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China's growing civilian aerospace capability is fueling its military buildup. Mechanics with the People's Liberation Army work on a fighter jet at a military base outside Beijing.

China's Commercial and Military Integration

Manufacturers in the People's Republic of China will supply the Boeing Company with new high-tech aircraft components — composite rudders and composite parts — valued at \$600 million.

American taxpayers paid hard cash for that advanced technology: Once as taxpayer-financed research and development ... once as taxpayer-financed production of new weapons platforms ... once as the taxpayer-subsidized technology transfer to domestic commercial use ... and at least once as consumers of these technological marvels.

And American taxpayers may pay for those high-tech parts once more — in the blood and treasure of their sons and daughters.

Chinese buyers used to get hand-me-downs — second and third generation technology from American firms like Boeing. Now they demand

the latest technology. What they cannot buy they reverse engineer — or just plain steal.

China's manufacturers have switched to a process called civil-military integration. CMI involves research and development, manufacturing and maintenance. Nearly identical military and commercial items are produced at side-by-side facilities. The wall between military and commercial use vanishes.

China's state-owned Aviation Industry Corporation or AVIC 1 is a hothouse of civil-military integration. AVIC 1 is a collection of 47 large and medium-sized manufacturing facilities, 31 research and development institutes, 22 affiliated specialized companies with assets of 100 billion RMB and 240,000 employees.

AVIC 1 produces fighters, bombers, reconnaissance aircraft, commercial aircraft,

automobiles, motorcycles and machinery.

How bizarre can CMI get? At the Chengdu Aircraft Industry Corporation, AVIC 1 workers produce China's most advanced fighter aircraft — the J-7 and the J-10. Across the tarmac, AVIC 1 manufactures composite rudders for Boeing 787 jets. Down the road, AVIC 1 makes doors for 737 jets.

Can sensitive U.S. technology flow across the tarmac or down the road? Of course it can. Boeing may face State Department fines for selling civilian aircraft with gyroscopic microchips the Chinese could reverse engineer. They contained the technology Boeing also uses on advanced U.S. missiles and warplanes.

With CMI, the end products — AVIC 1's upgraded weapons systems — roll off the assembly line faster and with more enhanced capabilities.