UNITED STATES OF AMERICA
CIVIL AERONAUTICS BOARD
WASHINGTON, D. C.

Civil Air Regulations Amendment 61-17
Effective: May 19, 1948
Adopted: April 14, 1948

ADDITIONAL FLIGHT CREW COMPLEMENT FOR DOMESTIC SCHEDULED AIR CARRIERS

The Civil Aeronautics Board on October 6, 7, and 8, 1947, conducted a public hearing on the question of whether, and under what circumstances and conditions, if any, additional flight crew members should be required on air carrier aircraft. Testimony was presented relative to the desirability of requiring a flight engineer, a flight radio operator, and a flight navigator, individually and collectively as part of the required flight crew complement. Upon due consideration of the evidence presented the Board has determined that the present regulations which specially require only a first and second pilot should be amended, so as to require a flight engineer under specified circumstances. The Board's conclusions for not requiring any further additions to the flight crew personnel are also set forth below:

A. Flight Engineer

In the hearing above referred to extensive testimony was presented to the Board with respect to the desirability of a flight engineer on various aircraft such as the Douglas DC-6, the Boeing 377, and the Douglas DC-4. As a result of this testimony the Board has concluded that the multiplicity of instrumentation and complexity of operational controls on certain of these aircraft limit the pilots' ability to focus attention on all the critical instruments and controls. It is believed that a competent flight engineer by assuming certain mechanical duties will enable pilots to concentrate on actual flight of the aircraft, radio operation, and receipt of traffic control clearances, particularly during instrument conditions where this is imperative. The Board considers that the flight engineer is required on aircraft of the size and complexity of the Douglas DC-6 and the Boeing 377. Under certain operating conditions such as some extended over water flights the safe operation of the Douglas DC-4 may require the assignment of a flight engineer. Therefore, the regulation herein established will require flight engineers on aircraft such as the Douglas DC-6 and the Boeing 377, and will permit the Administrator to require flight engineers on other aircraft, including the DC-4, where such airmen are essential for safe operation. The Board is cognizant that compliance with this amendment may require the training of additional personnel and for this reason has established the date of December 1, 1948, as being sufficiently advanced to constitute a firm compliance date.

B. Flight Navigator and Flight Radio Operator

The Board, after carefully evaluating the testimony with respect to the value of flight navigators and flight radio operators on flights within the continental limits of the United States, has determined that the navigational aids available to pilots, and the dependability of radiotelephony

are such as to obviate the need for professional assistance to the pilots in these specialized fields.

Interested persons have been afforded an opportunity to participate in the making of this amendment, and due consideration has been given to all relevant matter presented.

In consideration of the foregoing the Civil Aeronautics Board hereby amends Part 61 of the Civil Air Regulations (14 CFR, Part 61, as amended) effective May 19, 1948:

By amending § 61.56 to read as follows:

61.56 Flight engineer - when required. After December 1, 1948, an airman holding a flight engineer certificate shall be required solely as a flight engineer on all aircraft certificated for more than 80,000 pounds maximum take-off weight, and on all other aircraft certificated for more than 30,000 pounds maximum take-off weight where the Administrator has found that the design of the aircraft used or the type of operation is such as to require engineer personnel for the safe operation of the aircraft.

(Secs. 205 (a), 601, 604, 52 Stat. 984, 1007, 1010; 49 U.S.C. 425 (a), 551, 554)

By the Civil Aeronautics Board:

/s/ M. C. Mulligan

(SEAL)

M. C. Mulligan
Secretary

Part 61 last printed August 1, 1946.