

## The Outstanding Jet Pilot

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*A study of 105 superior jet pilots aged 20 to 40 years revealed that most were firstborn children with unusually close father-son relationships. They were self-confident, showed a great desire for challenge and success, were not introspective, and tended toward interpersonal and emotional distance. The author cites implications for population control and small families. He feels that we should give more attention to the significance of birth order and specific parental influence in regard to other groups.*

**I**N 1967 AND 1968, commanding officers of representative Navy jet squadrons were asked to select the most outstanding from among the upper tenth of their aviators. Both fighter and light attack (F4, F8, A7, and A4 aircraft) squadrons were included; both airmanship and motivation were considered in making the choices. Fifty-six percent of those selected were newly designated aviators preparing for their first operational squadron tour. The remaining 44 percent had had at least one previous tour with operational squadrons, usually in single-pilot jets. They ranged in age from 20 to 40 years. Each of the 105 pilots selected was interviewed by a psychiatrist for two or more hours and given a battery of psychological tests. In this paper, both background and examination data will be presented and discussed.

### Social History

Many authors (1, 2) have noted that among those attaining eminence in numerous fields,

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firstborns predominate. This is true for jet pilots as well: 67 percent of the 105 studied are firstborn children. It is of interest that the seven original Mercury astronauts (3), 21 of the first 23 astronauts to make space flights (4), 80 percent of a group of Air Force "military achiever" pilots (5), 55 percent of 1,100 unselected Navy jet pilots, 55 percent of a large sample of Army helicopter pilot trainees (3), 47 percent of a group of 70 Navy jet pilot failures, and 47 percent of a 7,184 recruit population (6) were also firstborn.

Among the 105 outstanding jet pilots studied, the overall oldest/youngest ratio (excluding only children) was 4.1:1. The ratio increases from 2.3:1 (sibships of two) to 5.7:1 (sibships of three) to 10.5:1 (sibships of four or more). Only children were found in the same percentage as in a large recruit population—nine percent (6). Intermediate children were underrepresented, but not to so great an extent as lastborn children.

Two-thirds of the fathers had a background of some military service, but it was surprising that 85 percent of them had served specifically in the Navy. Ten percent of the pilots had career military fathers, two-thirds of whom were aviators. The fathers of an additional 11 percent were former military aviators. Seventy consecutive aviator failures from the same squadrons were studied concurrently; they had withdrawn from flying voluntarily or had been grounded for deteriorating flight performance. The fathers of less than three percent of this failure group were active or former military aviators. Nine percent of the outstanding pilots' fathers were attorneys and seven percent were upper-level business executives; both categories were quite competitive in their life styles.

Nine percent of the pilots reported father deprivation (no father or in-house surrogate for three or more continuous years or for shorter periods totaling more than half the pre-college years), as compared with 20 per-

cent of the failure group. Seventy-three percent reported that the father was the more significant parent. Further, typical father-son relationships were distinguished by their intensity and the quantity of shared activities during the pre-college years. The time reported as being spent in shared sport, work, and play activities was so great that the interviewers were at first skeptical; but similar statements were repeated by most of the group.

Eighty-four percent of the study group had never had a personal injury accident (fracture or injury requiring hospitalization), and only three percent gave a history of more than one such accident. Two percent reported one or more police citations for reckless driving, compared with 13 percent of the failure group. Certainly there was little evidence of compulsive risk-taking or counterphobic activity.

### Military and Flying History

Seventy-four percent of the sample reported having chosen military aviation simply as a matter of expediency (for such reasons as career enhancement, officer status, extra pay, or because it was the most attractive of various military options). "Well, I had my degree but wasn't married or ready to settle down in the business. And I really felt I had a military obligation." Twenty-three percent had long desired a career offering difficult, complex, challenging systems and tasks, and they finally selected military aviation as being closest to meeting these needs. "There is a challenge to use my airplane as a weapons system to the best of my ability, which I could not find in other jobs."

After many cockpit hours, however, both groups found a sense of mastery of, and unity with, the complex man-aircraft unit of great versatility, maneuverability, and speed. This feeling is deeply gratifying, and many want to be alone during flight. One pilot said, "This is the best and fastest fighter in the world, and the beauty of it is that no one can take hold of the controls except me, the pilot."

Fifteen percent of the study group reported one or more major flying accidents (total loss of aircraft, usually by ejection) as compared with 21 percent of the overall jet pilot population and 34 percent of the failure

group. Since all of these figures seem high, it should be noted that (excluding combat losses) 56 percent of all career aviators will have at least one ejection during their 20 years of flying. Twenty-three percent (again excluding combat losses) will die in aircraft accidents.<sup>1</sup>

A review of their health records revealed that pilots in the study group visited their flight surgeons for all reasons about once every ten months and that only two percent made visits as often as once every four months. Pilots in the failure group saw their flight surgeons about once every month, and twenty percent saw them more frequently than twice a month.

Sixty-nine percent of the study group expected to make a career in naval aviation (generally, two-thirds of all naval aviators leave the service after their obligated time), although few became pilots with this intent. Among the remaining 31 percent, equal numbers planned on careers as attorneys, politicians, and airline pilots.

### Examination Data

The pilots, when interviewed, had much more than their uniforms in common. They were thin, appeared physically fit, were warm and direct in their manner, and spoke with what seemed great candor about any phase of their lives under question. If they had an air of supreme confidence, it was easygoing and without ostentation. The interview was seen as another task to do well, the interviewer was quickly accepted and respected, and the justification for the study was quickly understood.

The pilots were graceful in their movements, had more "presence" than most, and were favorably striking in their appearance. Their "halo effect" on the interviewer was familiar to them, for it was usual whenever they met significant persons. None of the pilots evinced any interest, as a result of the interviews, in further exploration of intrapsychic or social problems. It seemed a fas-

<sup>1</sup>Based on accident statistics from the U. S. Naval Aviation Safety Center, Norfolk, Va. During the 42-month period ending December 1969, there was one ejection every 7,122 noncombat jet hours and one fatality every 17,629 noncombat hours. Over a 20-year career, the typical jet naval aviator will fly about 4,000 hours.