

About the Dikes in North Vietnam

"Premeditated character of the bombing"

By YVES LACOSTE

PARIS—To the long controversy between critics of U.S. bombing of North Vietnamese dikes and the American Administration, it is now possible to add new elements to the available evidence. They are the result of a geographical analysis of the points in the dike network that have been hit by bombs.

From April 16 to July 31 (and the bombing continued into August), more than 150 attacks were made on the whole of North Vietnam's canal system, causing heavy damage in 96 places. The International Commission on War Crimes made a special study, among others, of the effects of the bombing in the Red River delta. The bulk of the population is in fact here; and it is also this region which suffered the greatest number of hits (58 out of 96).

The U.S. Administration first denied that the dikes had ever been bombed. It later admitted that some canal installations may have been hit—"be-

flow and which frequently cause changes of course before their waters are brought under control by dikes. To the east, in the lower delta, the rivers, which have deposited most of their alluvial contents further upstream, flow along rather lower natural levees, separated from one another by vast stretches of very low-lying flat land.

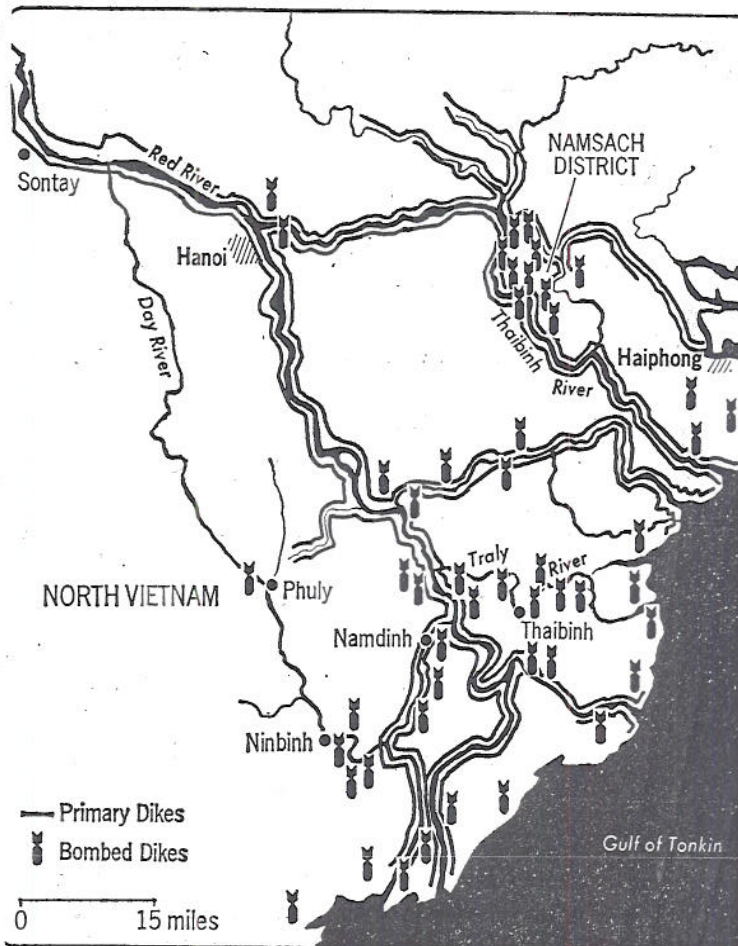
It is in the eastern part of the delta where the Red River and its various branches flow into the sea that the areas most likely to be flooded can be found. In the upper delta most of the villages are perched on top of the alluvial ridges, which rise prominently over the flat lands. In the lower delta, on the other hand, the villages are generally below river level.

It is just this destruction which the bombing is largely trying to achieve. If the bombs were being aimed not at the dikes but at "military objectives" then they would be more evenly spread across the delta. The concentration of bombing attacks on the dikes in the eastern part of the delta, which also happens to be the most thickly populated and heavily farmed area in the country, can therefore be regarded as deliberately planned, for the attacks are directed against a region where they can have the gravest consequences.

At another level of geographical analysis, a close examination of the various sectors in the eastern delta area reveals the premeditated character of the bombing.

One of the most striking examples can be seen in the southern part of Thaibinh province between the Red River itself and the south and one of its branches, the Traly, to the north. These two waterways, which both flow along alluvial ridges, form the outer edges of a kind of gutter, which drains towards the east, the sea. Reclamation of the area, where some 600,000 persons live, was made possible by building dikes along the rivers, and dams to keep the sea out. And even then, rainwater collecting in this vast "gutter" must be pumped out at low tide—which is the function that the big Lan locks perform.

The bombing was directed against the vital points of this system, and primarily against the Lan locks. Between May 24 and July 29, the locks were bombed nine times. Even after they were wrecked, three more bombing attacks were launched against this installation, which is far from any military objective, no doubt with the intention of hindering repairs. So the water, unable to flow into the sea, is beginning to accumulate in the rice-



The New York Times/Sept. 6,



ISSUES 1972

cause they were in the immediate neighborhood" of military objectives. Washington, however, strongly rejected allegations that the dikes were deliberately bombed.

One thing emerges from a scrutiny of the map [right] showing where dikes have been hit. Apart from two strikes near Hanoi, and two others, including the Phuly locks on the Day River, all the points which have been bombed (54 out of 58) are in the eastern part of the delta, ranging from the Namsach district in the north to the provinces of the Thaibinh, Namdinh and Ninbinh in the south.

The American Administration admits this, but points out that bombing intended to cause major flooding would be concentrated upstream on the western part of the delta, which has in fact been spared. A study of the country's physical layout, however, leads to somewhat different conclusions.

Schematically, the Red River delta can be divided into two parts: to the west, in the upper delta, the rivers which tumble directly out of the badly eroded hills have built up several alluvial ridges, along which the rivers

fields, where a good part of the crop can be written off as a loss.

What must be emphasized here is that in President Johnson's time, the bombing of the dikes usually stopped before the rainy season. Under Mr. Nixon there is no sign of a halt. River and sea dikes continue to be bombed, and the latter are continually shelled by units of the Seventh Fleet. Locks are the primary objectives, for by destroying them, villages and fields can be flooded or the sea let in to render the soil unfit for cultivation for years to come.

Yves Lacoste, professor of geography at the University of Paris, visited North Vietnam as a member of the International Commission on U.S. War Crimes in Vietnam. This is adapted from *Le Monde*.