



AERONAUTICS

Swift Action in Europe Shows Up Aviation Lacks

British Royal Air Force Hampered by Lack of "Pocket Battleships of Air"; Have Not Standardized Models

By LEONARD H. ENGEL

GERMANY'S Luftwaffe has profited in three weeks of western front Blitzkrieg from many Allied shortcomings other than the overwhelming one of appalling shortage of planes, study of the action so far indicates.

It is still too early to come to final conclusions about many things, but each day's budget of cables from the war zone seem to this correspondent, who is recently returned from Europe and who has followed aviation developments closely for some time, to be revealing these weaknesses.

The Royal Air Force today is paying for lack of multi-engined fighters—"pocket battleships of the air." These are heavily-armed speedy fighting planes developed in Germany, France and the United States in recent years. Examples are the Bell Airacuda, 350 miles an hour and two 37 mm. cannon and four machine guns; the 450-mile-an-hour Lockheed P-38; and, of course, Germany's efficient Messerschmitt 110.

The 360-mile-an-hour Me 110 has been doing yeoman work convoying bombers and attacking Allied fighters in its own right. Unfortunately for the Allies,

France's fighter-bomber-reconnaissance monoplanes have not gotten far beyond the preliminary production stage as yet.

British single-seat fighters, the Supermarine Spitfire and the Hawker Hurricane, are the best single-seat fighters in the war. The American Curtiss P-36, beloved by French combat pilots, is also more than a match for its single-seat opposition, the Messerschmitt 109, a highly-modified version of which holds the current world speed record. But none of these Allied planes are in the same league with the faster, longer-ranged and more heavily armed Me 110.

Argument still rages among aeronautical engineers as to which type—single or multi-engine—should be faster. But none deny that the Me 110 is faster; and that any twin-engined fighter has more gun-power and greater endurance.

The British oversight is somewhat curious in view of the fact that the Westland Lynx, an English plane, was the first multi-engined fighter. Developed more than a decade ago, it was a failure and the whole class was apparently dropped. A speedy light bomber, the long-nosed Bristol Blenheim (six tons, 295 miles an hour) has been converted

for use as a fighter, but it is a makeshift and is not fast enough.

The Allied air forces have been repeatedly criticized by airmen in touch with the situation for not developing ground attack techniques or dive-bombers adequately. This would appear to be something else coming home to roost.

England's sole plane in this class is the Fairey Battle, single Rolls Royce Merlin engine, 237-mile-an-hour top speed at low altitudes, inadequately armed. The Battle was sent to France at the start of the war, but was recalled from action in January of this year after it had proved to be "live bait" for bullet-spitting Nazis. The Nazi Ju 87 is more efficiently manned as well as being inherently superior.

People in aviation are also pointing out today that extreme British caution in placing aircraft orders, which resulted in perhaps four to six months' delay, is also "paying dividends." Had bulk orders been placed immediately on repeal of the embargo, instead of not before last month, deliveries might now be running at a 500-a-month rate in place of 250 a month. Deliveries are actually running a little ahead of schedule. The schedule appears to be at fault.

The multiplicity of British types has contributed to the Allies' numerical inferiority by making standardization more difficult and thus slowing production. Five British bombers are currently in production as against three in Germany, for example. One, the Vickers Wellington, is constructed on the fantastically complicated "geodetic" principle. It has 60,000 parts, 18,000 of them different—exclusive of skin or rivets. The plane is built in Southampton.

Science News Letter, June 8, 1940

Training of a *homing pigeon* in the army begins when the bird is four weeks old.

● Earth Trembles

Information collected by Science Service from seismological observatories resulted in the location by the U. S. Coast and Geodetic Survey of the following preliminary epicenters:

Friday, May 24, 11:33.7 a.m. and 4:57.7 p.m., EST

Near Peruvian seacoast, north of Lima. Latitude 11.9 south. Longitude 77.4 west.

Tuesday, May 28, 8:57.6 p.m., EST

Headwaters of Porcupine River, south of Arctic Circle, about 50 miles east of Alaska-Canada boundary. Latitude 68 degrees north. Longitude 139 degrees west. Strong shock, in region usually rated as non-seismic.

For stations cooperating with Science Service, the Coast and Geodetic Survey, and the Jesuit Seismological Association in reporting earthquakes recorded on their seismographs, see SNL, Feb. 24.