

# WHY WEATHER?



A radio weatherman from the Weather Squadron in Italy, 1944.  
(*The National WWII Museum, 2002.337.038*)

Here are two good questions: Why are people always talking about the weather? Does weather really matter? A particular weather forecast on one day in 1944 might provide some answers.

When the Allies were making plans to invade France and take it back from Germany in spring 1944, they had to consider many variables. The tide had to be low so that they could see and avoid mines. The moon had to be full so that airplanes could navigate at night. The weather had to be clear and calm.

The window of opportunity was for early June. If the invasion came much later, the Germans would notice the large numbers of ships and troops assembled in southern England. But in early June, the weather on the English Channel separating England and France is often very stormy.

Captain Stagg, a British officer in the Royal Air Force, was in charge of assembling forecasts from the different groups involved in the planning. Stagg had to tell General Eisenhower, the US officer in charge of the operation, when the weather would be best. Eisenhower and his team had initially set the date for June 5.

The troops were to be carried in landing craft from ships offshore to the beach. These landing craft were small, and rough seas and bad weather would have made it very hard for them to reach the shore. Many of them would have sunk if it were stormy.

The Allies had weather stations in Canada, Greenland, and Iceland to collect data to support forecasts. Since weather generally

moves from west to east in the Northern Hemisphere, the open Atlantic is a challenge for forecasters. When there are no weather stations to the west of a particular location, it is hard to predict what the weather will be at that location. In the United States, for example, weather systems from the western to the eastern states can be followed easily.

Because they had many stations across Europe but very few in the Atlantic, the Germans had an even harder time predicting weather. The Allies and their meteorologists knew that a series of low pressure systems and fronts, each bringing stormy weather, were lined up across the Atlantic Ocean. One of these was arriving over England on June 3 and 4. Thus, US meteorologists were recommending that the invasion proceed on June 5 as planned.

British meteorologists insisted that the weather would be too bad on June 5 and that the invasion should be postponed. Some suggested that the earliest possible date would be around June 16, a date that seemed too late for the invasion.

A few meteorologists from England suggested that there would be a short period of calm weather between the storms and that June 6 would be a good date for the invasion. In his report to General Eisenhower, General Stagg gave June 6 as his recommendation. Today, that is the date that is remembered as D-Day. Stagg trusted that his team, with more experience predicting the weather coming across England from the Atlantic than the American team, had the better prediction.

The Germans saw the storms in the Atlantic, but didn't have enough data on their size or exact location. Because of this lack of information, they thought it was impossible for the Allies to invade before the middle of June. Based on this forecast, the Germans moved some troops away from the coast and were less prepared for the invasion.

In the end, the weather on June 5 was terrible. Seas were rough and winds high. Though conditions were still a bit tough on June 6, the landing craft were able to get through the waves to shore.

On June 7, the Allies built a temporary floating port, which allowed them to put ashore many trucks and tanks and tons of supplies. Two weeks later, on the date that some officers suggested for the invasion, another large storm came through and the temporary port was destroyed.

**Why was the Royal Air Force better at predicting weather for the D-Day invasion than US forecasters?**

**How accurate are weather predictions today? Can you think of a big event that has been affected by weather? Would you be comfortable using a weather forecast to decide on a big event like D-Day if you were in Eisenhower's position?**