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PHOTOGRAPHIC INTERPRETATION MEMORANDUM



GEODETIC SURVEY TOWERS IN NORTH VIETNAM

NPIC/R-107/68 SEPTEMBER 1968

Declass Review, NIMA/DoD

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GEODETIC SURVEY TOWERS IN NORTH VIETNAM

Analysis of recent low level photography of North Vietnam reveals that 30 large towers previously believed to be associated with microwave communication are geodetic survey towers and are used for triangulation (Figure 1).

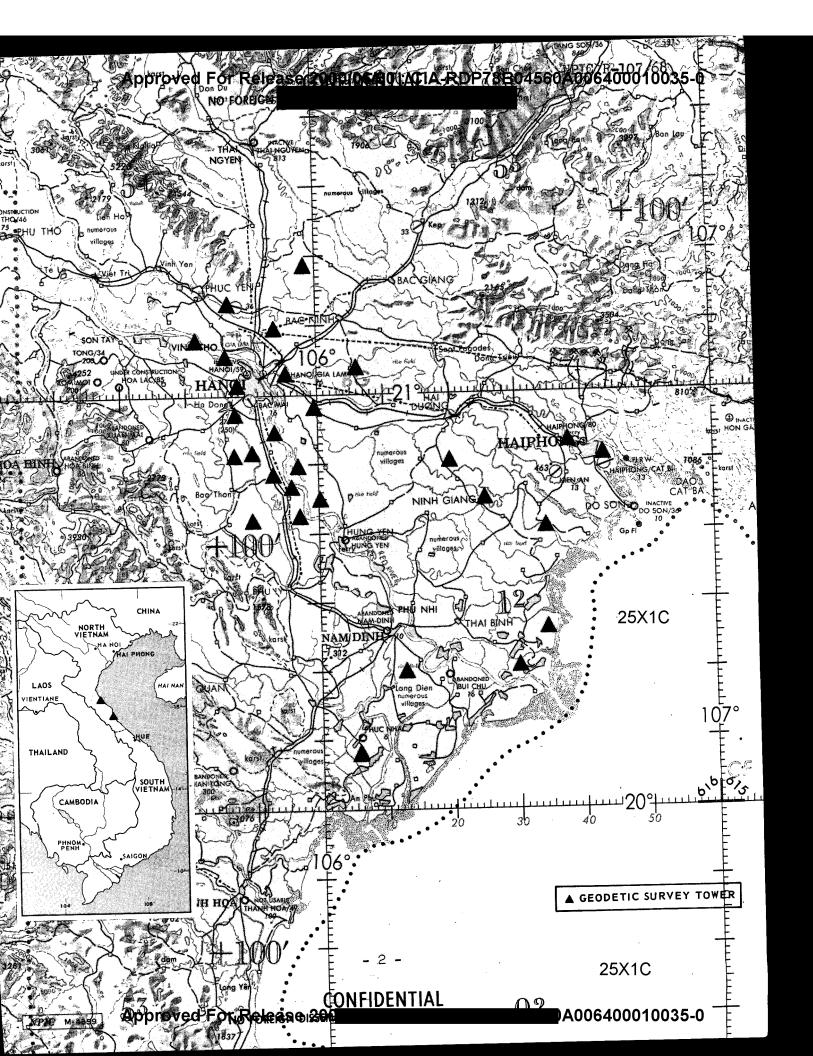
The towers are 85- to 110-feet high and consist of an instrument (inner) tower for the survey instrument and an observer (outer) tower which has a signal source triangle head, lightkeeper platform, and an observer platform (Figure 2).

When conducting a geodetic survey, horizontal control is achieved by means of triangulation and it is necessary that stations be intervisible over long distances; therefore, towers are required in flat and timbered regions. The United States Coast and Geodetic Survey uses the Bilby steel tower (Figure 3) which is similar to those in North Vietnam and consists of one tripod support for the instrument within another support for the observer platform. This double tower combination enables the instrument to be completely stable and free from disturbance by the observer's weight and movement.

The Bilby towers used in the United States are designed so that they can be dismantled after use and rebuilt at another station. The Vietnamese towers have been in place for several years, so it is possible that the war interrupted a survey project that has not been completed.

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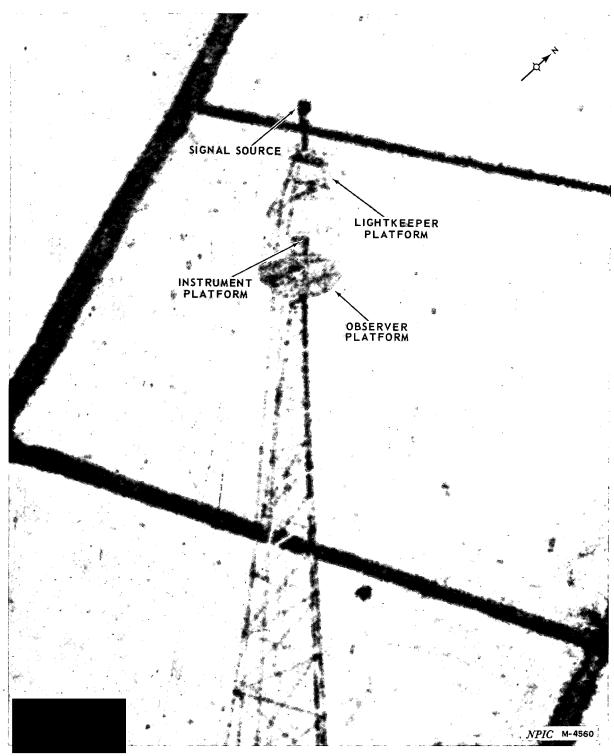


FIGURE 2. NORTH VIETNAMESE TOWER.

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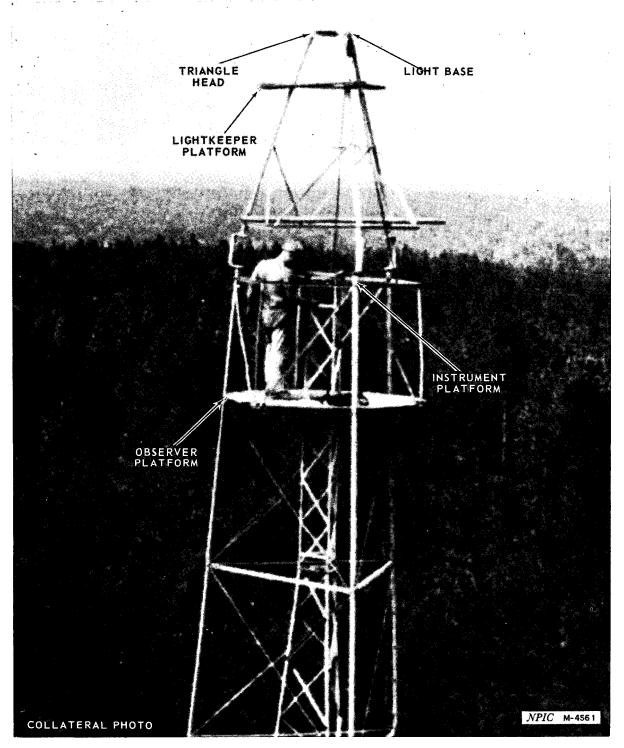


FIGURE 3. BILBY TOWER, USA.