

An Expert Speaks Victory Through Air Power

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becomes static and hence as vulnerable as any other static target. The logic of this lesson is so startling that it paralyzes the imagination of people unprepared to accept the facts of air power expansion to the ultimate circumlocution range.

In the further development of military aeronautics it will be recognized that for maximum effectiveness air power must function directly, nonstop, from primary or home bases possessing strategic supplies.

It must strike at the enemy in the air, on land or at sea, without way stations.

These way stations or intermediary bases are at best a makeshift substitute for range, destined to be eliminated when that range is built into the airplane itself.

The entire logic of aerial warfare makes it certain that ultimately war in the skies will be conducted from the home grounds, with everything in between turned into a no-man's land.

As soon as aviation exploits its full technical possibilities of fighting range, intermediary points will be abandoned, one after another, like so many obsolete outer fortifications.

THE LAND

The military motto of these principles became increasingly clear as the war in the Pacific unfolded after Dec. 7, 1941. In the Atlantic we had to occupy Greenland, then Iceland, in order to bring our power to the scene of the conflict and offset German aviation over that ocean.

In relation to the Pacific, our aviation was even more backward. Our bombers, it is true, could fly to Hawaii, and thence to Wake, Guam, the Philippines Islands, but only one way, as a self-transport, not as a two-way striking force.

To dominate the water gap between the islands of the southwestern Pacific from the air, our air force—bombers and pursuit—should have had a striking range equal to the largest water interval between any of the islands from Hawaii to Japan.

It should, in other words, have had an operational radius equal to island. As long as we lack this minimal air force, we shall be gravely handicapped.

7. In aerial warfare the factor of quality is relatively more decisive than the factor of quantity.

"Just planes" are not enough. Hitler and Marshal Goering counted confidently on overwhelming the RAF by sheer weight of their aviation equipment.

We have seen how mistaken they were—how, in effect, a 25-mile edge in speed plus superior fire power decided the issue in the English skies in Britain's favor.

IF YOU ARE FASTER

If you are faster than your adversary, you can engage him in combat at will—and can withdraw at will. The initiative is in your hands.

You are able to start combat on your own terms and call it off at will. Next in importance to speed is fire power.

Once you have exploited the effect of a surprise attack or the advantage of relative position, whether you are to fight depends on whether you have superior fire power. In the absence

of better speed and greater fire power, maneuverability and rate of climb become purely defensive factors.

BOMBERS

In bombardment aviation, speed is secondary to load-carrying capacity. The bombers which have a greater bomb salvo, longer range, and a more powerful defensive armament can accomplish more destruction at a greater distance, brushing off the attacks of enemy pursuit.

The fire power of bombardment aviation, of course, can be further enhanced by the fire power of conveying long-range pursuit planes. These vital military considerations were completely ignored by the German, French, and American military leaders.

The demonstration was glaringly clear in the Battle of Britain, when Nazi bombers were shot down in droves. It was also demonstrated in the plight of our earlier Flying Fortresses, which, due to insufficient guns and their faulty disposition, proved extremely vulnerable.

Our aviation reverses in the Pacific were not as popularly supposed, the result only of Japan's superiority in numbers.

Press dispatches have described Japanese fighter planes powered with engines of 1,675 horsepower, and carrying 20-mm. cannons in addition to high machine guns.

AN ADVANTAGE

As against the American type apparently most extensively used, the P-40, the enemy thus had an advantage of about 500 horsepower, which meant all-around better performance.

The explosive action of 20-mm. cannon shells entirely lacking in the P-40. Had we possessed a quality coefficient sufficiently superior, we might have upset the Japanese air potential notwithstanding our quantitative handicap.

DELUSION

The adding-machine conception of air power, which expresses itself in undifferentiated statistics on the total number of planes planned or produced, rests on a delusion.

Attention to this principle is of special value to Americans. Because of our national talent for mass production and standardization there is the danger that we may "freeze" our aviation models too soon and too rigidly.

The rapid obsolescence in aviation, and the need to adjust aircraft to special purposes or to overcome sudden changes brought by the enemy, require a productive technique that is within reasonable bounds.

Frequently the readiness to produce better aviation, rather than the availability of an inventory of actual aircraft, may become the crucial factor. In one sense Britain suffered from its delay in building air power.

Having entered the production race late, it was able to incorporate the results of its aerodynamic knowledge into its pursuits, whereas Hitler's fighters had been "frozen" for mass production years earlier.

8. Aircraft types must be specialized to fit not only the general strategy but the tactical problems of a specific campaign.

The war to date has also brought into clear focus the principle of specialization as applied to air power. Naturally there must be a well-balanced basic air force to cover all possible tactical contingencies with a minimum of types.

But when a campaign is already underway, the arena of action is known, narrower specialization of equipment must be considered.

SPECIAL EQUIPMENT

It should be remembered that military aircraft are always a compromise among the primary factors of speed, range, altitude, and load-carrying capacity. An increase in any of these elements is unavoidably attained at a sacrifice in the other elements.

Hence, to obtain maximum military efficiency in relation to a given target of vital importance, it may be expedient to design special equipment to answer the specific conditions defining such a target.

MORE BOMBS

It may be that the standard range of the basic bombers is excessive for a certain target; in that case, the saving in force may be converted into larger explosive loads.

More bombs cannot be put into planes not built for them, since that calls for additional space and mechanism, necessitating much greater air drag; to design all basic bombers with such larger capacities would penalize them if they were called on to use their utmost range.

NAZI MACHINES

The German Heinkels and Dorniers machines were used as all-purpose bombers; one day they struck at Dover, another at London, a third at the Shetland Islands.

The destruction of the British capital was vital to the Germans that they sacrificed 2,300 aircraft in the futile attempt to achieve it. It would obviously have been more economical for the Germans to build a special fleet for this particular purpose.

The same Heinkels and Dorniers, adapted to the special job, would have packed more than double the destructive wallop.

The principle of specialization underlines the importance of not merely outbuilding, but outthinking all of our adversaries.

9. Destruction of enemy morale from the air can be accomplished only by precision bombing.

Another vital lesson, one that has taken even air specialists by surprise, relates to the behavior of civilian populations under air punishment.

It had been generally assumed that aerial bombardment would quickly shatter popular morale. The progress of this war has tended to invalidate this expectation as unfounded.

On the contrary, it now seems clear that despite large-scale and impressive physical destruction, civilians can "take it."

These facts are significant beyond their psychological interest. They mean that haphazard destruction of cities—sheer blows at morale—may be of little value in relation to the tactical results obtained. Attacks will increasingly be concentrated on military rather than on random human targets.

THE ESSENTIALS

Thinking on the subject of morale therefore reverts to the basic idea that the will to resist can be broken in a people only by destroying effectively the essentials of their lives—their supplies of food, shelter, light, water, sanitation, and the rest. This clearly demands precision bombing rather than random bombing.

Bombardment from on high must strike into the privacy of aerial blockade, systematically wrecking the implements and channels of normal life until a complete breakdown of the will to fight and the ability to fight is accomplished.

10. The principle of unity of command, long recognized on land and on sea, applies with no less force to the air.

The air is not a part of the surface which it covers, but an element as distinct as land and sea. The notion that there is some mysterious distinction between air-over-land and air-over-sea is a hangover from two-dimensional strategic thinking.

Already that artificial distinction, reflected in the United States and in some other countries in a corresponding artificial division of its air forces, has disappeared in the more advanced air-power countries.

"CERTAIN TO DISAPPEAR"

It is certain to disappear in the rest of the world, since it no longer corresponds to the facts of warfare.

The absurdity of split command in the air was revealed in the first weeks of the war in the Pacific. The Japanese aerial offensive on Wake came as a single operation.

Yet two almost unrelated air forces rose to meet the challenge: Army aviation and naval aviation, each trained in a different military tradition.

DIFFERENT IDEAS

Even if one man were put in command of these duplicate units in the actual fighting, he would still deal with two different military characteristics and personnel steeped in different military ideas.

Was the defense of the skies over Pearl Harbor to be regarded as merely a naval affair, with Army aviation grounded? Was the defense of the skies over the nearby Army headquarters field, to be left to the Army aviation?

In the air will represent a single objective, before it reaches our shores and after it is over our soil. There is no artificial line at which one aerial command bows out policy, while the duplicate command takes over. We shall have two services mulling in the same sphere, hunting the same quarry, but taking orders from two sources.

Imagine the Battle of Britain under similar circumstances, with the Royal Air Force split into two agencies, one under the Admiralty and the other under the Army!

That is precisely the situation which we face as long as we lack a homogeneous air force, under a single command.

11. Air power must have its own transport.

Aviation dependent on slow-moving surface communication lines for its supplies is an anomaly. It is hobbled to make its own force, moving at 300 or more miles an hour, dependent on transport crawling along at ten or fifteen knots.

Furthermore, the main advantage of the aerial weapon is that it ignores obstacles on the earth's surface. To leave it dependent on surface supplies is to impair its natural advantages.

AIR FORCES HAMSTRUNG

That is the case today in the Pacific where our air forces have been hamstrung because they have had to rely on slow and uncertain sea communications.

Increasingly Germany has been using aerial transport for aerial warfare. In Norway 14 initial troops, equipment, and supplies were delivered by the Luftwaffe. In the Battle of Crete the entire problem of transportation, including troop movements, was solved by Hitler with airplanes.

SWIFT TRANSPORT

It was lack of swift transport which handicapped the defense of the Hawaiian and Philippine Islands. Given adequate air transport, including delivery of aircraft on their own power, the Hawaiian defenders might have been reinforced in seven or eight hours.

The American aeronautical industry and students of aviation for years pressed upon the War Department plans for long-range cargo planes, long-range pursuit and fighter fighters.

"FARFETCHED"

They saw the coming need for equipment that could reach all our outlying possessions under its own power. The proposals were at first arbitrarily dismissed as far-fetched.

Only by this time it is obvious that air power must be fully self-contained. It must rely on its own transport, being capable of carrying with it at all times reserve equipment, reserve supplies, and—also—when necessary, troops through the air.

We have no air power. We have only Army and Naval aviation developed and used primarily as auxiliary weapons for surface operations.

Though navies can no longer approach hostile shores defended by hostile land-based air power, the fiction that our Navy is our primary striking force still is maintained.

The neutralization of enemy air force is now the precondition for attacking hostile areas. As we have long-range air power, and our available aviation is treated especially as a defensive element.

STRIKING POWER

The range and striking power of our aviation have been artificially limited to avoid any coming on the offensive functions of the Navy, which can no longer fulfill those functions.

We are geared to mass production of fine airplanes but with tragically inadequate attention to their tactical suitability.

While we are catching up with the enemy in many respects, planes on the production lines today will unquestionably be obsolete by the time they are put into action.

Worst of all, our aviation equipment is built without specific relation to definite strategic and tactical problems facing us.

It has not the range for independent action in the ever-widening theater of operations, being normally an appendage to slow-moving surface forces.

We lack even a vestige of unity of command in the aerial sphere.

As a matter of plain fact, we have no air power, no air force, but only flying soldiers and flying sailors who do not even speak the same military language.

In tomorrow's News, Severely discusses "the twilight of sea power."

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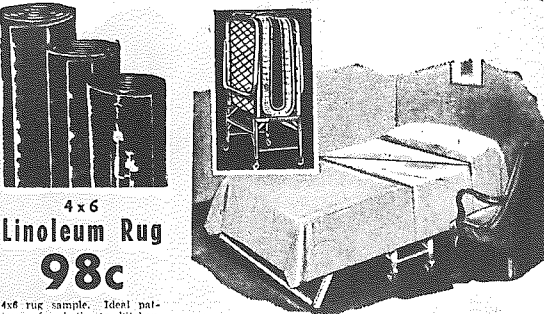
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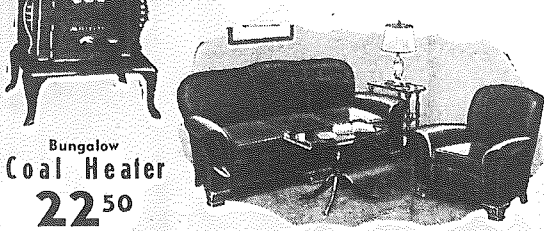
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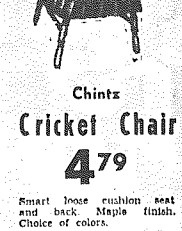
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