

A Science Service Feature

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? WHY THE WEATHER ? Mailed September 6, 1930.

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HANGAR WINDS

The task of docking or undocking an airship--as the operations of putting the vessel into her hangar and taking her out of the same are called by airmen--is often rendered difficult and dangerous by the pronounced turbulence of the winds blowing about the huge structure in which such a vessel is housed. The waves and eddies formed in the air near the building can be made visible by the use of smoke clouds and they are found to be very complex. Lieut. Francis W. Reichelderfer, aerological officer of the U.S. naval airship "Los Angeles," says:

"The zone to leeward of the hangar, in which there are strong descending currents, is a critical place during docking and undocking through the leeward door. Winds not parallel to the hangar in direction are attended by different forms of turbulence. Recently designed hangars have streamlined shapes and circular doors which roll back against the sides of the hangar to reduce turbulence to a minimum. Wind screens of various types designed to smooth out wind flow have not attained practical success."

Besides its effect in causing turbulence by opposing an obstacle to the flow of the winds, the hangar becomes so heated by the sun on a clear day that it tends to set up a local wind circulation. Lieut. Reichelderfer tells us that the upward escape of heated air from the hangar, after the opening of the doors, sometimes produces a light wind of several minutes' duration.

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