

Most modern Air Forces have to invest heavily into training the pilots and support staff, as contemporary aircraft have many technological advances in avionics fitted into the airframes. The quality of the pilots and support systems decides the battle winning ability of the Force. Realising this importance, I would like to share some thoughts related to

number of hours was meagre, we had to cope well and every sortie mattered in adding to the skill levels. In this time in Hasimara, I formulated a 'Theory of Paths', which helped me tremendously in tactical and combat flying. As a leader thereafter, and an instructor after 1974, I explained this theory to all my pupils, and even some senior transport pilots converting to

squadron, was Flight Lieutenant Koty Rao whose engine in a MiG-21 flamed out on short finals and his ejection sequence did not work. Personally also, I had a charmed life without any accidents with 'God is my Co-Pilot' always inscribed on every helmet I flew with.

In our time, we did not have any meaningful and realistic simulators and everything had to be thought of on the

REFLECTIONS ON PILOTS TRAINING

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training pilots of the IAF based on my personal experience of 40 years.

To recap, I wish to highlight that our pilots' course, the 98th GD(P), was the last of the emergency courses in the IAF in the wake of the Sino-Indian conflict of 1962 and the rapid expansion which took place thereafter. We started with close to 300 cadets in 1965-66 but only 183 finally passed out as pilots or navigators on December 31, 1967. Thereafter in 1968, as a fighter pilot, I personally did barely 20 hours of flying on Vampires in Poona and 15 hours on Hunters in OTU, Jamnagar instead of the usual 50 hours syllabus. An inadequate total of 35 hours of fighter flying in a whole year. In 1968-69, we had around 52 pilots each in both the Hunter squadrons in Hasimara against an establishment of 20.

By December 1971 when the war started, I had barely 240 hours on Hunters, averaging about 65 hours per year for four years of service. However, looking at the positive side, our training was hard, the leaders demanding and the slightest mistake or non-performance saw pilots grounded and on their way to Air Traffic Controller and Fighter Controller courses. So, while the

fighters, and demonstrated how to use it effectively in various phases of flying. I also preached the importance of flying smoothly without constant movement of controls so that one could fly accurately by feel with minimal reference to instruments. My mantra was that, as a fighter pilot, one had to try and spend minimal attention inside the cockpit, not really quantifiable but say less than 5%, while spending the remaining 95% on all other aspects of single-seat fighter flying including navigation, communications, maintaining station, spotting and control of the formation in combat.

Such techniques helped me train my own pupils, juniors and subordinates to very high standards while identifying weak links. My slogan was, 'I'd rather have empty cockpits on the tarmac than have no cockpits or pilots'. Such training and evaluation methods ensured that we flew in the toughest of conditions with confidence without any losses whatsoever. Without being immodest, this also prompted one of my pupils to point out just before my retirement that all the pilots who served under me were still alive. To be honest, the only aircraft or person I lost, many years after he moved to another

ground, perhaps visualized before you drifted off to sleep, and practiced on the aircraft. With advances in technology, very realistic simulation is now possible for almost all facets of fighter flying, including through Virtual Reality. At the same time, the costs of modern aircraft have grown exponentially and a loss has a significant impact on force-levels. The costs of a human life and the training imparted are incalculable. It, therefore, behoves the Air Force to increase its focus on simulators and use precious fighter aircraft only for certain training and combat missions.

As a matter of fact, Beyond Visual Range (BVR) combat actually lends itself to simulation, particularly in large-force engagements that require a large number of pilots and controllers to network and operate in unison as a coordinated team. Perhaps, Virtual Reality can make such simulation even more realistic and the training far more cost-effective. Concurrently, such simulation minimizes the risk of collisions and accidents inherent in large-force engagements. Saving of precious resources for actual combat is surely the ultimate objective of all combat forces and the IAF cannot afford to lose or waste precious resources, particularly now with its strength way down from the authorized 42 combat squadrons.