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National Business Aircraft Association, National Pilots Association, etc. -- and the numerous publishers of aviation periodicals each make an effort to publicize the findings of this study of midair collisions in 1968, as well as promoting, wherever appropriate, the principles of collision avoidance awareness on the part of pilots.

The Safety Board also recommends that the owners and operators of airports, and other responsible local, municipal, county and State authorities undertake to assure that VFR approach and departure traffic pattern procedures are established at every airport. Further, that such procedures be clearly identified and made known to pilots.

The Safety Board further recommends that the manufacturers of general aviation aircraft direct their attention to the need for increased visual conspicuity of small, as well as large, airplanes.

Notwithstanding these recommendations addressed to the aviation community, the National Transportation Safety Board recommends that the Administrator of the Federal Aviation Administration:

1. Undertake an educational program to make both pilots
and controllers more aware of the midair collision problem,
and to make pilots aware that most midair collisions occur
at or near airports in clear weather and in daylight hours.

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- 2. Establish a continuing program to assure indoctrination and continuing awareness on the part of all pilots to the midair collision potential and avoidance techniques (i.e., "see and be seen" concept, descent, turn, and climb maneuvering techniques, etc.).
- 3. Examine more stringently all pilot applicants for their external cockpit vigilance, with particular attention to pilots who are tested for flight instructor ratings.
- 4. Provide special warning and guidance to pilots who are required by the nature of their operations to fly in pairs.
- 5. Inform all certificated flight instructors of the high statistical significance of their involvement in midair collisions.
- 6. Encourage all instructor pilots to notify the control tower operator, at airports where a tower is manned, regarding first solo flights, and require the tower operator to advise other traffic in the pattern about such flights.
- 7. Conduct detailed traffic flow studies for all high-volume general aviation controlled airports with a view to improving the VFR traffic flow techniques of the ATC personnel.
- 8. Designate climb and descent corridors for high-performance aircraft at high-density airports.

- 9. Irrespective of the provisions contained in Part 91 of the Federal Aviation Regulations, establish standard entry, departure, and go-around procedures for each uncontrolled airport.
- 10. In cooperation with ESSA, develop and produce VFR approach and departure charts for selected airports with a high volume of traffic.
- 11. In addition to the requirements of Section 91.89 of Part 91 of the Federal Aviation Regulations, develop a requirement for the installation of surface pattern indicators (for day and night) at smaller airports which would define specific patterns, particularly the base leg and the final approach.
- 12. Reevaluate visual conspicuity standards for all civil aircraft.
- 13. Consider the establishment of requirements for the installation and day and night operation of high-intensity white flashing lights on all civil aircraft.
- 14. Support the expeditious development of low-cost Collision

 Avoidance Systems for all civil aircraft.

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