misfiring or because of some other accident, but the evidence indicates that such mishaps are infrequent.

[REDACTED]

2. Despite these limitations, there have been some [REDACTED] reports on the accuracy of the bombings in the Hanoi-Haiphong area [REDACTED]

[REDACTED] These reports have provided evidence of the generally precise nature of the air strikes as well as information indicating that civilian casualties from these air strikes have been low.

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8. Even the North Vietnamese on occasion have admitted that civilian casualties from the air strikes are limited.

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16 January 1967

MEMORANDUM FOR: The Honorable Dean Rusk  
The Secretary of State

*THIS ALSO SENT TO DENAIARA ON 20 JAN 67 IN*

*MEMORANDUM  
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This is the final version of the memorandum on bombing casualties for the President, a rough draft of which we sent to you this morning. We delivered this version to the White House late this afternoon. Dick Helms asked that I send you a copy for your information.

*/s/ R. J. Smith*

R. J. SMITH  
Deputy Director for Intelligence

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