

APPENDIX D

AIR POWER

The use of air power in the war followed a peculiar curve. Both sides used it extensively in the opening months of the war, targeting each other's infrastructure with relatively good effect. Then, abruptly, attacks dropped off. From roughly 1981 until 1984 air power was used very little. Then, in 1984, the Iraqis resumed targeting infrastructure, and Iranian air power virtually ceased to exist.

What seemed to have happened is that Iran ran out of planes and pilots. To a large extent this was Iran's own fault as the pilot shortage was a self-inflicted wound. Iran had jailed most of its pilots before the war, and actually had to release them to fight. Morale, under such circumstances, was understandably low. In addition, Iran did not have the mechanics to maintain its planes, and almost literally patched them with piano wire and spit. Planes flown by Iran would have been considered inoperable by U.S. standards. Part of the reason for this was the weapons embargo against Iran, orchestrated by the United States in Operation Staunch, which denied Iran not only aircraft, but essential replacement parts. The Iranians were reduced to cannibalizing their planes to make a few air worthy.

On the Iraqi side, the real step-up in activity came in 1986 when Iraq decided to fight a total war. The air force was unleashed to seek out Iranian oil refineries, electric grids, sugar factories, concrete plants, and whatever vital facilities existed inside the country. In the past the Iraqis had targeted these installations haphazardly; now they attacked them on a systematic basis.

As a result, in 1986-87, the Iraqis virtually devastated Iran's economy, part of a deliberate campaign to destroy Iranian morale by making living conditions difficult and by denying Iran

revenue to buy weapons. In both respects, the campaign proved effective. The combination of deteriorating conditions on the homefront and the decisive defeat of Iran's forces in Karbala V prepared the ground for Tehran's surrender in 1988.

There is some controversy about this, however. Some analysts maintain Iraqi air attacks were not effective in shutting off Iran's oil trade. They maintain that, in 1987, Iran was exporting 2.5 million barrels daily. We do not accept this; our calculations are that the export figure was closer to 800 thousand barrels, which was insufficient to run the economy, let alone run the economy and fight the war.

The performance of Iraqi pilots over the battlefield is problematical. They consistently failed to operate as U.S. pilots would. For example, they provided very little close air support. Indeed, they did not even seem to have been trained in it. Nor did they engage in much one-on-one air combat over the battlefield. It could be that in the beginning of the war they were frightened by the American-trained superior Iranian pilots. The Iranian F-4s were formidable, and the Iraqi Mig-23 was not a match for the F-14. In particular, the Iraqis seem to have feared the Phoenix missiles with which the F-14s were equipped. However, once the Iraqis received MIRAGES from the French their situation improved. These aircraft, equipped with Exocets, were deadly against shipping in the Gulf. Also the Iraqi pilots were well trained by the French, who maintained that—after training—the best Iraqi pilots were as good as any French pilot. Indian instructors, who also worked with the Iraqis, had a similar high regard for the Iraqis' "top guns."

Regardless, it is unlikely the Iraqis will take on U.S. planes in classic aerial duels, not because they lack the courage, but because it is not a part of their doctrine. Iraq uses its aircraft to interdict behind the enemy lines, and to destroy economic facilities in deep penetration raids. At both they are quite effective. The Iraqis' unwillingness to seek dominance of the air over the battle may handicap them in a war against the United States. At the same time, because they have not sought such dominance in the past is no guarantee that they may not

do so—or at least attempt it—in the future. The Iraqis have a record of doing whatever is required to sustain themselves in war.

In sum, our view is that Iranian pilots did not really progress over the course of the war—they had neither the planes nor the air time. The Iraqis definitely improved. It remains to be seen, however, what they would do against pilots of modern industrialized countries.