Recent wars have shown that air power plays a cardinal role in modern warfare. Do you envisage any change in the defence strategy of Pakistan in view of the space-increasing role of air power?

That air power would dominate the future battlefield was foreseen by the pioneer air power strategists even when the new medium of warfare was at its nascent stage and its ability to influence the land battle was very limited. Before answering your specific question a very brief look at how air power over a century has fulfilled the prophecy of its visionaries would be in order.

At the outbreak of World War I (WWI) in 1914, military aviation consisted of light wooden bi/tri planes with maximum speeds of less than 100 mph and very limited load carrying capacity. With both sides using increasing number of aircraft for reconnaissance, artillery observations and occasional bombing raids, the inevitable happened and aircraft started to shoot at each other to prevent the adversary from taking military advantage of the new medium. It marked the birth of fighter aircraft whose numbers proliferated and their performance took a quantum leap. The battle for ‘control of the air’ had truly begun. The first air power doctrine of gaining control of the air had been established.

WWI ended in 1918. During the war, all subsequent roles of air power had either been established or attempted, and the doctrines of command of air and support to surface
forces had been firmly established. Historian Lee Kenneth aptly summed up the progress made by air power during WWI when he wrote, “While the role of the air weapon in the Great War was a modest one, the role of the Great War in the rise of air power was anything but modest”.

Air power was to play a major role during the second great war where its performance may be summed up in the following two quotes: While speaking at the Massachusetts Institute of Technology in 1949, Churchill had commented: “For good or ill, air mastery is today the supreme expression of military power. And fleets and armies, however necessary and important, must accept subordinate rank. This is a memorable milestone in the march of man.” Professor Tony Mason in his book Air Power a Centennial Appraisal, states: “Air power had been peripheral between 1914 and 1918. In the Second World War it dominated most theatres and in at least two was decisive.”

Post World War II during the Cold War, in two major conflicts air power did not prove to be the decisive factor. In the Korean conflict despite air superiority of the UN forces led by USA, a stalemate occurred and in the Vietnam War, USA enjoyed control of the air and again despite overwhelming technological and numerical superiority, USA failed to achieve its political objectives. While a number of reasons have been advanced for the failure of air power to deliver victory, the lack of precision bombing was one of the military factors that USA had identified and worked to redress since then. Operation Desert Storm (Kuwait 1991) was to see the Coalition led air power with its mass, stealth and surgical strike capability decimate the battlefield and since then in all other major conflicts air power proved to be decisive in winning the war, but not necessarily the peace.

The realization that the enemy’s air power will be the most immediate and potent threat in case of any major aggression against us is very much there. It is also accepted that its counter can best be through the employment of our own air power assets. The government of Pakistan is cognizant of our neighbor’s burgeoning air power strength in the past decade and it is taking all possible steps to ensure that PAF’s deterrence capability is maintained. Modernization of an air force is an expensive proposition and for developing nations like ours it is also dependent on the willingness of the supplier nations to sell us the weapon systems we want to purchase. There are hurdles, which are being overcome through a firm resolve and commitment to ensure that the PAF maintains the capability to defend the nation against any aerial threat and support our surface forces to repel any ground aggression.

**Market Forces:** Are you satisfied with the process of indigenisation in the armed forces of Pakistan?

**Air Cdr (R) Jamal Hussain:** If by satisfied you mean is the process of indigenisation in our armed forces adequate, the answer is a definite no. For a nation that has acquired nuclear weapons and missile technology despite tremendous odds and obstacles, our dependence on procurement and maintenance of high tech defence hardware is still excessive. The real reason we have not achieved our potential in this field is the lack of a
solid industrial base and paucity of a talented and qualified technical manpower pool. To a large degree the blame for this state of affairs lies in the archaic public education system prevalent in the country where rote learning and theoretical instructions take precedence over acquiring of technical skills that are necessary for nation building. However, in spite of this serious shortcoming we have done fairly well in certain niche areas but we are still way short of our potential.

The first three quarters of the previous century was a part of the industrial age, an age where the developing countries were way behind the developed ones and did not have the technical know how or the resources to bridge the gap. From the latter part of the 20th century, we have entered the information age where computer based technology holds the key to progress. In this age, while hardware is important, software is even more critical. Software is one field where the west does not hold the kind of monopoly that they did in the industrial age and developing states can and have reduced the gap to some extent. The people of South Asia particularly have displayed a remarkable talent in software programme development and our future lies in nurturing and exploiting this potential.

Institutions like PAF KIET hold the key to our progress. A modern education system where the emphasis is on real learning of modern arts and sciences and where the pupils are taught skills that would be useful in the real world is essential for our future.

In the global village that we live in, no nation can be or is totally self reliant and the effort should be to reduce the dependency to an acceptable level and to be reasonably self sufficient in key defence needs. For the procurement of advanced military hardware Pakistan will remain dependent on advanced nations but it must aim to develop the capability to maintain and operate them without too much of reliance on supplier nations. In certain areas like electronic warfare and space technology, no country will be willing to share their latest software programmes and we have to acquire the capability to produce them indigenously.

As I had stated earlier, self-reliance and indigenisation depends on the availability of a large talented and qualified pool of manpower. We have to invest now and invest heavily in our education system if we really hope to catch up with the rest of the world. Amongst other things, many more educational and research institutions need to be established if in future we are to achieve a satisfactory level of indigenisation.

**Market Forces: Do you think Pakistan can reduce its conventional weapons and defence expenditures after achieving nuclear capability?**

**Air Cdr (R) Jamal Hussain:** Pakistan had acquired nuclear weapons capability as far back as 1985. Till 1998, it followed a policy of ambiguity, also referred to as ‘bomb in the basement’ policy where the possession of a nuclear arsenal was denied in public while making it clear to the rivals in private that it did indeed possess the weapons. After Pakistan conducted a series of nuclear explosion on 28 May 1998, it became an overt
nuclear weapons state. While Pakistan’s nuclear capability since 1985 has been credited with prevention of an all out conflict between two nuclear capable neighbors India and Pakistan, has it led to reduction of conventional forces by the two antagonists quits the contrary, both sides have enhanced their conventional arsenal since then by a substantial margin. The straight forward answer to your question is that nuclear weapons capability on its own will not lead to troop reduction, or lowering of conventional forces leading to a reduction in defence expenditure.

A nuclear arsenal is meant for deterrence against a belligerent enemy. Because of the immense destructive capability of even a single nuclear bomb, all nuclear experts agree that where both the antagonists are nuclear capable, an initiation of nuclear attacks by one side will lead to massive, if not mutual destruction of both the states. These weapons therefore are not basically meant for fighting but for deterrence only. The irony and paradox is that unless a state demonstrates the will to use the weapons if pushed beyond a point, deterrence will not work.

The situation in the Indian sub-continent is a classic case study of nuclear interplay. Here we have two hostile neighbors both in possession of a nuclear arsenal. They have a history of animosity, have fought three full-fledged wars since their independence 57 years ago, and have still serious unresolved border disputes. One of the states (India) enjoys both conventional and nuclear superiority over the other (Pakistan). Under these conditions, Pakistan’s nuclear deterrence will need to be extended at the conventional level as well. Whereas the Indians can afford the luxury of declaring their nuclear deterrence against Pakistan only at the nuclear level and hence can adopt the option of ‘no first use’ policy, Pakistan on the other hand has to maintain the right to first use in case the Indian conventional forces threaten its core interests and values.

One could argue that now when we have the ultimate deterrence in place, the conventional forces can be substantially reduced. Unfortunately this is not true. Since nuclear weapons can only be used as a last resort and will practically amount to committing mutual suicide because the retaliation from the other side will be even more massive, nations have to maintain a high nuclear threshold. Nuclear threshold is the theoretical limit beyond which a nation at the receiving end will threaten to opt for the nuclear option unless the aggressor back off. A low nuclear threshold is not only extremely dangerous and unstable, it is also impractical. Where serious conflicts exist and one side enjoys superiority in conventional defence capability, the other side has to maintain a balance even in conventional defence to ensure a reasonable level of nuclear threshold. For as long as serious disputes remain unresolved and India maintains and continues to strengthen its conventional forces, Pakistan has no option but to keep up with the Indian expansions to maintain a minimum deterrence in conventional forces besides keeping its nuclear arsenal ready as deterrence against any major assault both in the conventional and nuclear fields.

For a reduction of forces in the region, either major disputes have to be resolved or the stronger side, in this case India, takes the initiative and opts to reduce its conventional forces. Pakistan can then lower its conventional defence capability
accordingly and depending on the magnitude of downsizing by India, a substantial reduction in defence expenditure may accrue to the two impoverished states. A unilateral decision by Pakistan to reduce its conventional forces without one or both of the above stated conditions being met would be unwise, impractical and dangerous.

In the final analysis, only a threat reduction in the region can result in lowering of conventional defence forces in South Asia. Conventional armed forces and nuclear weapons work in tandem to make total deterrence credible.

It would be unsafe to assume that the deterrent effect of the existence of nuclear weapons is enough to stop all levels of conflicts. To have effective total deterrence, strong-shielded forces must be in place to complement the nuclear deterrence. War on a grand scale and peace in its true sense, according to Andre Beaufre, may be buried side by side in the nuclear age.