

war with the doctrine that daylight bombing would be too costly and that night bombing can be precise enough for attacking specific targets. A few early experiments with day bombing confirmed the first point. The second was not confirmed, since on most occasions the specific target could not be hit or even located. The targets selected by the RAF for 1940 were oil, aluminum, and aero-engine plants. Marshaling yards were treated as secondary targets, to be attacked only when the main target could not be located; but the frequency of attacks on Hamm and other marshaling yards show how rarely the primary targets were found. In the fall of 1940 it was realized that this plan was much too ambitious. A last attempt at bombing oil targets was made early in 1941; but when this showed very poor results it was abandoned. In May-June 1941, the RAF concentrated on the marshaling yards of the Ruhr, believing that they offered sufficiently large targets to secure hits. When this campaign also proved abortive the idea of precision bombing was abandoned. Area bombing came into being not as a method desirable in itself but as an expedient of necessity to be resorted to until the precision of night attacks could be improved.

With the appointment early in 1942 of Sir Arthur Harris as Chief of the Bomber Command, the picture changed, for he regarded area bombing not as a temporary expedient but as the most promising method of aerial attack. Harris and his staff had a low opinion of economic intelligence and were skeptical of "target systems." They had a strong belief in Germany's powers of industrial recuperation and doubted that her war potential could be significantly lowered by bombing. At the same time, they had a strong faith in the morale effects of bombing and thought that Germany's will to fight could be destroyed by the destruction of German cities. Under Harris' forceful leadership the great area offensive was launched in the summer of 1942, to continue through subsequent years until 1944. The first thousand-bomber raids on Cologne and Essen marked the real beginning of this campaign. Before and up to the second quarter of 1944 the great bulk of RAF tonnage (60 percent of the total dropped in 1942 and 1943) was concentrated on area raids. In 1943 the RAF made a concentrated attack on the Ruhr cities and later in the same year on Berlin.

The USAAF commenced operations in the European Theater on August 17, 1942. The first six weeks were spent in testing the force on objectives in France, Belgium and

bases and yards began in October and took up the major part of the Eighth Air Force's activities until the following June. The attacks begun on bases were later extended to the building yards of northern Germany. In the course of this campaign 2,500 tons were dropped on bases and building yards.

JANUARY 1943 TO JANUARY 1944

A new period of the air offensive can be considered to have begun with the Casablanca conference of January 1943, which established for the first time a joint plan of operations for the Allied forces. The famous Casablanca directive stated as the primary object of the strategic air offensive "the progressive destruction and dislocation of the German military, industrial, and economic system, and the undermining of the morale of the German people to a point where their capacity for armed resistance is fatally weakened."

The directive [1]* named five primary target systems in the following order of priority: (1) German submarine construction yards, (2) the German aircraft industry, (3) transportation, (4) the German oil industry, (5) other targets in the enemy war industry. This selection, wide enough in itself, was further qualified by the statement that "the above order of priority may be varied from time to time according to developments in the strategical situation. Other objectives of great importance either from the political or economic point of view must be attacked." It is clear from the above that the Casablanca conference intended to give the maximum freedom to the commanders of the air forces to act according to their own judgment. This also explains the avoidance of any definite statement on such vital issues as the choice between concentration on general and specific target systems, or between destruction of morale by area bombing and of economic potential by precision bombing.

In June 1943, a new and much narrower directive issued by the Combined Chief of Staff ordered the Eighth AF to attack Germany's fighter strength (airframe, engine and component factories, aircraft repair and storage depots, enemy fighters in the air and on the ground) as the top priority objective; with submarine yards and bases, the rest of German aircraft industry, ball bearings, and oil as further primary targets, and synthetic rubber, tires, and military motor transport vehicles as secondary objectives. This directive (establishing the "Pointblank"

gic operations of the Eighth AF and Fifteenth AF until D-Day. The main considerations behind it were: (1) the increasing strength of Germany's fighter defenses which made it desirable that strategic bombing should aim at establishing air supremacy first; (2) the desire to concentrate on targets which would affect front-line strength fairly quickly and thus render maximum assistance for the invasion of Western Europe, the date of which was still uncertain; and (3) the exclusion of objectives whose effective reduction was considered beyond the capabilities of the air force.

The first of these considerations was undoubtedly dominant in the minds of the planners. After the brilliant victories at sea in May 1943 it was clear that detecting and sinking submarines at sea was far more effective than bombing yards and bases. Submarines ceased thereafter to be a priority target. At the same time intelligence indicated the existence of ambitious plans in Germany of increasing German air power; and it was feared that unless prompt preventive measures were taken new improved fighters, capable of devastating attacks against heavy bombers would soon come off the production lines and destroy our air superiority.

The offensive, however, started very slowly. Only seven major attacks were made against aircraft production centers in the latter half of 1943, with a monthly average of only 700 tons of bombs dropped. The probable reason was that at that time only a small part of the heavy bomber force was equipped to carry the gasoline necessary for deep penetrations needed to attack aircraft plants. Moreover it was realized that a major blow against the aircraft industry would require a simultaneous or nearly simultaneous attack on all the major airframe factories; [2]* and for this the available forces were sufficient. Hence, the ball-bearing industry was chosen as the target for the main attack since it was known to be concentrated in three cities, with the glittering prize of half the industry's total capacity located at Schweinfurt.

The Eighth AF raided Schweinfurt on August 17 and on October 10, 1943. The latter raid caused serious damage to the plants, but the unescorted bombers were heavily attacked by German fighters and lost nearly 30 percent of their strength. The experience of this attack led to the abandonment of unescorted bomber attacks, and it stressed the importance of reducing the fighter strength of the German Air Force at the earliest possible opportunity.