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## **Shape Up and Fly Right: How to Build a Better Air Force for Less Money**

Between 1980 and 1989, defense spending grew by 40% in inflation adjusted dollars. The increase was not, however, distributed evenly throughout the budget; procurement and R&D spending soared by 67%, while spending for current operations (personnel, operations, and maintenance) increased by only 23%. As I explained in an earlier article (October 31, 1988), we "front loaded" our budgets with politically-engineered modernization programs in the mistaken belief that, by spreading the money around to the important congressional districts, we could buy votes for ever larger defense budgets.

Despite repeated warnings, Congress signed up uncritically to one front-loaded budget after another in the 1980s. The money flowed to contractors and subcontractors located throughout the fifty states, and defense jobs increased by 63%. Now we are poised to reap the consequences: even if future budgets are frozen at the current level, a huge bow wave of unaffordable procurement commitments and a stern wave of deferred readiness obligations will wash over the Pentagon and Congress in the early 1990s. If we do not change the way we do business, production rates will decline (but few programs will be cancelled), readiness for combat will plummet, equipment will get older, and forces will shrink. Some--perhaps many--defense workers will lose their jobs.

What can be done to moderate the damage caused by the reckless politicizing of defense decisions? Is it possible to devise a fiscally responsible retrenchment plan that lays out an effective defense program without succumbing to the usual expedients of robbing readiness and shrinking the size of our forces to preserve the politically-engineered money flows? It is possible--but only if our leaders have the courage to step up to some really tough choices. The fun is over, and as we say in the Pentagon, it is time to slaughter some sacred cows.

One option for reducing budget requirements in the 1990s is to move a larger portion of our forces into the reserves. This appears to be most attractive in the case of the Air Force; but even in the case of the Air Force, it is not politically painless. To be effective, the reserve option must be part of a larger plan--one that forms a smaller number of larger units and closes excess bases. Such changes could generate enormous savings; readiness and sustainability could actually be increased; and further force shrinkage might be averted. Lets take a closer look at why it is possible to build a stronger Air Force for less money.

Simply shrinking the size of the active force and increasing the reserve proportion does not automatically generate savings over the long term. Between 1956 and 1990, the active Air Force will have shrunk from about 23000 to 6900 airplanes--a decline of 70%. During the same

period the reserves will have dropped from about 3000 to 2200 airplanes, but its share of the total force will have doubled from 12% to 25%. The drop in total operations is comparable (from 9 to 3.3 million flying hours). These impressive reductions did not generate any savings; on the contrary, after taking out the effects of inflation and introduction of ballistic missiles, we will spend 6% more for operations and maintenance in 1990 than in 1956 (\$23.3 versus \$21.9 billion in constant FY 89 dollars).

How can 9100 airplanes cost as much to operate as 26000 airplanes? There are at least two reasons, and they reinforce each other:

First, the evolution of ever more complex technologies increased operating costs. Fighter aircraft are a case in point: taking out the effects of inflation, our top tactical fighter in the mid-1950s, the F-100, cost about \$1470 per hour to fly, while today's top fighter, the F-15C costs over three times as much to fly--about \$4660 per hour. High-technology engines and electronics, in particular, require more costly maintenance skills, increase the need for capital intensive diagnostics and repair equipment, shift repairs away from flight lines toward distant depots, and generate the need for more costly logistics technologies to manage the proliferating assortment of high value spare parts. In addition to driving up direct and indirect costs, these changes created economies of scale that favor the concentration of airplanes at as few locations as possible.

Second, the number of airbases and squadrons declined more slowly than the number of airplanes. Constituency-based politics resisted the closing of bases and bureaucratic politics opposed reductions in "command flags." Bases now support fewer airplanes, and many squadrons are now smaller than in the 1950s. The creeping mismatch between infrastructure and force size has relentlessly driven up overhead costs and unnecessarily magnified the effects of complexity-induced cost growth. Consider the current situation:

- o In the continental U.S. and Alaska, after removing the bases recommended for deactivation by the base closing commission, there are at least 60 bases, with 300 million square feet of concrete, available to the active force for the "beddown" of its combat-coded, replacement training, and sundry support aircraft. In 1990, however, the force structure assigned to these bases will require only 150 million square feet of parking space--yielding an average base load factor of 50%. (This calculation is based on official planning factors.) Moreover, the distribution is very uneven, eight bases have load factors in excess of 100% while 14 others, for example McClelland and Bergstrom (with load factors of 7% and 12%), have load factors of 20% or less.

- o In 1990, the 31 active KC-135 tanker squadrons have between 10 and 19 aircraft, the average being about 14. The historical norm for large airplanes is 18 planes per squadron.

- o Between 1986 and 1990, the active force of C-141 transports will have decreased by 16 aircraft, but the number of squadrons in the active force will have increased from 13 to 16. In

three years, the average size of a C-141 squadron will have shrunk from 18 to 13.6 airplanes--a 24% decline. Squadron sizes now range from 12 to 17 aircraft.

Taken together, low base load factors and understrength and irregularly structured squadrons mean we are using people and facilities inefficiently. We could reduce costs without shrinking the force by assigning more aircraft to some bases, by forming larger units, and by closing other bases. If, for example, we decided to increase the average base load factor from 50% to a modest 60%, we could eliminate 50 million square feet of concrete. This equates to closing somewhere between five and nineteen more bases, depending on whether we close large or small bases. So, even in the absence of an active-to-reserve swap, there is a real opportunity to reduce overhead by consolidating the active force.

Now suppose we also take some airplanes off the 60 active bases by transferring them to reserve units, most of which are located at municipal airports around the country. If we keep the 60% load-factor goal and the larger active units, we could close even more bases, and multiply the savings further. Let's examine the reserve side of the restructuring opportunity.

Reserve units are also too small; 70% of the tactical (fighter/attack, recce) and 100% of the interceptor squadrons have 18 instead of 24 airplanes; 100% of the tactical airlift squadrons are assigned only eight C-130s; and the strategic tanker and airlift squadrons are assigned eight or ten KC-135s or C-141s. With a few exceptions, these units can be easily and cheaply expanded. Most fighter and interceptor units already have facilities that are capable of supporting 24 aircraft, and the airlift and tanker squadrons have facilities designed to support 12 aircraft. Moreover, the current recruiting situation is excellent; somewhere between 500 and 800 pilots are now trying to enter the reserves. So, a large number of active airplanes can be transferred to the reserves without forming new reserve units.

Now, bringing the different strands of the analysis together, the general idea is as follows: Consolidate the active force into a smaller number of larger units; transfer planes from the active force to the reserves to bring reserve units up to strength; where transfers are not feasible, consolidate the reserves into a smaller number of larger units by deactivating some reserve units and transferring their airplanes to other units; close enough bases to modestly increase the average base load factor for the active force from 50% to 60% or 65%.

The following example illustrates what is physically, if not politically, possible by the mid-1990s:

- o Transfer 240 tactical fighters to the reserves (deactivate 10 active squadrons) to bring all the reserve units up to full strength.
  
- o Consolidate the reserve C-130s into eighteen 12-plane squadrons (deactivate 8 reserve squadrons). An active-to-reserve transfer is probably not appropriate since about 60% of the tactical airlift force is already in the reserves.

- o Transfer 20 C-141s to the reserves (forming one new 18 aircraft squadron and increasing the size of another reserve squadron to 10 aircraft); consolidate the active force into eleven 18-aircraft squadrons (deactivate 5 active squadrons).

- o Transfer 14 KC-135s to the reserves and use aircraft to increase 7 reserve squadrons from 8 to 10 aircraft; consolidate active force into twenty-four 18-aircraft squadrons (deactivate 7 active squadrons).

- o Consolidate the reserve interceptor force into nine 24-aircraft squadrons (deactivate 3 squadrons).

- o Use some of the savings to correct the growing shortages in the war reserve stockpile of spare parts and munitions.

Result: the number of combat-coded airplanes stays the same, the total force is more combat ready because it is better supplied, 274 more airplanes (a 4% reduction in the active force) are in the reserves, and the reduction of at least 50 million square feet of concrete (closure of 5 to 19 bases) and the deactivation of 33 squadrons (22 active, 11 reserve) results in a leaner infrastructure that reduces manpower and budget requirements.

Naturally, a restructuring of this magnitude would be disruptive in the short term, and we should expect considerable bureaucratic and political opposition. The following counter-arguments are among those that can be expected:

- o Rotation Base. A transfer of 240 fighters to the reserves will require a reduction in forward-based tactical forces in Europe and Asia because the stateside force will be too small to support reasonable personnel rotation policy. There is merit to this argument, but there are ways around it. Assuming we need to keep the same rotation policy (40-45% of our forces forward), we would have to reduce the forward forces by four squadrons (96 airplanes). While this reduction could have important consequences affecting alliance politics, the strategic consequences could be negated by dual-basing (keeping the overseas bases fully supplied and ready to receive aircraft while basing the aircraft in the U.S.) four more active units in the states. Our strategic warning capabilities are adequate to permit the timely deployment of these forces in periods of increasing tension. Moreover, the dual-basing policy could be combined with a burden-sharing plan in which our allies pay for the upkeep of the forward bases.

- o Rated supplement. The Air Force currently has about 22000 pilots and about 6900 airplanes (some of which require two pilots). The rated supplement is composed of those pilots assigned to non-flying duties. It has been argued that a transfer of a total of 274 aircraft to the reserves (a 4% reduction in active aircraft) will make the flying inventory too small to support the manpower policies governing the assignment of pilots to non-flying jobs. All that is needed to get around this bureaucratic logjam is a revival of the "can-do" spirit.

o Non-mobilized contingencies. Some believe that a transfer of this magnitude would inhibit our ability to respond to undeclared wars such as the Grenada invasion. This argument relates mainly to tactical fighters, and it needs to be put into perspective. We have about 1750 fighter/attack aircraft in the active force; a transfer of 240 to the reserves would leave about 1500 in the active force. Surely 1500 airplanes is a large enough asset base to support such contingencies.

o Reserve recruitment. Some believe that a transfer 4% of the active force to the reserves will result in a long-term recruiting problem for the reserves--that by reducing the demand for new pilots in the active force, you reduce the number of pilots who eventually quit the active force, and therefore fewer pilots will be available to join the reserves in the 1990s. This argument turns the current situation on its head; pilots are waiting in line to join the reserves, and the active force has a mushrooming retention problem. If a reserve recruiting problem eventually emerges, we could recruit pilots directly into the reserves after they graduate from college, as is now done on a selective basis in the National Guard. But this is in the distant, unpredictable future.

There is one counter-argument that will not be heard, namely that the reserves are not as effective as the active force. One of the best kept secrets in the DoD is the story of the Air Force's reserves, particularly the Air National Guard. The reserves are a superb fighting force; they win more than their fair share of tactical competitions; they are manned by highly experienced dedicated personnel, and given a decision to mobilize, they can deploy as rapidly as the active force; and because they operate on a regimental system, reserve units have good personnel retention, they have enduring ties to local communities, and they have high unit cohesion and esprit de corps. If the shift to the reserves were combined with increased purchases of spare parts and munitions (made possible by the savings from the consolidation described above) a more combat ready, lower cost Air Force is possible.

Author's note: This version does not include the final copy editing changes and differs very slightly from the published version