



Soviet pilots today learn new, innovative tactics that place a premium on initiative and finely honed skills.

It is dangerous to assume that the enemy will be undertrained and over-controlled.

The most dangerous thing in a war . . . is to underrate the enemy and to reassure ourselves with the thought that we are the stronger. That is a most dangerous thing, which may lead to defeat in war.

—Lenin

ANOTHER LOOK AT THE SOVIET PILOT

BY CAPT. RANA J. PENNINGTON, USAF

THE West has sometimes greatly overestimated the Soviets, especially with regard to numbers of weapons and technological sophistication. However, this has not been the case in judging the proficiency of Soviet pilots. Rather than painting the Soviet pilot as ten feet tall, we have consistently depicted him as a midget—a dwarf at best. It has long been a matter of reassurance to the Air Force that no matter how many aircraft the Soviets had, the poor skills of their pilots would significantly hamper their ability to use those aircraft effectively.

Unfortunately, this view may have promoted a complacent attitude that has obscured the real meaning of seemingly insignificant developments. Soviet tactics and training generally evolve in a deliberate and incremental manner. This makes it easy to ignore the cumulative effect of change.

Myth and Reality

Recent articles in the Soviet press point to important changes in fighter tactics and training. (For more on these ongoing Soviet developments, see "Closing the Tactics Gap" in the March '84 issue.) For instance, in May 1984, an article detailing the implementation of a new training program appeared for the first time. Writ-

ten by the Commander of Aviation of the Air Defense Forces, General Colonel of Aviation N. Moskvitelev, the article described new training programs for maneuvering air combat, for interception of cruise missiles, and for other "complex types of combat employment" of fighter aircraft. Calling for "a radical overhaul of . . . flight training," Moskvitelev argued that "it is essential to use a new approach"—one that includes electronic warfare, diversification of training, and increased use of exercises and live firing of weapons.

Moskvitelev is an extremely authoritative author. His article, which appeared in an internal publication for the air defense forces, would not be written lightly or with any intention of "disinforming" his own pilots. It refers to events taking place in 1983 and 1984. Moskvitelev is frank in admitting problems in implementing new types of training, and he chastises commanders "who continue in the old-fashioned way when working out complex types of aircraft tactics; they lack creative initiative and wait, as the saying goes, for prompting 'from the top.'" Moskvitelev's article is prompting from the very highest level.

Myths abound regarding the mentality, training, and proficiency of Soviet pilots. Some of the myths are based on evaluations that have become dated. Others are completely erroneous. Most of the myths are affected by hidden assumptions that color our evaluations of the Soviet pilot.

One such assumption is the belief that the Soviets would perform poorly in one-on-one engagements. The assumed inadequacy of a Soviet pilot in a dogfight against a US fighter pilot is sometimes carried over to support a general evaluation that Soviet pilots would not be able to fulfill their missions in a wartime situation. Another assumption is that vulnerabilities are unique to the Soviets. Soviet weaknesses in some areas, such as poor capability to operate at night or in bad weather, are sometimes discussed as if these problems applied only to the Soviets.

There are five myths affecting USAF attitudes toward the Soviet fighter pilot. This article will discuss those myths and expose the hidden assumptions that have caused these myths to be widely accepted.

Myth One: Soviet wingmen are helpless without their leaders.

This myth is especially dangerous, because it promotes the belief that if we destroy the leader of a formation, the rest of the pilots will be unable to complete their mission. It is true that flight leads are by definition more experienced pilots, but it does not follow that the wingmen are incompetent and incapable of acting without a leader.

The hidden assumption here is that this vulnerability is unique to the Soviets. Instead, it is a classic military tactic to attempt to remove leaders first. This tactic can always be expected to degrade the enemy's effectiveness to some degree. The tactic is valid; the myth is that Soviet wingmen can be expected to turn and run for home if they lose their flight leads. History shows that Soviet fighter-bombers in World War II continued to their targets despite horrendous attrition—and despite the loss of their leaders.



While it is true that Soviet wingmen were not thoroughly trained for independent work in the past, recent indications are that the Soviets are putting a great deal more stress on bringing wingmen to a par with leaders in flying skills. The function of the flight lead is not to be responsible for all navigation or to conduct all target attacks, but to command the formation and to make decisions for the pair or flight as a whole. Wingmen, the Soviets note, may often be forced to operate independently. They now stress that "scarcely any flight lead would agree to have as a wingman a pilot capable only of passively carrying out the will of someone else. The wingman is an air fighter, and he must be ready for independent actions."

The Soviets recently conducted a year-long debate on the question of the basic fighter formation. Should it be a pair of aircraft or only a single fighter? The advocates of the single fighter voiced the opinion that the wingmen were of little or no assistance in modern air combat. But the great majority felt that the role of the wingman has changed to the point where he is trained to be equal to the flight lead in flying skill. The old idea of the "leader as a sword and wingman as shield" has died, they contend. Now, both leader and wingman must be ready to serve as sword *and* shield, as the situation demands.

Whether the Soviets have fully achieved their goal of wingmen who are as competent as their leaders is doubtful. There are always young pilots in a squadron who must be trained, and they cannot be expected to equal the proficiency of more experienced pilots. It is evident, however, that the Soviet philosophy regarding the roles of wingmen and leaders has changed. Soviet pilots can no longer be expected to turn and run if they lose their flight leads. Such behavior would not be consistent with previous Soviet actions in wartime or with Soviet determination and persistence.



The new Soviet fighter pilot is aggressive, receives better training in dissimilar air combat training (DACT) than ever before, and is fully aware of the performance expected from him in an all-out war, when jamming may have cut him off from centralized ground control.

Myth Two: Soviet pilots are totally dependent on ground control.

Many Westerners believe that every stage of a Soviet mission is completely controlled by the ground command post. This myth has some historical basis. At one time, Soviet ground controllers seemed to give every command, down to when to make the simplest turns, when to use afterburner, and when to launch weapons.

One reason for tight control was the extremely limited capability of Soviet aircraft of that time. The range of on-board radar was deemed insufficient to allow the individual pilot to search vast volumes of airspace. The ground command post had much more powerful radars that could see the air picture better. Even after ground control had designated a target, the Soviet fighter continued to be very precisely vectored. The poor detection capabilities of Soviet aircraft limited the pilot in closing with the target without assistance.

In addition to this, the Soviets put great emphasis on denying the enemy warning that he is being attacked by preferring not to activate aircraft radars until within close proximity to the target. They believe this contributes to the possibility of a surprise attack. This approach is tactically sound as long as good ground control is available. It is a weakness only when ground control is poor or when the pilot is excessively reliant on ground support and cannot function independently if necessary.

An Evolving Relationship

The relationship between pilots and ground controllers has changed in many ways in recent years. One important change is the vast improvement in on-board aircraft radar capabilities, making possible independent search without ground assistance. Another change resulted from Soviet analysis of the Vietnam War. That

conflict illustrated, the Soviets believe, that ground controllers are not able to maintain full knowledge of the air situation during maneuvering air combat.

The Soviets are quite clear on the current distribution of responsibilities between ground controllers and pilots. "The command post should play the leading role in a target search. . . . It is a totally different thing when the aircraft come in direct contact with the enemy. Then the initiative in combat control is transferred mainly to the flight leaders. The ground control posts, meanwhile, can only inform them of the situation in general terms." In addition, in order for a ground controller to function effectively, he "must have as good a knowledge of modern air tactics, the capabilities of his equipment and that of the enemy, and of many other issues . . . as do the flight crews. He must also possess personal qualities and capabilities equal to the pilot he is controlling."

One author has described a program in which the controllers were required to attend all pilot ground training over a long period of time. Many benefits accrue from this training: "The flight crews became more confident that the control officer would efficiently provide the assistance they needed, even in an emergency situation. The number of times radioed commands had to be clarified was halved." Another author refers to "combined four-hour lessons on the tactics of modern air combat and on the interaction between the command post and the crews, especially in the presence of intensive jamming, various limitations on radio exchange, and the use of automated control systems." Many of these lessons "have already been introduced into the training system" and "proved [their] worth in a recent tactical flying exercise in the presence of intensive jamming."

A common hidden assumption is that the Soviets, in their dependence on ground control, somehow do not take into account the possibility that they may be jammed in wartime. The last quotation shows that the Soviets have not ignored this possibility and are actively training with this consideration in mind. Their training may not be sophisticated, but it does exist.

In addition to coping with electronic warfare, Soviet pilots are expected to fly offensive missions beyond the range of ground control. Obviously, if Soviet pilots were totally dependent on ground control, they would not be able to fly such missions. The Soviets could not hope for success in offensive operations if their pilots were incompetent in that scenario.

With or Without Ground Control

The Soviets criticize those pilots who are seen to be overly dependent on ground control. Pilots who fail to complete a mission because they awaited ground control commands are rebuked. Soviet pilots today are expected to complete their mission and destroy their target with or without help from the ground. Specific instances in which pilots failed to complete a mission because communications with the ground were interrupted are cited, and pilots are warned to be prepared for this possibility in actual combat:

"Hopes on receiving helpful instructions from the command post must be unexpectedly dashed, for example, if the enemy proceeds with intensive electronic jamming of the communications channel." Further-

more, they point out that the ground controller "cannot anticipate all variations, possibilities, and conditions in advance. Only the pilot in the air, personally observing and evaluating everything that happens in the space being observed . . . is able to find the most advisable variation for performing the combat assignment at any particular moment."

The Soviets have recently reinstated training for a mission that does not make use of ground control: independent search. During independent search, pilots are assigned a limited geographic area in which to work. They are expected to find and destroy their target without assistance from the ground. General Moskvitelev devoted special attention to this topic in his May 1984 article, in which he pointed out that "independent search of the air enemy is not a disorderly observation . . . but rather one that is governed by strict mathematical laws for the purpose of attaining maximum probability of spotting and destroying an enemy. Half of the success consists in learning to think like the enemy and to anticipate the optimal version of his flight. Regrettably, some air commanders do not give enough attention to this kind of fighter tactic."

This myth shares the same dangerous fallacy as the first myth. It leads to the belief that Soviet pilots may not be able to function if we deny them ground control. As long as ground control is available to the Soviets, it is a strength. But it is dangerous to assume that we could drastically impair their pilots merely by degrading—to whatever extent—their effective exercise of ground control.

The Soviets are now implementing training programs that will make them much better able to operate without continuous ground control. Their pilots are a long way from being simple guided missiles that would "go dumb" if they lost their command guidance, as this myth would have us believe. The fact that Soviet pilots in an offensive scenario would be expected to fly against pre-planned targets according to a preset time schedule, reducing the need for continuous ground control, suggests that we should come to a more realistic appraisal of Soviet dependence on ground control.

Myth Three: The Soviets are interceptor pilots only and do not train for maneuvering engagements.

This myth rests on a valid historical foundation. It was certainly true in the 1950s and 1960s. It also applied, however, to US training during that time period. With the introduction of radar-guided air-to-air missiles, it was generally believed that air combat would be conducted at long ranges, eliminating the need for maneuvering engagements at visual ranges.

This theory was disproved during the Middle East wars and by US experience in Vietnam. It was found that the missiles were not as accurate as expected and that situations frequently arose in which an enemy was first detected within visual range, necessitating the use of traditional fighter maneuvers.

The Soviets began in the early 1970s to write about the reemergence of maneuvering air combat, following their analysis of the Vietnam and Middle East air engagements. In 1978, a prominent Soviet tactician wrote a seven-part series of articles entitled "How Has Air

Combat Changed?" These articles resurrected maneuvering air combat, which had been missing from the Soviet inventory of fighter tactics since the Korean War, as a major type of air combat.

Subsequent articles have stressed the importance of maneuvering air combat. Its central role in fighter tactics is attested to by the statement that "experience indicates more and more persuasively that a pilot's ability to conduct dynamic air combat now determines success in performing the most difficult missions, to a decisive extent. . . . Maneuvering air combat is the primary test of a pilot's readiness for competent, skilled actions."

The importance of maneuvering air combat and many descriptions of maneuvering engagements in training are commonly discussed in Soviet sources. General Moskvitelev's May 1984 article outlines a specific maneuvering air combat training program. This program is described as a new, strongly emphasized requirement in Soviet pilot training. The pilot first receives theoretical training. This is followed by single-ship aerobatic work, then by single-ship air combat maneuvers. Then the pilot is trained to work in a pair, then a four-ship flight of aircraft. Finally, he is tested during tactical flight exercises.

General Moskvitelev reveals several important aspects of the new Soviet maneuvering air combat program. First, he emphasizes the importance of this training as vital to success in air combat. Second, it shows a syllabus approach in the classic Soviet style, "from the simple to the complex." Third, General Moskvitelev claims that this training has been accomplished in a number of PVO squadrons. Further, he discloses the existence of specialized "adversary" pilots.

Clearly, training of Soviet pilots extends far beyond simple interception tactics.

Myth Four: Since Soviet training is rigid and tightly controlled from the top, Soviet pilots are not likely to display initiative in combat.

"Rigid" is practically a mandatory adjective in Western descriptions of Soviet training. It is a catchall term used to distinguish them from us. The hidden assumption is that Western training is never rigid or unrealistic, that Red Flag-style exercises are characteristic of daily USAF training. When Western analysts examine Soviet training, they often subconsciously measure routine Soviet squadron training against the Red Flag standard.

There is no doubt that most Soviet training is indeed more rigid and less realistic than most USAF training. The problem is one of degree. We have been using the same adjectives over a period of many years, as if there had been no progress or development in Soviet training at all. Twenty years ago, we described Soviet training as rigid and unrealistic, and we use the same terms today. This leads to the fallacious conclusion that the Soviets train essentially as they did twenty years ago.

A New Stress on Initiative

Western analysts, however, are discovering an increasing Soviet stress on the need for pilot initiative. The Soviets are being driven to this new orientation by their evaluation of the nature of a future air war. They say

that such a war will be dynamic and fluid. Communications may be jammed, and the situation will be changing constantly. The increased ranges of aircraft will allow them to operate deep in enemy territory, far beyond the range of command and control. To be able to carry out missions successfully in this dynamic environment, the Soviet pilot will have to display what the Soviets call "intelligent initiative."

The Soviets define intelligent initiative as a "creative, informal solution . . . during an operation, which is part of a mission assigned, and the readiness to take a calculated risk in connection with such a solution. The initiative of a commander consists in striving to find the best method of fulfilling the assigned mission, in utilizing favorable opportunities, and in taking the most expedient measures promptly, without awaiting orders from one's immediate superior."

As another Soviet commentator has written, "An important factor in victory during modern warfare is the pilot's ability to independently find the most expedient method for hitting the target and to take all steps to successfully accomplish the combat mission in the concrete situation which has taken shape." Still another claims that "the overall plan, within the confines of a certain subject, provides the squadron commander with a right to independently carry out the task and to show initiative in organizing the attack and in determining the composition of the forces to be assigned and the method of implementing it."

Commanders who do not incorporate initiative in training exercises are being criticized. One Soviet general chastises "those commanders who, in the race for high indicators in fulfilling the flight training plan, try to simplify the air situation when working on tactical problems. They often fly the same patterns over and over again, and their tactics are never distinguished by novelty, either. Such a stereotyped approach to organizing combat training does harm to the aerial skills of the pilots and has a negative influence on the habits gained by command post personnel."

Another general similarly criticizes a squadron commander who devoted "insufficient attention" to innovative tactical training. He says that the pilots from this squadron performed much worse in exercises than other pilots. "They could not maintain their combat formations, they made significant mistakes in their target approach, and they did not fully utilize the potentials of the aircraft. Stereotypy dominated their work: All groups used the same maneuver against antiaircraft weapons while en route. We could hardly blame the pilots of the squadron for their failure. They did exactly what the commander told them to do, and they acted just as they were taught. But they were taught incorrectly."

Such criticism signifies Soviet concern over the "stereotypy"—the rigidity—that has characterized their training. Open criticism of the commanders who sponsor such training (rather than of individual pilots) demonstrates Soviet determination to change this situation by attacking it at the command level.

Training to Take Risks

Fostering a degree of initiative in a force that has been taught to be exceptionally cautious is not an easy task. It is obvious from Soviet writings that many pilots and

commanders are having difficulty in adjusting. As one author says, there is "a need to be bolder, to take an intelligent risk in combat and to make more active use of the capabilities of aviation equipment and new tactics of combating the air 'adversary.' It is no secret that some pilots prefer not to go beyond the bounds of 'tried and true' methods of air combat, referring to the fact that everything is spelled out by appropriate documents, and the pilot's task allegedly is only to perform them strictly. It stands to reason that the demands of documents represent the law of flying, but they can't provide detailed recommendations for all instances that will be encountered in actual air combat."

One Soviet general wrote a lead article in the Soviet Air Forces journal *Aviation and Cosmonautics* in 1981. He warned that "if we do not . . . improve training methods, the lag in matters of flight and tactical training can have the most fatal results in the future. There are, in effect, unfortunately, forces of inertia here and there, tenacious old habits and a tendency toward simplification and indulgence. . . . [However,] combat training of pilots in *leading* units is taking place against a complex tactical background. Under such conditions, each airman is granted the right to independently seek for and implement the best solution for the assigned mission."

Evidence of change in the Soviet approach to training is unmistakable. A number of recent articles point out that changing missions and targets after an aircraft is airborne is one way to interject realism into training. Pilots learn to be prepared to react to a dynamic situation—the original target has changed position, the pilot is directed to a new target after takeoff, a target of opportunity unexpectedly appears, and so on.

It is misleading to describe Soviet training as "rigid" and "unrealistic" in the face of such changes. Such adjectives, without reference to US training or other objective standards to justify them, foster continued US complacency. Initiative has always been seen as the hallmark of US tactics. It is very difficult to recognize the development of any sort of initiative in a system we have always believed to be hopelessly rigid. But to deny the development of such initiative in the face of incontrovertible evidence or to fail to acknowledge incremental improvements that eventually add up to increased Soviet capability is courting danger in any possible future air combat arena.

Myth Five: The USAF Aggressor program provides an adequate simulation of Soviet tactics.

The formation of the Aggressor squadrons was an innovation in the tactical world. The program was born at a time when the lessons of the war in Vietnam were fresh in our minds. We were willing to implement the program, despite the expense and the increased risk that accompany increased realism in training, in order to improve the combat readiness of our pilots and to prevent needless losses in any future conflict.

Support for the Aggressor program seems to have declined in relation to the time elapsed since that war and with the general belief that any future war is still distant. Thirteen years have passed since the inception of the program, yet no aircraft have been upgraded, and the training is more conservative than in the beginning—



Development of a new generation of Soviet tactical fighters, with substantially enhanced performance compared to these MiG-25s, raises the serious question of whether or not USAF Aggressor squadrons, flying older equipment, can provide adequate realistic training in Soviet air-to-air tactics.

despite changes in Soviet tactics and training. As one former Aggressor commander pointed out in speaking of the Aggressors, Red Flag, and dissimilar air combat training (DACT) programs: "These 'new' training programs are over ten years old now, and they have reached a plateau in progress, with stagnation setting in."

There are two ways to provide advanced air combat training. One is to train for combat against a particular enemy, simulating the enemy's aircraft and tactics. The pilots simulating the enemy try to be as good as the enemy—but not necessarily better. The second approach is to train for the most demanding air combat situation possible. The theory here is that if a pilot can defeat the most capable adversary, he can also defeat any lesser enemy.

One example of the second approach is the Israeli training program, which has shown excellent results in combat tests of pilot skills. Israeli air combat training is often described as the most aggressive in the world. They train against pilots who are much more skilled than the enemies they face: They train against other Israeli pilots who exploit the full range of their capabilities. Perhaps Israeli kill ratios in recent conflicts might not be so high if they trained against adversaries who were limited to simulating only what the Syrians or Egyptians could be expected to do.

An Outdated Approach?

The US took the first approach with the Aggressor program. The program provided good air combat train-

ing against a dissimilar aircraft that closely resembled enemy aircraft in appearance and performance characteristics. The Aggressors also simulated enemy intercept tactics, including the use of ground control (GCI). Good GCI was essential to the Aggressors (as it was to the North Vietnamese and the Soviets) because of the extremely limited range of their aircraft radar.

In addition to these simulations, however, the Aggressors also provided good maneuvering air combat training once ground control had brought the Aggressor within visual range of his target. This went beyond expected enemy tactics, but was recognized as one of the most valuable parts of the training. Dogfighting against a dissimilar aircraft is difficult, but it is a situation that arises in actual combat whether or not the participants have trained for it.

Dogfighting requires proportionately more training to maintain proficiency than many other types of air combat. Instead of stressing greater use of maneuvering air combat—in accordance with developments in Soviet tactics—the Aggressors have become increasingly restricted in this area. This reflects the outdated view that the Aggressors should be much less aggressive in maneuvering engagements in order to simulate the Soviets more precisely.

A fighter weapons school instructor, speaking of both USAF and Navy programs, has phrased it best: "Unfortunately, much of our tactical development and practice is focused on refining tactics that were successful in countering a simpler—and now obsolescent—threat.

Although there are valid lessons to be learned by reviewing these tactics, the threat is changing faster than we are responding with effective countering tactics. . . . Our tactics will languish in an era that has passed us by unless we fill the gap in adversary simulation quality immediately."

The Aggressors should be oriented toward simulating today's and tomorrow's threat—not the threat of five or ten years ago. The Aggressors should be on the forward edge of developments in Soviet tactics and equipment. Any war we fight will be tomorrow's war—not yesterday's.

What makes this situation especially ironic is the apparent development of a Soviet adversary program.

A Soviet Aggressor Program?

The Soviets have long written of the USAF Aggressor program with great admiration and frank acknowledgment of the training benefits it provides. One prominent author has written: "The process of training pilots for real combat must include simulated combat with an 'adversary' performing his distinctive maneuvers without any sort of simplification." He specifically mentions that pilots could be expected to achieve increased survivability in a war after training against a dedicated "adversary" and contrasts this to training in which pilots merely "[take] part in 'deterrence' spectacles with mandatory 'adversary' capitulation"—a clear reference to Soviet training of the time.

Through the 1970s, the Soviets commented on the US Aggressor program, but did not mention similar training in connection with their own forces. However, in the 1980s, they began to focus increased attention on the value of opposed-force training. The commander of combat training for the Soviet Air Forces stated in 1983 that "it is very important to make an exercise two-sided, with the designation of a real enemy, and to game episodes of fighting fighters against fighters." Yet another article in 1983 stresses the need for dissimilar training: "As a rule, air combat is conducted in aircraft of the same type, which causes inevitable oversimplifications inasmuch as a pilot has had a look at the traditional target and knows its capabilities from personal experience, which makes conditions easier for him. The pilot knows in advance what techniques the 'adversary' might use. There would appear to be greater benefit if a certain percentage of group maneuvering combat activity is waged with an 'adversary' flying a dissimilar type of aircraft."

Late in 1983, references began to appear regarding "experienced adversaries." It was not clear if the Soviets were referring to specially trained adversary pilots or simply to an experienced line pilot flying as a target. One reference describes "an experienced 'adversary' who would be fighting at optimal speeds and at high G-loads. Employing elaborate maneuvers and unexpected tactics, he would be squeezing every bit of performance out of his fighter. It would be no easy matter to defeat such an adversary."

The first official discussion of dedicated 'adversary' pilots appeared in the 1984 Moskvtel'ev article. In describing the new maneuvering air combat training program, General Moskvtel'ev claimed that fighter squadrons completing the program received training in

exercises against "specially trained aircrews flying in the role of adversary" who "performed combat maneuvers in flights of up to four aircraft." There is apparently a full squadron of these adversary pilots. It is not clear whether or not they attempt to simulate US tactics, but they are credited with having some sort of specialized training.

In order to continue to provide an accurate simulation of Soviet tactics, the Aggressors must be brought up to date. The aircraft they fly—the F-5—simulates the Soviet MiG-21, which even today is no longer the primary threat. By the time new aircraft could be bought for the Aggressors, the F-5 will be two generations out of date. Any new aircraft must be bought with an eye toward simulating the new Soviet fighters that are now becoming operational—the Fulcrum and Flanker. Furthermore, Aggressor tactics, to the degree that they simulate Soviet tactics, must take into account current and likely developments in Soviet doctrine. We should anticipate developments and be prepared to simulate and counter those tactics rather than lagging far behind.

Exploding the Myths

Continued belief in the "myths" outlined above could be detrimental to US combat readiness. It is difficult to change views that have persisted over many years; it is much more comfortable to remain complacent about the advantage in pilot training that has been ours for so long.

It is easy to ignore the slow and deliberate nature of developments in Soviet training, dismissing each individual change as incremental. But increments add up, and the cumulative effect of these changes should not suddenly take us by surprise. US tactics and training, while dynamic immediately after Vietnam, now appear to be languishing. At the same time, improvements in Soviet tactics and training have exploded many of the myths that once were truisms. Further developments are indicated in Soviet theoretical discussions. These developments will be tied to the introduction of new fighter aircraft. USAF could find its qualitative advantage diminished if we stand still while the Soviets move forward.

Improving pilot skill is a continual race. The Soviets have moved slowly, and we have ridiculed their abilities, confident of our advantage. Let us hope that we do not, like Aesop's hare, fall asleep and wake up only after the steady tortoise has crossed the finish line and won the race. Drastic action is not required—we need only continue to innovate and to exercise the initiative that has always been ours, without complacency and without underestimating the enemy. ■

Capt. Rana Pennington, USAF, is currently a Soviet air analyst with the Defense Intelligence Agency. She holds a bachelor's degree in Soviet Studies and is completing a master's degree in Soviet Military Affairs at Georgetown University. She has previously served as a fighter wing intelligence officer, an intelligence officer for the Aggressors, and an Aggressors academic instructor. Captain Pennington is the author of two DoD manuals on Soviet fighter tactics, has written several articles for the Fighter Weapons Review, and is a contributor to a recent book on the Soviet Air Forces. Her earlier article for this magazine, "Closing the Tactics Gap," appeared in the March '84 issue.