# THE UNITED STATES STRATEGIC BOMBING SURVEYS

(European War) (Pacific War)



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#### **FOREWORD**

This volume contains an identical reprint of the Summary Reports (Europe and the Pacific) of the strategic bombing surveys conducted as World War II was coming to a close. Although originally published over four decades ago, they contain valuable lessons for modern airmen and are well worth another look.

The "Blue Ribbon" Strategic Bombing Survey Team was tasked to enter those areas struck by our strategic bombers as soon as possible after the bombing to assess the effectiveness of the bombing effort and its contribution to the Allied victory. The result of each survey was a detailed, multivolume report that examines every aspect of the bombing campaigns.

The Summary Reports reprinted herein are essentially executive summaries of the entire study. The lessons for airmen are here, and there is much to be learned in these few pages about the successful employment of air power.

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## THE UNITED STATES STRATEGIC BOMBING SURVEY

#### SUMMARY REPORT

The new relation of air power to strategy presents one of the distinguishing contrasts between this war and the last. Air power in the last war was in its infancy. The new role of three-dimensional warfare was even then foreseen by a few farsighted men, but planes were insufficient in quality and quantity to permit much more than occasional brilliant assistance to the ground forces.

Air power in the European phase of this war reached a stage of full adolescence, a stage marked by rapid development in planes, armament, equipment, tactics and concepts of strategic employment, and by an extraordinary increase in the effort allocated to it by all the major contestants. England devoted 40 to 50 percent of her war production to her air forces, Germany 40 percent, and the United States 35 percent.

Nevertheless, at the end of hostilities in Europe, weapons, tactics and strategy were still in a state of rapid development. Air power had not yet reached maturity and all conclusions drawn from experience in the European theatre must be considered subject to change. No one should assume that because certain things were effective or not effective, the same would be true under other circumstances and other conditions.

In the European war, Allied air power was called upon to play many roles—partner with the Navy over the sea lanes; partner with the Army in ground battle; partner with both on the invasion beaches; reconnaissance photographer for all; mover of troops and critical supplies; and attacker of the enemy's vital strength far behind the battle line.

In the attack by Allied air power, almost 2,700,000 tons of bombs were dropped, more than 1,440,000 bomber sorties and 2,680,000 fighter sorties were flown. The number of combat planes reached a peak of some 28,000 at the maximum 1,300,000 men

were in combat commands. The number of men lost in air action was 79,265 Americans and 79,281 British. More than 18,000 American and 22,000 British planes were lost or damaged beyond repair.

In the wake of these attacks there are great paths of destruction. In Germany, 3,600,000 dwelling units, approximately 20% of the total, were destroyed or heavily damaged. Survey estimates show some 300,000 civilians killed and 780,000 wounded. The number made homeless aggregates 7,500,000. The principal German cities have been largely reduced to hollow walls and piles of rubble. German industry is bruised and temporarily paralyzed. These are the scars across the face of the enemy, the preface to the victory that followed.

How air supremacy was achieved and the results which followed from its exploitation are the subject of this summary report. The use of air power cannot properly be considered, however, except in conjunction with the broad plans and strategy under which the war was conducted.

# The German Strategic Plan

Interrogation of Hitler's surviving confidants and General Staff and Field Generals of the Wehrmacht confirms the view that prior to the winter of 1941 Hitler hoped to realize Germany's ascendancy over Europe, and possibly the world, largely by skilled strategy. Time and timing were the secret weapons in the German war plan that took shape after 1933. Hitler hoped to build Germany's strength more quickly than that of any potential opponent. By rapid mobilization of a powerful striking force, by exploiting the political and ideological strains that he conceived to exist in the rest of the world, and by overwhelming separately in lightning campaigns such of his enemies as chose to resist, he hoped to secure for Germany an invulnerable position in Europe and in the world.

Note: All RAF statistics are preliminary or tentative.

# UNITED STATES STRATEGIC BOMBING SURVEY

## SUMMARY REPORT

(Pacific War)

WASHINGTON, D. C.

1 JULY 1946

The total tonnage of bombs dropped by Allied planes in the Pacific war was 656,400. Of this, 160,800 tons, or 24 percent, were dropped on the home islands of Japan. Navy aircraft accounted for 6,800 tons, Army aircraft other than B-29s for 7,000 tons, and the B-29s for 147,000 tons. By contrast, the total bomb tonnage in the European theater was 2,700,000 tons of which 1,360,000 tons were dropped within Germany's own borders.

Approximately 800 tons of bombs were dropped by China-based B-29s on Japanese home island targets from June 1944 to January 1945. These raids were of insufficient weight and accuracy to produce significant results.

By the end of November 1944, 4 months after seizure of the islands, the first of the long-range bomber bases in the Marianas became operational. The number of planes originally available was small and opposition was significant. Losses on combat missions averaged 3.6 percent. The tonnage dropped prior to 9 March 1945 aggregated only 7,180 tons although increasing month by month. The planes bombed from approximately 30,000 feet and the percentage of bombs dropped which hit the target areas averaged less than 10 percent. Nevertheless, the effects of even the small tonnage hitting the selected targets were substantial. During this period, attacks were directed almost exclusively against aircraft, primarily aircraft engine, targets. The principal aircraft engine plants were hit sufficiently heavily and persistently to convince the Japanese that these plants would inevitably be totally destroyed. The Japanese were thereby forced into a wholesale and hasty dispersal program. The continuing pressure of immediate military requirements for more and more planes during the campaigns in the Pacific had prevented any earlier moves to disperse. When dispersal could no longer be avoided, the necessary underground tunnels, dispersed buildings, and accessory facilities such as roads, railroad spurs and power connections were not ready. As a result the decline in aircraft engine production, which shortages in special steels requiring cobalt, nickel and chrome had initiated in mid-1944, became precipitous.