

# Seversky: Victory Through Air Power

Continued from Page One

picture in reverse: operations across the English Channel could be carried out successfully because the air was in British hands.

## NAZI WARSHIPS

Similarly, the only reason for Nazi warships Scharnhorst, Gneisenau, and Prinz Eugen were able to escape from the harbor of Brest in February, 1942, and pass through the Straits of Dover was that the German threw a powerful canopy of land-based air power over the whole operation.

Because of the surprise element and weather conditions, the time interval was too short for the Fighter Command of the RAF to break that canopy. Without the elimination of German air superiority at that place direct attack on the ship was futile.

## IN THE PACIFIC

The Pacific struggle presents the same general picture. In every instance—from the attack on Pearl Harbor and the sinking of the Prince of Wales and the Repulse through the conquest of Hong Kong, Malaya, the East Indies, as well as in light of our heroic forces in the Philippines—the first arena of combat has been the "air ocean."

Whether ships and tanks and infantry could operate at all depended, in the first place, upon whether they had friendly skies above them.

2. Navies have lost their function of strategic offensive.

No less obvious is another tactical reality, namely, that navies have lost their former function of strategic defense.

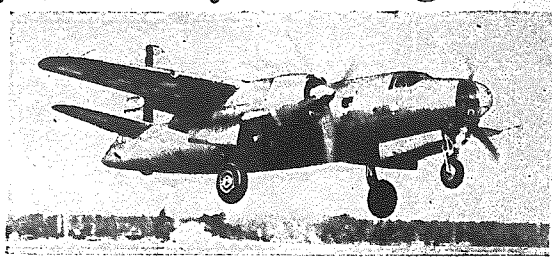
In the past, battle-ships carried war to the shore of the enemy nation. Today, if the enemy possesses anything resembling real air power, that can no longer be done.

Defensive aircraft can make it impossible for warships to approach or to land armies on hostile shores.

Navies still exercise important defensive strength. In the narrower area beyond the reach of aviation, they have definitely lost their former initiative in the matter of offensive action.

A good many military experts, including high ranking officials, refuse to acknowledge this, either through misguided "loyalty" to the past or through mental "blind spots." The fiction that navies are still our "water defense" is maintained through sheer habit.

The fact that Britain, with its vastly superior naval strength, has



One of the United States Army planes that has proved its superiority over carrier-based aircraft is the powerful Martin B-26 bomber (used with great effect as torpedo carriers as well as bombers in the Battle of Midway). Planes such as the B-26 are forcing navies into an ever-narrower area beyond the reach of land-based aviation.

been unable to tackle the shores of the European continent, ringed with Axis air power, tells the story. The greater the strategic offensive rests with aviation. Only after air power has established control can fleets attempt to follow it up with any hope of success.

Surprise raids and landings do not alter this picture. Without air mastery, landings accomplished on a surprise basis expose themselves to overhead annihilation.

Those who urge premature invasion of the European continent should ponder this fact.

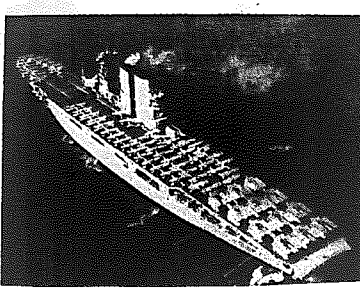
In Europe, as in Britain, the question of who owns the air must be answered first. There are no short cuts.

3. The blockade of an enemy nation has become a function of air power.

Britain has learned the hard way that blockade, heretofore preeminently the task of sea power, has been taken on in ever-larger measure by air power.

Though practically without a fighting fleet, Germany has been able seriously to hamper the flow of supplies to England, intercepting British commerce and men-of-war many hundreds of miles to the west of Ireland.

Given enough properly armed airplanes of adequate range, an enemy's lines of supply can be wrecked. Even the operations of raiding submarines become secondary as against the destruction



This is the aircraft carrier U.S.S. Ranger, a floating aircraft base. Safety of an aviation base lies in dispersement of its facilities and aircraft, but the carrier violates this principle. It represents a maximum concentration of equipment in a minimum space, thus providing an ideal target.

built into them, can harass shipping at both ends of the sea routes—Liverpool or London at one terminal, Boston or New York at the other, for example—and on the whole distance between the terminals.

What is more, their speed enables them to act as the directing and commanding component in co-operating with U-boats.

Complete blockade by air power has not yet been demonstrated,

but enough of it has been on view in this war to make this method the most frightening of any held over an enemy's head. The counter-measure, of course, is air power fully capable of meeting and defeating the blockading force in the skies.

SHIPPING LOSSES  
According to official Navy statistics, of the first thirteen million tons of British military and commercial vessels destroyed, 5,000,000 tons—about 75 per cent—were sunk from the air.

The German Government is too concerned about maintaining the morale of its submarine command to deprive the undersea arm of credit where credit is due; the percentage assigned to aviation must therefore be accepted as true, whatever we may think of the total figures.

But the share of the Luftwaffe in the blockade has been continually expanded. There have been weeks in which the Luftwaffe accounted for more than half the tonnage sent to the bottom of the sea.

A fair guess at this writing would be that about a third of the destruction visited on British tonnage to date should be charged up to aviation.

4. Only air power can defeat air power.

The type that anti-aircraft artillery, balloon barrages, or other improvised terrestrial defenses on land or on ships could form a positive protection against attack from the air has by this time been long abandoned.

Such devices can confine the enemy to higher altitudes, thereby reducing the accuracy of his aim. It offers a supplementary hazard to the attacker, but is a palliative at best, not a cure.

The lesson that only air power can defeat air power is especially recommended to the attention of those who still like to fool themselves with theories of "defensible" equipment.

Hostile aviation must be destroyed at its source, in the enemy country, and that, too, is a task for air power.

SHIP DEFENSES  
The notion that ships can carry their own defenses against hostile aircraft in the form of anti-aircraft guns, balloon barrages, or even ship-based planes, is no longer seriously defended except by the stubborn or biased.

Not all their anti-aircraft defenses could save the British naval forces in the Battle of Crete from overhead punishment. Despite its first-class anti-aircraft fire power, the ill-fated force was put out of action by bombing planes. The German battleship Bismarck could not ward off aerial torpedo attacks.

Nor could Britain's Prince of Wales and Repulse or Japan's Haruna drive off aerial destruction with their own anti-aircraft fire.

Equally on the seas, as on land, the superior to ship-based aviation is truly good or better aviation.

5. Land-based aviation is always superior to ship-based aviation.

The reasons for this are purely of an engineering and aerodynamic nature. The airplane taking off from an aircraft carrier is of necessity encumbered with special prerequisites which are built in at a heavy cost in performance.

The limitation of landing space, for instance, necessitated by the restricted landing area or rough seas, is achieved by reducing the "pay load" or striking power; or by increasing the wing area, which normally means a larger plane.

FOLDING WINGS  
Since it must be accommodated to the elevator of the carrier ship, folding wings are called for. This in turn entails more mechanical devices, more weight, and still another loss in performance.

This vicious circle which constricts the ship-borne plane to relative inferiority is manifest in most other phases of design. Air power is superior to ship power.

take care of the shaddeh deceleration, and of the whipping force against the deck. All of these call for more rugged, hence heavier, structure, which cuts into quality factors for military purposes.

BOMB LOAD  
In relation to bombardment aviation, one does not need to be an expert to realize that the carrier-based dive-bomber or torpedo plane today carries a maximum of one 2,000-pound bomb or one torpedo.

Its land-based counterpart, the twin-engine bomber, carries two tons, or could be constructed to carry two tons. The land-based flying fortress carries four tons of explosive over a range of 3,000 miles.

The British Stirling Bomber carries seven tons; our own B-19 and the Glenn Martin Flying Boat can deliver nearly twenty tons of explosive or twenty torpedoes.

LARGER TORPEDOES  
Unhindered in landing speed or size, these bombers must always exceed ship-based bombers in performance. Owing to the greater lifting capacity of land-based planes, it can deliver torpedoes of vastly greater size and destructive power.

Probably that explains why the Bismarck, attacked by torpedo bombers, was only crippled, whereas the Prince of Wales and Repulse, attacked by the latest and largest torpedoes, were swiftly sunk.

AIRDROMES  
The carrier or floating airdrome provides, on the average, a landing space 100 feet by 750 feet. For contrast, the latest airdrome on terra firma, at Newfoundland, constructed especially to enable bombers to take off safely with heavy overloads, has a concrete runway 1,200 feet wide and 6,000 feet long—approximately ten times the take-off area available to ship-borne bombers.

The heavy bombing plane of the immediate future, patterned after the B-19 or the B-24, will have a wingspan of 200 feet, or twice the beam of the average battle ship or carrier, and will carry a 300-foot spread have already been projected.

Clearly, therefore, the striking power and other performance embodied in a land-based bomber cannot be incorporated in planes operated from any practical floating base.

FIGHTING PLANES  
The same conclusion is inescapable in regard to pursuit or fighter planes. The landing speed of ship-borne aviation is necessarily restricted, due to the small deck space.

Take a plane whose landing speed on board a ship is limited, let us say, to 40 miles an hour. If the same plane is permitted to land at 90 miles an hour, or ten miles faster, it can carry roughly ten pounds more for every square foot of wing area. The wing area of the average fighter being around 200 square feet, an additional 2,000 pounds of useful load can thus be carried.

ADDITIONAL ARMOR  
Part of these 2,000 pounds can be put into more powerful engines to give greater speed and greater rate of climb. Another part can be invested in additional armor and armor. The rest can be put into additional fuel for range.

Thus the carrier-based plane, if adapted to a land-based mode in speed, range and fire power and defensive armor. This margin of advantage must hold good no matter how many improvements and refinements are developed in carrier planes—the same improvements in land-based craft will give higher performance.

True, one naval air arm may be better than another—in

this sense, for instance, America's naval air arm is peerless—but the very fact of attachment to a ship means that the aviation is inferior to land-based aviation.

Another important factor needs to be taken into account. The war has taught us that the safety of an aviation base lies in dispersment.

The more widely the facilities and the airplanes are scattered, the less vulnerable they are to attack. Aircraft carriers obviously violate this principle of dispersment.

They represent the maximum concentration of aircraft and base facilities in the minimum space, thus offering the most vulnerable aviation target.

ONE BOMB  
A single well-placed bomb can bottle up an entire complement of airplanes, or prevent the whole complement from returning to base if they are in the air. Such was the case with the British carrier Illustrious, off the shores of Sicily.

If the carrier is crippled and lies heavily, the aircraft are likewise doomed. For that reason, when the Ark Royal was struck by a torpedo, off Gibraltar, it carried its aircraft to its watery grave.

Because the range of aviation is still limited, there are ocean areas beyond the reach of land-based aviation. In these areas, naval aircraft have their logical sphere of operation—

as against the enemy's naval aircraft.

Ultimately, when aviation bridges oceans, there, oceanic margins will be erased. Floating bases will then be strangled. The striking power of ship-based aircraft will be insignificant against the support offered by land-based aviation.

In tomorrow's News, Secretary Wilson for America, sky continues his discussion of

aviation is still limited, there are ocean areas beyond the reach of land-based aviation. In these areas, naval aircraft have their logical sphere of operation—

as against the enemy's naval aircraft.

Ultimately, when aviation bridges oceans, there, oceanic margins will be erased. Floating bases will then be strangled. The striking power of ship-based aircraft will be insignificant against the support offered by land-based aviation.

In tomorrow's News, Secretary Wilson for America, sky continues his discussion of

## Firestone Extra Values

**Sturdy 5-Foot Deluxe SAFETY STEPLADDER**

- New Design
- Maximum Safety
- Especially convenient for housecleaning and painting. Large firm platform 36" from floor. Top step forms shelf for cleaning or painting materials. All steps supported by rods.

**3.29**  
CILING PRICE \$5.49

SAFETY STANDING PLATFORM  
WIDE NON-SLIP GROOVED STEPS  
ALL STEPS ROD-SUPPORTED  
DOUBLY-BRACED STANDARDS

**HOUSEWARES HITS**

**Sale!**  
School Days Call For A New SCHOOL LUNCH KIT **1.19**  
Casing price 1.39  
• Lightweight  
• Flat-top style

Firm, thick, long-wearing, tightly woven with brush-like bristles. Made from coconut husks. Oversize mats available on special order.

Famous easy-opening RIB-JID Ironing Table..... 3.69  
Non-slip stretch Ironing Table Cover..... .69  
Lightweight, reversible Modern Home Duet Map..... .69  
Selected hardwood High-Bay Clothes Drying Rack..... 2.78

**Sale!**  
Firestone "Shoppette" Shopping Bag  
Casing price 39c  
• Fold to purse  
• Pull-proof handles  
• Attractive patterns  
• Built strong. Resembles purse when folded.

Popular As Overnight Bag  
**Zipper Bag 2.98**

Famous Hollow-Ground  
**Schick Shaver 12.50**  
Hollow Ground for closer shaves. Whiskers catch all beard clippings. AO-DO, 110-120 cut.

**DO YOU KNOW WHETHER YOU CAN BUY NEW TIRES? ASK US... WE ARE TIRE INFORMATION HEADQUARTERS**

Many car owners engaged in war work can now receive rationing certificates. If you are eligible, be sure to get the extra protection of Firestone High Speed or Firestone Standard Tires.

**EASY TERMS:** Pay The Way That's Most Convenient! Weekly, Semi-Monthly, Monthly

**Why Go To Town—Shop At Your Nearest**

**McDONALD'S NEIGHBORHOOD STORES**

"There's One Near You"

**Extr Mileage Tire Preservative 49c**  
• Increases tire life  
• Easy to apply  
• Protects tires against the deteriorating action of sunlight and against oxidation. Enough for ten tires.

**McDONALD'S NEIGHBORHOOD STORES**

**only \$82.50**  
Other Imported Crystals \$54.50 to \$175.00  
Budget Plan If Desired  
• Order By Mail •  
**ANDERSON**  
ELECTRIC SUPPLY CO.  
Cor. 5th and College Sts.

## BELK'S COLLEGE STREET STORE SEPTEMBER SPECIALS FOR FRIDAY AND SATURDAY!

**Boys' PLAY SHORTS 98c**  
**Boys' DRESS SHIRTS 59c & 69c**  
**Belk's Bloodhound OVERALLS 98c**  
**Boys' Sizes 4 to 16**

**WOMEN'S & CHILDREN'S HATS**  
This lot of women's and children's hats represent values up to \$3.00. Special at **88c**  
**DRESS OXFORDS for entire family!**  
These include boys', girls', women's and men's styles. Sturdily built **\$1.98**

**BELLBRO GINGHAMS**  
This is the famous Bellbro brand gingham... in a wide choice of colors **19c yd.**  
**CRETONNE 15c yd.**  
**SLUB BROADCLOTH 29c yd.**  
**SPUN RAYON in all new fall shades 39c yd.**

**FELT BASE RUGS**  
6 ft. x 9 ft. **\$1.99**  
9 ft. x 12 ft. **\$3.95**  
Special! Bordered  
We've just received a large shipment... of all new fall patterns.  
• Crinkled  
• Bedsreads \$1.00 ea.  
80" x 100" size  
**BELK'S COLLEGE STREET STORE**  
125-127 N. College St. Phone 2-3121