This report identifies and evaluates key factors that affect the Air Force’s ability to provide training and experience for new, inexperienced pilots in operational fighter units. It represents a portion of continuing research sponsored by the Air Force Deputy Chief of Staff for Air and Space Operations, the Air Force Deputy Chief of Staff for Personnel, and the Air Combat Command’s Director of Operations. Earlier work considered how the Air Force’s loss of experienced fighter pilots could greatly increase the need for training sorties and flying hours and recommended ways of limiting the need for such increases.1

This report was stimulated by visits made to operational fighter units in August through October of 2000. In some squadrons, we found indications of serious training problems. With concurrence from sponsoring offices, we deferred further planned visits in order to analyze factors that might threaten other squadrons’ training programs. While our previous work had found that low experience levels could create training problems in operational units, we also became concerned about an apparent excess of manning in operational units, especially in the face of a continuing shortage of pilots elsewhere in the Air Force. Through analytic calculations, this document demonstrates how carefully the Air Force must balance manning, assignment sequences and timing, training tempo, and

allocation of training to new pilots in order to prevent degraded training and inadequate development of future generations of pilots.

These results should be of interest to operational commanders whose units strive to absorb new pilots without jeopardizing operational capability and readiness; to line and staff offices that develop and justify funding to support operational training, including the support of sortie generation; and to aircrew managers who bring new pilots into the Air Force, distribute them among weapon systems, and control their assignment and utilization thereafter.

This work took place in Project AIR FORCE’s Manpower, Personnel, and Training Program and was completed in September 2001.

**PROJECT AIR FORCE**

Project AIR FORCE, a division of RAND, is the Air Force federally funded research and development center (FFRDC) for studies and analyses. It provides the Air Force with independent analyses of policy alternatives affecting the development, employment, combat readiness, and support of current and future aerospace forces. Research is performed in four programs: Aerospace Force Development; Manpower, Personnel, and Training; Resource Management; and Strategy and Doctrine.