

basis of their grid lines gun positions are fixed and guns fired without preliminary ranging. (General Montgomery is reported, after El Alamein, never to have begun a battle until his artillery, using its maps, was completely "surveyed in.") And a grid line one-tenth of a millimeter misplaced will throw artillery fire off by a hundred yards. The new paper, it was found, could completely fill the bill.

When some of the first maps on this paper were printed, they were sent to Brigadier Hotine in London. He was skeptical of the claims, and spoke of "the American blood, sweat, and tears map." But after a few trials at the front, the British admitted it the best map paper ever made.

#### IV

NATURALLY, at about this point one inclines to ask, "Well, how did the Army Map Service do for the invasions?" The trouble with any answer is that the maps have gone out in quantities that seem more fanciful than real.

For the North African landings 110 tons of maps went with the first troops; 400 tons followed later on. This was in all 10,000,000 maps, of which there were over 1,000 different kinds. Some were of remarkably large scale: six inches to the mile. Such a ratio would make a map of the land from Cairo to Casablanca a quarter of a mile long.

For the present invasion the maps were sent off in the spring. Most of them were shipped in white-pine packing cases, 500 to the case, each case marked with a secret code number, telling destination and date for opening, and stamped in front with the red-castle insignia of the Engineers. There were 70,000,000 maps in all—over 3,100 different kinds. They weighed 3,480 tons.

As one statistically minded Engineer of the Army Map Service remarked to me, "I suppose that is quite a few maps. I figured they weigh as much as 83 Pullman cars. And spread out they would just about cover Manhattan island from Central Park to the Battery."

### *The President's Views on Constitutional Powers*

IT is important that the habits of thinking in a free country should inspire caution in those intrusted with its administration, to confine themselves within their respective constitutional spheres, avoiding in the exercise of the powers of one department to encroach upon another. The spirit of encroachment tends to consolidate the powers of all the departments in one, and thus to create, whatever the form of government, a real despotism. A just estimate of that love of power, and proneness to abuse it, which predominates in the human heart is sufficient to satisfy us of the truth of this position. The necessity of reciprocal checks in the exercise of political power, by dividing and distributing it into different depositories, and constituting each the guardian of the public weal against invasions by the others, has been evinced by experiments ancient and modern, some of them in our country and under our own eyes. To preserve them must be as necessary as to institute them. If, in the opinion of the people, the distribution or modification of the constitutional powers be in any particular wrong, let it be corrected by an amendment in the way which the Constitution designates. But let there be no change by usurpation; for, though this, in one instance, may be the instrument of good, it is the customary weapon by which free governments are destroyed. The precedent must always greatly over-balance in permanent evil any partial or transient benefit which the use can at any time yield. — George Washington, Farewell Address, September 17, 1796