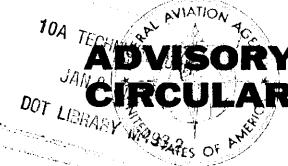
Federal Aviation Agency

AC NO: AC 91-9

GENERAL OPERATIONS
AND FLIGHT RULES

EFFECTIVE :

6/19/65



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SUBJECT: POTENTIAL HAZARDS ASSOCIATED WITH TURBOJET GROUND OPERATIONS

1. <u>PURPOSE</u>. This circular is issued to alert turbojet operators and flight crews to potential hazards involving turbojet operations at airports.

2. BACKGROUND.

- a. We believe the following recent ground accidents involving air carrier aircraft are typical and, in most cases, could have been prevented:
 - (1) A mechanic suffered fatal injuries during a ground towing operation of a large turbojet aircraft.
 - (2) A spectator was knocked down and seriously injured by jet blast from a turbojet aircraft.
 - (3) Several light aircraft have been upset and substantially damaged by jet blast.
 - (4) Ground support vehicles have been blown into other aircraft by jet blast causing substantial damage.
 - (5) A large number of aircraft have been seriously damaged by flying debris due to jet blast.
- b. Accordingly, a survey was conducted by the FAA to evaluate air carrier practices with regard to ground operations particularly at congested airports. Analysis of the survey report indicated a significant number of operational areas where additional precautionary measures are required. Furthermore, the survey highlighted a number of contributing factors which appeared to compound the problem. Some of the more significant are:
 - (1) High noise level during ground operations in the vicinity of aircraft departing and arriving the ramp area.

- (2) Lack of coordination or poor communication between ground support personnel and flight crews.
- (3) Excessive use of power when maneuvering away from the terminal.

 (NOTE: Numerous instances were observed where pilots attempted turns from the parked position with nose wheel cocked.)
- (4) Complexity and size of aircraft and equipment requiring increased ground support.
- (5) Towing and/or taxi operations in crowded areas.
- (6) Ramp congestion.
- (7) Starting of engines without fireguards. (NOTE: Several instances were observed of starting turbojet engines away from ramp without ground fireguards.)
- (8) Aircraft congestion in the vicinity of takeoff areas.
- (9) Apathy toward safety rules and procedures.
- 3. <u>RECOMMENDED ACTION</u>. In view of the above, it is recommended that air carriers, general aviation operators of turbojets, and airport management safety officials review existing safety criteria and safety training programs. In addition, it is further recommended that all personnel be cautioned to remain alert to potential danger areas associated with their operations.

eorge S. Moore

Director

Flight Standards Service

AC 91-9

Canceled by AFO-1 letter of 2/6/85