

Pg. 3**CHAPTER Introduction**

The final delivery of the MiG-21MF in 1975 meant the completion of the emergence of the Czechoslovak Air Force into the realm of Mach 2 capability. All fighter regiments not only within the PVOS (Air Defence units) but also the 10th Air Army (essentially Frontal Aviation) were thus equipped with various versions of the MiG-21. Two fighter-bomber regiments flew the Su-7 and a third also the MiG-21MF. Only the 30th sbolp (Fighter-Bomber Air Regiment) still utilised the MiG-15bis and MiG-15bisSB but there was a certain justification for this type being flown by this unit and there were no plans on upgrading to supersonic equipment. The unit was considered sufficiently functional in its task despite not being anywhere near the world norm in terms of its equipment. Even the relatively new MiG-21s were ageing quickly with respect to world technological trends and this was even more felt within the units flying the Su-7.

In the MiG-23, the Czechoslovak Air Force received a high performance aircraft that exceeded its predecessor in all respects. It was a much better aircraft with a higher speed, higher rate of climb, a higher ceiling and a better range. However, it was also a more complicated piece of equipment and consequently significantly more expensive. A new MiG-23MF cost 30 million CZK (Czechoslovak Crowns) while a MiG-21PFM was going for 9 million CZK. Taking this into consideration, the MiG-23MF was about six times the cost of a MiG-21. The high price of the Flogger and the saturation of supersonic equipment within its units meant that the Czechoslovak Air Force only used the MiG-23MF as a top-up measure. It was a similar use that was seen with the MiG-17 and 19 that merely supplemented units flying the MiG-15, and the MiG-23 fulfilled the same role with respect to the widespread MiG-21 and even the Su-7.

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MiG-23MF flown by Miroslav Dvorak on a flight at maximum service ceiling and operational range, 1981. After a two-year training program, the MiG-23MF Squadron began rapid reaction duties from January 2nd, 1981. The aircraft carries APU-13MT rails for R-3S or R-13M rounds.

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One of the first three MiG-23MFs at Bechyne. It was manufactured on June 28th, 1978 and was flown to Bechyne between August 23rd and 24th of the same year. The first flight in Czechoslovakia was undertaken by Maj. Frantisek Skalicky on November 17th, 1978. It was also the first flight of a Czechoslovak MiG-23MF flown by a Czechoslovak pilot. The day previous, the other two delivered aircraft, coded 3645 and 3646, were first flown by Soviet pilot Lobinov. He also flew the trainer MiG-23U coded 7827. By the end of the year, this threesome of MiG-23MFs would accumulate just shy of sixty hours flight hours.

CHAPTER In the socialism

The unit chosen for the transition to the MiG-23MF was the 1st slp (Fighter Air Regiment) based at Ceske Budejovice. Together with the 11th slp in Zatec and the 8th slp in Ostrava-Mosnov, it was one of the three units that made up the Air Defence system, the PVOS. Since its last rearming project in 1975, the 1st slp had MiG-21MFs, known as 'Greys' due to their paint schemes, in the 1st Squadron, while the 2nd Squadron used MiG-21PFMs and the 3rd Squadron (a training oriented unit) the MiG-21F. The unit also had a 4th Squadron with MiG-15bis aircraft for the interception of slow flying bogies and helicopters. Officially, it belonged to the 30th sbolp, but it was subordinate to the 1st slp. Just prior to the integration of the MiG-23, the majority of MiG-21Fs were retired from regimental use.

The regiment accepted its first three MiG-23MFs in August, 1978. It did not do so at its home base, but rather not far from Bechyne, where the entire regiment was in the process of relocating to. This was due to the concrete resurfacing of the runways in Ceske Budejovice that replaced the original asphalt during general repairs to the facility in 1971. The consensus was that the angled axis of exhaust from the new MiGs presented a potential problem for the asphalt material which is not particularly heat resistant. For this reason, it was decided to rebuild all of Ceske Budejovice's runways and aprons in concrete. The reconstruction began in February, 1978 and was completed in December, 1979. The new aircraft were assigned to the 3rd Squadron. The 1st Squadron operated fifteen MiG-21MFs and four MiG-21PFMs, while the 2nd Squadron had ten MiG-21PFMs and four MiG-21Fs. After the August delivery of the first three MiG-23MFs (coded 3641, 3645 and 3646), a single MiG-23U was accepted in September, 1978. Thanks to this two-seat version of the fighter, pilot training could commence. For the time being, it would be conducted at Bechyne, the home base of the 9th slp.

With that, for the first time in history, the two-seat version of a fighter was available simultaneously with the combat version and aided in the smooth integration of this type into service. In March, 1979, a further seven MiG-23MFs (coded 3880, 3887, 3888, 3920, 3921, 3922 and 3924) would be delivered. The last three MiG-23MFs (7182, 7183 and 7184) came on December 1st, 1979. Two days later, the regiment relocated to its newly resurfaced base at Ceske Budejovice.

Conversion to the new MiG-23MF continued up to the end of 1980, by which time the Squadron was fully trained. In the same year, the unit also demonstrated its new planes for the first time over Letenska Plain in Prague. Over the course of training exercises, Czechoslovak pilots undertook the first live-fire events with the MiG-23, using R-3S missiles. This occurred at the Astrachan firing range in the Soviet Union in the summer of 1980 but were conducted using borrowed Soviet MiG-23MFs. The Squadron's training culminated with cannon and unguided rocket fire at ground targets at Ondrejov over the Air Force's training range (VVP) at Boletice.

On completion of the training, the 3rd Squadron was certified combat ready on January 2, 1981. This meant that two MiG-23MFs were always ready for scramble together with a pair of MiG-15bis aircraft from the 4th Squadron. The MiG-15s were

ideal for the interception of smaller, slow moving targets like sports planes or helicopters. The most common attention garnered by military pilots over Czechoslovakia was by far attributed to lost sports planes and the MiG-23s were saved for the more threatening of enemy types.

The integration of a mere thirteen MiG-23 fighters was not the end of the supply of the type to the Air Force. Between the 2nd and the 15th of November, 1981, the first ten MiG-23MLs were accepted by the 1st slp. These were coded 2402, 2406, 2409, 2410, 2422, 2423, 2425, 3303, 3304 and 3307. Besides some airframe changes, the ML version differed from the earlier MF with a lighter, more capable radar and a lighter, better performing and more efficient engine. The latter allowed for the removal of the fourth fuselage fuel tank and the overall weight reduction significantly changed the axis of the aircraft with respect to the ground. These ten aircraft also allowed the transfer of MiG-21PFMs to the remaining PVOS units, specifically the 11th slp at Zatec and the 8th slp at Mosnov. The PFMs were transferred in December, 1981.

The supply of the MiG-23ML continued at the same slow pace as was the case with the previous MFs. Further aircraft weren't supplied until a year later, on December 22, 1982 (coded 4641, 4644 and 4645) and the final planes were delivered on February 18, 1983 (four aircraft coded 4850, 4855, 4857 and 4860). In all, the Czechoslovak Air Force purchased seventeen MiG-23MLs. All were assigned to the 3rd Squadron. Shortly afterwards, there was a reversal in the designation between the 2nd and 3rd Squadrons. After this redesignation, the 1st slp consisted of the 1st Squadron equipped with the MiG-23MF, the 2nd Squadron with the MiG-23ML and the MiG-21MF armed 3rd Squadron.

February 1983 saw the supply of the MiG-23 to the Czechoslovak Air Force come to its completion. This meant a total of thirty MiG-23MF/MLs in service. There was further modernisation of the Air Force in the shape of the integration of the Su-22 and Su-25 attack aircraft, and the fighter force had to wait until 1989 to purchase the MiG-29.

March, 1983, saw the retirement of the MiG-15bis not only from the 1st slp. that, as a result also disbanded its 4th Squadron, but from the Czechoslovak Air Force as a whole. From that point on, the combat readiness of the 1st slp was entrusted to the MiG-23.

With the delivery of the MiG-23ML to the 1st slp., it was decided to strengthen another unit of the PVOS, the 11th slp. On May 13, 1983, twelve of thirteen MiG-23MFs, along with two MiG-23U aircraft, flew in from Ceske Budejovice to Zatec. There, the 11th slp assigned them to the 1st Squadron. The thirteenth MiG-23MF (7183) would arrive two weeks later on May 27th after engine repairs. At the time, Zatec operated aging MiG-21PFMs in all its three Squadrons and the MiG-23MF represented a major upgrade. Surplus MiG-21PFMs were reassigned to the 8th slp at Mosnov.

After the transfer of the MiG-23MFs to Zatec, the MLs at the 1st slp were divided up between the 1st and 2nd Squadrons while the 3rd Squadron retained its MiG-21MFs. The first live-fire exercises with the MiG-23ML were conducted between May 26th and 28th, 1983 over the Baltic Sea and were certified scramble ready from April 1984.

The service life of the most capable fighters with both Czechoslovak units at the time was colorful. Worth mentioning are the scrambles against the fastest aircraft in the world, the Lockheed SR-71, which flew precisely along state borders. For the first time ever, the Czechoslovak Air Force possessed something that had some chance of threatening these high performance aircraft. The MiG-23s encountered TR-1s and E-3As just as often.

Just as interesting was the use of the MiG-23s during Air Force exercises. One of these occurred during Stit (Shield) 84 that saw a mass scramble from Zatec where over a span of four minutes and 50 seconds, 73 aircraft took off from the base. This number included a dozen MiG-23MLs and MFs (the MLs were from Ceske Budejovice and were in Zatec to take part in the exercise).

Nine MiG-23MLs were demonstrated over Letenska Plain in May, 1985. In October of the same year, twelve MiG-23MLs were scrambled off of a section of highway near Merina. In 1986, 1988 and 1990, live-fire exercises were conducted in Astrachan, but this time these were not undertaken with borrowed aircraft, but actual Zatec and Ceske Budejovice assets. Unit exchanges and exercises were also undertaken with Czechoslovak MiG-23MLs at the Hungarian bases of Kecskemet (April 1987) and Papa (April 1988), and also at Germany's Damgarten (July 1988).

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Our pilots were introduced to the MiG-23MF at the 715th Training Regiment at Lugovoy, an airfield in today's Kazakhstan, some 25km from the border with Kyrgyzstan. For the purposes of converting onto the type, the MiG-23MS was used initially from 1974 which used the Safir-21 radar unit from the MiG-21bis (and S, SM and SMT). At the time when Czechoslovak pilots were converting onto the Flogger, the MiG-23M and the newer MF were already available. By the time the 1970's became the eighties, the unit had at its disposal a Squadron of MiG-23BNs as well as the MiG-23U and MF, and undertook training of MiG-23 pilots of all variants. Quite logically, the MiG-23MFs flew without armament and carried universal BD3 pylons below the wings and fuselage (not the APU-23).

Converting foreign pilots began as early as 1976 with Bulgarian pilots on the MiG-23BN followed by Czechoslovak pilots in 1977 for conversion onto the same type. In 1978, training on the MiG-23MF was undertaken not only by Czechoslovak pilots Frantisek Skalicky and Viteslav Nohel, but also colleagues from East Germany, Romania, Poland and Hungary. The conditions that prevailed in the central Asian nation represented a cultural shock to the Europeans thanks to the desert conditions, poisonous wildlife and primitive living conditions on the border between Kazakhstan and Kyrgyzstan.

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The MiG-23MF was painted in the same colours as the older Czechoslovak MiG-21MFs with the addition of a lighter green. Both camouflage colours had a minimal tonal difference between them throughout the type's service career. The paints were

very durable and had no tendency towards peeling, but just like their MiG-21MF counterparts, they did tend to bleach out. Even as late as 1990, these paints were in much better condition than on the MiG-21MF as indicated by photographs of aircraft coded 7184, and part of the reason was frequent hangar storage. The rear bottom fuselage was painted in a blue-grey paint, resistant to the effects of leaks of the various fluids used in the aircraft. This paint had a bit of a different tone to the rest of the aircraft.

This aircraft was heavily damaged in a hard landing at the base in Panensky Tynec on June 4th, 1986 when it was flown by the then CO of the 11th slp, Vaclav Vasek. After a four-month repair it was returned to service.

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While speaking about the human activity known as flying, the question sometimes arises as to whether or not it is a worthwhile endeavour. Some say that too much of a good thing is not good. Others, you can never have enough of a good thing. Apparently, you're supposed to choose. Like with most things, the truth probably lies somewhere down the middle. To talk of flying today requires a specific theme, though, since it has become such a varied topic in terms of types of flight. We need to compare apples with apples, not oranges.

The Box – many aviators know that the MiG-23 was only known by that little three letter word from the moment the first thirteen single seat MFs and two two-seat UBs were delivered to the 1st slp at Ceske Budejovice in 1978. This line-up lasted until the beginning of the eighties, when the contingent of MLs and further UBs began to arrive. The powers that be at the PVO (National Air Defence) made the determination that there was a need to strengthen the combat capability against the former northern enemy.

In the spring of 1983, after a theoretical training exercise of ground and air assets, the thirteen MiG-23MFs and two UBs relocated to the 11th slp at Zatec. Here, these aircraft served until the spring of 1989. From 1988, the strategic planners already knew that the three fighter regiments located at Zatec, Bechyne and Pardubice would be re-equipped with the MiG-29 Version 9-12A by 1989. Why there were only twenty aircraft delivered to Zatec is a different chapter altogether. But with the coming of the Box, the Eleventh back then took delivery of an aircraft with which it could attack not just from the rear hemisphere, as with the MiG-21.

I don't want to take the wind out of the sails of any responders to this subject of the MiG-23. I have noted that how it has entered into the consciousness of the public at large. The then commander of the PVO and former CO of the 11th slp, Col. Jan Budinsky (unfortunately no longer with us) went for a beer with the then chief of the Central Bohemia Region Aeroclub, Josef Perlinger, in the summer of 1987, and a good thing happened. One thing led to another and in September of that year, the shroud of secrecy that there were problems within the Czechoslovak Air Force was finally broken. The big Aviation Day with Kvety became a landmark event. Military aircraft of all types in the Czechoslovak stood over Prague in a level never seen before. That this would become an epic aviation event involving virtually all of Europe

might only have been foreseen by the biggest dreamer. Speaking for myself, I was not among those in the know, who knew something, anything, beforehand regarding the impending changes in the social conditions of this country. But, how then did this all come together.

In the summer of 1987, near the end of my career as 11th slp CO (I flew the MiG-23MF at the time) I received an instruction from Jan Budinsky: '...in September, there will be an air show in Karlovy Vary. Put some sort of display together, and if you can do it in time, you're going.' Well, the boys slugged down more than one bottle of liquid inspiration. I saddled up the old girl and headed over. Vlado Griga flying a rake (a Su-25) from Pardubice and Franta Kares in an L-39 from Caslav and myself landed at Zatec and in the meantime put on a display over Karlovy Vary. The L-39 display was flown by my schoolmate from the Academy days, Mira Schützner, but by then he was a civil employee with a firm that still meant something, Aero Vodochody. The Karlovy Vary airport is not well situated in relation to the city which it serves to allow for an aircraft display that needs a bit of room to do its stuff. You can't exactly turn a Box on a dime, but I did perform a display at various wing sweep angles (16°, 45° and 72°). There was also a limiting factor due to a low ceiling. The whole thing was somewhat limited. I also vaguely recall having some sort of a landing gear issue, but I got the gear down and landed normally after a few attempts, and god only knows what the issue was.

When I sent off this text to Martin Janousek, he wrote back requesting a description of some further experiences pertaining to the MiG-23; that it wasn't enough. So I set about trying to recall other little adventures I had with the Box, but what to choose? Landing on the D-1 Highway? My flight to Astrachan in '86? I figured that these were good choices.

I put down on the D-1 in a MiG-23 in 1985, and it wasn't the first time. Before that, it was in 1982 a MiG-21PFM from the base at Panensky Tynec. This was the temporary relocation for the 11th while its homefield was undergoing maintenance in preparation for 1984's Stit '84 exercise to allow tanks and other scary things to track over the field. But that is veering off topic and I wrote about all this in another book. Back to what led to the landing on the D-1. Back then, the dominant concept was that there would be one air regiment per airfield and in isolated incidents, two, using ground equipment. The weak point with the base was the runway and taxi communications. It was tough to function as a regiment without this system. Some fields were equipped with secondary takeoff communication systems and ultimately, it was even possible to take-off from the taxiway. This was proven by the mass takeoff of 72 aircraft from Zatec during the aforementioned exercise. In under five minutes, the aircraft took off in groups off the main strip opposing each other, off the grassed areas as well as individually from the auxiliary strip and taxiway that was parallel to the main runway. But landings were only possible on that main runway, and that was considered to be the main target in an enemy attack. So, what to do in such a case? In times of threat, it was expected to move at least one regiment to a safer location in order to help ensure that usable assets remain available. In times of conducting aerial ops and having a runway out of commission, it must still be possible to put an aircraft down from the air on an acceptable piece of real estate and rearm and refuel it. There were several lengths of highway singled out to be used for

this purpose. Today, this concept is routinely practised even in peace time, mostly due to economic considerations. There is more than one combat element located on any given field at any time during peace, to be dispersed in times of need. There are several sections of the D-1 that make it unfavourable to this purpose as opposed to the normal infrastructure of the typical airfield. It's rather narrow, there are jersey barriers, there are bridges, and on landing, there is a lake uncomfortable close. This required a certain amount of thought. In order to train our pilots landings on short, narrow sections, lines were painted on the airfield runway 25m apart, and each one had to repeatedly put down at a predetermined point. No matter what – a burst tire, a sudden lateral wind gust, whatever), the pilot had to maintain the aircraft on the highway with whatever means it took to do so. In the case of a braking chute failure on landing, it was deemed necessary to continue on with the landing procedure. When the designated road section ran out, the pilot was instructed to choose one side of the highway away from the central jersey barriers and come to a stop on a left handed veer. It was hoped that all of these eventualities could be avoided through careful inspections of the systems prior to landing and if something did come up, to cancel the landing maneuver and continue on to the home field, or, if dictated by low fuel reserves, to land at Namest nad Oslavou or Brno. No landings on the D-1 resulted in such events that were planned for but not expected. Whenever I go down the D-1, I think back to these times when I am between milemarkers 136-139. Today, both sides of our former spots for landing, there are McDonald's restaurants and other various fast food joints that would have been levelled to the ground in a day to make way for shelters for our use. In a similar way, the jersey barriers would all disappear inside of two days. Today, it is simply a matter of fact that at a time of need for the assurance of ground and logistical support, a stretch of highway can serve as a decent airfield for the dispersal of air assets.

The other experience I wanted to recount is this: the combat readiness of the Czechoslovak Air Force included, among other things, live fire exercises against air targets. This exercise was largely type-dependent. At a time when air-air guided weapons were not yet used, in the fifties and sixties, such as the MiG-15 or, later, the L-39, a fighter-sized target was towed at a distance of about 300m from the tow aircraft, and fighters would attempt to hit it with cannon fire. The cannon fire needed precise use to minimize the possibility of hitting the tow aircraft. This type of engagement against aerial targets was kept up until the late eighties. Using guided rounds against aerial targets was developed along two basic concepts in unison. One was based on a carrier aircraft taking off usually from Zatec or Panensky Tyneć and headed north towards the Baltic. A group of fighters would then take off at a reasonable time interval to pursue. The carrier aircraft would then arrive at an area designated as Zone 2, where there were restrictions insofar as sea and air traffic were concerned, and released a parachute retarded container with heat and light emitting capabilities. As it slowly descended, the incoming fighters would fire off either heat-guided or radar guided rounds. All the aircraft would then bank left to the south and head for home. Virtually the entire air force would go through this exercise each year. The second method of training was logistically and time wise more labour intensive. It involved air and ground personnel and assets to be moved to the airfield at Privolzhskiy, near the city of Astrachan, north of the Volga River delta, which flows into the Caspian Sea. Here, the entire ensemble would operate using local MiG-21s

with local control systems. A target drone with a rocket motor would be fired off in the direction of a predetermined polygon and flights of fighters were guided to its location. In order to conserve the number of drones used, the entire platoon of fighters was guided towards it, but only the last fighter was designated to shoot it down. In 1986, there was a fundamental change in the makeup of this exercise. As I stated earlier, at the time, I was the CO of the 11th. I received an order to lead 17 MiG-23s (16 combat and one two-seater) from Zatec and Ceske Budejovice to Astrachan. Since I was leading the entire exercise, I did not expect to take part in the firing exercise itself. Furthermore, the task of trying to predict everything that could possibly come up in the flight over, taking into account its distance which from the end of the war was the longest undertaken by our air force, fell on me and my staff. Such a flight required the use of drop tanks. These were hung under the wings. It occurred to me that there was always the possibility of one not draining. That would make one half of the airplane heavier than the other by a half tonne. Common wisdom would suggest to jettison the tank and its contents and not attempting to land. I didn't want to believe this scenario, and so I considered flying into Hradcany near Mimon, where there was a Soviet MiG-23 unit stationed. The Co there assured me that this would have been the correct procedure, but noted that such an event has never occurred. I had an easier time believing him since he was a veteran from Afghanistan. So, I was on my way to fight for home and honor. Then came what we called Day D (a Friday), and we met up from both bases over Kosice. There, we spent the night and on Saturday morning at 0400h we were off. The ferry flight over was planned so that I and Maj. Jarda Forman flew alone an hour ahead of the main flight. Our task was to gauge the weather and to confirm the reliability of the navigation and communication equipment along the route. We climbed in the direction of Kramatorsk in the Ukraine. Even while climbing, it was pretty clear to us both that whatever could screw up, was guaranteed to do so. Mr Murphy was no fool. Not only did the fuel gage show a constant reading, but the increasing need to balance to the left indicated that the right tank refused to show up for duty and would not feed that thirsty engine. So, in a case like that, you're in for a little bit of problem solving. For one thing, you are short 490 litres of go-juice, and for another, the extra weight makes slowing down for landing a not-so-rosy situation. But I like to solve my own problems. So, with Jarda, we came up with the following configuration leading up to our landing: In the final stages of the landing approach, I'd take control of the aircraft. Still increasing in tendency to the left, I decreased our speed. The effect of the heavy right wing was significant. I was ready, at any moment, to slam the throttle to maximum, abort the approach, fly to an area where I could jettison the tank and land without it. That, however, would effectively shut the door to our trip to Astrachan. With one full drop tank, it should be possible to land the aircraft, but the same cannot be said for takeoff. And with that in mind, I approached the field. And with a bit of a bang, I sat her down on the runway. We were met by a group of technicians who knew very well what had gone down and we were greeted with a lot of pats on the back. At a moment like that, this was better than receiving the Order of the Red Star! There was this one guy. A shame to waste too many lines on him. He was the CO of the PVOS division, never flown. But, of course, he knew everything better than anyone else about it. 'Comrades... I knew that honour would not allow you to discard the faulty tank. Comrade technicians will fix it for you and all will be fine.' The fact is that the techs really did work on it, skipping a meal in the process. With that, all

sixteen combat aircraft in groups of fours were on the ground. The second leg of the trip was planned in a similar way. To our joy (mine and Jarda's) it went off the same way, including landing with a full right tank. The entire, almost two-week stay at the range was spent by our technicians, aided by local help, solved the mystery and eventually fixed the problem so that I could test fly the bird two days before our leaving. The local base commander expressed his being impressed with me and gave me an informal gift, five one-litre jars of authentic sturgeon caviar (those that are aware of the capabilities of caviar will appreciate this). On the trip home, finally, the planes behaved, unlike the weather. Due to the need to circumnavigate storms, some of the boys had to set down at Kramatorsk with barely enough fuel for a cigarette lighter. All's well that ends well, though. As a reward, I was invited to the Prague Castle for the yearly The Battle of the Dukla Pass celebrations, where I ended up, in front of all present, dancing on the table screaming at the top of my lungs. My wife Jirinka was eyeing me that it was time to go, and in the eyes of everyone else there was a certain condemnation up to the point where communist Premier Strougal pulled on my pant leg and proclaimed 'I like you, son. You know how to laugh'. Then, everyone was my friend.

Martin's wish for me to compare the MiG-23 with other types has not been fulfilled. There really is no sense in trying to compare a MiG-21, MiG-23 and a MiG-29. These are generation apart types. It can't be done. If a succeeding type is not more capable than the successful type of the preceding era, it would not be developed and produced. That a MiG-23 could, unlike the MiG-21, intercept from all aspects is obvious. That a MiG-29 can outfly the -23 into submission is also not a surprise. So, why? So this is one flight I will not undertake.

I like to think fondly back at all of the military and civil types that I had the honour of having my butt strapped into. Today, variable geometry technology has been surpassed, but the Box will always be the Box.

Vaclav Vasek

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MiG-23MF in its original camouflage scheme at its home field at Plana near Ceske Budejovice. The canopy framing on newly delivered aircraft was sprayed separately and did not necessarily correspond to the camouflage colours on the rest of the airframe.

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The loadout on the MiG-23MF evolved over time. Around a half of the aircraft were equipped to carry a pair of heat guided R-23T missiles and the other half could carry the R-23R radar guided rounds. A change between the R and T versions of these missiles meant a change in some of the electronic equipment. Contrary to the later MiG-23ML, it was not possible to carry a combination of the two types of missile on the MF. The R-23R was no longer carried on the MiG-23MF from March, 1990.

From the introduction of service, a pair of the older heat-guided R-3S were carried under the fuselage on APU-13MT rails. Prior to the delivery of the MiG-23MF to Zatec, the newer R-13M missile was introduced into service. The R-3S would find its way back into service, though, thanks to the frequent motor failure of the R-13M on launch. The solution to this problem was to install a small gas diverting plate at the exhaust of the missile.

Modern R-60 dogfighting missiles were introduced into service at the end of 1984 during the service of the MiG-23 at Zatec and these replaced the R-13M. The latter continued to be used for training purposes. This photograph shows an aircraft on rapid reaction duties armed and ready with a pair of R-3S and R-23R missiles.

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Standard payload equipment delivered for the MiG-23MF included the Delta NM guidance pod and APU-7 launch rails for the Kh-23M ASM missile. As opposed to the MiG-23BN, which had the guidance equipment installed inside the airframe, the CH-23M was never carried by Czechoslovak MiG-23 fighter versions.

Another less common piece of carried item was the MBD-2-67U ejection rack for 100kg bombs, carried rarely for bombing exercises by Zatec based MiG-23MFs.

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The MiG-23MF could be armed with nuclear weapons. Each aircraft was delivered with a BD3-66-23N Special Adapter, which could be hung from the standard under-fuselage BD3 rack. There was an interesting moment during training exercises involving a visit by a pair of MiG-23MFs, together with a select group of pilots and groundcrew, at Mukachevo in the Soviet Union between September 25th and October 6th, 1980. Part of the visit involved the use of nuclear weapons on the MF. The entire exercise was conducted theoretically, without the opportunity of the Czechoslovak personnel to even see the actual weapon or its mock-ups. It was also the last time that Czechoslovak personnel conducted training on the use of these weapons.

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In 1992, limitation treaties dictated that all MiG-23MLs and a number of MiG-23MFs would have their nuclear capabilities decommissioned. On some MiG-23MFs, the equipment remained until the end of their service careers. On the aircraft where they were removed, they were removed completely, including cockpit controls and switches.

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My conversion to the MiG-23MF went from February to May, 1978 in Russia at Lugovaya (not far from the former city of Frunze, Kyrgyzstan Soviet Republic). There were only two of us who were pilots, myself in the function of Technical Inspector for the PVOS (National Air Defence System) and the CO of the 3rd Squadron of the 1st slp, Maj. Frantisek Skalicky. There were also technicians representing different areas of expertise. The conversion itself was composed of theory that lasted one-and-a-half months, cockpit training that was concluded in a flight in a simulator and, finally, practical training. Training flights were conducted on the MiG-23UB, solo flights in the MiG-23MS, with the final flights being made on the MiG-23MF. The aircraft were in a mix of grey and camouflaged schemes. The training was rounded out by two flights in the instructor's seat of a two-seat MiG-23UB. The UB had a thrust of around 10,000kg while the single seaters were somewhere around 12,500kg, so the difference wasn't extreme, taking into account also that the two-seater lacked a radar and was a bit lighter. From the instructor's seat, you could only see out to the sides; not frontwards. That's why the lowering of the gear raised a periscope, enabling the guy in the back to see forwards on landing. Flighttime during the conversion onto the type amounted to some thirteen hours. Lugovaya lay 180km east of Frunze and flights generally took place over monotonous landscapes. During navigational flights, we would occasionally encounter herds of sheep and a bit of green only near artesian wells. There were a few noteworthy items that occurred during our stay, and on the first day we were there, there was a magnitude 4.5 earthquake. The epicentre was at Alma-Ata, where some 2,500 people lost their lives.

The first aircraft were delivered in the fall of the same year and we began to convert a Squadron of pilots at Ceske Budejovice. The actual conversion training began at Bechyne, because the Ceske Budejovice airstrips had to be converted from asphalt to concrete. This was due to the fact that the asphalt was being melted by the hot, downward angled exhaust gases of the aircraft. The conversion of the pilots went off basically without a hitch, because the pilots were chosen based on the most experience in the MiG-21. The MiG-23 had a laminar profile good for stability, but gave no warning of a stall at minimum speeds. As a result, the MiG-23 was equipped with a system limiting the angle of attack to acceptable values. There was a small indicator in the cockpit that displayed the maximum allowed angle of attack based on the wing angle setting. If the alpha value was exceeded, the system would push on the stick and prevented the stall. The wing angles were 16, 45 and 72 degrees. The different the angle, the different the airplane, meaning the wing sweep dictated different flying characteristics and service limits. Because the wing has a given mass, a change in the wing sweep not only changed the span of the plane, but also the centre of gravity, that ranged as much as 8%. This had an effect on controllability of the aircraft, which could range from good to difficult. The pilot was required to balance the aircraft through trimming. The aircraft would easily break the sound barrier at a 72 degree wing sweep. Differential use of the stabilizers helped in maneuvering. The improved MiG-23ML was lighter by virtually a tonne, and so had a better climb rate and was faster in its maximum speed. The gunsight and radar unit were also better. The MF sat on the ground at an angle of 3.5°, while the ML did the same at 1.5°. The feel of the two was quite different, but on landing, the stiffness of

the stick didn't allow over-rotation that would potentially cause damage to the bottom fuselage fin.

Rough landings were dangerous when they caused the dampers of the landing gears to compress fully, causing the ventral retractable fin to scrape on the runway. However, these were made of a laminate material, and repair was generally quick and easy, and there were probably only a couple instances when this occurred, anyway.

Full combat use of the airplanes dictated that conversion training be undertaken as quickly as possible. We flew under favourable weather conditions both day and night, conducted live fire exercises over the Baltic Sea, against ground targets and practised air combat maneuvering. Over the Baltic, we would fire off R-13 rounds both day and night. The range over the Baltic from our base amounted to some 500km. R-23 missiles were only fired over ranges in Russia. On rare occasions, there was a Squadron exchange between units from Ceske Budejovice and Peenemünde in East Germany. We flew for fourteen days over the ocean, including live fire target practice against a shipwreck. Flying over the ocean ended up being some experience, I can say. The effect of the moist air made the horizon disappear, and especially under clear conditions, you felt like you were flying inside of a blue ball, making it necessary to fly by your instruments. Coming in for a landing from the ocean under poor visibility conditions required a certain amount of precision as the runway threshold stood only about a hundred meters from the sea. Humidity also decreased radar range at low altitudes above sea level, so interception was more difficult than over land. Firing on the shipwreck was done by cannon fire, but because there are no way points in the water like there are on land, the operation was a bit more complicated. Also labor intensive were the ferry flights from Ceske Budejovice to Astrachan for tactical exercises that included live fire drills against aerial targets. These long ferry flights demanded maximum range practice flights over the entire country; Ceske Budejovice – Brno – Zvolen – Kosice – Presov – Poprad – Zilina – Mosnov – Pardubice – Mlada Boleslav – Zatec – Plzen and back to Ceske Budejovice. During the day, it was ok, but at night, it became tiring. I also flew a display performance in the MiG-23MF over Prague-Kbely on September 10th, 1988. This was the 'Svazarm Aviation Day with Kvety' and to not require support equipment to be transported over, takeoff was synched from Zatec to allow arrival in time for the display, and then I would fly back afterwards. (Kvety (Flowers) – the Czechoslovak magazine)

The MiG-23 could carry a nuclear bomb. In 1980, I was among five pilots (myself, Skalicky, Prudek, Konecny and Hlavica) who flew from Ceske Budejovice to Russia (Mukachevo) and underwent training in the delivery of a nuclear weapon. Given that no further pilots were so trained, there is no need to go into much detail on the training itself. Our mission in Russia was geared towards a greater familiarization of the capabilities of the aircraft. In the event of a conflict, our task was to gain air superiority and to repel enemy attacks. That's enough work to deem the addition of the delivery of atomic weapons a thing to be possibly used only in cases of absolute catastrophe. That would be a weapon used by the bomber force.

All in all, the MiG-23 was an aircraft that was easily flown, was reliable and had a list of improvements over the MiG-21. It's turn rate was better than the -21's because it

had a better thrust to weight ratio and could turn at 8.5g. Speed at sea level could be supersonic – 1400km/h, and the variable wing gave it some better flight characteristics and climb rate. The MiG-21 had a higher ceiling, but the radar and weaponry of the MiG-23 allowed it to destroy targets 6km higher, and from either the front or rear hemisphere which allowed a faster intercept and destruction of aerial targets.

I would like to recount an experience I had in a MiG-23UB. It was on a training flight and the front cockpit was occupied by an excellent pilot, with whom I had undertaken conversion training in Russia. After take-off and getting up to our given altitude of 1200m, he throttled back a little more than was normal, and we continued on to our predetermined location. The speed began to drop from 800 to uncomfortable levels, but I was quiet, thinking he wanted to tease me with the threat of a stall, but even for a short drop we didn't have enough altitude. I asked if he wanted to continue on at minimum speed all the way to our assigned spot, and hinted at this being enough of that. He answered in a rather annoyed overtone, 'What's it to me? You take throttle control away from me and then laugh at me for not being able to do anything about it.' To explain: the instructor could, in fact, disconnect the front pilot's throttle, but when I assured him that I had not done that, we both began to take the situation seriously. Slowly, we applied throttle to maximum, but engine RPMs didn't budge and hung there even when throttling back to idle. We notified the tower of our situation and turned our way back to base at an angle of only 10° so as not to stall. On the way back, we discussed at what point and at what height we would initiate our landing manoeuvre, because the extension of the landing gear and deploying the landing flaps induces drag and lowers airspeed. The speed could be kept up only by descending. We agreed that the point would be during our fourth turn at a height twice that of normal, initiate a greater rate of descent for the lowering of the landing gear, stabilize the descent rate and depending on speed and altitude, we would extend the speedbrakes in time. Everything went according to plan, and we only had a slightly longer landing run. The reason for the RPM fault was put down to air in the fuel lines.

Pg. 15

A flight of MiG-23MFs of the 1st slp on the main eastern ramp of the Ceske Budejovice field prior to its transfer to Zatec. Aircraft coded 3646 has APU-13MT rails mounted for the carriage of R-3S and R-13M missiles. The first two Czechoslovakian MiG-23MF qualified pilots sit in the cockpit of the MiG-23U. Vitezslav Nohel, the PVOS head technical inspector, sits in the rear cockpit, and in front seat is occupied by Frantisek Skalicky, CO of 3rd Squadron, 1st slp, equipped with the MiG-23MF.

Pg. 16 - top

One of the first Czechoslovak MiG-23MFs in the new 'East German' camouflage scheme on a southern Czech airfield. The colour fields on each aircraft differed very little from aircraft to aircraft, but were not identical. The same scheme was applied to East German aircraft. This aircraft conducted its last flight on October 15th, 1992.

After that, it served as a spares source. In 1994, it was taken apart completely and the front end of the fuselage is in the collection of the Military History Institute in Prague-Kbely.

Pg. 16 - bottom

The oldest Czechoslovak MiG-23MF, manufactured on July 18, 1978, was also the first to return from its midlife overhaul in Dresden, East Germany, in the new camouflage scheme on November 6th, 1987. The new paint did not exactly ooze quality. This aircraft made it into the air for the last time on July 30, 1992 and after that served as a source of spare parts. It was dismantled in 1996 and the front end of the fuselage is now on display at the museum in Vyskov.

Pg. 17 - top

MiG-23MF 3880 was manufactured on October 27, 1978. The rabbit logo applied in white to the rudder was the then logo of the firm Plus Model. During its last flight on August 17, 1993, the aircraft suffered a minor engine fire that wasn't actually noticed until after landing. In 1996, the aircraft was disassembled at LOZ Ceske Budejovice. Fires and other problems with the engines after their overhauls in Bulgaria were a relatively common occurrence.

Pg. 17 - bottom

This shot of 3887 hails from 1991 when the aircraft did not yet carry the Squadron insignia, a representation of a bat. These first appeared on these aircraft in the spring of 1992 in the form of a self adhesive sticker. These didn't stick as advertised particularly well and 3887 marked a bit of an off milestone – it was the first to ingest the sticker causing an engine failure. Subsequent unit markings were sprayed on the planes. The bat emblem appeared progressively on MiG-23MFs and on two MiG-23U trainers coded 3646, 3887, 3922, 3924, 7182, 7183, 7827 and 7905. The emblems on some aircraft, besides the basic yellow and black, included silver outlines. The stickers of the bat emblem were also carried by L-39ZA aircraft coded 2350, 2421, 2424, 2427 and L-39Vs 0720, 0725, 0735 and 0740 and on their smooth surfaces, they tended to adhere without any problem.

Pg. 18 - top

Aircraft 3887 photographed in October, 1994 when MiG-23MFs were protected only by tarps while hardened shelters were occupied by MiG-29s that were delivered to Zatec. Its last flight took place on November 29th of the same year. During its service career, it spent more time in the air than any other Czechoslovak MiG-23MF, 1194 hours. Currently, it is on display in a museum in France.

Pg. 18 - bottom

This aircraft, built on November 27th, 1978, was one of those which suffered engine fires. This occurred on a testflight at an overhaul facility in Dresden. German pilot Grünberg, despite an order to eject, landed the aircraft. The engine fire extended the overhaul of the plane from what was to be just short of a year to a year and a half. The service career of this plane was ended after another engine fire that was only discovered after landing on June 22, 1993. The aircraft was disassembled in 1996.

Pg. 19 - top

Aircraft 7182 photographed in the company of the Devil during an event on June 23rd, 1994. This plane was part of the last three MiG-23MFs delivered. It was manufactured on September 28, 1979 and differs slightly from previously delivered aircraft in a small fairing on the spine ahead of the fin.

Pg. 19 - bottom

The last flight of a MiG-23MF took place on November 29th, 1994 from the main west apron of the field previously used by MiG-23MLs which were already at Caslav at the time. On this day, 7182 became the last MiG-23MF to fly in the Czech skies. Both wings from this plane were used as donor items for MiG-23MLs 3307 and 4850. The front of the plane became a display piece at an airport in Pardubice and the remainder was disassembled in 1997.

Pg. 20 - top

Dated June 23, 1994, this photograph was taken shortly after the 40th anniversary celebration airshow, commemorating the formation of the 1st slp. This took place at Ceske Budejovice and also served as final goodbye prior to the regiment's disbandment. Wear on the articulated outer wing sections is worth noting. It was common to all MiG-23s.

Pg. 20 - bottom

Three MiG-23MFs on return from midlife overhauls in Dresden on Friday, June 14th, 1991, making noise on the western apron of the Ceske Budejovice airfield. For the purposes of refueling, that airfield used the TATRA 148 CAPL15 truck, very often with CP-11 auxillary tanks. Ceske Budejovice did not utilize the more modern T815CAPL16. The very last MiG-23MF to return from overhaul in Germany was 7184 on August 9th, 1991. The new camouflage schemes were not very well applied. The surfaces of these aircraft became quite coarse with time and the new paints tended to quickly chip, peel and bleach. Stencil data was kept to the absolute minimum.

Pg. 21

The reunification of Germany posed a problem for conducting midlife overhauls in Dresden because instead of East German currency, the West German Mark was used which had a significantly higher value. Despite this fact, the finances were found to allow for the completion of the overhauls of all MiG-23MFs. MiG-23BN overhauls in Dresden were either cancelled and conducted at Aero Vodochody or LOT Trencin, while some aircraft were simply retired.

Pg. 22 - top

MiG-23MF 7183, produced on September 21, 1979, in an engine test stand. The intake FOD covers prevented ingestion of potentially damaging foreign objects. The GAZ-66 truck was equipped with a KSK monitoring system that recorded individual parameters of the test. This plane made it into the air for the last time on September 27th, 1994 on a ferry flight to Prerov to become a display item at the museum in Vyskov.

Pg. 22 - bottom

The final MiG-23MF built and delivered to Czechoslovakia served until June 30, 1994. In 2002, it was ferried to the repair depot at Malesice where it remains today.

Pg. 23 - top

The MiG-23 differed from its predecessors through a host of new items. One was a single point refuelling system. Although the aircraft was designed during the Cold War, the refuelling points were compatible with Western aircraft. This was due to the worldwide standardization of these items on civil aircraft and the subsequent adoption by the respective militaries of both sides. The same can be said for the stencil data symbology of the MiG-23 that was consistent with the standardized worldwide norms coming from the civil aviation sector.

Pg. 23 - bottom

MiG-23 pilots dedicated time to live-fire exercises against ground targets once a year. These were conducted either at the aerial gunnery range at Malacky or at VVP Boletice at the range in Ondrejov. Aircraft coded 3880 is shown being readied for just such a flight. Armourers are loading the cannon and there are UB-16 rocket pods under the wings. These were carried there so as to minimize the effect of the departing rockets on the airflow to the engine. The bomb cart has CCP-50-70 practice bombs awaiting loading onto the plane. The photograph is dated August 17th, 1993 and as it turned out, this would be the last flight for this airplane. Consequently, it would also be the last live-fire exercise for the MiG-23 against ground targets. In 1996, 3880 was dismantled at the 51st LOZ in Ceske Budejovice.

Pg. 24 - top

An R-3S acquisition round on an APU-13MT rail. For the use of the R-3S or R-13M on an underwing station, it was necessary to remove the APU-23 rail and mount a universal BD3 rack. The same universal rack was used for mounting the UB-16 rocket pod or for a bomb load. This aircraft went through its midlife overhaul and remnants of the yellow primer can be seen from the APU-23. The aircraft was originally painted together with the APU-23. The APU-13MT, same as all other rails, were sprayed in a blue-grey paint during the midlife overhauls instead of their previous light greys and they received new and different stencil data.

Pg. 24 - bottom

The use of six rounds on a MiG-23 could be seen during special displays or as a combat load. Normally, only four rounds were carried. On the MF version of the MiG-23, a six round loadout was much less common than on the ML. A MiG-23MF carrying four R-60Ms and two R-23Ts flew only once, to Caslav, on October 14th, 1991.

Pg. 25 - mid

The first timid attempt to apply the bat insignia was done in chalk.

Pg. 26 - top

The spider in the engine has survived from 1991 and due to retirement with this actual engine, it has done so til today.

Pg. 26 - bottom

MiG-23MF 3924 shown in June, 1992 prior to the application of the bat. The year-old camouflage scheme from its midlife overhaul has held up better than on other aircraft.

Pg. 27 - bottom

The final look of the aircraft with the bat insignia, in which it undertook its last flight to Brno-Turany. After that, it was taken over by the airfield of Brno-Slatina where it was used by the university there for training purposes. Thanks to this fate, the airframe is in excellent condition and is currently in the collection of the Technical Museum in Brno.

Pg. 30 - top

The use of the MiG-23 fortunately did not prove fatal to any of the personnel associated with its service use. Accidents did, however, claim two MiG-23MFs.

Pg. 30 - bottom

These photographs are rare for two reasons. First, they show MiG-23MF 3921 destroyed on February 16th, 1990 after the ejection by Henrych Bulla made as a result of an engine fire. It is also one of a few colour photographs depicting a MiG-23MF in its original camouflage scheme. At the time of this incident, 3921 had flown the most hours of all MiG-23MFs and had exceeded its ten-year scheduled midlife overhaul by eleven months. Engine fires, on overhauled items in Bulgaria after 350 hours, were fairly common and it was only through luck that more aircraft weren't lost to resulting accidents. The second lost MiG-23MF to accident was 3888, which was deemed repairable after a hard landing, but as in the case of a list of other aircraft, repairs were never realized.

Pg. 32 - top

Heavily worn camouflage paint on the wings down to the primer and even to bear metal was typical of all MiG-23s. In these images, we see 2402 during maintenance in September, 1991, ten years after entering service.

Pg. 32 - bottom

MiG-23s of all versions operating under the socialist regime lacked any signs of crew creativity or unit symbology that were common to other services. After the fall of communism, the first to receive colourful markings of any kind were MiG-23MLs 2402 and 4644 that were decorated to take part in the Royal International Air Tattoo in United Kingdom on July 19th to 22nd, 1991. On this occasion, they received an insignia with a devil motif. This was reminiscent of markings carried by aircraft by the 1st slp in 1969-1970. While 2402 served as a backup airplane, it did not continue on past Zatec and the Czechoslovak Air Force was represented in UK by 4644. The markings applied here did not appear on any other MiG-23s, but on these two aircraft they remained until the end of the service lives or until being resprayed into the Tiger scheme, as in the case of 4644.

Pg. 34 - top

Beautiful fall weather accompanied the farewell of MiG-23MLs from the Ceske Budejovice Air Base in a group flight over to Caslav on October 25th, 1994. Aircraft coded 2406 served for a relatively long time, up to July 14th, 1998. In 2002, it was moved to the collection of VHU (Military History Institute) Prague-Kbely.

Pg. 34 - bottom

Aircraft 2406 prior to being equipped with a GPS receiver. The midlife overhaul schedule for the MiG-23 was put at 1,000 hours or ten years. The overall lifespan was set at seventeen years or 1,500 hours. In the case of the MiG-23ML, the midlife overhauls were replaced by an R-1 Revision that extended the life of the airframe by a guaranteed 200 hours or three years.

Pg. 35 - top

Aircraft coded 2406 photographed from the cockpit of a Tu-134. Fuel consumption by the MiG-23 totalled around 3,000 to 3,500 litres per flight. The total fuel capacity of the MiG-23 varied from version to version. Total was 4,700 litres in the MiG-23MF, 4,300 for the ML and 4,000 for the MiG-23U.

Pg. 35 - bottom

MiG-23 coded 2410 prior to its R-1 Revision upgrade. A problem with the airfield at Ceske Budejovice was its close proximity to the city proper and the noise concerns this brought with it. This required take-offs and landings to be conducted to and from the west regardless of wind direction.

Pg. 36

One of the things that differentiated the MiG-23ML from the MiG-23MF was the camouflage scheme, composed of four colours on the upper surfaces (light green, light brown, dark green and chocolate). The same colours with slightly varying tones were later used on other Czechoslovak Air Force aircraft, the Su-25, Su-22 and MiG-29. Fuselage codes were not sprayed on, but they were applied by hand with a brush! The lower surfaces were sprayed in two tones of grey. The radome and other antenna covers were sprayed with a special paint that did not interfere with signal transmitting and receiving.

Pg. 37

In the Czechoslovakian, and later the Czech, Air Force, the MiG-23 was without a doubt the noisiest of all aircraft. For ground personnel, this presented an unfavorable working condition. Special attention was given to hearing protection mounted on head gear together with an intercom system, because thanks to the side mounted intakes of the aircraft, there was no opportunity to communicate directly with the pilot on engine start up from the boarding ladder through an open canopy as on the MiG-21.

Pg. 38 - top

While the 800 litre drop tank that was also used on the MiG-21MF was a basically common sight under the centreline station of the MiG-23, wing tanks were reserved exclusively for ferry flights. The wing pylons, when mounted, were not articulated items and limited the wing to its 16 degree sweep throughout the flight. Under combat conditions, the plan was to jettison the tanks after take-off and climb. The ferry flights to the Astrachan firing range showed that the advantage of the higher amount of fuel carried in the wing tanks was nullified by the restricted wing sweep and its associated drag. Another limitation was presented by the extension of the landing flaps. Take-offs posed no problems when carrying the underwing tanks (flaps set at less than 25 degrees), but on landing (requiring a setting of 50 degrees) the tanks would cause damage to the training edges of the wings.

Pg. 38 - bottom

The colour of the fuselage code of this specific aircraft appeared to be a dark grey instead of the standard black. This was evident on other aircraft as well.

Pg. 39

Departure of quick reaction aircraft from Ceske Budejovice to Caslav on November 16th, 1994. The aircraft coded 4860 served up to August 26th, 1998, after which it was permanently grounded marking the end of the service career of the type.

Pg. 40

Czechoslovak MiG-23MLs took part in live-fire exercises at the Russian facility at Astrachan in 1986, 1988 and 1990. In preceding years, borrowed Soviet aircraft were used. At the time, ferrying of the aircraft was not the only logistical consideration needing attention. There was also the transport by rail of support vehicles, such as those in the photograph showing electrical equipment URAL-APA on URAL 4320 trucks. During these exercises, the uncommon use of R-60Ms together with R-13Ms was made. Short ranged weapons were fired over the Baltic Sea, but the vast plains of the range allowed for the firing of R-23s, and these were used against La-17 drones.

Pg. 41**CHAPTER Joint MiG-23MF and ML Ops with the 1st slp**

At the beginning of 1989, the 11th slp's 1st Squadron began preparations for conversion to the MiG-29. For this reason, the first group of MiG-23MFs returned to Ceske Budejovice in March followed by the second group in May, 1989. They were assigned to the 3rd Squadron, replacing the MiG-21MFs and those, in turn, found

use with other units, mainly the 8th slp based at the time in Brno. At the beginning of 1990, the 1st Squadron of the 11th slp was fully converted to the MiG-29 and the other two Squadrons retained the older MiG-21PFM.

Another organizational change came in 1991 with the reduction of the number of Squadrons within the units from three to two. With that, all the MiG-23MLs were concentrated within the 1st Squadron, and the 2nd Squadron had the MiG-23MF and L-39ZA assigned to it.

The dissolution of the Czechoslovak state into two independent countries caused no changes in MiG-23 operations. Although the MiG-23 was a high performing and useful aircraft, it was relatively complex and difficult to maintain. It was possible to hit a service career of thirty years with one mid-life and one general overhaul with the MiG-21 (both at ten year intervals), but with the MiG-23, one mid-life overhaul (after a maximum of ten years' service) was required taking into account a service life of 17 years (or 1500 flight hours). Experience revealed that this value was not particularly an under-estimation. As the aircraft approached the end of their specified life spans, unrepairable faults began to appear in the form of leaks in the integral fuel tanks in the fuselage caused by stresses on the airframe from the variable geometry design. For this reason, the Slovak side expressed no interest in the type. Instead, it was decided to divide the much more prospective MiG-29 at a one to one ratio. Even so, eight MiG-23MLs and four MiG-23MFs, prior to the dissolution of Czechoslovakia, remained in Slovakia for a brief period of time, flying from Sliac on maneuvers on April 15th and 16th, 1992. The purpose of the exercise was to verify the ability to protect the southern flank of Czechoslovakia during the complicated political situation of the time.

As a result, the MiG-23MF and ML would remain with the 1st slp and in the following two years would see some interesting functions being fulfilled. This included testing the compatibility with the French Matra R-550 Magic 2 dogfighting missile. This experiment was conducted between March 28th and April 11th, 1994 at Mont de Marsan. However, no actual rounds were fired, but further live-fire exercises would be undertaken each year between 1992 and 1994 at Poland's Slupsk.

MiG-23MFs went through their mid-life overhauls between 1988 and 1991 in Dresden in former East Germany. Even then, the end of their service careers was approaching and the decision was made to end their careers prematurely by the end of 1994. One of their last flights took place on October 5th, 1994, when aircraft coded 3922 and 3646 were ferried to the museum at Prague-Kbely. The very last flight was undertaken by Col. Trunecka on November 29th, 1994 in MiG-23MF coded 7182. The MiG-23MF outlived the MiG-29 by several months, with the latter being withdrawn in July of the same year.

Over the course of their service career, only two MiG-23MFs were lost. The first accident occurred on February 16th, 1990 when Aircraft 3921 was claimed by an engine fire during a training exercise. 1st Lt. Henrych Bulla ejected safely. In-flight fires were experienced by other aircraft. These were mainly traced to poor overhauls of the engines that were conducted in Bulgaria. The other MiG-23MF lost was coded 3888 and suffered a nose gear failure on October 31st, 1991 causing an irreparable deformation of the fuselage.

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It was a sunny, cloudless day. The temperature inversion that had taken up residence over our territory for several days by then had the effect of diminishing visibility, but still did not decrease to below 5km. For takeoff and landing, there was a tailwind whose speed was listed as 4.5m/s. Its actual strength was likely a little higher than that, but it was necessary to record a speed lower than the 5m/s allowed for the takeoff and landing of our aircraft. The argument against the simple reversal of takeoff or landing direction centred around noise reduction requirements, these having been brought on by the subjecting of the local Ceske Budejovice population to the noise of airfield operations. A discussion describing the risks taken by the pilots in the name of noise reduction would be a separate topic on its own.

My assignment on that day gave me two solo flights of a higher technical piloting standard. Two weeks prior, I successfully underwent a rehearsal for today in a dual-place aircraft and was to perform all of the turns, banks, rolls and combat maneuvers solo now.

The first flight went off without a hitch. I did, however, confirm for myself on my final approach to the field that the tailwind was indeed stronger than it was supposed to be. As a first for me in the MiG-23, I needed to deploy my speedbrakes, and even they did not drop my speed to where it should have been. The landing itself was a bit on the wild side, but successful. With a pounding heart, I approached my experienced instructor Maj. Hadac, who settled me down with assurances that from the ground, my landing appeared completely standard. With determination, I embarked on my second planned flight, fulfilled all of the planned obligations along the way and within the space restrictions of the flight zone, and with speedbrakes extended, landed without incident. This time, though, the Squadron Leader was waiting for me with the suggestion of a third higher level qualification flight made possible by an aircraft that just happened to be free. That would mean an extra flight for me above and beyond the two I had planned for that day.

I happily accepted the opportunity, knowing that I would in fact put three such flights under my belt in one day. Everything went according to plan, and after fifteen minutes in the air I began my descent for landing. I spotted the runway from five kilometres out, slightly to the left. I made the course correction, but neglected to maintain my descent in the meantime. The speedbrakes increased the rate of descent, but the speed remained high. I set the main gear down on the concrete at a higher speed. But, I wasn't lined up properly with the axis of the runway and I was making my way to the side grass area. I put down the nose gear rather feverishly in an attempt to first stabilize the aircraft and then to correct my path. The suspension of the nose gear and the still high speed at which I was moving caused the aircraft to once again lift off the runway. I approached this critical moment with an overcompensating push of the stick forward, causing a second hard bounce on the concrete followed by becoming airborne again. At this point, I am being called on to deploy my brake chute from the director in the tower, and simultaneously to go around again by the assistant controller. However, I can't hear either one of them, because each instruction is cancelling the other out in the heat of the moment and the simultaneous transmitting. At this point, the plane is bouncing down the runway and I am helplessly fighting with

the controls. Thoughts of ejection go through my mind, but I immediately reject the idea. The aircraft got me on the ground and I had no intention of abandoning it. I finally received the transmission from the main controller to release the brake chute. I do so immediately, just before another hard impact of the nose gear followed by debris flying past the canopy. From that point on, the radio was completely silent and I sat in the cockpit of the still moving airplane with the distressing thought racing through my head that 'my God, I ruined the airplane!'. I am continuing on down the runway at an unusually low level, unable to steer to the left or the right and I realize that the nose gear has collapsed, and that the front end is dragging along the ground. Finally, the aircraft came to a full stop, there was an ominous silence blaring from the radio, only the engine was making an empty noise. What now? As dictated by my training, I went through the engine shut down procedures and turned off all the equipment, opened the canopy and got out. I examined my battered aircraft like in some really bad dream. The approaching fire suppression vehicle snapped me back to reality and I realized that perhaps it would be wise to not stand so close to the airplane. Then the severity of the events began to sink in and I was torn by the thoughts of the pending investigation. The first conclusions read 'further training allowed, temporarily only on the MiG-23U.' In two days, though, another investigative team showed up, headed up by General Klocok. This struck down the first ruling and sent me in for a more thorough investigation to ULZ Prague (The Institute of Aviation Medicine), and forbade me to fly altogether until the determination from further questioning. I was also handed an envelope with a blue stripe on it, and the letter inside informed me that I was being charged with public endangerment and that my actions with the aircraft brought about damage to the value of at least three million crowns. The collapsed landing gear not only killed the gear outright, but also the destruction of the infrared sensor, damage to the radar unit and to the exhaust pedals. Furthermore, the airframe was slightly warped causing the skin along the nose to let go. Fortunately, experts from the repair depot at the regimental level declared the aircraft to be repairable. The damaged and partially dismantled MiG-23MF coded 3888 was actually transported by road to the facility at Prague-Kbely, but never did fly again. It was dismantled in compliance with European arms limitation treaties.

After a weeks lodging on the ULZ, I was found capable of further flying and even was given a ruling in my favour by the investigating committee. But, for varying reasons, I had to wait another three months before I got my first transport flight. Naturally, after such an experience and such a long break, my first landing was not a dazzling experience. 'Don't worry about it. You'll get it the next time', my instructor reassured me. But the next time wasn't for another two and a half months, and it still wasn't quite right.

By then, I had a pretty big, dark cloud over me and I realized where I was headed, and also that one good warning delivered by fate should be enough. I requested a transfer that would put me in the subsonic L-39ZA. Thanks to this decision, my yearly total in the air rose significantly, and I was a lot more satisfied.

It would be seen as a happy ending, all things considered, had it not been for the fact that I was witness to my younger colleagues going through similar problems in their

MiG-21MFs with just thirty hours a year flying time and still leaving the higher-ups content and satisfied with themselves.

Pg. 43 - top

The midlife overhaul of this aircraft, manufactured on October 27th, 1978, was conducted between April 24th, 1988 to May 26th, 1989, during when the Squadrons were transferring between Zatec and Ceske Budejovice. As was the case with the other aircraft, it also received a new camouflage coat.

Pg. 43 - bottom

The sad end to a landing by inexperienced pilot Libor Cejka on October 31st, 1991. MiG-23MF 3888 is shown here already pulled from the runway by a Tatra 815 AV-15 recovery vehicle. From its midlife overhaul conducted between April, 1988 and February 1989, it flew 126 hours, giving a total of 870.

Pg. 44 - top

During the landing, the aircraft suffered a collapsed nose gear, destroyed infrared sensor and damaged radome. Most importantly, though, the fuselage suffered warpage.

Pg. 44 - bottom

The front section of 3888 on its way to the repair facility at Prague-Kbely. Repairs to the aircraft were never realized, since at the time there was a greater urgency in retiring aircraft rather than keeping them in service. The section seen here, along with the rest of the airframe, was dismantled completely in the summer of 1995 at LOZ Ceske Budejovice.

Pg. 45

Midlife overhaul of the aircraft coded 3646 was made between June 15th, 1987 and May 26, 1988 when it was based at Zatec. The camouflage paint displays a relatively high level of wear – the radome has worn down to its original medium grey from the off-white, the speedbrakes are worn to the metal, and the rear lower fuselage originally painted in a heat resistant coating of a lighter and glossier grey, has worn down to the yellow primer. This was one of six MiG-23MFs which had the Squadron's bat emblem painted on.

Pg. 47

In 1994, it was decided that there would not be a CIAF Air Show in Prerov. Instead, an Army Air Show would be held at Ceske Budejovice as a celebration of the 50th anniversary of the formation of the 1st slp. For the event, a commemorative paint scheme was applied to MiG-23MF 3646, one of the three longest serving MiG-23MFs (manufactured on June 27th, 1978) but at the time with relatively few accumulated hours in the air. The artistic design was submitted by Stanislav Hajek, and along with him the scheme was realized by Milan Pech, Josef Martinek and Bohumil Cerv. Supervision of the project was undertaken by Squadron Leader Drahoslav Mladek.

Pg. 48

The spraying of the aircraft was undertaken over the weekend of June 3rd to the 6th, 1994. The numeral 50 signified the 50th anniversary of the formation of the regiment, the devil motif with bat wings and the inscription HELL FIGHTER were a reference to the unit insignias that the Regimental Squadron used during 1969-1970. The tiger theme on the nose of the aircraft referred to the 11th slp (the so-called Tiger Squadron) that was subordinated to the 1st slp.

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The MiG first flew like this on June 7th, flown by new Squadron Leader Peter Hromek. On Friday, June 17th, the Devil was used as an escort aircraft for incoming air show participants. For the Saturday, June 18th show, the plane flew its aerial display and on landing was towed to a static display location. Over the summer, it took part in another two local airshows, one at Line and the other at Benesov. Besides these display functions, it also flew during standard training missions.

Pg. 50

In the attractive, high-gloss scheme, she flew around fifty hours and never carried any guided missiles or even acquisition rounds. The only thing that ever hung off this airplane was an 800-litre drop tank in the classic 'German' paint scheme. Noteworthy is the red hearing protection headgear and the devil themed logbook cover.

Pg. 51 - top

The red colouring at the wing root isn't a reflection of the red on a glossy surface, but rather red paint sprayed in the standard way.

During use, there was damage suffered by the retractable ventral fin. A spare was sourced from another airplane and painted red. In this scheme, the aircraft carried no stencil data or warning symbology.

Pg. 52 - bottom

Over the final days of June, 1994, the Devil met MiG-29s that were attached to a MiG-23MF Squadron during standard aerial exercises. The service of the MiG-29 was terminated on June 30th, 1994, meaning that the Devil outlived them by a few months.

Its last flight occurred on October 5th, 1994, to Prague-Kbely where it is on display to this day. Its total flight hours amounted to 1,160 hours.

Pg. 51 - bottom

June 18, 1994 – the Devil after being towed to a static display area following its flying display. In this shot, note the droop of the exhaust pedals on powered down MiG-23s.

Pg. 54 - bottom

Thanks to the fact that the aircraft mechanic Marcel Major had this photograph taken with his plane, we have probably the only visual evidence of the short use of the 1st Squadron insignia. The photograph is even dated March 10th, 1992 and placed at the reserve field of Blatna-Tchorovice. Two MiG-23MFs and a quartet of MiG-23MLs of the 1st slp flew from this refurbished field, and at the same time, the field hosted assets from the 11th slp in Zatec with six MiG-29s and five MiG-21s. Besides aircraft 3307, the insignia also appeared on planes coded 3303 and 3304. The vulture insignia with the barrel of Budweiser (Budvar) in its beak with the inscription 'Beda porazenym' ('Woe to the vanquished') went no further than on this aircraft, nor did it last very long.

Pg. 54 - top

The camouflage scheme on MiG-23ML 3307, manufactured on October 27th and delivered on November 8th, 1981, differed little from the norm. The specific scheme varied from aircraft to aircraft, but the four basic camouflage colours remained constant. The photograph shows the aircraft during an engine run-up test, likely in the spring of 1993 prior to the completion of the R-1 life extension revision. The remnants of 1st Squadron insignia stickers are visible on the left side of the nose.

Pg. 56

The fate of this aircraft manufactured on November 24th and delivered on December 22nd, 1982 to the 1st Squadron of the 1st slp differed little from that of the other MiG-23MLs. Its highlight came as a participant of the International Air Tattoo in July, 1991. Together with the plane coded 2402 which served as a backup and ultimately remained in Zatec, it received the large 1st slp insignia. This marking was

reminiscent of the markings used at the base in 1968-1969. The aircraft received the obligatory zaps from the other show participants over the course of the event and is pictured here on its return from the meet.

Pg. 57

Over time, some zaps peeled off and others were added. The MiG-23 insignia certainly looked good, and stayed on for other airshows and this plane became the flagship of the Squadron. This shot was taken sometime just before 1993, still without its GPS installation.

Pg. 58

In the spring of 1993, 4644 received, as did 2406, a GPS 100 AVD navigational receiver, as one of only a few aircraft to be so equipped. The system was also more compatible with civil aviation norms. This had an impact on its further display team participation. The installation of the GPS system was evident with the addition of an antenna fairing behind the original rectangular item and the cockpit received the associated equipment and display. As a member of the display team, it took part in many Czech Republic air shows as well as in events abroad, among others in the celebrations of the 50th anniversary of the Allied invasion of Normandy. This photo shows the plane during a local Ceske Budejovice air show on August 27th, 1993, when it received an advertisement sticker of a bottle of Budvar beer on the rudder and the brewery logo on the fin. The following day, stickers of beer glasses were added to the air intakes. The craze of sponsor zaps over the first half of the nineties was evident throughout the Czech Air Force...

Pg. 59

Thanks to the installation of the GPS system into aircraft coded 4644 and 2406, they made good candidates for testing the short range Matra R-550 Magic-2 dogfighting missile. The tests were undertaken in southern France at the Mont de Marsan base between March 28th and April 11th, 1994. A Tu-134 served as a support platform. Tests, during which no rounds were actually fired, showed a greater sensitivity of the seeker head than on the R-60, but the French weapon was never put into service. The modified launch rail for the standard BD3 rack was supplied by the French side. During these tests, the aircraft was still adorned with the beer stickers from the previous year.

Pg. 60

The initial Safir S-23 radar installed in the MiG-23MF was already a high quality unit with a range of sixty to seventy kilometers, leaving the 20km capability of the RP-21 of the MiG-21 in the Czechoslovak Air Force in the dust. It was resistant to jamming, but their one disadvantage was the need to restrict the frequency settings which had

to be synched with co-operating aircraft to prevent friendly jamming. The new MiG-23ML had N003E units, with a range of 90km, and the threat of jamming friendly radars was dispensed with.

Pg. 62 - 64

It's hard to know where to begin, really. Some odd fateful chain of events led me to report as a new technician to the then 3rd Technical Squadron at Ceske Budejovice in the spring of 1990. I arrived there with another fellow recruit Roman Hlavica, a failed college student. The opportunity to be where we were was found for us by his father, something I will be always indebted to him for, although he didn't even know me. The 3rd Squadron had in its inventory the MiG-23MF and we were given the manual right off the bat. Our instructors took us under their wings so that we could pass our exams and start working on these birds as soon as possible.

The first aircraft to be put under my care was MiG-23MF coded 3888. This ushered in an absolutely amazing time in my life. Aircraft were my life. Back then, I stopped riding motorcycles, and even plastic modelling wasn't something I spent a lot of time on. (That was likely due to a higher interest in women and alcohol). Since even from a very early age I loved to draw and paint, I thought that I could apply this passion to an aircraft. After all, it's been done since aircraft have been around! The thing was, though, that at that time, a period in our history known as 'normalization', it wasn't done, and probably wasn't even allowed. For this reason, my weapon of choice was then chalk, something that could be easily washed off. In order to decorate my plane my way, and make it recognizable from a distance, I transferred what entered into my imagination onto my new canvas. There didn't have to be any connections. It could be a bat, a spider, a scorpion, or whatever else came up. With some exceptions, the commanders of the unit were tolerant, and soon, similar drawings began to appear on the aircraft entrusted to my colleagues as well. The spider in the exhaust is something that was probably inspired by a photograph in a foreign article I came across. I don't recall if it also appeared on the air intakes somewhere. I just thought that I'd give it a shot, too. We used to hide from the cold in the exhaust when it was still warm after landing. At the time, though, I didn't realize that chalk gets burned onto the surface and becomes permanent!

The tolerance displayed by my superiors was probably a factor leading to my finding some paint and a brush. There was doubt in my soul, but the thought had taken root. Me and my colleague Michal Bocansky decided that there was something missing on his two seat aircraft, coded 7905. The nose of the aircraft appeared a bit bland. And so it happened, although I really can't remember when, that we applied a somewhat amateurish sharkmouth to the airplane. We had no idea as to how this thing should look. We didn't even have a conceptual sketch to go by. We simply threw it on the aircraft blind. We were the only ones who knew what we had done, so when we pulled the aircraft out the next day to ready them for flying, we could observe the expressions on the faces of our colleagues. The younger set observed our creation with a certain approval, while the others, especially those in a command position, were in evident distress throwing their arms in the air, and for a while it looked like we might be shot for inciting panic. Our answer to the question as to exactly what this

was supposed to be was 'a surprise'. I was told that it definitely was a surprise, and when would it disappear? I shrugged my shoulders and let fate handle that one. I suspect that the final decision was left up to the pilots, and for that reason, the mouth stayed on the plane until...well, actually, now.

And so my career as a groundcrew went happily on and I was entrusted with different aircraft within our Squadron. I think that in 1991, I was assigned aircraft 3922. It stayed with me until the reorganization of the regiment and my reassignment to another unit flying the MiG-23ML. But, not to get too far ahead of myself, it occurred to me why not adorn my 3922 with a small marking that would allow me to recognize her even at night? I thought of tiger stripes, but I dismissed the idea very quickly, because at least in the world, tiger stripes are reserved as symbols of distinction for one reason or another. And so, tiger stripes gave way to zebra stripes. I simply used white instead of yellow and drew a zebra motif on a section of the fin. The reaction to this could be anticipated, but on the part of the commanders, it was not as negative as it could have been. They were more peaved, and rightly so, that I chose an aircraft that was on Quick Reaction Alert duties to plaster a bunch of crap on and completely forgot to replace the exhaust covers. I figured getting in line and not making waves was a good career move for me at this point. And I did, to the point when I got a hold of some pictures of Tornados in the Gulf. That aircraft had a similar form to our MiG-23s. And my mind was made up! This time, I had brought some paints from home and carefully diluted them so that they would hold. My experience with what I painted on the two-seater was that the paint layer was too thick and it began to peel soon. This time, too, I left nothing to chance and armed with experience, I developed a conceptual drawing, determined exactly the shape and size of the sharkmouth and the eyes so that they would look as good as they did on that Tornado. I got to work, but the paints ended up being a little too diluted and to this day it can be seen that several coats were needed, especially with the white, which I began to run out of and it doesn't appear consistent throughout. I finished up the best I could, and being pressed for time and with no more paint at hand, it was what it was.

Of course, the next day when the aircraft was towed out of the hardened shelter, there was mass panic in the streets and, once again, I got my what for....

I recall that maybe the first colour artwork wasn't the zebra stripe, but the MiG logo on the left intake below the code. I saw the logo in some magazine and liked it enough to want it on my airplane. It was, after all, a MiG. And furthermore, this was an official company logo, and I thought that no one would be able to object too vehemently. I bought some spray paints and made some templates out of paper and applied the logo to 'my' 3922. After that, it was the two seater's 7905 turn, since my colleague M. Bosansky also liked the logo. This decoration was accepted without the previous panic attacks.

Unfortunately, I don't recall (and it's not likely to get better) the order of all these events or the years in which they occurred. In my youthful irresponsibility, I saw no need to document such matters. I was living, and I was enjoying it. In my wildest dreams I didn't imagine that it would ever end. That made the kick in the head that much harder, when the order came to disband the regiment and move it to Caslav. But I had been assigned to Jirka Biler (can't recall for the life of me if his name was spelled with two 'l's) on L-39s. Important, although sombering, was our trip to Sliac in

Slovakia, where the Czechoslovak Air Force brass met to decide how the various types that were flown would be divided up between the two new emerging republics on the breakup of Czechoslovakia. Fortunately, the Slovak side didn't want the MiG-23 so we returned home, knowing that we would stay together. Others weren't so lucky...

Incidentally, I also attempted a few artistic applications of talent on the L-39. As a first, I made a large yellow numeral '01' out of self adhesive material and placed on the nose of Albatros coded 2341 that was entrusted to me, reminiscent of Soviet practices. It was our oldest Albatros ZA, and so it would get the numeral 01. The pilot CO liked it, and being the bird allocated to the Squadron Commander, he liked flying it. Fortunately, the Albatros doesn't fly relatively fast, so there was no chance that the self adhesive stickers to peel off and get sucked into the intakes. This was the case with the first bat insignia application on the MiG-23 (after which we had to spray them on using templates). After that and inspired by the American F-14, I painted the canopy frames black. It was applied by brush and I have to say that my expectations were surpassed. It looked good on the airplane! But it didn't last long. The Albatros went in for an overhaul where, among other things, it received new glass and those fools resprayed the frames according to the camouflage scheme. I was sad and a little pissed that they just didn't get it...

When it came time to move, I, for reasons unknown to me, was assigned to LVO (Air Force Repair Facility) in Ceske Budejovice as a technician for performing a life extending revision on MiG-23ML 4645. So while my colleagues were packing and moving, I was going off to work and helping the boys at the LVO facility with whatever needed to be done. As the airplane sat there, hidden, disassembled and helpless, it occurred to me that a sharmouth would look pretty good on her. I decided that I should modernize my methods by spraying the marking on. The biggest gripe was caused by the smell of the paints, but ultimately, I think the boys liked the result and the inconvenience was worth enduring. It was too bad that at the time we had no supply of original paints coming in. What the guys in the paint shop had to come up with under these conditions bordered on barbarism. This was apparent on other aircraft that went through their revision upgrades at the LVO facility. When I saw what was done to the camouflage paint of 'my' 4645 after 'repair', I damn near broke into tears. But times were tough and I got that. The boys did the best they could with what they were given.

Finally, this bird left for Caslav and I had to pack and go and meet my tomorrows. It was doubly sad...

I would like to add a few words on my time with the MiG-23ML. I was assigned to it together with Vojtek Vrkoc, though I don't really know why. Perhaps, we were so good that we deserved the honor of serving in a combat unit? Or was it punishment and behaviour modification? In any case, the first words from the Squadron CO Lt.Col. Mejzlik was 'no paints and no brushes!'. So that was my order, and the only time I could put a brush in my hand was to touch up the camouflage paint. And so 4641 had no artwork, no inscription, no logo, no nothing. It was also with 4641 that I went out on my first foreign assignment, live fire exercises in the Baltic. We spent a part of a really nice summer at Slupsk. There came a time when fate would smile on me several times over. It was decided to paint 4644 in a special display camouflage

scheme in what was to become the well-known Tiger scheme. Fate had also decided that the job would be entrusted in part to me! There was an incredible sense of satisfaction for me to be associated with the other names that took part in the application of the scheme. The names of these people are still legible today on the rear part of the spine.

At Caslav, I served with a platoon of L-39ZAs that were attached to a MiG-23ML Squadron. There, I took part in the decorating of aircraft only sporadically. The most visible items were tiger stripes and a tiger head on aircraft 3303 that was applied by the aforementioned Vojtek Vrkoc (coincidence....who knows...). A few stripes, of course tiger style, appeared also on 4855. I painted on the MiG-23s as requested by individual crewchiefs. First, it was a tiger's head on the nose of 3303. At the time, my colleague brought me an access cover and said 'here.....start painting'. Then came the stripes on the fin. The rest was painted by Vojtek Vrkoc. At around the same time I painted the yellow and black details on 4855. It was desired that they all differed a bit to be able to tell them apart from a distance during landings. I think that's nuts, they should've all been the same, but at the time I didn't give it much thought.

My time at Caslav lasted about two years, after which I decided to go into the reserves. Today, I see it as a foolish move. Working around aircraft was the most beautiful experience I had in my life and I think most in the field would support me on that.

But it wasn't all good. As with all things in life, there were things that brought discomfort, sadness and even tragedy. These things were only a few, such as failed landings and engine fires during flight, which our pilots endured with no loss. There were tragedies that fate decided should bear the highest of costs. Unfortunately, during my stint in the service, there were several examples of this that are seared into my memory (Lt.Col. Jiri Moutvicka in MiG-21MF coded 7711, Lt.Col. Jiri Trunecka and Lt.Col. Drahoslav Mladek in MiG-23U 8327). I miss them. They were excellent pilots, good people and amazing friends.

Pg. 65 - top

Aircraft coded 3922 being readied for an engine run-up test.

Pg. 65 - bottom

First serious pieces of art by groundcrewman Petr Kybus – MiG-23MF 3922 and MiG-23U 7905.

Pg. 66 - top

From this view, the bleaching of the colours on the rear portion of the fuselage and especially the moving sections of the wings is clearly visible. The outer wings contrast with the inner sections that were protected from bleaching when the wing was swept back into the wing glove.

Pg. 66 - bottom

By the fall of 1991, wear and tear of the camouflage paint applied in June, 1990, was evident on the rivet lines of the intakes, on the fin, in the area of the speedbrakes and also in the bleaching of the red on the national insignia, touched up with the use of a red that differed in tone. It is interesting to note that the paints on the left side of the aircraft were of a visibly higher quality.

Pg. 68 - top

In this photo taken with 7182, it is clear that the camouflage scheme of 3922 took the brunt of wear and tear within the entire Squadron of MiG-23MFs. This concerned mainly the significant bleaching of the national insignia, the peeling on the lower retractable fairing and the wearing of the paint on the fin.

Pg. 68 - bottom

October 5th, 1994 – a very low flypast by Jiri Trunecka in 3922 over the Ceske Budejovice taxiway said 'goodbye' to the field and shortly thereafter landed at Prague-Kbely with a total of 1,081 hours and five minutes of flight time to become a well preserved indoor display item at the museum there. Prior to beginning life as a museum display, the rear portion of the fuselage was written over in chalk with well wishes and goodbyes. Exactly what was written could not be determined.

Pg. 69**CHAPTER MiG-23ML in Caslav**

The 1st slp could not escape the ultimate fate of so many Czechoslovak Air Force units and was disbanded on December 31st, 1994. This decision brought with it a large accumulation of aircraft but also a reduction in ground personnel. Despite these trends, the base at Ceske Budejovice remained in service, as did its repair facility (later redesignated as a Air Asset Repair Squadron) and the 31st Aircraft Repair Facility (LOZ) that performed required maintenance on the MiG-23ML with what was known as the R-1 Revision that replaced the mid-life overhauls.

Preparations for the disbandment of the unit began during 1994. The first larger group of nine MiG-23MLs flew to Caslav on October 25th, 1994. Rapid reaction duties in Ceske Budejovice ended on November 16th, and subsequently, another quartet of MiG-23MLs flew to Caslav. The 1st Squadron of the 1st slp at Caslav was integrated into the 28th sbolp who's assets included only three MiG-21Us after the retirement of the MiG-23BN. By December 31st, 1994, the 28th sbolp was also disbanded and out of this was formed the 4th Air Base of the Fighter Air Force. The former 1st Squadron with its MiG-23MLs received a new designation and became the 41st Fighter Squadron. As a result of organizational chaos at the new base, the MiG-

23MLs weren't certified rapid reaction ready until December 30th, 1994. Up to that time, this role was fulfilled by the MiG-21MF. Another formal redesignation came on October 1st, 1997, and the unit became the 4th Tactical Air Force Base.

The reassignment to Caslav initiated a gradual decline in the service of the MiG-23ML. This was due to many factors, including a lack of funding for spare parts and fuel, which was a problem that went well past the MiG-23, and played a role in the Flogger's planned short lifespan. The least of the problems was not that there was a complicated organizational relationship between Caslav and Ceske Budejovice. At the end of 1995, the first three MiG-23MLs were retired (coded 2402, 3304 and 4857) and by the end of 1997, another four followed suit (2409, 2410, 3307 and 4645). With that, the last ten machines remained in service. Actual serviceability was in reality lower than that. The final live-fire exercises in Poland in September, 1996 was attended only by two MiG-23MLs (2409 and 2425) and one MiG-23U (8327). On the other hand, though, one of these aircraft would conduct an exercise with an E-3A AWACS aircraft on September 10th, 1997.

Despite the fact that the theoretical service life of the MiG-23ML would not end until 1999-2000, no further spare parts would be ordered from the beginning of 1998. At the same time, the leadership of the General Staff decided on March 31st, 1998 to end service operations by the end of that year. This process of retiring the final ten flying MiG-23MLs was sped up by the loss of the last MiG-23U during simulated combat with a MiG-23ML on May 19, 1998. The possibility of flights with instructors was lost and remaining qualified on the type was more difficult. Two days later, rapid reaction duties were halted and entrusted to the MiG-21MF. Service operations of the five remaining aircraft were flown out of Namest nad Oslavou due to reconstruction of the base at Caslav. On return to the latter, three aircraft remained in service (3307, 4644 and 4850) while the others flew straight on to Ceske Budejovice for storage. On their final flight, aircraft coded 3307 and 4850 suffered engine damage due to the ingestion of birds. The very last MiG-23ML to leave Caslav was the well known 'Tiger' aircraft coded 4644. On December 9th, 1998, it set off for the repair depot LOZ Ceske Budejovice, where it was met in the air by MiG-23MLs 4641 and 4855 which were in the process of their final flights under the watchful eye of said depot.

Pg. 70

MiG-23ML coded 2406 after its R-1 Revision with an off-white radome and ejection seat symbology taken from the L-39. The dual APU-60 launcher carries an acquisition round of the Aphid, the UZR-60 (made up of the body of the missile, the seeker and its associated equipment).

Pg. 71 - bottom

At the end of the career of 2406 in January, 1998, the name of the Squadron Leader Maj. Jiri Kares appeared below the windscreen. In the Czech Air Force, there was a policy to allocate an aircraft to a specific pilot, but this tended to be a formal practice. Pilots satisfied training requirements on aircraft that were ready and able to fulfill the

required work and were generally handed over to a different pilot throughout any given day.

Pg. 72 - top

Aircraft 2409 on the apron at Caslav. While the majority of the red covers had been removed from the aircraft just prior to the day's flying and replaced prior to being towed to its hardened shelter, the auxiliary air intake covers were covered without exception after the engine had run down and were uncovered just prior to spooling up for the next flight. Being tied together was to ensure that they were both removed.

2406 00009

The 'chopped up' exhaust plume was not a photographic anomaly, but rather a common sight for the MiG-23. This was the result of localized pressure variations of the exhaust gases caused by the inclined shockwave at supersonic speeds of the exhaust.

Pg. 72 middle and bottom

Typical Quick Reaction Alert MiG-23 2410 loadout – R-23R on the left, R-23T on the right and two R-60s below the fuselage.

Pg. 73 - top

2410 on a Caslav apron. The external results of having undergone the R-1 Revision, concluded on August 8th, 1995, were minimal and mostly limited to the white radome. The 4th Fighter Air Base emblem appears on the fuselage.

Pg. 73 - bottom

Such signage was typical at Ceske Budejovice and at Caslav. This basic act almost proved fateful for Pavol Matej who only by a miracle managed to takeoff on August 8th, 1995 in MiG-23ML 2410 with the wing in the 72 degree position. He managed to rotate the aircraft only over the last few meters of the runway at a speed of some 500km/h. The exhaust gases from aircraft caused debris from the grass sections bordering the runway to accumulate on the runway. This was the last flight of the pilot in the military and the MiG-23ML remained in service until February 21st, 1997 and was retired due to lack of financial support needed to keep it in service. Today, it is on display at the museum in Hatzerim in Israel.

Pg. 74 - top

MiG-23ML 2422 served through its specified airframe life. In fact, in the spring of 1998, an R-2 Revision was considered for this airplane but the General Staff of the

Army Air Force ultimately decided against it. The R-2 Revision was not conducted on any MiG-23ML. As with the majority of MiG-23MLs that underwent the R-1, the radome was sprayed in white but the camouflage paint wasn't touched up. The L-39 type ejection seat triangle was added below the cockpit. The aircraft became a display item in Spain.

Pg. 74 - bottom

MiG-23ML 2423 was ferried to Caslav in May, 1995 after an engine change for which it had waited from the beginning of October, 1994. It flew from that base until May 19th, 1998 when the type was retired from service. At the time, it flew in its original paint scheme including the dark grey radome.

Pg. 75 - bottom

Among the first aircraft to be retired from active service was 3304. Its last flight came on August 31, 1995 and served as a spares source after that. Originally, it was to serve as a gate guardian at the Caslav Air Base, but in 2005 it was taken over by the museum in Vyskov. The MiG-23ML differed from the preceding MiG-23MF in not only having a less tail heavy stance while on the ground, but also a lowered angle of the nose section ahead of the cockpit, giving the aircraft a significantly different look.

Pg. 76 - top

The new year brought with it a change in the name of Caslav Air Base in 1995. MiG-23MLs of the 1st Squadron, 28th sbolp became a part of the 1st Squadron of the 4th Fighter Air Base. In this shot dated January 4th, 1995 the characteristic bend in the wing is visible as is the wear on the leading edges of the outer wings, a common site on all MiG-23s. This is contrary to the paint on the main fuselage, the edges of which were more in line with airflow and so did not suffer the same abrasion.

At the end of its career on August 26th, 1998, 4641 suffered a drop tank separation and consequent damage to the hinged ventral fin. This occurred in mock combat with a MiG-21MF. Its last flight came on December 17th, 1998 as one of the last three serviceable MiG-23MLs in the Czech Republic. Today, it is in private hands not far from Ceske Budejovice.

Pg. 76 - bottom

Aircraft coded 4850 during live fire exercises, likely out of the Polish base at Slupsk. The obsolete R-3S was used for these exercises which by this time suffered from several limiting factors in service. They were not well suited for hard maneuvering associated with air combat. In comparison to 2409, the dark grey fuselage code is evident, which was typically a black item. This aircraft (4850) suffered engine

problems on October 13th, 1998 which grounded it permanently at Caslav. Today, it serves as a memorial and carries a non-authentic paint scheme.

Pg. 77 - top

Over the course of its first R-1 Revision conducted between April and November of 1992, the camouflage scheme was touched up with noticeable fields of light brown. In this scheme, the aircraft was ferried to Caslav on October 25th.

Pg. 77 - bottom

A second R-1 Revision was conducted between June and November, 1995. Besides the off-white radome, the paint on the undersurfaces of the airplane was touched up.

Pg. 79 - top

Namest nad Oslavou hosted an air show in June, 1996, where 2425 flew the display portion of the event for the display team.

Pg. 79 - bottom

By the time live fire exercises out of Slupsk, Poland rolled around in September, 1996, only two MiG-23MLs (2425 and 2409) and a single MiG-24U (8327) would take part. As usual, the R-13M missiles were carried under the wings during live fire training to not adversely affect airflow to the engine. APU-13MT rails under the fuselage were only used to transport the missiles from Caslav to Slupsk. R-23s were only possible to use at Astrachan since the range at Slupsk was too confined, not helped by the fact that the minimum aircraft speed at which the R-23 was fired was M1.3, supersonic. The nose of the aircraft carries a sticker from the training unit at Pardubice.

Pg. 80 - top

Flight display apron during the air show SIAF 97, one of the last of such events for the type.

Pg. 80 – middle and bottom

Participation at Fairford, England between the 16th and the 21st of July, 1997, brought not only a multitude of zaps, but also large stickers commemorating that particular event. It then flew like that til the end of 1997. At the beginning of 1998, leakage problems began to plague the fuel tanks that LOZ (Aircraft Repair Facility) was not able to fully rectify. In fact, after several test flights, the problem only got

worse, and this led to the withdrawal of the airplane from service in March, 1998. Currently, it is located at the airport in Zbraslavice.

Pg. 82

The first life extending R-1 Revision was conducted by the 31st LOZ Ceske Budejovice between October 8th, 1992 and June 29th, 1993. This upgrade brought with it a number of new colour fields of sand and khaki. The radome and other antenna covers were painted in light grey. The lower surfaces were touched up to cover relatively large areas with a light blue-grey colour. The leading and trailing edges of the wings and tail surfaces were also touched up with lighter shades. Stencil data was also refreshed. In this guise, it served with the 1st slp til October 25th, 1994, and subsequently at Caslav.

Pg. 86

While at the time of its delivery, the camouflage scheme really didn't stand out in the crowd, it did become increasingly more interesting following the R-1 Revision. It became outright unique with thirteen shades of camouflage colours after its second R-1. This was conducted beginning on March 29th, 1996 after 150 hours, which was flight time allowed by the first R-1 Revision. The life extension was concluded on October 14th, 1996 and also brought with it some visible changes in the colouring of the bird. The radome was sprayed in a very light grey, an off-white, really. The lower surfaces of the wings and elevators remained in the previous colouring with light edges, but the fuselage was this time painted in a light grey in its entirety. Signs of respraying are evident on the camouflage fields as well. The topside surfaces received colours consistent with previous revisions. The biggest change was the right wing replacement, precipitated by the problematic leakage of the integral fuel tanks. The donor aircraft for the wing was MiG-23MF 7182 and carried a camouflage scheme that was applied during a midlife overhaul in Germany and had a national insignia with a different orientation. The colours on the replacement wing were worn and faded by this time. The revision also brought an upgrade from the traditional gun camera to a new video system. It served so upgraded from November 19th, 1996 at the 4th Tactical Air Base in Caslav. October 13th, 1998 became fateful for this aircraft, when it suffered engine failure due to the ingestion of a bird. It is interesting to note that the left wing of 7182 served as a replacement for MiG-23ML 4850 that coincidentally suffered engine failure on the same day, October 13th, 1998, meaning that this would be the last flight for it as well.

While 4850 remained at Caslav in a scheme that was not authentic, 3307 was towed from Caslav to a firing Zbrojovka Vsetin range at Strelna u Vsetina, where it was destroyed during weapons testing.

Pg. 87 - top

The metal guards around the tires prevented rodents from climbing up into the aircraft and eating through cables.

Pg. 88 - top

Aircraft 3303 pictured during live fire exercises at Slupsk in 1992 with obsolete R-3S rounds. Note the wearing of the camouflage paint below the cockpit. 3303 was delivered to Ceske Budejovice on November 8th, 1981. It took part in such events as the Stit (Shield) 1984 manoeuvres and a parade at Letna in 1985, where it was flown by the Regimental CO Stefan Gombik.

Pg. 88 - bottom

'Fighters Live By Combat', the title of a book by Nikolai Michailovich Skomorokhov, was also an inscription applied to the nose of 3303 by technician Standa Rogl. Thusly decorated, it flew to its new base at Caslav.

Pg. 89 - top

Ferry flight of a quartet of Quick Reaction Alert MiG-23MLs to Caslav on November 16th, 1994. The first R-1 Revision was realised between May 27th, 1993 and March 1st, 1994 and brought with it almost indiscernible differences in the look of the aircraft, save for the green stripe behind the grey radome.

Pg. 90

During the transition to winter flying in the fall of 1995, Petr Kybus painted tiger themed items on 3303, as requested by Vojtech Vrkoc to whom the fighter was allocated. The additional markings have been applied in this shot dated October 5th, 1995.

Pg. 91 - top

A view of the upper surfaces of 3303 in the fall of 1995.

Pg. 91 - bottom

As it appears here, the aircraft also conducted Quick Reaction duties. The first zaps began to appear behind the tiger head and three of the first four were dedicated to the participation of the MiG-23ML at RIAT in 1994, while the fourth was added by colleagues at Sliac.

Pg. 92 - top

3303 taxiing past the Quick Reaction command centre at Ceske Budejovice in the spring of 1996 when Caslav was temporarily out of commission. The right side of the fuselage acquired more zaps.

Pg. 92 - bottom

Several shots of normal service at Caslav in 1996. At the beginning of 1997, the aircraft was ferried over to Ceske Budejovice to receive its second R-1 Revision, which was completed in February, 1998.

Pg. 93

June, 1996 air show participation at Namest nad Oslavou.

Pg. 94

For its last year in service, Vojtech Vrkoc added a few more tiger themed items to 'his' MiG. These included application to wheel chocks and covers.

Pg. 96

In the original shots taken at Namest nad Oslavou on September 15th, 1998, the left nose gear door can be seen with the inscription 'Moje Mana III' (My Mana III). Miniature tiger stripes were also added to the pitot tube. After returning back to Caslav on completion of base upgrades, one last trip was made to Ceske Budejovice on September 23. This was one of a few MiG-23s to make full use of its seventeen year life expectancy. In 2004, it was sold to a museum in the United States.

Pg. 97

The difference between the number of zaps at the beginning and at the end of 1998. The red star probably hails from a similar symbol from 1988 that although indicates a kill against an La-17 target drone at Astrachan, wasn't applied until the last year of service.

Pg. 98 - top

From its service entry on December 22, 1982, MiG-23ML 4645 flew in the standard four-colour scheme.

Pg. 98 - bottom

4645 during a display for Israeli pilots who in 1948 at Budejovice transitioned onto the Avia S-199 and the Spitfire.

Pg. 99

MiG-23ML 4645 was part of the quartet of aircraft that left the field at Ceske Budejovice on November 16th, 1994, when Rapid Reaction duties were discontinued there. For this occasion, these aircraft received many drawings and well wishes applied in chalk. It did not fly long away from Caslav. By March 9th, it was returned for an R-1 Revision.

Pg. 100 - top

Technician Petr Kybus painted a sharkmouth on this plane during its R-1 life extension. It was flown like this on May 18th. After these first flights, as with other aircraft, the camouflage scheme was touched up as needed. Fortunately, the sharkmouth remained intact.

Pg. 100 - bottom

The aircraft returned to Caslav in its new paint on June 1st, 1995. The camouflage was finished off with the addition of relatively large fields of brown and green paints and all lower surfaces and the radome were sprayed in a very light grey. By November 23rd, it was ferried over to Ceske Budejovice, where it awaited a new engine through 1996. Finally, it received an engine donated by aircraft coded 3307. On April 1st, 1997, it was again ferried to Caslav, but on December 17th, 1997, it flew for the last time. The photographs show the aircraft in July and September, 1995.

Pg. 103

The aircraft was dismantled at Caslav and on June 24th, 1998 was transported to Ceske Budejovice where it was put into storage. Due to its list of issues and the retirement of the type, it was not anticipated to be put back into service. Today, it is in private hands. Because it had accumulated a relatively low number of flight hours, its camouflage scheme remained largely intact.

Pg. 104 - top

Shown here during Quick Reaction Duties with an L-39ZA, the latter being responsible for intercepting slow moving bogies.

Pg. 104 - bottom

4855 was one of our youngest MiG-23MLs. Together with 4850, 4857 and 4860, it was part of the last delivery of these MiGs to Czechoslovakia on February 18th, 1983. During the 1st slp disbandment, it didn't take part in the mass flyover to Caslav on October 25th, 1994, or for that matter, the ferry of Quick Reaction aircraft on November 16th of that year. It didn't fly on August 9th, 1994, when it had maintenance performed on it that included, among other items, an engine change. It returned into the air on September 26th, 1995 and the following day was delivered to its new user in Caslav. These shots were taken during normal flight operations in September, 1991.

Pg. 105

In the fall of 1995, during the transition to winter flying, the aircraft received tiger themed artwork. We have groundcrew Josef Popluhar and Petr Kybus to thank for these.

Pg. 107

On August 27th, 1998, 4855 was ferried from the field at Namest nad Oslavou, where the Caslav Squadron had made a temporary home while its base went through maintenance, to Ceske Budejovice and the LOZ (Aircraft Repair Facility) to fly out its final dozen flight hours. It flew for the last time on December 10th, 1998. The end of its career came only as the result of the decision to retire the type from service in the Czech Republic. Later, it was put on display in Spain.

Pg. 109**CHAPTER Service with the 51st LOZ**

The ferry flight of 'Tiger' 4644 to Ceske Budejovice did not mean the complete absence of the MiG-23 in the skies over the Czech Republic. The final flights of aircraft coded 4641 and 4855 took place on December 10th and 17th, 1998, flown by members of the 51st LOZ (Aircraft Repair Facility, formerly designated the 31st LOZ until 1997 when it was renamed). These two aircraft would not be kept in service after this due to orders from the higher-ups. With that, the only aircraft to remain in service with the 51st LOZ would be the aforementioned 'Tiger' 4644. It flew as part of the development program for the L-159. Besides taking part in the development of the L-159, it also served as a static air show display and as an aggressor for MiG-21MFs, over which it, naturally, held several advantages. Its service life was to end on November 27th, 1999, seventeen years after delivery but it flew for the very last time two days after that date. Enthusiasm for the bird displayed by both pilots and ground crew meant that the aircraft would go through an R-1 Revision between January 11th and February 15th, and the Air Force Brass allowed another eighty hours of flight time up to November, 2000, one year later than that recommended by the

manufacturer. Between 1999 and 2000, 4644 flew the allowed eighty hours with 47 of these being flown in 1999 and 33 in 2000. The final three flights were undertaken by the last qualified pilots on the type, Col. Jiri Zabransky, Lt.Col. Jan Rehak and Maj. Zdenek Ouda on October 26th, 2000.

Pg. 109 (photo)

After the success of the Devil MiG-23MF 3646 commemorative paint scheme, a MiG-23ML was set aside for something similar by Lt.Col. Bohumir Zavadil. Quite logically, the plane chosen was the flagship of the fleet, the aircraft coded 4644. The repaint was conducted by the same team that a half year earlier created the Devil. Stanislav Hajek put together the graphic proposal and the work was undertaken by Milan Pech, Petr Soukup, Josef Martinek and Bohumil Cerv, and this team was joined by groundcrew member Petr Kybus. The scheme was applied between the 19th and the 21st of October, 1994. The first flight was conducted by Lt.Col. Bohumir Zavadil on the morning of October 25th and was a weather reconnaissance flight. On the same day, MiG-23MLs were ferried over to their new base of operations at Caslav. The theme of the new paint scheme was dominated by the tiger motif in a low viz type application. The suggestion to extend this type of scheme to the MiG-29 as well never bore any fruit because that type was retired early, on July 1st, 1994. The MiG-23ML Squadron then officially took over the Tiger Squadron tradition to help it survive from the MiG-23MF to the Gripen currently in service.

Pg. 112

The Tiger was among nine MiG-23MLs that during the disbandment of the 1st slp were ferried to Caslav on October 25th, 1994.

Pg. 113 - top

Despite the scheme being applied carefully and to a high standard of quality, lasting practically up to its retirement, some areas of damage did manifest themselves. This included the front end of the radome, the leading edges of the intakes and mostly the splitter plates. At this time, the fuselage ahead of the main wheel wells received the unit insignia of the 4th Fighter Air Base (see detail).

Pg. 113 - bottom

Contrary to the preceding Devil MF, the Tiger was used in normal service functions, including that of Quick Reaction duties. As a result of ever decreasing numbers of serviceable aircraft plaguing that time period, it was a function of necessity. On the photograph dated May 3rd, 1996, a group of MiG-23MLs heads for Ceske Budejovice due to the two month upgrade of the Caslav base. While aircraft 4644 and 4850 are armed with the classic Quick Reaction payload of an R-23R, R-23T and two R-60s, 2409 was used to ferry over three R-60 acquisition rounds. At the time, only six MiG-

23MLs and two MiG-23Us were ferried. Officially, there were fourteen aircraft in service, of which two were undergoing their R-1 life extending upgrades (allowing another 300 hours' flying or three years of service), but out of the remaining twelve, only these six were serviceable.

From April, 1993, the aircraft flew with the new GPS navigational satellite receiver. The antenna was found on the spine behind the cockpit.

Pg. 115 - top

While the MiG-23MF had a temperature sensor made up of two segments, the ML equivalent was made up three parts. The blade antenna on the right side of the nose (the other being above the rudder) belonged to the RSBN short-range navigation system allowing pre-programmed flying in conjunction with the autopilot, a first among Czechoslovak aircraft.

Pg. 115 - mid

The aircraft being readied for an engine test over the course of its final R-1 Revision during which, among other things, its camouflage paint was touched up where needed. The radome was newly resprayed with a slightly different shade of grey. The air intakes had a much rougher application of the tiger artwork.

Pg. 115 - bottom

The Tiger during the shutdown at Namest nad Oslavou in mid September, 1998. By now, there were only a few short weeks left before the end of the service lives of the five remaining MiG-23MLs...

Pg. 119

The boys from Ceske Budejovice wouldn't give up their Tiger even after its last flight on October 26th, 2000. On April 25th, 2002, it began life as a gate guardian at the entrance to the main hall of that airport. For the occasion, further touchups were conducted on the necessary locations of the camouflage paint. It should be noted that the aircraft was actually slated to be handed over to VHU (Military History Institute) Prague-Kbely in May, 1997, over three years prior to its last flight.

Pg. 120 - top

MiG-23ML 4857 was transported by two Canadian C-130s on November 28th and 29th, 1997. An engine fire was suffered on September 6th, 1995, but the pilot managed to land the plane safely. The plane was beyond repair. Today, it is on display at CFB Bagotville in Quebec.

Pg. 120 - bottom

Because Slovakia never put the MiG-23 into service, aircraft were only delivered for the purposes of museum exhibition on the basis of a common history. The aircraft that were involved were MiG-23ML 2402, MiG-23U 8109 and MiG-23BN 9868. To reciprocate, the Czech Republic would receive a MiG-29 for the same purpose. In this shot, MiG-23ML 2402 is seen on a P-50 trailer on December 12th, 2002 on its way to VHU (Military History Institute) Piestany.

Pg. 121

It is difficult for an air base to function without the access to two-seat versions of combat aircraft. They are not only essential for converting pilots onto a specific type, but are also necessary for the maintaining of qualification. The number of flight hours always exceed those of single seat counterparts. The Czechoslovak Air Force used eight MiG-23Us in all, distributed among fighter units and the 28th sbolp (a fighter-bomber unit) that flew the MiG-23BN. Of the eight two-seaters that were in service, only those coded 7721 and 7805 had nothing to do with the use of the MiG-23MF and ML. Note that with the two-seat variants, the first two digits of the fuselage code represented the year of manufacture.

The first two trainers, 7827 and 7905, served with Squadrons using the MiG-23MF. These came from the 1st slp in May, 1983, only to return to Ceske Budejovice with the unit in 1998. In 1994, they were transferred to Caslav, but their age made their retirement from service in 1995 a reasonable decision. The airframe life of these and the other two-seaters was fully utilized, and no trainer versions retired prematurely.

Another two trainers were connected to the progressive acquisition of MiG-23MLs. The first, coded 8107, was after a year's service with the 28th sbolp, transferred to the 1st slp. The second, 8327, went straight over to the 1st slp. Both were reassigned to Caslav in the fall of 1994.

The initial 28th sbolp was also involved with the formation of a new fighter base the same year, with two two-seaters, coded 8109 and 8325 that were inherited after the retirement of the MiG-23BN. The new 1st Squadron of the 4th Fighter Air Base thus had a sufficient number of trainers at its disposal, with four, with respect to the quantity of MiG-23MLs. The two-seater coded 8327 was destroyed in a mishap on November 19th, 1996. Aircraft 8107 and 8109 were retired at the beginning of 1998 after reaching the end of their service lives. The remaining plane, 8325, was also destroyed in an accident on May 19th, 1998.

Pg. 124 (A)**Stit 84 (SHIELD '84)**

Initially, I was not slated to take part in this mega-exercise because I was known for hating orders that were barked out by politicians and their cronies who have zero

understanding about flying but like to tell us how it's done. I gathered up my family and headed out on vacation. Preparations at Zatec were in full swing – pilots had spent fourteen days honing all of the details that were necessary for such a massive event. This included taxiing methods, each second of take-off, routes, landings and going over special cases that could come up, so as to have all of this second nature.

Suddenly, two pilots (I believe their names were Dusan and Fara) committed some slight offence against the internal order and needed to be replaced. That ended my vacation. A day before the main rehearsal I reported to the base. In one day, I was expected to absorb all the preparations that had taken two weeks. I didn't have a good feeling about this at all and I focused on my scheduled take-off time. If memory serves, it was assigned as C+4 minutes and twelve seconds. I revved everything up at C-six minutes and I took my place behind the others as per plan. We took off in ten second intervals. That meant that in, that short moment of time, I had to leave the apron for the runway, line myself up properly with its centreline, perform all relevant tasks and, above all, watch my timing so that I was in synch with the MiG-21F taking off in my direction on the grass. Full afterburner, and off I go! At about the 200m mark, there was a bit of a bump which I knew about, having flown out of Zatec for several years, but it slipped my mind and I was also likely not quite in line with the centreline of the runway. And so it happened that the bump pushed me in a way that put my right gear off the concrete. Under dry conditions, it wouldn't have even been noticeable, but following some significant rains, it didn't take long for both my wheels to be going through the mud. There were trees around me, and I was quickly nearing the end of the field where there were trails we used to bike along on our way to the base. My speed indicator was vibrating around 200km/h. Unsticking came in at about 250. What do I do with THAT?? Will it work out, will not, should I punch out, should I not? Ejecting is something I discounted on the thought of what this essentially unguided missile would do to the aircraft that had not yet taken off. Through sheer will, I wrestled the MiG-23ML off the ground at low speed. Twelve tonnes of thrust pushed the sixteen-tonne collosus over the trees and I had both hands firmly clasped around the stick. Immediately, it caught and acquired pressure. After a short run-up just above ground level, I gained altitude and positioned myself within the Flight. Again, I had more luck than sense. From the ground, it looked considerable worse than it was. From wide-eyed witnesses, I found out that the rather awkward takeoff caused a huge ball of mud and debris behind the aircraft that it disappeared from sight. All of a sudden, it went vertical just before the trees, only to disappear again behind them. Instead of a massive explosion and shock wave, I emerged from this spectacle and continued on as if nothing happened.

That wasn't all that day. Seventy-two aircraft were to spread out over that area of the sky and safely land back at their home fields. Our route took us past Hradec Kralove and Namest nad Oslavou and back to Ceske Budejovice. During this time, the remainder of the air force had been banned from flying. We were alarmed when we found ourselves flying through a group of military parachooters that was allowed to be there by some local communist party secretary. But even here, we encountered luck and nothing happened to anybody.

Pg. 124 (B)

I would like to share with you my memories of a successful ejection from a MiG-23UB belonging to our air force. It occurred in the spring of 1998.

At the beginning of May that year, Squadron Leader Roman Jaburek flew in to the training facility with the goal of completing prerequisite flying training of all pilots before the end of the month. Under normal conditions, this represented four flights in a dual-control trainer within one calendar year. Now, we were asked to do it in one month because the parachute safety system of the aircraft involved was about to expire, and a new one from Russia would not be ordered. Already back then, there were yearnings within the command structure to order aircraft from the west, and anything from the good ol' East was no longer hip.

Back then, I made a rather smart-assed remark: instead of a new spin chute, throw in a shoe box. The results will be virtually the same! Life then taught me the valuable lesson that the contrary rather is true. But I decided to be the smart ass with no inkling that in a few days, I would be extremely happy that the safety system, on the verge of its expiration, would work flawlessly.

After lunch on Tuesday, May 19th, 1998, I, along with Jirka Kares, who at the time was back-up Squadron Leader, and with Jirka Bis, who was our number two for air combat maneuvering, met on the apron to accept our aircraft, and we took off as a pair, heading out to the area designated for our exercise.

The weather wasn't exactly great, but at 3500m we were above the clouds and could begin focusing on our goals. We each banked 90° and went in opposite directions, and after a half a minute, we turned at 180° and closed in on each other with a height difference between us of some 500m.

I visually acquired my target and reported 'target sighted, I am intercepting'. That was my colleague Jirka Bis's cue, who played the role of my foe in a MiG-23ML, to initiate defensive maneuvers. For a while, I chased him through the sky, until I could capture him with my gun camera, which was my goal in this particular exercise. Then we met up so that we could co-ordinate another separation manoeuvre and continue in the training.

I ordered 'Break!!' and Jirka turned to the left and I to the right with a bank of 60° pulling 4g and according to the most accurate instrument in the plane, also known as my butt, I sensed that I couldn't tighten the turn any more; the aircraft was on the verge of unwanted vibration. My colleague in the back, Kares, didn't feel this and he slightly overpushed the stick, probably by no more than 2mm. According to the Black Box recordings, the force on the aircraft increased to 4.2g.

And then it began!

The bird came out of the tight right turn without any warning or angle signals in the cockpit into a tight turn to the left, only to go vertical and lose all airspeed! This somewhat uncommon instant is something I would rather not repeat. There was immediate silence, because cockpit noise is generally the result of fast moving air speeding past the cockpit, and we were virtually at a standstill in space and time. In that instant of odd silence, as hard as it may be to believe, I could swear I heard the

voices of two deceased comrades of mine, who under similar circumstances, and exactly a year and half earlier, on November 19th, 1996, met their fate in the same type of aircraft, screaming 'GET OUT, GET OUT!!'

Over the intercom, I told Jirka 'George (Anglicised form of Jirka), we need to leave now'. 'Just hold on, hold on...' he answered. I realized that the same conversation was carried on by my dead friends, who were not able to eject on time, and we heard it in the recordings during the investigation into the crash. Back then, a year-and-a-half ago.

My altimeter indicated 4500m, and so I figured that was a good number. I could give it another ten seconds before leaving the ship. Jirka could do as he pleased. In any case, if one left the plane, so did the other. That was automatic with this type of aircraft.

The aircraft went into a flat spin and we were meandering downwards like a leaf in the wind. Jirka took over control of the aircraft and according to training on dealing with a flat spin, he applied rudder into the spin, to be followed by slamming a foot down to bring the aircraft out of the spin. But, the same training required immediate ejection on entering a flat spin below 5,000m.

Our aircraft was evidently doing as it pleased, until it stopped on its own accord, and entered into a dive at an angle of under 30°, and increased speed to around 500km/h. I thought it was all over and that the worst was behind us. I was thankful that I hadn't pulled the ejection handles, pulling the both of us out of the airplane, and the damned thing was liable to land at base on its own with no damage. In any case, we would've looked like the two biggest idiots in the air force....not that it hadn't happened before. My co-student, Stan Pech from the Plzen Regiment, experienced this sort of thing first hand. He interpreted a sudden drop in RPMs to be an engine failure and ejected successfully, and the fighter landed on its own, almost undamaged, and after some repairs was pressed back into service.

But, it seemed that our fighter wanted to go out with a bang. Once again, she went vertical and just hung there. I couldn't believe my own senses. I didn't even try to grab for the ejection seat handles and get out of this asylum. The aircraft nosed down, but this time instead of a flat spin entered a steep spin, nose down, with very strong centrifugal forces. I felt like I was in a spin cycle of a washing machine. It occurred to me, what a horrible mistake I had made, when I didn't fully tighten my seat belt harness. I did this consciencously, to allow myself greater freedom of movement in the cockpit during combat maneuvering. The centrifugal forces pulled me out of my seat and up towards the canopy, preventing me from even being able to reach the handles. I began to utter things that make even a drunken sailor blush....

Jirka, in the back, was by now also yelling rather profusely, that we need to eject. But how, with me pressed up in the wrong direction and he not being able to either? The seconds mercilessly went by, and with each one we were some 200m closer to the ground. Survival instincts within me kicked in and I went about focusing on mobilizing every ounce of spare energy I could muster, and millimeter after millimeter, I reached for the ejection handles. I finally reached them after what seemed an eternity, and through a set of motions dictated by thorough training on the ground, I unlocked them and pulled, initiating the ejections.

Then, things went on automatically. In two seconds, the front canopy jettisoned, then the rear one, the rear bang seat exited the aircraft, then the front one, with me in it. With that, we were out of that mess. An explosive charge first shot us out of the cockpit, and then the rocket motors took over. It was like feeling a couple of good, swift kicks in the arse, but you knew you are a safe distance from the aircraft, and the parachute can safely open. We descended beneath our chutes into some clouds, and the chutes to me looked rather small, much smaller than the ones used in training. Hopefully, I wasn't looking at the drogue chute! Fortunately, no, I was not.

I looked at my watch, and it was 1358h. The English would proclaim 'all right!!', the Americans 'A-OK!!!' and the Russians 'Kharasho !!' I reach into my flightsuit pocket, and realize I have my car and house keys. What else could the soul possibly want at a moment like this?

I got out of the cloud and saw the town of Heralec. I searched to see where our aircraft might have impacted the ground, hoping it wasn't somewhere where it would cause a lot of damage. I saw the second chute, as it was about to land in a field. I must've rode an updraft in the cloud, so I will be a little late for dinner. Instinctively, I lifted my head in time to see a large shadow approaching me, and hoping I was mistaken, it was the second aircraft coming near me. He was searching for us and I thought that this had the beginnings of an impalement on a pitot tube for me and for a moment thought about disconnecting myself from my chute. Jirka saw my striped parachute and went around me. How many times can a guy get this lucky in one day?

I descended in a strong wind of some 70km/h into a forested area. I stopped fighting for some control and left the rest up to fate. Giant spruce trees welcomed me literally with open arms. I figured this landing would be painful, but I didn't expect it to be like going through a thresher. I tried to roll myself into as small a ball as I could. I got stuck on a bent spruce tree and with arms extended, I tried to reach the nearest branch to pull myself closer to the tree itself. I was about 10m above the ground, and I figured that this was surely enough to get me killed, should I drop. Branches were snapping, and I heard an ominous cracking sound, and I hung there like a bag of shit. I didn't feel like being particularly passive in this situation, and so I began swinging until I could grab onto a branch that didn't snap, pulled myself in, unbuckled my chute and climbed down onto the ground. My body ached, but all joints worked and nothing was broken. Suddenly, I heard an approaching car. It was a local forest ranger, and he wasn't even upset about what I had done to his forest. He pulled out a saw and sawed down the spruce tree, parachute included, of which I said I needed as evidence. The ranger had a cell phone, and I called the tower at Caslav. It took two tries, before they finally believed that it was I calling, the one they had been searching for for a half hour. They asked where I was calling from. I told them 'from a tree....'

The rescue helicopter from Namest nad Oslavou had a heck of a time in the wind, but ultimately picked us both up, with our parachutes, and circled the wreckage of our aircraft a couple of times before safely landing back at base. Our successful ejection was instrumental in solving both crashes, but was unfortunately of no use to our dead comrades. Both crashes were attributed to a faulty auto-pilot. The aircraft can't fly itself, and requires solid support from not just the autopilot, but from other electronic

systems and programs as well. A person alone, with such a complex system, is not enough to do the job. I celebrate every May 19th as my second birthday.

And one more thing to add. The place where I finally landed, in the tree, is in a line 2km from where my friends were killed. They didn't have the luck I did, and they didn't survive. Caslav base built a memorial to them at the spot where they died, and the town of Heralec added a cross. Whenever I am near, I stop by and light a candle and clean the monument up of leaves and pine needles. But most importantly, I quietly thank them for leading me in that critical moment through the thought that no one has any business in an airplane that is doing whatever it wants to do. I hope Aviators' Heaven is good to them.

Jan Skladanyi