## UNITED STATES OF AMERICA CIVIL ABRONAUTICS BOARD WASHINGTON, D. C.

Interpretation of Special Civil Air Regulation SR-405 Adopted: June 23, 1954

## CREW FLIGHT TIME LIMITATIONS FOR CERTAIN TRANSCONTINENTAL NONSTOP OPERATIONS

On June 11, 1954, the Board, after notice to interested persons and receipt of comment and oral argument, promulgated Special Civil Air Regulation SR-405. By this regulation air carriers were permitted, in the conduct of scheduled transcontinental nonstop flights, to schedule flight crew members for more than eight but not more than ten hours of continuous duty aloft without an intervening rest period. By petition filed June 16, 1954, the Air Line Pilots Association has requested the Board to reconsider this action.

The Board by order issued concurrently herewith has denied the petition of the Air Line Pilots Association, but because that petition raised certain questions with respect to the Board's intent in promulgating SR-405, the Board considers it desirable and in the public interest to issue this interpretation of that regulation.

The Board in issuing SR-LO5 did so because it was convinced that the transcontinental nonstop operation was, if anything, safer than a scheduled one or two stop flight over the same route, and that the additional flight time which the pilots might be required to put in on any given day would not so decrease their piloting effectiveness that safety would be adversely affected at any time during the flight. In arriving at its conclusion the Board had in mind the fact that a twelve-hour maximum flight time limitation has been in effect in overseas and international operations for several years, and that the Board has had no evidence that this latter rule has adversely affected the safety of the operations covered. For a more complete description of the considerations which impelled the Board to take this action, reference is made to the opinion published with the regulation.

At the same time, the Board, bearing in mind the rule-making proceeding initiated by it on May 28, 1954, to consider an increase in the flight time limitations from eight to twelve hours for certain operations within the continental United States and any related limitations, did not wish to anticipate or otherwise prejudice its action therein. Consequently in issuing the Special Civil Air Regulation, the Board circumscribed it with certain safeguards which may or may not prove to be appropriate to the final rule which may come out. These safeguards include an extension to no more than ten hours of scheduled flight time, rather than the twelve hours which are applicable in the overseas and international rules and which are contained in the notice of proposed rule-making above referred to. Moreover, the limitation was imposed that the airplanes on which crews were so scheduled must be pressurized. It was recognized that sound operational practices could not guarantee that flight crews will not be required by force of circumstances to fly occasionally more than ten hours. However, it was the Board's intention that only circumstances beyond the carrier's power to control should bring such a situation about. Thus, the Board does not expect that carriers will make substitution in equipment, unless that equipment itself is capable under normal conditions of making the trip concerned nonstop and within the ten-hour period.

In SR-405 the Board used the words "may schedule flight crew members for more than eight but not more than ten hours of continuous duty aloft without an intervening rest period\*. This phraseology parallels that used in flight time limitations in the Civil Air Regulations, and consistently therewith, must be held to mean that the crew members may lawfully be assigned to a trip which is scheduled to be and on the average is completed within the prescribed maximum time. However, individual flights may exceed the limit, in which case the crew is normally expected to remain on duty. Obviously, it is possible that unexpected circumstances, such as mechanical interruptions requiring landings en route, may so delay the flight that it would be unsafe for the crew to continue on to final destination without some rest. In such circumstances, it is not only the crew's privilege to refuse to contimue the flight, but its duty to do so. Section 43.42 of the Civil Air Regulations specifically prohibits a pilot from operating an aircraft during a period of known physical deficiency, and a temporary impairment produced by extreme fatigue comes within the terms of that section. Moreover, this rule is confirmed by the provisions of \$40.391(a), which provides that "No aircraft shall be continued in flight toward any airport to which it has been dispatched when, in the opinion of the pilot in command or the aircraft dispatcher, the flight cannot be completed with safety, unless in the opinion of the pilot there is no safer procedure".

The fact that landings are made in the course of a scheduled transcontinental nonstop flight will not operate to cut back the allowable scheduled flight time from ten to eight hours, provided that the landings are made for reasons of safety of the flight or of those on board. Any stop for a traffic purpose, however, would take the flight out of the class covered by the special regulation, and the general eight-hour rule would apply.

If a mechanical difficulty should arise in the course of a transcontinental nonstop flight, and the captain elects to return to the point of departure, SR-h05 does not prohibit the same crew from taking the flight out again, even after a delay of several hours, just as would be possible under the regular eight-hour rule. However, as stated above, if the captain believes that the flight cannot be completed with safety because of his fatigued condition or that of other members of the crew, his obligation is not to proceed.

SR-405 contains two conditions which must be met on every flight covered by its terms. These conditions are that the particular airplane be pressurized and that it be manned by at least two pilots and a flight engineer. The Board construes the word "pressurized" as requiring that the pressurization system be operative at the time of commencement of the flight.

While theoretically any number of unscheduled landings for safety purposes may be made, it is expected that the great majority of transcontinental flights covered by SR-405 will be made nonstop, that more than one stop will be necessary in only rare instances, and that more than two such stops on any scheduled nonstop flight would be presumptive of such operational irregularity as to require investigation by the Administrator.

Neither SR-LO5 nor any other provision of the Civil Air Regulations imposes an absolute limitation on the total continuous duty time, including both time in the air and on the ground, of any member of the flight crew. Because of the nonstop nature of the operation, however, the total continuous on-duty time of the crew will regularly be less than on a number of flights operated by the airlines under the eight-hour rule for years. In the rare instance where unforeseen difficulties require landings en route, with a substantial extension of on-duty time, the pilot's honest judgment of his own and his crew's physical condition will be an adequate guarantee that the flight will be conducted safely.

In considering the application of SR-405, it is to be noted that \$40.353 requires that in establishing operations schedules the air carrier take into account certain operating conditions pertinent to the determination of total time of any particular scheduled flight. It is the duty of the Administrator, on the basis of all available information, to determine whether the air carrier has in fact correctly assessed pertinent operating conditions. In the event the Administrator finds that adequate assessment of such operating conditions has not been made, it is expected that he will take appropriate action to cause revision of such operations schedules.

By the Civil Aeronautics Boards

/s/ M. C. Mulligan

M. C. Mulligan Secretary

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