

# ENGLAND: 1942

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Early Sunday morning, December 7, 1941, our group boarded a train at Las Vegas for England. A few hours later we heard of the attack on Pearl Harbor. With that as a starter, we almost expected to be caught in an invasion of England, but, for the five months we were there, little German activity took place in any part of Britain.

The trip over was made on a troop transport, while the return trip was made by freighter. James Van Horn, '38, Lt. U. S. Signal Corps, was in an adjoining cabin on the way over. Of the two the freighter was the most enjoyable, except from the standpoint of time. As a troop ship, the ex-liner was carrying many times its normal capacity. The black-out was complete and almost foolproof. The glow of a cigarette has been seen for a distance of two miles at sea. The portholes were all boarded shut, and a double set of doors was used for leaving and entering the lighted section. Even ventilators that could emit light were closed up. This meant the ship was stuffy inside. We were required to carry our life belts with us at all times. There were few objections about this, but many jokes. By the end of the trip they had many names such as "parachute" and "Mae West."

Every day we had lifeboat drill. This meant standing in the cold wind for quite some time. Few were prepared for such cold weather, and the variety and combinations of clothing that appeared on deck were remarkable. One of the favorite discussions during this period was how long one could live in the cold water.

We were given very little news on board of the outside world, and absolutely no news as to our position. Hence, each day a new crop of rumors, usually quoting the captain, started the rounds of the ship. The Australians on board had spent so much time under similar circumstances that they had them named "D R R's" (Daily Routine Rumors). For the first part of the trip we had a very strong escort, so the rumor was that a large German battleship was in the vicinity. The sailors on board were afraid of airplanes, the airmen of submarines, and the civilians of the number of places available in the lifeboats. The news bulletins covered the world situations with such statements as, "Prime Minister Churchill is the guest of President Roosevelt at the White House."

On the trip back we had access to the ship's radio for direct news broadcasts and much more freedom of movement.

We amused ourselves by trying to keep track of our position at sea. Why on our way to England we spent hours going west, we are likely never to know. We returned with a better understanding why there is a shipping shortage. The time consumed in waiting for a convoy to form, in zig-zagging, and in keeping back with the slowest boat greatly reduces the effectiveness of each ship.

On neither trip did we have any known contact with the enemy. One of our escorts would now and then dart off, then reappear. On the return trip one of our escorts detected a

whale and caused considerable excitement for a few minutes. On the one occasion that depth charges were dropped, the captain of our ship explained them as an attempt to hurry up the ships that were lagging behind. It did. We soon learned that in a large convoy, the man at the helm of the ship next to you is almost as dangerous as the enemy.

Our first sight of the British Isles was the barrage balloons at Liverpool. We immediately started to count these small specks on the horizon. From that day on, I was never able to count the same number twice. There are just too many of them, and yet more could be used. Their habits were also another mystery. Their pattern was far from regular. One could never predict if they would be up or down. The only consistent quality is that they usually all go up and come down together. They make a pretty picture during a clear sunset, and make a spectacular sight when on fire. They evidently accomplish their purpose in keeping the enemy planes at a respectable height.

I was surprised rather than shocked at the damage that we were soon to see. Surprised that so much had been left standing. I do not wish to underestimate the damage that was done, but to call attention to the tremendous task it is to destroy a large city by bombing alone. In particular, London struck me that way. London is so large that the damage looks relatively small. In a smaller city such as Coventry, the damage stands out much more.

England had not had a raid of any consequence for almost eight months. Most of the damage had been cleaned up, and many buildings had been rebuilt. The British were leading a changed life, but it was not one that will lead to defeat. It would have been a different matter if an invading army had followed the raids immediately. We soon saw evidences of the make-shift defenses thrown up after Dunkirk. It is the consensus of British opinion that the Germans might have successfully invaded Britain after Dunkirk. As in America, there is a variety of opinion why the Germans did not invade.

It did not take us long to decide we would just as soon miss the experience of an air raid. The Germans were kind enough to oblige by only causing a few alarms. We were to hear many stories about the raids, all of which agreed on two points. The raids are terrifying, but if each individual does his part, their damage can be greatly reduced.

The latest blitz technique used by the Germans was to drop thousands of incendiaries and then to drop the high explosives into the fires started—stoking them, as the British say. The result was that the poorly manned areas received the greatest damage. Most incendiaries are relatively easy to extinguish if attacked immediately. However, that takes a lot of fire-fighters and fire-watchers. They must also work while the explosives are coming down.

There is considerable difference of opinion among towns as to which received the severest blitz. Many of those who had near misses are rather proud of the holes in their

back yards. Most are rather proud of their air raid shelters. There are many types and all have saved lives. Some have even built theirs into the house as a secret room which is entered through sliding panels. Tragic mistakes have been made as to what constitutes a satisfactory shelter. A basement is not a satisfactory shelter as its ceiling will not support the possible load above it, or one which can be flooded or filled with gas.

I had not realized before the problems arising with a large raid that are acute after the raid has stopped. One has to assume that the regular water, gas, electric, sewerage, communication, and transportation systems are out of commission, and the hospital hit. This is not always the case, but it is for what one has to prepare. Although, putting out the fires is the first task, sanitation and its related problems are just as important. Surprise was expressed at the successful prevention of sickness and disease. Coventry was thankful for the paper cups sent by America. They helped in the distribution of sterilized water. It is the individual himself who must take care of these problems. He must keep his own house from burning down, look after his own health, and keep at his job. When the British learned that it was safer to keep production going (more guns, etc.) than to go to shelters, the effectiveness of the air raid was greatly reduced.

It is with a great deal of justified pride that a plant manager will tell of fighting off a raid without the loss of production. If the plant uses such materials as liquid chlorine and is located in the middle of a city, the problems are many. Most plants have their own systems of air raid warning and control. Work is carried on as long and as rapidly as possible.

If the plant is in an outlying district away from the regular defenses, the plant staff has the added problem of controlling aircraft defenses, manned by home guard units composed of men from the plant. Three German bombers had made a direct attack on one such plant visited. The anti-aircraft fire was so accurate that it brought down one of the planes and drove off the other two. The crew of the crippled plane bailed out and were captured. It was with great amusement that we were told of the fear shown by the young Germans when women from a nearby village came out to meet them with meat cleavers.

Apart from enemy action, the problem of keeping British industry running is not an easy one. A very delicate balance must be maintained between the importation of food, necessary industrial and military materials, and the shipping space available. A change in a war front does, of course, change the ease or difficulty with which some raw materials can be obtained. A ship returning from India can bring back the much beloved tea. Wood was such a scarce material, in some places concrete forms were being built with brick, in others the dirt sides of excavations served as one side of the form. The latter also requires a prayer for a dry spell as well as a great deal of optimism. The encouraging part was that most of the tricks used to conserve imported materials worked.

The factors of safety which the engineer so loves to use has been more than justified during British wartime experiences. Machines are running well above their rated capacity since

the invasion of Poland and show no signs of weakness. Whatever the political effect of Munich, some industries imported tremendous stocks of materials. The number of German-built factories and machines in Britain, which were obtained just before the war, is something that puzzles those who consider Hitler's pre-war intentions. Coventry still remembers the German engineers who were there just before the war broke out.

The black-out was an interesting experience, but after a few months rather tiresome. It is hard to describe how black a city can be. The only lights visible are the occasional flash of an electric street car (tram), the green and red slits of the signal lights (robots), and that of flashlights and cigarettes. The regulations require that the flashlight beam be no larger than  $\frac{3}{4}$  of an inch in diameter and the lens, no matter how small, must be covered so as to give a diffused light. A light should never be pointed upward, and a match should be covered with the hands while lighting it. Care is taken that no cracks, no matter how small, occur around windows. It is claimed such a crack gives a searchlight effect and can be seen for miles. To show a light during a raid is almost fatal. If the Germans do not drop something on the offender, the home-guard would be likely to send a few bullets. Phosphorescent buttons or paving strips were not to be seen. Even the specially constructed blackout street lights were not used.

One soon recognized buildings by their silhouettes. I have been lost in a town in daylight, in which I could find my way about in the blackout. The blackout does not dampen the spirit of those who go out. There is a considerable amount of singing. One must be very careful in moving about during a blackout, especially of moving vehicles. A driver does not have much chance of seeing a pedestrian. After my first night in the good-humored crowd at Liverpool, I decided that the spirit of Britain had not been broken.

Travel, in general, is rather hard, and is discouraged as much as possible. Busses stop running at 10:00 P.M. Except in London, taxis are hard to find at any time. The trains are always crowded with military personnel on leave. It was with great surprise that I awakened one night to find a soldier in full equipment asleep on my shoulder. Diners and sleepers can be found only on the more important runs. The ten-ton capacity freight cars (goods vans) were always a source of amusement to us. The old canal system has been utilized to some extent. The boats are about six feet wide and thirty feet long. In some places one branch of the canal will pass on a bridge over another branch. In another place the small canal passes over a large ship canal on a draw bridge.

The American tourist would find most of his favorite spots untouched by war. Most of them are very quiet, and many closed to the public for the duration. Some, of course, have been damaged or destroyed.

One gets the best idea of the rationing, by looking at it from the standpoint that, if there is no shortage, war industries are not being given all the materials possible. No one is going hungry, but no one is getting all of what he would by choice like to eat. It is lack of variety in the meals that one misses most. The food sent over from America has been much appreciated. Much interest was displayed in boneless cuts of meat.

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However, absence of bone presented a problem to the glue industry. A Mid-westerner in our group was much concerned that we had sent considerable quantities of dried beans with no instructions for cooking them. The result was a filling but not a tasty dish. This, he claimed, was ruining the market for these beans in Britain. We had also sent over considerable quantities of salt pork. This was sliced and sold as bacon. Fried salt pork is hardly eatable. This soon became known as American bacon, and most Britishers were convinced that all American bacon is saturated with salt. I tried to do some good by convincing as many people as possible to soak this product before cooking it. These are just two mistakes in a very large program. American beef is earning itself a very good name. Prem, Spam, etc., are becoming well-known names.

Of all things sent to Britain from America by individuals, I believe that the dried fruits were most appreciated. The British are greatly amused by our tea bags, but rather like the idea. Tea is not too scarce, and could be had in any household any hour and in most factories.

The three years of war and the raids, as well as the stoppage in production of non-essential goods, have caused a very great shortage in most goods and services. So many barbers have been called into the service that ten minutes is all the time that can be given for an individual hair-cut. There is, also, considerable unofficial rationing by merchants to their customers.

Britain, in general, has many misconceptions as to what America is like, and the way Americans live. Some of the information given to the public by popular British authors is not based on a real knowledge of America. Our motion-pictures are having a great effect on the British. There are many who hope to rebuild along the lines of American towns as portrayed in our films. Children of people with a dialect, hardly understandable, talk American movie slang.

Except for the very optimistic or pessimistic reports American news channels seem to be giving a fair view of the situation in England.

## Utilities in the War: Communications

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When the several emergency services reach the scene of an incident the senior official present may become the Incident Officer and coordinate activities, or the Control Center Chief may send an Incident Officer to the scene from the Control Center. He establishes a field headquarters and message center serving all the defense units, usually at the nearest telephone which can be used for communication with the Control Center.

### OTHER ACTIVITIES

In connection with civilian defense it is of interest that the Bell Telephone Laboratories at the request of the National Defense Research Council developed a high-volume air raid siren which was described by authorities testing it as the first "real" siren they had heard tested.

In addition to providing arrangements for aircraft warning and civilian defense networks as outlined, networks for many additional essential services are provided. The experience gained in using these from day to day suggests many changes and one

of the important duties of the telephone companies is to make these changes and improvements as quickly as possible after they are requested. This keeps many employees busy, frequently long after regular working hours.

Many plans have been placed in effect by the telephone companies in order to make small supplies of critical materials serve as many telephones as possible. One interesting material-saving device is the new method of joining the sheaths of lead-covered cable where the cable conductors are spliced. Using the old method, the Bell System required annually 2,500,000 pounds of solder of which 40 per cent was tin. The new Victory Joint makes possible a saving of 600,000 pounds of tin annually at the usual rate of use of solder. Another instance of material saving is a recent job in Southern California, where 157,200 pounds of copper were saved by replacing 600 miles of .165 inch copper wire with .104 inch copper wire. This made possible the addition of 39 long distance circuits.

One of the greatest emergency demands on the telephone companies is for service to Army and Navy training stations where the concentrations of young men away from their homes mean many telephone calls. To handle these calls the companies, cooperating with the military authorities, provide booths at many points throughout the training areas and at one or two locations in each area attended pay stations are installed. One pay station built on a trailer and providing five attended booths has been in use at a Southern California Air Base. It is recognized that telephone service aids in maintaining morale and the military authorities have worked with the companies in providing telephones for the use of the men. The conditions to be met by the telephone facilities at training stations are frequently severe because of the usual necessary location of the stations at considerable distance from telephone offices. This sometimes makes it impossible for the telephone companies with the limited materials now at hand to provide as good service as they would like to, but the best possible under the circumstances is provided and users, understanding present obstacles, generally accept this good-naturedly.

When communication specialists are needed, the telephone companies are naturally turned to. Since this country began preparation for war, many specialists have been requested for both military duty and civilian duties connected with the war. In all, over 15,000 Bell System employees have entered the armed forces.

Most of the foregoing discussion has dealt with services being rendered directly to the war and defense effort. The telephone companies must, of course, in addition to providing such services, carry on other services in such a way as to contribute a full part to the nation's welfare under war conditions. That this may be done employees have been organized and equipped to protect and restore service, and buildings have been placed under increased guard and have been provided, where necessary, with additional protective equipment.

Although it is not deemed judicious to publish information regarding many of the steps taken to maintain service, it is true that the telephone companies have taken every precaution to insure calls going through.

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