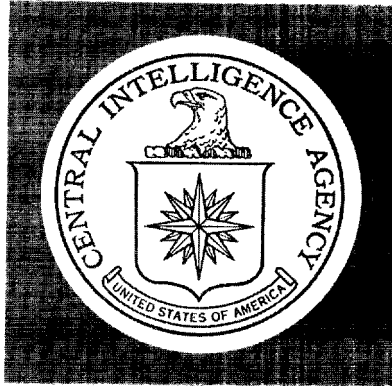


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DIRECTORATE OF  
INTELLIGENCE

# Intelligence Memorandum

*Road Construction in the Laotian Panhandle  
and Adjacent Areas of South Vietnam 1967-1968*

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ER IM 68-46  
May 1968

Copy N<sup>o</sup> 152

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CENTRAL INTELLIGENCE AGENCY  
Directorate of Intelligence  
May 1968

INTELLIGENCE MEMORANDUM

Road Construction in the Laotian Panhandle  
and Adjacent Areas of South Vietnam  
1967-68

Summary

The North Vietnamese are engaged in an intensive program to construct new supply routes, with limited all-weather capability, into South Vietnam from Laotian trunk routes to support military operations (see the map, Figure 1). Work started on a number of new roads during the last quarter of 1967, prior to the Tet offensive, and is still in progress. All of these new roads branch off a north-south trunk route in the Laotian Panhandle and run directly across the border toward important US - South Vietnamese military installations in South Vietnam. The newly completed routes provide the Communists with an increased capability to introduce troops, heavy weapons, and sizable amounts of materials by truck into four widely separated areas in the northern part of South Vietnam.

North Vietnamese strategy provides for connecting their road network in North Vietnam and Laos with the existing road system in South Vietnam. To achieve this goal, the North Vietnamese have simultaneously built or upgraded five new crossings of the South Vietnamese border (a total of 215 miles of road) during the past six months. Two of the

Note: This memorandum was produced solely by CIA. It was prepared by the Office of Economic Research and was coordinated with the Director's Special Assistant for Vietnamese Affairs and the Office of Current Intelligence.

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new roads parallel Route 9 in Laos and lead toward the Khe Sanh Combat Base. Further south, a road in Laos has been connected with a road in the A Shau Valley in South Vietnam leading to Hue. The North Vietnamese have joined a fourth road with an important north-south route in South Vietnam. From the tri-border area of Laos, Cambodia, and South Vietnam, the North Vietnamese have also extended a new road to the vicinity of the major US base at Dak To. New feeder roads branch off this route and lead southeast toward the provincial capitals of Kontum and Pleiku.

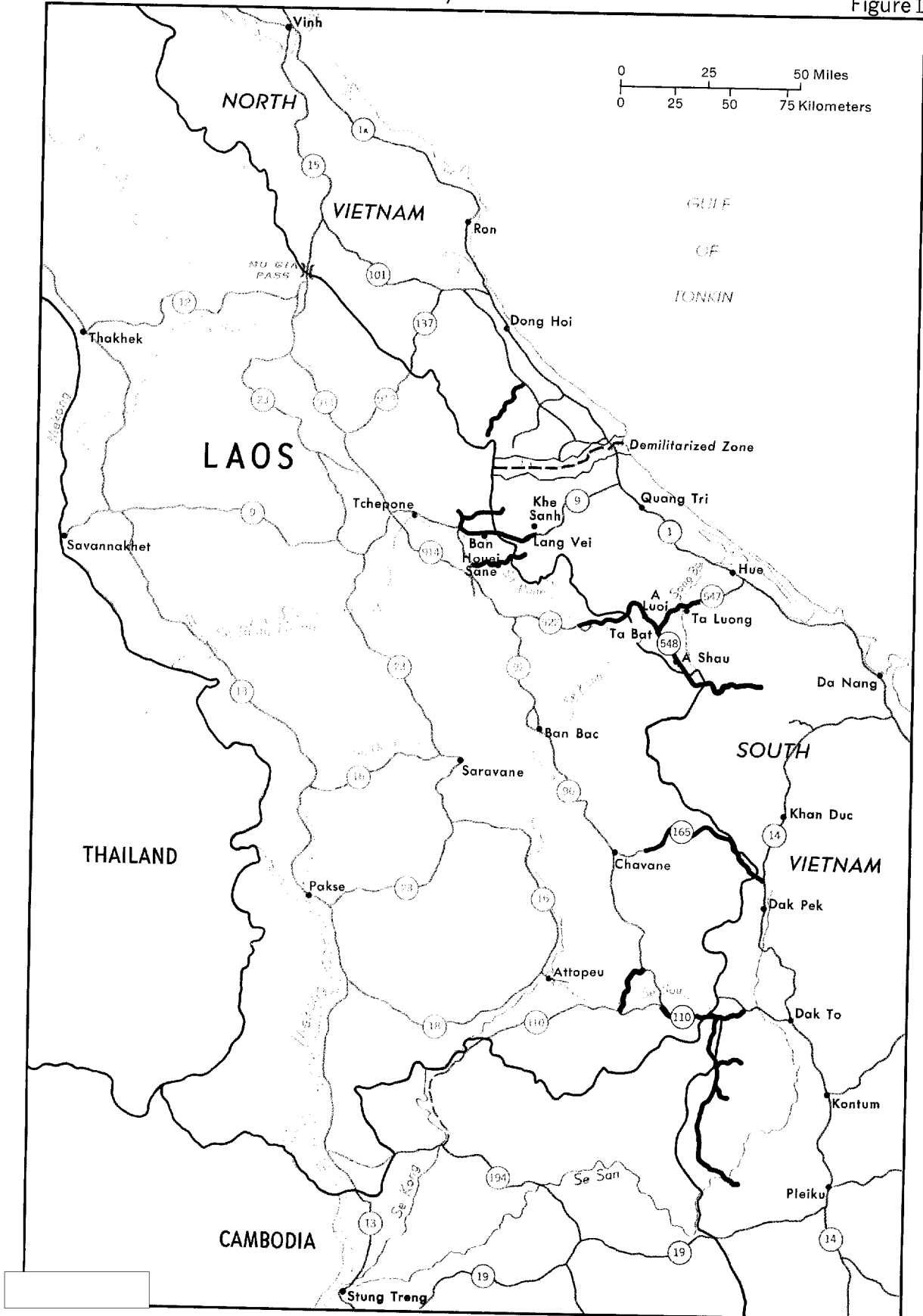
The new and expanded roadnet is an attempt to establish a more reliable year-round logistics system. All the new roads crossing into South Vietnam, except the two roads paralleling Route 9 in Laos, are limited all-weather; all connect with logistical base areas along the main trunk route. Sections of the main north-south route in Laos, and especially the segment north of Chavane, at times become impassable during the rainy season, but the enemy may be able to maintain most of this primary logistical route for a longer period this year than in previous ones. In addition, a new road which appears to have limited all-weather capability is under construction from North Vietnam around the western end of the DMZ.

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# Road Construction 1967-8 Dry Season

Figure 1



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Past Trends in Road Construction

1. The timing of new road construction in the Laos Panhandle follows a classic pattern based on weather. In the dry season, villagers are impressed into service to improve or repair existing roads and to construct new ones. During these periods, new truck parks, fords, and logistical facilities are built. As the road system deteriorates during the rainy season, the enemy abandons new construction and concentrates on maintenance of the primary road-net. The following table illustrates the relationship between the weather seasons and the construction effort in the Laos Panhandle.

New Road Construction in the Laos Panhandle  
and Adjacent Areas of South Vietnam  
1964 - April 1968

<u>Weather Period</u>	<u>Total Additions (Miles)</u>	<u>Additions Per Month (Miles)</u>
Prior to January 1965	Negl.	Negl.
1965 dry season (February-March)	60	30
1965 wet season (April-August)	25	5
1965-66 dry season (September 1965 - March 1966)	415	59
1966 wet season (April-October)	30	4
1966-67 dry season (November 1966 - March 1967)	50	10
1967 wet season (April-September)	Negl.	Negl.
1967-68 dry season (October 1967 - April 1968)	246	35

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### Road Construction Prior to 1967

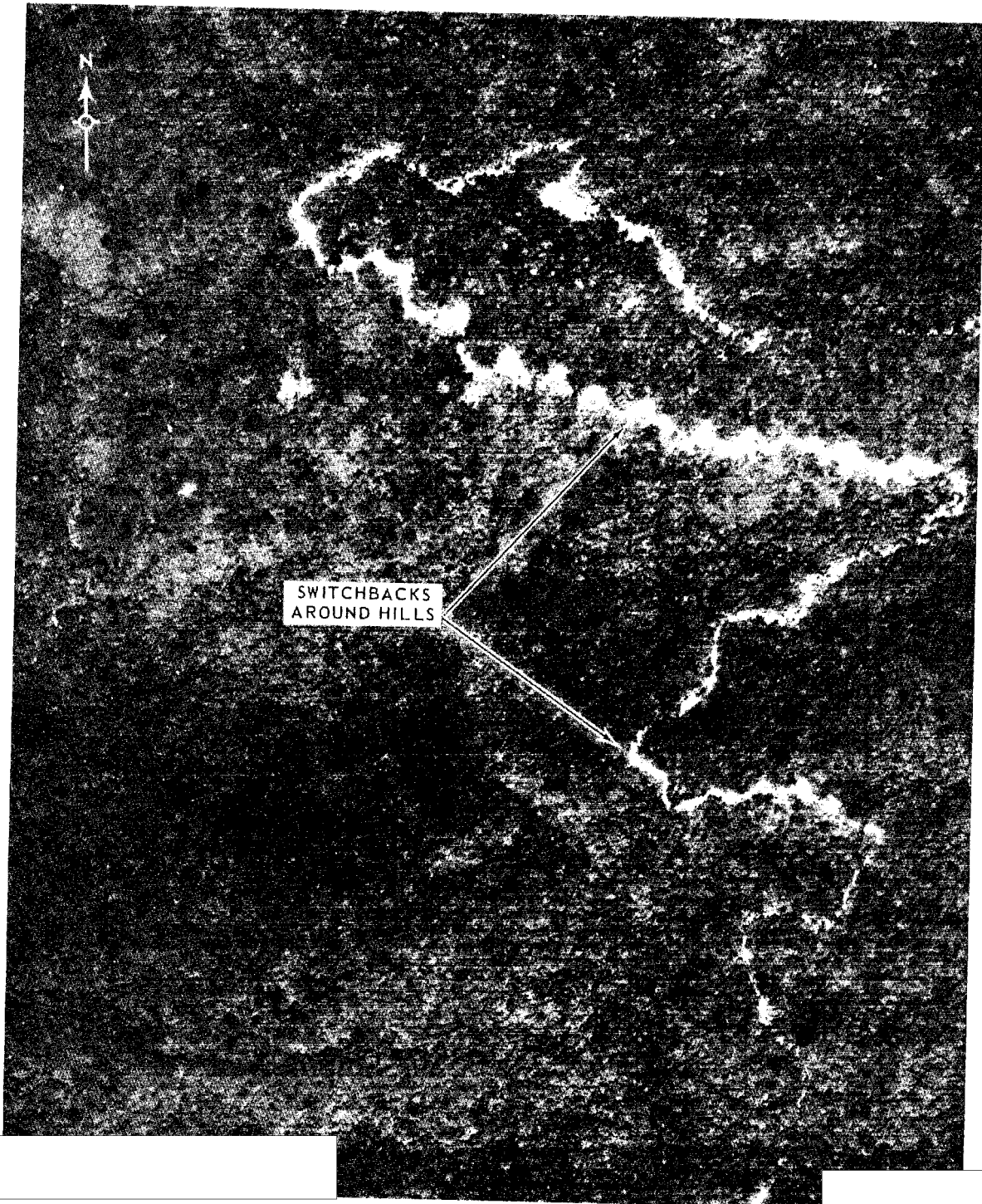
2. Prior to 1967 the North Vietnamese concentrated their efforts in the Laos Panhandle on building a logistics system which paralleled the South Vietnamese border. In early 1965, Communist forces began to expand their logistics system so that by March 1966 it extended from Route 15 at Mu Gia Pass to the tri-border area. This strategic supply system is based on a north-south parallel trunk route (92/96) that has been improved each year during the Laotian dry season, although it is not yet an all-weather route. This infiltration corridor, the so-called "Ho Chi Minh Trail," is also served by North Vietnam Route 137 southwest of Dong Hoi, an alternate route to the Mu Gia Pass built in 1965-66.

### Road Construction During the 1967-68 Dry Season

3. Since October 1967 the Communists have opened five new motorable roads from Laos into South Vietnam. Before being improved, these routes had been used for the past three years as porter trails and limited personnel infiltration routes. In addition to these gateways, which are discussed below, the Communists have under construction a major new road from the Dong Hoi area in North Vietnam which will pass around the western end of the DMZ. This well-built road, being pushed through some of the most difficult terrain in North Vietnam, could provide the North Vietnamese with another limited all-weather route to the road complex serving the area west of Khe Sanh. Some 16 miles of the road were built between 6 January and 8 March 1968, an impressive achievement considering the mountainous terrain. The rapid progress and pattern of construction indicates that the North Vietnamese are using mechanized construction equipment and trucks (see the photograph, Figure 2).

### Access to Khe Sanh

4. During the recent dry season, ending in March, the North Vietnamese built two new roads parallel to Route 9 west of the Khe Sanh Combat Base to support their forces around that Marine strongpoint. The first road, north of Route 9, is an extension of Route 92 and crosses the South Vietnamese



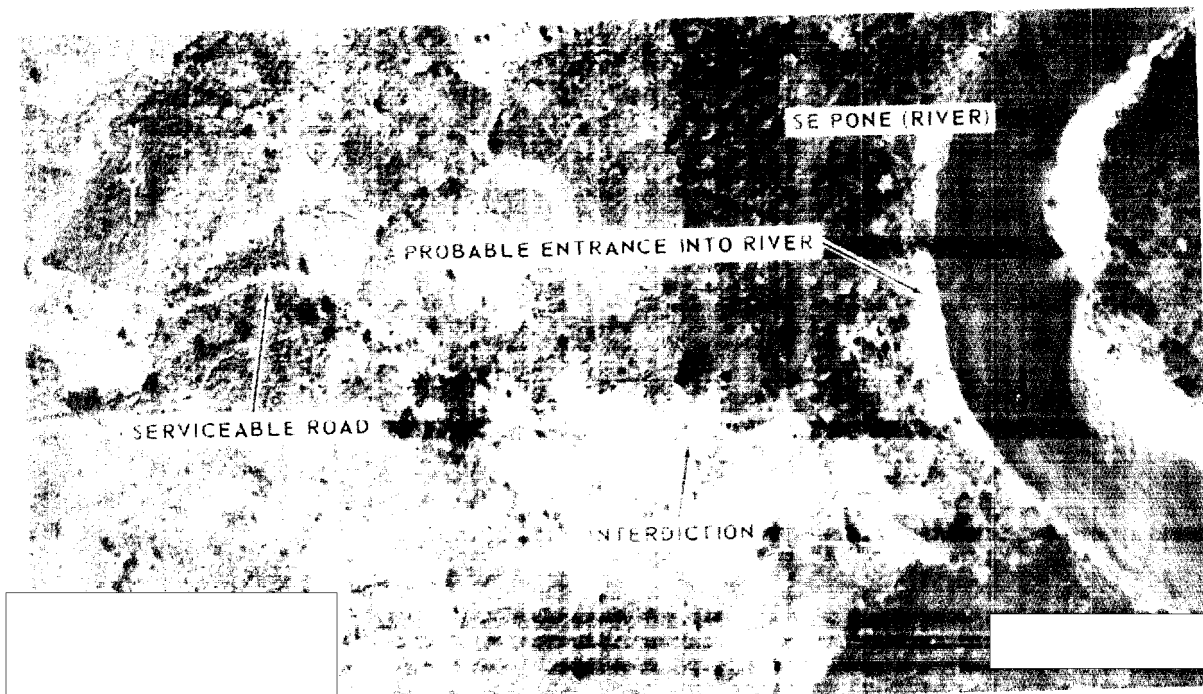
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Figure 2. Road Under Construction From the Dong Hoi Area  
Toward the Western End of the DMZ, 8 March 1968



border northeast of Ban Houei Sane, a former Royal Laotian base on Route 9. By late March, this road terminated 9 miles northwest of Khe Sanh.

5. Another road was completed at about the same time from Route 92 across the South Vietnamese border. It now terminates about 8 miles southwest of Khe Sanh. It was over this route that enemy amphibious vehicles reached Lang Vei when that outpost was overrun in February 1968 (see the photograph, Figure 3). The roads paralleling Route 9 traverse fairly dense jungle and are improved earth surfaces with a limited amount of corduroying. Route 9 will probably remain passable during the 1968 rainy season because of continual improvements since 1965; the parallel dirt roads have already begun to deteriorate.



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Figure 3. Unimproved Road South of Route 9, 13 February 1968. Amphibious tanks involved in attacking Lang Vei probably entered the river at this point.

Route 922 and the A Shau Valley

6. An unusually large number of construction troops have been assigned the task of converting the A Shau Valley into a major logistics link between Laos and the coastal lowlands around Hue. Currently there are at least three engineer battalions (each with an estimated strength of 300 men) and three engineer companies (personnel strength unknown) involved in the A Shau Valley construction efforts. Elements of two Communist regiments, some tanks, and artillery have also been reported in the valley.

7. The North Vietnamese first began to extend Route 922 toward the A Shau Valley from its terminus near the South Vietnamese border in December 1966. Up to that time the route had seen little use since the capture of the A Shau Special Forces Camp in mid-March 1966. By late April 1967, Route 922 had been constructed across the border and connected with the existing South Vietnamese national Route 548 at A Luoi, the northernmost airfield in the A Shau Valley. This connection, 56 miles long, gave the North Vietnamese the use of a motorable road from Laos through the entire valley. Early this year, the Communists reopened and upgraded all of Route 922 and added more facilities to the already extensive logistics complexes along the road.

8. In February 1968 the North Vietnamese began to construct a new road toward Hue from a point on Route 548 just north of the town of Ta Bat, the location of the central airfield in the A Shau Valley (see the photograph, Figure 4). This new road, which parallels part of a previously existing road (Route 547) leading from the valley, has been extended from Route 548 at Ta Bat to join Route 547 at a point north of Ta Luong, 22 miles southwest of Hue. From that point towards Hue, Route 547 is only an upgraded trail for some 8 miles. The remaining section is reportedly in fair condition; however, it is controlled part of the time by allied forces.

9. At Ta Luong, the newly constructed road fords the Song Bo, a sizable stream which flows in a northerly direction perpendicular to the road.

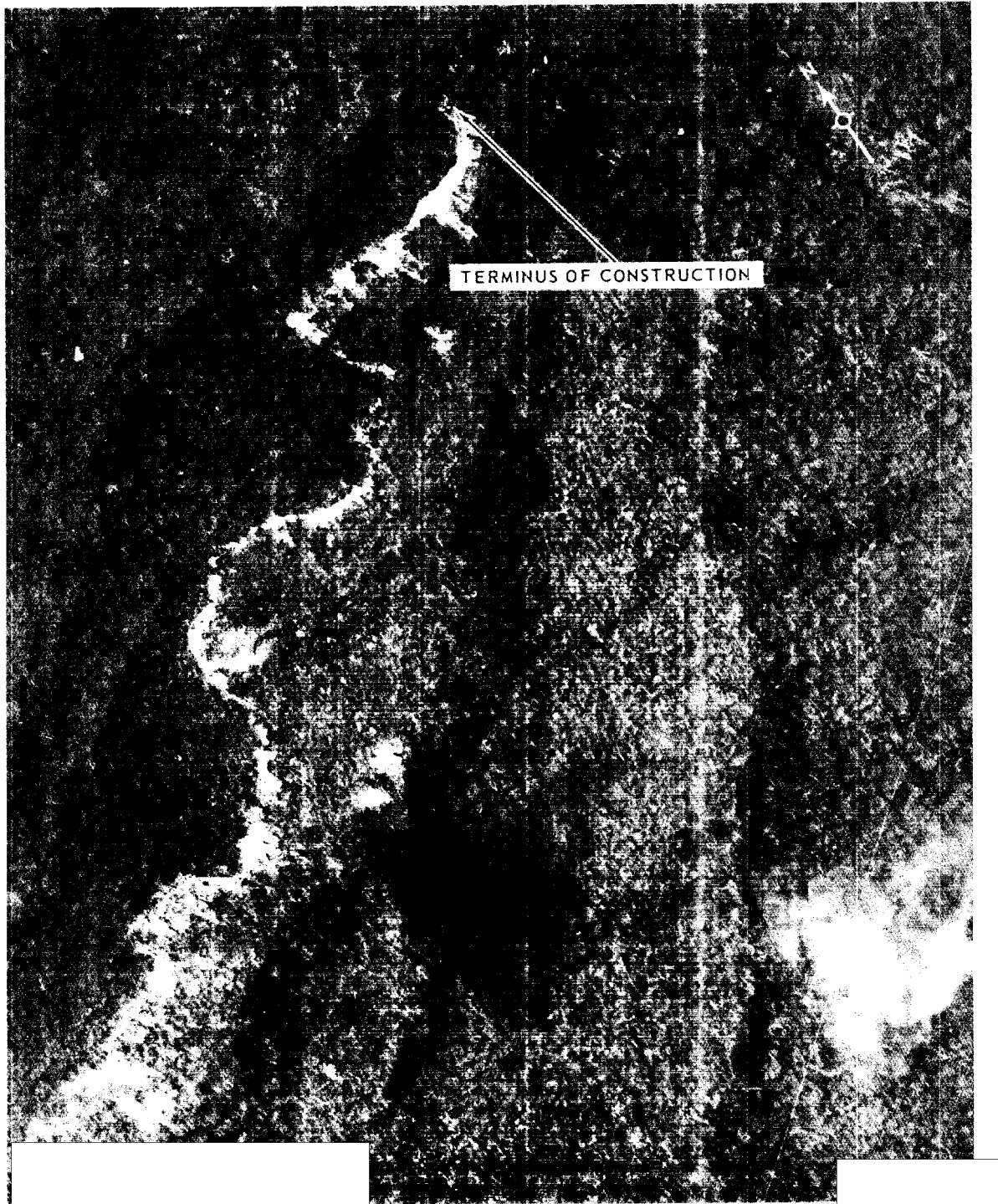


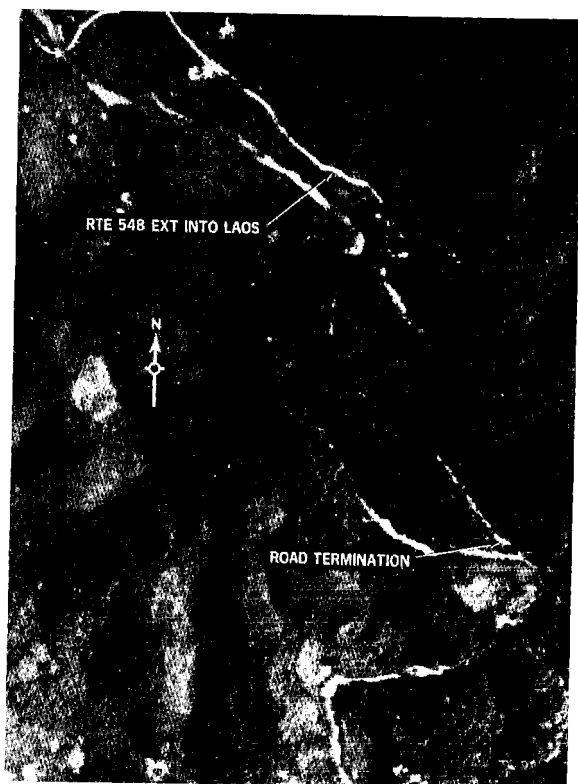
Figure 4. Road Leading From Ta Bat in the A Shau Valley  
Toward Hue, 23 January 1968

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This stream could be used to move supplies to staging and storage areas northwest of Hue. In late March a tracked armored vehicle, tentatively identified as a PT-76 amphibious tank, was reported in an enemy base area 12 miles north of Ta Luong.

10. In the A Shau Valley, the North Vietnamese have built bunkers, anti-aircraft sites, and truck parks, the largest of which is just northeast of Ta Bat near the junction of Route 548 and the new road towards Hue. At the A Luoi Airfield, the Communists have cleared a 535-by-60-foot area, which may be either a helicopter pad or a drop zone for airborne supplies. The A Shau airfield also has a cleared area which in early March was observed to be littered with boxes, crates, and POL drums. The North Vietnamese are using pierced-steel planking from the airfields to make Routes 548 and 922 as all-weather as possible.



11. The Communists have continued Route 548 through the valley into a salient of Laos southeast of A Shau. Between 28 March and 9 April the enemy built 18 miles of road through dense jungle and difficult mountainous terrain east-southeast in the general direction of South Vietnamese Route 14. The last reported terminus of the road was in South Vietnam, some 10 miles northwest of an enemy-controlled town on Route 14 west of Da Nang (see the photograph, Figure 5).

Figure 5. Route 548 Extended From the A Shau Valley into the Laotian Salient West of Da Nang, 17 March 1968

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Route 165

12. Further south, Route 165 has been extended steadily eastwards since October 1967 from Chavane, Laos, towards the South Vietnamese border. In January 1968 the roadway had been cleared to the border, and in early April 1968, Route 165 was connected to Route 14. Route 165 is a well-constructed road with numerous switchbacks and good grades. Major streams present no obstacles, and the soil structure in the region is good for road construction. These factors and the quality of construction observed will probably make this an all-weather route (see the photograph, Figure 6).

13. Route 165 will allow the introduction of troops and supplies by truck to threaten isolated US Special Forces camps north of Kontum. Dak Pek camp is only 9 miles south of the connection, while the camp at Khan Duc is 18 miles north of the junction. Moreover, the area surrounding Route 165 in Laos contains an extensive trail network, some of which has also been upgraded to motorable by-passes for sections of Route 165. At least two of these trails run in a general north-south direction and also allow the movement of men and supplies along a wider section of the border.

Route 110

14. By January 1966, Route 92/96 had been observed in photography as far south as the Se Sou River, where it joined an east-west road under construction from Cambodia to the tri-border salient. In mid-March 1966 this east-west road was completed, and in December 1967 the road was pushed through the jungles and rugged terrain of the tri-border area into South Vietnam. At the same time a major bypass was built to shorten the distance from Route 96 to points on the western end of Route 110.

15. In early February 1968 one branch of Route 110 had been connected with South Vietnamese Route 512 -- a few hundred yards from allied strongpoints and only 17 road miles west of the major allied camp at Dak To (see the photograph, Figure 7).

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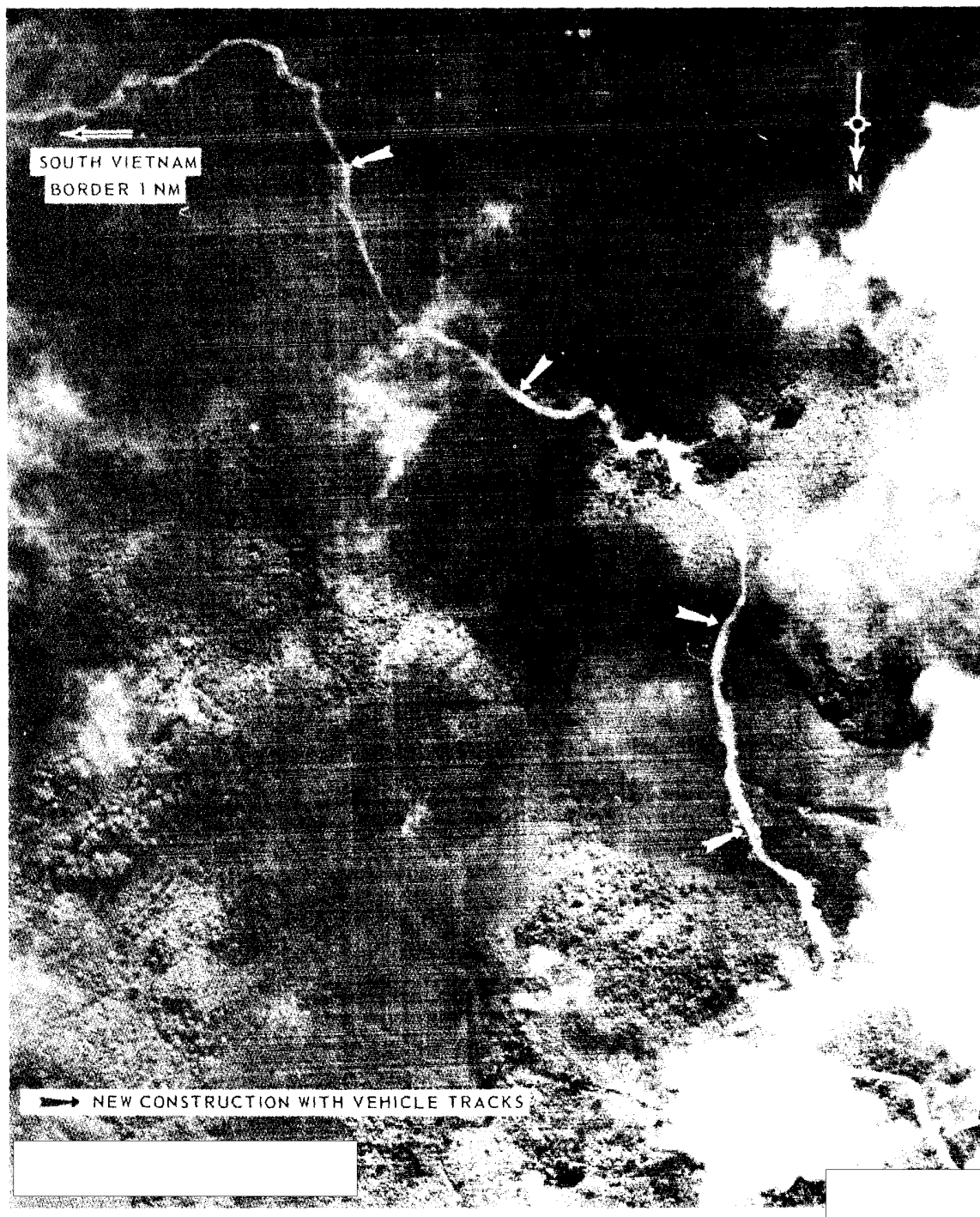
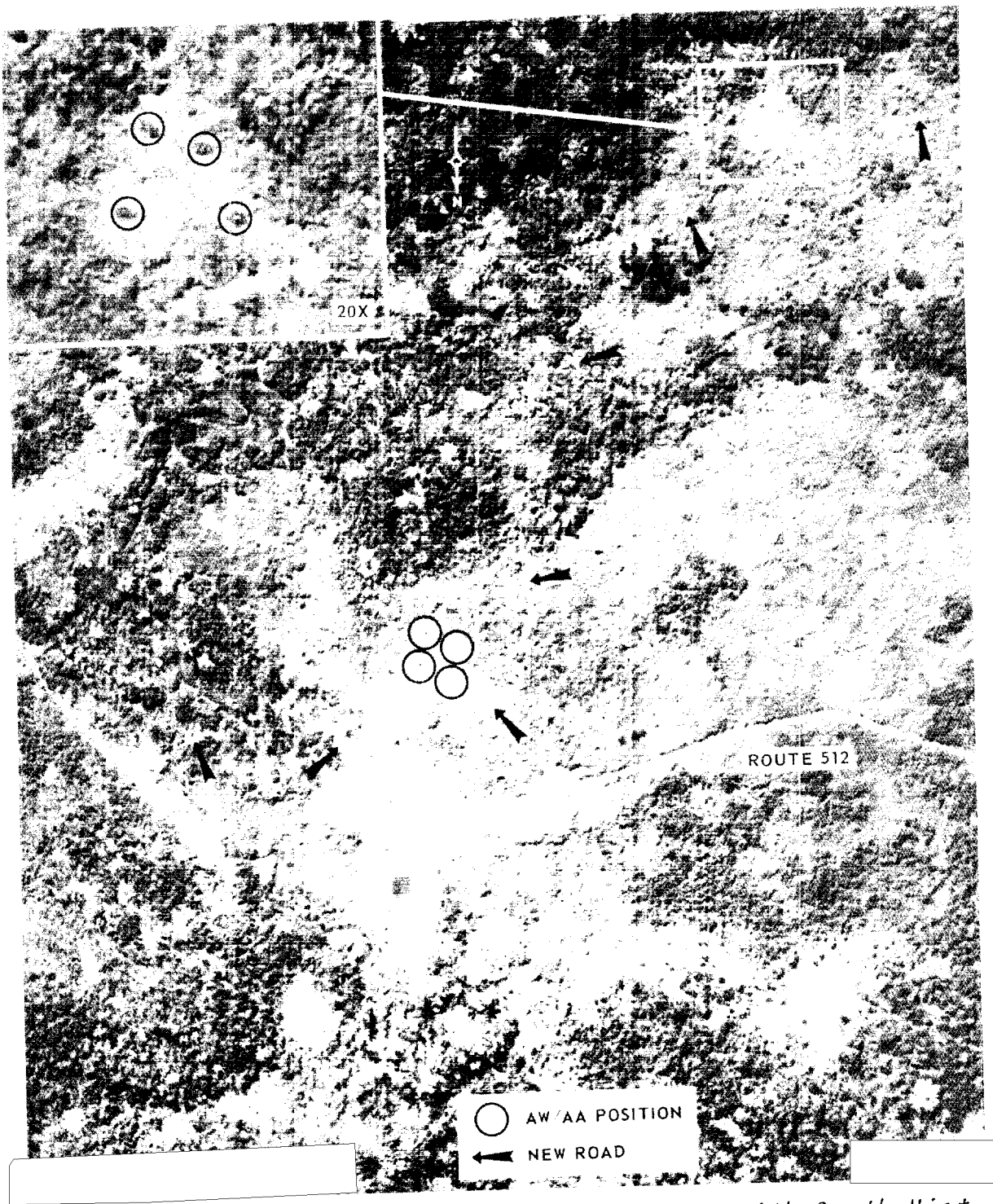


Figure 6. Route 165 near the South Vietnamese Border, 21 January 1968

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Figure 7. Junction of a Branch of Route 110 with South Vietnamese Route 512 West of Dak To, 9 February 1968

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Another branch had been cleared southeastwards to a point some 28 miles northwest of Kontum. From the latter branch a 30-mile-long road segment had been extended by mid-April 1968 southwest along the Cambodian border, where a well-developed trail system leads southward to Communist bases north of Route 19.

16. Most of Route 110 across southern Laos traverses gentle rolling terrain that presents no major construction problems. The soil in this area, however, will not support wet-weather travel, and Route 110 will be the first road to become impassable during the Laotian wet season. Flooded streams during this season, however, will offer the North Vietnamese a limited waterborne resupply capability.

17. The North Vietnamese evidently intend to keep the road complex through the Cambodian salient into South Vietnam open as long as possible in the rainy season. The soil in this area possesses a greater load-bearing capability, enabling the enemy to make this section limited all-weather. The enemy has already stacked large piles of corduroy materials at potential troublespots. The North Vietnamese also have improved the road grades and drainage and developed an extensive system of bypasses.

Prospects

18. The rapid growth and improvement of the Communist road system from Laos into South Vietnam during the 1967-68 dry season will permit the Communists to sustain a much higher level of logistical activity during this rainy season than in previous years. In past seasons, the North Vietnamese stock-piled materials in the logistical/storage areas along the roads in Laos to be portered to their forces during the rainy season. The Communists now have a limited all-weather, motorable road system leading from these storage facilities in Laos into South Vietnam at four widely dispersed locations. They are also rushing to completion a new limited all-weather road around the western end of the DMZ. At the termination of the Laotian rainy season, the allies in South Vietnam will be confronted with a greatly extended and improved road system, which will permit the rapid redeployment of enemy forces through Laos and the support of these forces for longer periods of combat.



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