

camera failure in eight months. Exhibiting further initiative when the oblique camera installations broke down, pilots dipped their wings, thus elevating the aerial camera to the required tilt. These low altitude obliques were eagerly sought after for surface vessel identification, and "dicing" techniques were soon perfected by resourceful pilots.

North-west Africa combat operations led Lieut.-General Carl Spaatz to praise photographic reconnaissance as one of the most valuable tools available to him. Major-General James H. Doolittle, commanding the Strategic Air Force, was quick to concur. "Working without photographic reconnaissance," he said "is like working in the dark."

Operational procedure followed in North-west Africa sets a pattern for the manner in which photography supports strategic bombardment.

An operations officer of the Strategic Air Force sent by messenger a daily list of the objectives to the Photographic Wing indicating the priority, the location, and the reason for requesting the desired coverage.

After checking available airplanes and the weather, the next day's missions were set up by the Wing Commander. By 1900 (7 p.m.) a copy of the missions was sent back to the headquarters of the Strategic Air Force for entry on their operations board.

Assigned missions were flown the following day. All planes usually returned to their base by 1000. Dry prints were made, and the first photographic interpretation was accomplished. Prints were then sped back to the Strategic Air Force, usually arriving at 1200 and were used as a basis for the afternoon's raids. Photographs secured in the afternoon were delivered in the same manner by 2000 and were used as a basis for the following morning's operations. Thus, round-the-clock operations were assured.

Each theatre poses its own problems. In Alaska, for example, the below-zero weather on the mainland calls for aerial photographic equipment different from that required by the milder but foggier weather of the Aleutians.

Extremely difficult flying, and weather conditions are prevalent west of Dutch Harbour. Very rarely is it possible to photograph from higher than 5,000 ft. Because of the relatively concentrated areas occupied by enemy installations, large-scale photographs are needed. High shutter speeds are necessary to stop motion and get the needed overlapping exposures at low altitudes. Cameras must be specially sealed against volcanic dust. Because weather conditions change so rapidly after take-off, pilots are now able to control the diaphragm opening of their camera shutters from the cockpit. This enables rapid adjustments for the varying light conditions they will meet.

To obtain more than a small fraction of information which photographic aviation is capable of securing, intelligent co-ordination is required. An understanding of the mission and capabilities of photography by all elements of the command is necessary. The photographic Group Commander is generally best qualified to act as photographic officer on the staff of the Air Force Commander. As such, he advises his Commander on mapping and photographic missions and co-ordinates all photographic aviation to insure peak efficiency of the various interlocking uses to which it is put.

For every minute of the day and night the Air Force Commander wants to know these things: What is the enemy doing? What is his strength? What are his intentions? And photographs tell the story with unerring accuracy.

