

## Second Death of IrAF

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For many of those directly involved, but also a number of interested observers, the largest surprise from the invasion of Iraq, in March and April 2003, was the complete absence of the Iraqi Air Force (IrAF). During the three weeks which the US and British forces needed to conquer Iraq and neutralize major military units, the IrAF flew not a single air sortie, while the air defences of the Iraqi Air Defence Force (IrADF) – even if some of them fought hard – were actually completely ineffective.

The disappearance – or, better said: the lack of appearance – of the IrAF and the IrADF in response to the US-British invasion stunned even their opponents. There was quite some guessing about the possible reasons: even some prominent Allied commanders speculated that the Iraqi pilots refused to fly out of fear from being shot down by Coalition interceptors. Others believed the IrAF and the IrADF were completely paralyzed by a series of heavy air strikes flown in the days preceding the invasion.

But none of the above tells the whole truth. Many Iraqi pilots and officers were ready to fight: even if having a pretty clear picture of the superiority of their enemies, they had trained intensively in the months leading to the war. Yet, due to a series of confusing orders from the top of the regime, existence of several dissidents in the top ranks of the IrAF and the IrADF, and an effective US information warfare, Iraq was left without any serious air defence system.

The demise of the IrAF during the war last year was no less but the second time this service was completely destroyed in its history. Formed with British help on 22 April 1931, even before Iraq was officially released into independence, the original Royal Iraqi Air Force was one of the oldest and – in the early 1940s – also the largest Arab air forces, before it was decimated and then disbanded during the British intervention against the military-backed coup led by pro-Axis Rashid Ali al-Ghailani, in April 1941. While the fighting at the time was meanwhile well-documented in a number of books and articles, the full background behind the demise of the modern IrAF in early 2003 is still not entirely clear.

This is the story of the final three years of the IrAF.

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## The Anti-Regime Air Force

The reasons for the fall of the Iraqi Air Force are both simple and complex. Simple, because there were specific mechanisms in Iraq under Saddam Hussein that would not permit a very different deployment of the IrAF in war. Complex, because these mechanisms were based on the nature and complex structure of the former Iraqi regime.

Saddam Hussein always suspected the IrAF of disloyalty ever since he climbed to power. These suspicions did not come out of nothing, however. The IrAF was involved in greater or lesser scale in every single coup attempt in Iraq since 1941 – and there were over 50 of them by the year 2002!

Several top IrAF officers were also involved in the coup that brought the Ba’th Party – and Saddam – to power, in 1968. Consequently, the air force was very closely monitored by several secret services from within and outside, and was frequently purged of any officer that became too popular within or outside the air force, or was considered disloyal for any reason. This went so far that any major air force operation before and during the war against Iran had to be authorized by the dictator in Baghdad, in advance. This practice was interrupted only for a short period of three years, between 1986 and 1989. Namely, the Iranian offensives against Iraq in 1986 almost broke the back of the Iraqi military, and Saddam came under heavy pressure from his generals – and especially the IrAF – to finally let them fight the way they should. During 1986 and 1987 the IrAF was completely reorganized and retrained, and by 1988 became a highly effective service, delivering heavy blows against the Iranian military and economy. It was actually the IrAF with its massive air offensives against Iranian oil production and exporting facilities, and industrial infrastructure that contributed to forcing the Iranian clergy to accept a UN-sponsored ceasefire and thus bring an end to the long and bloody war.

This fact, however, was nothing that could deter the paranoid Saddam from having his revenge after the war: between 1989 and 1990 he purged the IrAF once again, “removing” (read executing or imprisoning) most of its command levels and a large number of officers in the ranks between Captain and Colonel. Especially pilots and officers who had become famous for their actions and achievements during the war against Iran were targeted. Also, the old regulations about the organization and conduct of training and combat operations were once again imposed: all of these had to first be permitted by the dictator or the IrAF was not flying at all. Already by the time when Iraq invaded Kuwait, and then during the Operation Desert Storm, in 1991, its air force and air defence force had already been considerably weakened from within. The subsequent heavy losses of experienced pilots during air combats with USAF fighters, as well as systematic destruction of their bases, but also withdrawal of Soviet advisors, which nevertheless were instrumental in sending up to 150 IrAF aircraft to Iran, in 1991, as well as in a quite a massive defection of dozens of pilots in the early 1990s, further weakened the service. For those who remained in Iraq the fact that many of defectors (foremost those fleeing to Syria) took also their aircraft and helicopters with them, and especially that the "evacuation" of IrAF to Iran left the service without some 130 of its best aircraft and helicopters, together with huge amounts of

equipment, weapons, and spare parts with them (these were neatly packed in 15 Il-75MD transports flown out to Iran as well!), was certainly nothing to cheer about.

### **Smuggling around the World**

Despite the permanent struggle against “disloyal” elements within the IrAF, as late as of 1989 and 1990 Saddam still had massive plans for the future of the Iraqi air force, with an intention to turn it into a potent weapon of terror and a tool for destruction of enemy economies. Aside from purchasing around 140 MiG-29s (137 were eventually ordered and built, but less than 40 delivered) and 36 Su-24 fighters from the USSR (intended to replace obsolete MiG-23MF/MLs, Tu-16s, TU-22Bs, and MiG-25RBs) the IrAF was also showing immense interest in obtaining Sukhoi Su-27 and Mirage 2000 fighters. Besides, together with the newly-established SAAD-25 facility – that could be described as “Iraqi Aerospace Industries” – it was simultaneously involved in the development of an indigenous AWACS system (Baghdad and Adnan-1/-2), and an improved in-flight refuelling (IFR) system for Il-76 transporters, which was to provide in-flight refuelling (IFR) support for the surviving Mirage F.1EQs and new Su-24s, as well as a number of MiG-23BKs equipped with French-built IFR probes(receptacles). The IrAF was at the time looking for new combat assets and consequently the Iraqis negotiated with the French for starting several important projects, supplying much input for future development of Mirage 2000 and MICA air-to-air missiles. The SAAD-25, for example was to undertake a mid-life update and upgrade of all the surviving Mirage F.1EQs (which was to see the addition of compatibility with such Soviet-made PGMs like Kh-29L/T), as well as MiG-23BNs (which were to be brought to a standard similar to the Soviet MiG-23BK), and later to start assembly and co-production of a total of no less than 134 Alphajets, at least 20 Mirage 2000Ds, and an unspecified number of SA.365 Dauphin-2 helicopters.

Simultaneously, the Salaheddin Electronics Factory was expanded to produce the avionics needed for the MLU of the Mirages and MiGs, as well as licence-production of AS.30L and Kh-29L/T precision-guided air-to-ground missiles.

Furthermore, Iraq was financing the development of a conventionally armed version of the French ASMP supersonic cruise missile, and the development of the MAA-1 Piranha heat-seeking air-to-air missile in Brazil, both of which were eventually planned to enter production in Iraq too. The basic problem with all these projects was money: Iraq was so starved of finances that negotiations for Mirage 2000s were dropped in 1989, because the French insisted that Iraq had to first pay its debts. The collection of MiG-29 interceptors was also slow, Baghdad instead turning to Moscow and negotiating for Su-27s. Eventually, all the projects were stopped due to the invasion of Kuwait – which was originated by the same immense Iraqi debts.

The following Persian Gulf War II – as it is called in Iraq – in 1991 completely shattered all such plans. Worse yet, Saddam was merciless to the IrAF in the face of the defeat: he did not – as frequently reported at the time – shot the then commander of the Air Force with his own pistol, but he was nevertheless immensely disappointed by his performance, despite himself being the main reason for it! In 1992 and 1993 the Air Force was again purged: despite their considerable combat experience only a handful of officers thought to be most loyal to the regime were left in service afterwards. The others were mainly executed, and as a result the IrAF was turned into a

bleak shade of its former might. It was very slow to resume training and flying and subsequently weakened by massive ignorance of the regime: the IrADF, which was an independent service already since the 1970s, was definitely split from the Air Force and frequently denied even the permission and ability to communicate with it.

For the following eight years the Iraqi Air Force was barely getting enough money to pay its personnel. The situation was further worsened by the UN-imposed embargo. While the Iraqis managed to procure spare parts – like those for Mirage F.1EQ fighters, a large shipment of which was acquired in 1995 – no new aircraft, weapons, or any items and systems that could improve the condition of the remaining aircraft were obtained.

By 1995 the average serviceability of IrAF fighters and fighter-bombers was seldom over 50%, and there was a bad shortage of trained pilots. Even if the IrADF was considered privileged in comparison to the air force, at the time only around 60% of remaining SAMs and associated equipment, as well as less than 70% of the Iraqi early warning radar net – integrated into the system called “Kari”, and built by the French in the mid-1980s – were operational. The situation was rapidly deteriorating – especially since the four-day-long Operation “Desert Fox,” executed by the USN, USAF and the RAF in December 1998, during which the IrAF and the IrADF received several exceptionally heavy blows. By the late 1999 the USAF reports concluded that barely 10% of the Iraqi Air Force aircraft were still flyable, and that there were not enough trained pilots even for them: in the year 2000 the CIA reported that only 20% of Iraqi SAM equipment was fully operational, while the radar net was covering barely 30% of the whole Iraqi airspace.

The desperation began to set within the whole Iraqi military: it grew to a dimension where the IrAF and the IrADC commanders risked their lives to speak openly to the dictator.

On a meeting between top Iraqi military leaders and Saddam Hussein held in the early summer of 1999, the Iraqi dictator was told that it was time the Iraqi military to get new, or at least more replacement weapons and spare parts – regardless the cost, or otherwise accept the fact that his regime would be defenceless against any invasion from the outside. After almost ten years of permanent use, most of the Iraqi heavy weapons were in a very poor condition. Stocks of older Soviet weapons – including missiles of all types, radars, combat aircraft and helicopters – were nearing the end of their useful service life, becoming increasingly unserviceable. Most of the weapons were acquired in a rush during the long war with Iran, and had not aged well in the hands of the Iraqi military. Saddam therefore had to realize that Iraq had to start searching for nations that might be willing to overlook the UN embargos – in exchange for hard cash.

### **The Belarus Connection**

On 7 March 2000, the then Iraqi Defence Minister Gen. Sultan Hashem Ahmad, at the time on a visit in Russia, contacted the specific authorities in Belarus, using a cover story that Iraq would be interested to set up a cooperation with Belarus in the areas of trade and finance. After some preliminary negotiations – and upon having no luck in negotiations with the Russian government regarding eventual sales of weapons to Iraq – Ahmad, at the time also in overall command of the Iraqi Air Defence Forces (IrADF) visited Belarus on 22 April 2000 on his return from Moscow,

bringing with him a “wish list” of urgently needed items. This was given to the First Deputy of the Belarus government, Vladimir Zametalin during a short meeting, organized on 24 April. Zametalin took a look at this wish list, and responded that he would not know if he could help, but that the matter could be looked into. Nevertheless, on the same day a Swiss financial holding company, known to be used by Iraq for transfer of funds world-wide, transferred \$3.3 million to the account of Zametalin’s political party.

Still, only one day later Zametalin informed Gen. Ahmad that the government of Belarus was unable to supply the items requested due to the UN embargo. Later on the same day, however, the Iraqi general was contacted by the Belarus Ministry of Defence and was told that some cooperation was possible but would be limited at best. The Belarus MoD namely, has its own intelligence and security service which is obviously not always under the full control of its own government, due to seemingly endless political turmoil in the country. Of course, no formal contracts were signed between the government of Belarus – or even the Beltechexport company (contrary to contemporary reports) – but soon enough the first shipments of weapons and spares were to be sent to Iraq.

In October 2000 two shipments of spare parts for Soviet-made surveillance radars and some military electronics components for SA-3 SAMs were sent to Baghdad by air. These initial shipments were small, but that was soon to change. A shipment of spare parts for Mil Mi-24 Hind helicopters enabled the Iraqi Army Air Corps to bring some seven Mi-25 back into operational condition. And then even more followed: In October 2001 no less than 20 Tumanskiy R-13 and R-25 engines (for MiG-21MF fighters), 22 R-29 and R-35 engines (for MiG-23s), and eight R-15BD engines (for MiG-25s), were shipped to Iraq, together with a sizeable amount of other spare parts. Another shipment of 30 Lyul’ka AL-21 engines (for Su-22Ms) and 12 upgrades for ECM systems of the MiG-25s, organized in the following month, was stopped for unknown reasons, however. There are sources that indicate that the CIA learned about the previous transactions and attempted to outbid the Iraqis – foremost out of the interest in obtaining the ECM equipment. Still, the Belarusians organized another shipment – with 200 tank engines and some Russian-made equipment for night-operations – and delivered it to Iraq in January 2002.



Above and bellow: row of MiG-23MLs of the former No.63 Squadron IrAF, as found at "Qadissiyah" AB, better known in the West as "al-Assad" or "al-Baghdadi"...



- and, in detail, two ex-IrAF MiG-23MLs, serials 23270 and 23281. (USMC)

Simultaneously, some military advice and training for IrADF personnel was also provided by Belarus – albeit, at a very small scale. The first group of ten Iraqi officers arrived at the Belarus Military Academy on 6 October 2001, and were soon followed by ten additional officers.

Originally, the Iraqis were issued 90-day visas, but they eventually all returned to Iraq already in November of the same year – possibly due to the pressure from the USA and the UN. Instead, after the “dust settled,” in April 2002 the Belarus MoD sent an eight-man team to Baghdad to “provide some guidance and support” to the IrADF. After 15 days in Iraq, the delegation returned home depressed, reporting there was little hope that the Iraqi air defences could put up anything more than a mere token resistance against a US aerial onslaught. In fact, several of the participating officers and specialists concluded that the Iraqi military was rapidly losing a desire to face the enemy in combat, and had, “lost their will to prove their mettle.”

This was effectively the end of cooperation with Belarus: although there were some reports indicating a possible sale of S-300 SAMs to Iraq, nothing of this sort happened. In fact, even a shipment of 1,000 upgraded SA-14 MANPADS was intercepted by the local authorities at the Bereza IAP and returned into storage bunkers of the Belarus Army. Equally, despite several Iraqi requests, no improved nav/attack equipment for MiG-23s, nor spare parts for MiG-29 or Su-25 fighters were made available by the Belarus. What the Belarusian MoD eventually supplied to Iraq was therefore less than enough to increase the capabilities of the IrAF or the IrADF, or make them more dangerous in the face of the US and British fliers operating over Iraq.

The Belarus connection was not the only one through which the Iraqis purchased new weapons, spares, or other military equipment. Since 1999 the international media was full of reports about illegal Iraqi acquisitions of arms from a variety of sources. There was severe criticism of different UN organisations for their failure to control how the money Iraq was earning from the limited sales of oil being spent: officially, the Iraqis were not permitted to import anything but food and medicine. Unofficially, however, even the UN had to admit that it was unable to prevent – for example – import of 23,464 tyres for Russian-built armoured personnel carriers, declared as “tractor tyres,” into Iraq via Jordan and Turkey. In dozens of other cases, spare parts, engines, ammunition and other items like night-vision goggles, machine tools, computers, software for ballistic missile guidance systems, and parts for inertial navigation systems were imported via or from Germany, the UK, and Syria. In December 2002 for example, a shipment of 52 crates addressed to the Iraqi Deputy Chief of General Staff HQs at Military College in

Baghdad, arrived in Syria containing AT-14 anti-tank missiles and launchers. The usual Syrian commission for such shipments was 20%, but it seems in this case the Syrians held back a considerable portion of the weapons, forwarding only some 200 missiles and 12 launchers to Iraq via the al-Walid border crossing. A small shipment of BGM-71 TOW missiles and spare parts for SA-6 SAMs followed on the same way. Although the total number of AT-14s and BGM-71s eventually acquired by the Commando Division of the Special Republican Guards was too small for them to have any significant impact on the battlefield, and the modified Iraqi SA-3s, SA-6s, and Roland SAMs were swiftly neutralized by the Allied air power's new ECM systems, they still caused several surprises for US troops during the battles south of Baghdad, in early April 2003, and the US Army is still running an official investigation into how could Iraq get such weapons in the first place.

Nevertheless, the total amount of the shipments for Iraq underway via the Syrian port of al-Ladheqiyah was such that in the period between 2000 and 2002, the Israeli attempts to monitor these developments caused several serious incidents in the skies over the Syrian borders. After three large shipments – including spare-parts for SAMs and parts for SS-1B Scud ballistic missiles with Syrian and Yemeni export licences – arrived in al-Ladheqiyah in February, March and April 2002, the Israelis eventually sent a reconnaissance UAV into the Syrian airspace. The “drone,” however, was shot down by a Syrian MiG-23 interceptor only two minutes after crossing the border. Interestingly, a Jordanian effort to recover the wreckage was prevented by a swift deployment of a Syrian team, brought in by a Mi-8 helicopter.

### **The Oraq Deal**

Aside from smuggling in weapons and spare parts the Iraqis also contracted Chinese and Serbian technicians to help improve the condition of the IrAF and the IrADF. The Chinese were active in Iraq already since 2000, when several Chinese companies were contracted to rebuild the underground fibre-optics communication net. In the spring and autumn 2001, however, the US and British air forces flew a series of very effective raids against air defence sites in southern and central Iraq, which hit the Iraqis very hard. Reportedly, Saddam was very angry of these attacks, fearing that if something would not be done, there would soon not be a single radar left operating in Iraq.

In response a group of Serbian specialists was contracted (reportedly, some of them were paid a hefty \$100.000 salary) to help devise methods to protect Iraqi air defences, but also help improve readiness rates of the IrAF fighter-bombers and if possible also develop some new weapons.

Late in the year 2001, the US AWACS aircraft patrolling the no-fly zones in northern and southern Iraq, started to track an increasing number of training flights by the Iraqi jet fighters. This caused a considerable surprise: the number of IrAF's training flights was declining for years, as the Iraqi technicians found it increasingly difficult to keep their aircraft flyable for the lack of spares and proper maintenance. But now, the IrAF became more active within few months, compared to years before (with exception of a short period in January 1999). In the summer of 2001, Iraqi MiG-25s flew missions even inside the Jordanian airspace, and repeatedly flew inside the UN-imposed no-fly zones, provoking the US and British aircraft into interception attempts. Then, in the time between February and May 2001, the US intelligence noticed that the

Iraq was reinforcing its air defences with new equipment and technical assistance from an unknown source. All of a sudden, within only few months, the IrAF and the ADC were up and vividly operational to extensions unheard of ever since the summer of 1990. The IrAF became so active that certain sources already came to the absurd idea of Iran returning the Iraqi aircraft flown there in 1991, to Iraq, while many observers were simply surprised by the number of training sorties (quite a few of which ended over the no-fly zones) flown by the IrAF.

Intensive surveillance with the help of reconnaissance satellites and aircraft showed that a large number of previously grounded Iraqi interceptors and fighter-bombers were made operational. It was obvious that the IrAF and the ADC were going through a series of extensive repairs on a large number of aircraft – and that the same was happening also with the Iraqi Republican Guards' and Army's armour. Although these would have a minimal impact on the Iraqi capability to defend against a possible US attack – as most of the Iraqi aircraft and tanks are meanwhile obsolete models, built at least 12 years earlier – they definitely considerably increased the capability of the Iraqi regime to suppress internal challenges to its authority.

One specific system was photographed by British Tornado GR.Mk.4s equipped with recce containers, and UAVs, in June 2002: several flat-bed trucks were equipped with rotating launchers for SA-3 missiles, and corresponding radars. So far, the S-125 Neva/SA-3 system was not mobile: its quadruple launchers lacked either a wheeled or tracked chassis, and were difficult to move. All of a sudden, however, flat-bed trucks appeared in Iraq, capable of taking newly-constructed launchers for two SA-3s. This alone would not be a problem as such, as the original SA-3 was not built to be mobile, and needed a considerable amount of work and calibration once brought into a firing position before it could effectively operate. This, however, was not the case with new Iraqi SA-3s: they could move swiftly without any difficulties, and were obviously modified so not to suffer from the movement and for being brought swiftly into the firing position.

The new SA-3s were initially noticed around the Ali Ibn Abi Talib AB (better known as "Tallil"), south of Nasseriyah, in southern Iraq, where they were obviously responsible for the defence of one of the control centres of the Southern Air Defence Command IrAF.

Simultaneously with the appearance of the “new SA-3s”, the Iraqi air defences continued to be more active and aggressive in challenging the US and British aircraft which patrolled the “no-fly” zones. The first Iraqi success came on 26 May, when they apparently shot down an American reconnaissance drone over the southern Iraq.

After a long search the US intelligence agencies were finally successful. In early September 2002, the US embassy in Sarajevo was authorized to call for action to be taken by the government of the Federation of Bosnia and Hercegovina (BiH) against the Bosnian Serb Company Orao. On 6 September, this action was justified with the following statement from the BiH government (by Amer Kapetanovic, the spokesman of the foreign ministry BiH):

- *"We have been warned by the US embassy that a company from Republika Srpska (Serb Republic – RS: the Serb-run part of Bosnia) is supplying Iraq with spare parts and technical assistance."*

Kapetanovic added that the Bosnian ministry would investigate and take any appropriate steps, but he refused to reveal the name of the company. To those with the knowledge of the local



circumstances, it was immediately clear that the company in question was the “Orao Aviation Bureau” (meaning “Eagle,” this company is not to be mistook with the Yugoslav-Romanian fighter jet, the YUROM J-22 Orao) in Bijeljina. The Orao was known to have maintained and refurbished MiG engines for the IrAF already during the First Persian Gulf War (1980-1988), and before the Iraqi invasion of Kuwait, in 1990. It is known, for example – and some Serbs tried to argue against the US allegations by this fact – that one of the last shipments which arrived from Iraq to Orao before the war in Yugoslavia, in 1991, consisted of 30 engines for MiG-21s and MiG-23s. Reportedly, some of these were delivered back to Iraq before the PGW-II, in 1990, and the rest in 1992, when they were brought to Batajnica, and from there loaded - together with some radars refurbished at Kosmos (a refurbishing works in Banja Luka, the second-largest Bosnian-Serb city) - onboard a Russian An-124 transport, which flew them to Iraq. Now, it soon became clear that the cooperation between "Orao" and the Iraqis had continued until recently.

Between 11 and 13 October 2003, the UN forces in Bosnia conducted an unannounced inspection of the Orao factory in Bijeljina, and there documents were secured confirming that the company was involved – via the main Yugoslav arms exporter, the Jugoimport (the full name of this state-owned enterprise is actually: Jugoimport SDPR Federal Directorate for Trade in Special Purpose Products) – in illegal export of weapons components to Iraq since at least 2000. The secured documents revealed multiple shipments of tools and materials for the maintenance and repair of Tumanskiy R-13-200 and R-25 engines, as used on MiG-21 fighters of the IrAF, as well as the complete RD-33 engines, and that a number of technicians from Orao were sent to Iraq to help maintain Iraqi aircraft. As a matter of fact, the latest of these documents – revealing the tasking of five Serbian technicians to remain in Iraq and to remove all the traces (like Serbian manuals, tools and equipment, factory plates and construction numbers) of Orao’s work and involvement there – was dated with 25 September 2002, meaning, that even after the US warning on the BiH authorities, and in advance of the renewal of UN inspections in Iraq, the Serbs did their best in order to conceal their involvement in Iraq.

Furthermore, one of the documents revealed that in February 2000 the Serbian and Iraqi governments (the last represented by the company al-Fat'h) signed a contract with the Iraqis, assigning the Yugoslavs to develop a medium- to long-range cruise missile, called CM.1500. The Yugoslavs were to work in five small companies, called Infinity, Brunner, GVS, Temex and Interdeal, associated with or controlled by active or retired Yugoslav Army officers. Brunner is known to have built a rocket propellant plant in Libya, and helped the Libyans to obtain US software needed for missile guidance. This company was contracted to develop a turbojet engine – called MM.400 – to power missiles.

The documents further detailed that the Yugoslav scientists had made repeated visits to Iraq since early 2001 to complete work on the project, as well as that the directors of all the mentioned companies, as well as the representatives of the Yugoslav government had met with representatives of an Iraqi trading company, called al-Rawa.

Another memorandum, found in the suitcase of Goran Santrac, a Lt. Col. in the Bosnian Serb Army and marketing director of Orao, signed by Colonel Krsto Grujovic, the director of Jugoimport's office in Baghdad, and addressed to the Iraqi Defence Ministry, concluded:

- That the Yugoimport was unable to make the full delivery of the last shipment, on 30 June 2002, because of the danger that the deal would become known outside. It said, "Yugoimport proposes, therefore, to reduce its technical support in Iraqi plants, until the deliveries start again."

- That the rest of the shipment would now be in the port of Bar, waiting for permission from Syria to be shipped to Tartus.

- The Serbs would dismantle their equipment within ten days, after which the Iraqis would be responsible for hiding the materials. Once the inspection was over, the Yugoimport personnel would see to it that the weaponry - Soviet-built, Yugoslav-serviced MiG fighter aircraft - were reassembled, readied for use within 10 days.

- Precisely, it was said that Yugoimport would pull back its technical experts from Baghdad when the deal is completed, and that Iraqis must remove all designations "Orao" from all equipment maintenance documents. The Iraqis were asked to remove all instructions in Serbo-Croat from the plants and return them to Yugoimport's experts. They were also asked to remove all Yugoimport work orders, and eliminate the designation "Orao" from all documents, catalogues, and lab equipment.

- In case of a UN inspection, Yugoimport advises that its employees will dismantle the equipment within 10 days, and instructs the Iraqis to hide them. Yugoimport would set up the equipment again within 10 days.

- Iraqis were told to prevent the inspectors from discovering that the reserve parts were procured from Orao, by designing a new seal similar to the Orao seal, and impress it over the original. They also suggest moving Yugoimport's experts from the military complexes to other locations.

The copies of this memorandum were supplied to Kostunjica, Djindjic, the foreign minister Goran Svilanovic, and Yugoslav PM Dragisa Pesic.

Eventually, the total value of the contracts signed between Orao, Yugoimport, al-Fat'h, and the al-Bashir Trading Co. (the latter based in Baghdad) was worth over \$8.5 million, and included provisions for the care and housing of Yugoslav specialists, payment schedules and mutual pledges of "business secrecy." The Serbs, however, failed to significantly boost the capability of the IrAF and the IrADF: they did increase the maintainability and serviceability of the remaining aircraft and SAMs, but they failed to even increase their survivability, let alone their lethality.

Consequently, the Iraqis then contracted a Chinese company to supply a number of SAM site decoys. These decoys started arriving in mid-2002 and proved fairly effective – especially as they cost \$25 on average, and indeed managed to drag the enemy fire away from real sites.

### **Dead or Alive?**

The Chinese decoys eventually failed to decrease the pressure exercised upon the IrAF and the IrADF from either - the enemy or the own regime. Quite on the contrary, soon after the 9/11 terrorist attacks in the USA, it was clear to many Iraqis that the United States would attack.

Without surprise, new coups against the regime were planned and elements of the IrAF and the IrADF were again involved. Already in October 2001 Saddam Hussein accused 23 men – including two retired Army officers, two unknown IrAF officers, and several members of the Ba’th Party – of setting up a coup attempt. All were executed.

Certainly, the dictator still had good reasons to suspect elements within the IrAF of disloyalty. Barely a year later, on 30 September 2002, a MiG-23 that took off from the al-Bakir AB (better known as "Balad SE" in the West), to take part in a bombing exercise, suddenly turned away towards the Tharthar lake, where Saddam and his entourage were staying in the luxurious al-Tharthar Palace. Approaching the area undisturbed the pilot was shot down by the palace guards, using a MANPAD, before he could hit the palace building. The pilot ejected and the plane crashed with its bombs still strapped to their racks. He was arrested and brought to Saddam Hussein, who interrogated him personally for some time. Meanwhile, several Mi-25 and BO.105 helicopters of the IrAAC brought in additional bodyguards to the area and then attacked and strafed the local fishermen on the Tharthar Lake – before many of them were arrested as well. Finally, the al-Bakir AB was closed and all the commanding officers arrested as well: Saddam interrogated the injured MiG-23 pilot in front of them, and then burned him to death. But this was not the end of Saddam's wrath. All the commanding officers at al-Bakir were eventually executed.

While it is impossible to describe the human tragedy of many similar cases, they all vividly illustrate the relationship between the Iraqi dictator and the former Iraqi Air Force, and also explain his security paranoia: if Saddam wanted to survive, he had to keep the IrAF on a very short leash. Clearly, this could not help improve the war-fighting capabilities of the Iraqi air defences at all.

And still, in December 2002 the IrAF and the IrADF once again increased their activities. Especially the MiG-23 and MiG-25, as well as Mirage F.1EQ interceptors became active – frequently intercepting US reconnaissance UAVs operating over central Iraq. Their probably most spectacular success came on 23 December 2003, when they intercepted a USAF RQ-1B Predator UAV – obviously sent in over Iraq in order to challenge Iraqi fighters into an air-to-air combat, while armed with two FIM-92A Stinger missiles!

Initially, the slow drone was intercepted by two IrADF MiG-23MLs. But apparently, they failed to achieve a lock-on, so a MiG-25PD of the 1st Fighter-Interceptor Squadron was scrambled. Approaching the Predator the Iraqi pilot finally achieved a lock-on and launched a single missile. The USAF operators noticed the launch, and fired one of the Stingers in return. Before the US missile could hit home, however, the Iraqi scored a hit, blotting the slow Predator out of the skies. Definitely an achievement, given that the average speed of the RQ-1B is hardly more than 150km/h!

### **The Last Days and Weeks**

At the time Iraq still had a sizeable number of fighter aircraft: even in February 2003 the IrAF boasted 71 intact aircraft and helicopters; the IrAAC had 37 helicopters; and the IrADF had a total of some 4,000 anti-aircraft guns, 600 SAM launchers and five interceptor squadrons

(including two units with approximately F-7Bs each, one with a mix of eight Mirage F.1EQs and nine MiG-29 fighters, and one with eleven MiG-25 interceptors). As illustrated by the successful interception of the USAF RQ-1B Predator armed UAV by two MiG-23s and a MiG-25, in December 2002, at least the interceptors could be expected to put up some degree of resistance against the Coalition air forces. In fact, as late as mid-February both the IrAF and the IrADF were noticed while involved in intensive training. Even such aircraft like F-7Bs and Su-22s were observed by US and British reconnaissance aircraft while conducting dissimilar air-combat exercises or striking targets on bomb-ranges on a daily basis.

Then came the ultimate order. In mid-March the IrAF and the IrADF were ordered to disassemble all of their aircraft. The order was originally “nothing special:” the officers and personnel were used to such orders and were trained so often that the technicians became highly proficient in disassembling their aircraft, and hiding them in the countryside, on farms, or in urban areas. They would remove the wings, tow the aircraft to the hiding site, and then cover them with camouflage netting.

But, the Iraqi dictator obviously had a different idea in mind, about the eventual use of his air force: not only subsequently no order came to the IrAF and the IrADF to reassemble their aircraft, but in early March most of the commanders were ordered to even bury the aircraft. During the nights, fighter-planes worth millions of dollars were brought out of their underground shelters and buried in the sand several kilometres outside the bases or were carefully hidden in olive grows, or in nearby villages and towns. In one case a Su-22 was found – and later destroyed by USAF F-16s – in a middle of a hamlet more than dozen of kilometres away from the nearest airfield! Dozens of other aircraft were dispersed to different airfields around the country, especially to remote aircraft in the west of the country, like H-1 New, H-2, and the H-3 complex (consisting of three air bases and one highway strip). Once there, the aircraft were mostly abandoned – both by the Coalition air, but also by the IrAF: both sides only monitored them. The last flight of an IrAF aircraft was recorded on 19 March 2003: a Mirage F.1EQ was scrambled from an unknown air base and then seen returning for a safe landing – shortly later.

Essentially, the Saddam’s regime grounded the entire Iraqi air force.

### **Final Preparations**

On 16 March Saddam gathered 150 of his top commanders in an underground command centre outside Baghdad. The officers demonstrated their readiness to fight for the defence of Iraq. But, afraid of revealing the poor condition of their units, personnel and equipment, they actually lied. They knew they had no serious chance against the US forces, and they would lose the war, but they were also afraid of telling the dictator the truth. Nevertheless, all three Iraqi flying services were put under the personal command of Saddam Hussein, with his son Uday – formerly himself a pilot “qualified” on BO.105 and Mi-25 helicopters – being appointed second in command. Saddam then divided Iraq into four defence zones:

- Northern Zone, under command of Izzat Ibrahim;

- Southern Zone, under command of Ali Hassan al-Majeed (“the Chemical Ali,” or “Ali the Chemist”);
- Eastern Zone, under command of Mizban Khedhir Hadi; and
- Central Zone, under Qusay Saddam Hussein.

These zones were largely based on the poor remnants of what were previously Air Defence Sectors of the former Integrated Air Defence System Kari. Inside of them the ground and air forces were to operate in integrated manner. Eventually, just like so often before, nothing came of this planning, and the whole system proved completely useless in defending Saddam's regime.

### **No Orders to Fight**

When the US/British attack finally came – the final operations against the IrAF and the IrADF started already on 19 March – the Iraqi air defence was not only severely hit by US and British from the air, but also practically sabotaged from within. Both, its commander, Gen. Yaseen ad-Douri, and his deputy, Maj.Gen. Khaled Ahmad Othman, had ordered the whole early warning radar net to shut down just in the moments the US and British aircraft were approaching their targets. Within minutes, the whole Iraqi air defence system collapsed into a complete chaos. Worse yet – at least for Saddam's regime – the commander of the Republican Guards units stationed in the Baghdad area and the air defences of the Iraqi capital, Gen. Maher Safwan al-Tikriti, turned his back to Saddam and ordered most of the subordinated IrADF units to cease their operations: in fact, he reportedly ordered a better part of the Iraqi radar net to stand down in order to demonstrate his power to the Americans. There are also reports that al-Tikriti even attempted to capture Saddam by using his own bodyguard unit as the dictator was leaving one of secure sites in Baghdad.

Being controlled by a strongly centralized command authority, but without clear orders to fight back, and with security officers left unable to communicate with each other without permission from the top of regime, the IrAF, IrADF, and the IrAAC eventually took no part in the fighting – except in few cases of self-defence against US and British air strikes.

Correspondingly, during the war only few of the Iraqi airfields were subjected to air strikes – even if those flown were heavy and exceptionally precise, executed by GPS-guided ammunition, especially JDAMs. Only few of the runways and intersections were cut by hits, and many large hangar structures left intact, the Coalition planners leaving them purposefully intact. Especially airfields known in the West as Tallil, al-Kut, al-Taqaddum, al-Asad and Qayyarah West were spared of any serious damage. The Iraqis realized already before that it was futile to hide aircraft on them and thus resorted to dispersal, while the US officers wanted these bases to be captured intact so they could use them subsequently.

Nevertheless, between 19 March and 1 April the USN F-14s and USAF F-16s destroyed a MiG parked outside a HAS at Tammuz AB (al-Taqaddum), as well as a MiG-21 and MiG-23 found

directly outside the airfield. Besides, several Su-20s and Su-22s were found and destroyed by concrete-filled LGBs in the villages north of this air base.



Some of IrAF aircraft - like this Su-20M - were found left in open, but already "cannibalized" for spares.

By 7 April, Saddam and his sons were limited to commanding the whole country and the rest of the military from a convoy of SUVs moving around Baghdad. Iraqi military commanders were thus paralyzed: initiative was not encouraged, but forbidden, and as all the commands were only to respond to orders from the top of regime nobody attempted anything. Widespread incompetence and poor preparation in higher places became obvious, and the dictator and his son then increased the chaos by either issuing none at all or – at best – erratic and senseless orders. Additional problem was that the units on the level below brigade were not permitted to communicate with each other: the communication on upper levels hardly existed, foremost because of poor communications system. Only select units were equipped with reliable phones and radios, so that the rest of the military was left in confusion and darkness. Some commanders finally started sending couriers from one base to the other to scavenge what information they could get: this proved to be of no help at all.

While leaving Baghdad, Saddam apparently ordered the killing of the IrAF Intelligence Service commander, Gen. Hussein Rashid Zibin. While some sources indicate that Zibin is currently hiding in Syria, it is certain that he is missing ever since.

Other officers – like Gen. Kareem Sa'doun (CO Rashid AB, in southern Baghdad), Brigadier-General Baha Ali Nasser (CO al-Taqaddum AB), Col. Djar Abed (Wing Commander at the

Rashid AB), Col. Abdul Razzaq (commander of the Baghdad IAP), were sitting in their command posts and waiting: waiting for orders or the upcoming events. No orders came. While some of the personnel were ready to fight, others were not: eventually, Razzaq's men decided to leave rather than to defend the Baghdad IAP against advancing US tanks. The airfield was overrun by US troops, and when the units of the Special Republican Guards and the Fedayeen Saddam counterattacked, they were cut to pieces by vastly superior US firepower.

While some of the pilots and officers waited desperately in their bases, others decided to leave the service: during the first two weeks of the US-British invasion of Iraq up to 50 Iraqi pilots were either captured or appeared to contact the US and British forces, most of them showing great preparedness to cooperate. One of them is Col. Gaza al-Naseve, who was apparently in contact with US and British forces already since before the war, and ever since working with the Iraqi Governing Council.

On 7 April, a terrified courier arrived at the HQs of the IrAF and the IrADF, reporting that the US tanks were overrunning the palace complex in the Baghdad downtown. This caused a complete shock: cut off from any reports from the front, the officers had believed that the American advance on the capital was stopped. Instead, there were suddenly US tanks in the middle of Baghdad. In the following days the IrAF and the IrADC fell apart: the Commander of the IrAF, former Hunter, MiG-17 and MiG-21 pilot from the 1960s and 1970s, and commander of the Kirkuk's al-Hurriyah AB during the war with Iran, in the 1980s, Gen. Hamid Raja' Salah al-Tikriti, was captured by US troops and is still in prison.

What happened to the former Commander of the IrADF, Gen. Shaheen Yasseen Mohammad remains unknown, but the last commander of this organization, Gen. Yaseen ad-Douri was killed, and his deputy, Maj. Gen. Khaled Ahmad Othman is missing. Othman is believed to be in the USA now. The other deputy commander of the IrADF, Gen. Muzaim Sa'b al-Hessan al-Tikriti, is imprisoned in Iraq, together with Gen. Sultan Hashem Ahmad al-Jaburri al-Tai. Gen. Saddam Awad Hassan, IrADF officer in charge of modernizing the Iraqi radar guided guns is missing and presumed dead.

Chief of Operations IrAF, Gen. Ibrahim Ali Youssef, was captured and should be imprisoned: some sources indicate, however, that he is meanwhile working with US forces and the current Iraqi Governing Council. His deputy, Assistant Chief of Operations IrAF, Gen. Sa'd Ahmad Naji, is missing and presumed to be in Syria.

Commander of the IrAF Training Command, Gen. Sabah Mutlik, was initially captured by US forces, but is now free. His deputy, Gen. Nouri Rubaie, is missing.

The former commander of the Iraqi Republican Guards and officer responsible for air defence of Baghdad, Gen. Mahar Safwan al-Tikriti, is missing and believed in the US or the UK. It is said that he collected a price of \$2.5 million in gold for rendering most of his units inoperational early during the war.

Other officers of lower ranks came away largely unscratched: Col. Raed Nouri Yoqoub, a commander of a local IrADF unit, and a highly qualified radar operator and technician, left the military at the end of the war and is now living a civilian life in Iraq. Lt. Col. Ala'edin Ammari,

former IrAF pilot, has also left the military at the end of the war and is living in Baghdad, like many other former IrAF pilots.

### **Remnants of Iraqi Superbases**

During the 1970s and 1980s some most impressive airfields were built in Iraq, mainly by British and Yugoslavs, several of them becoming known as "Superbases." This name was derived from a project indeed called "Super-Base," launched by Iraq in 1975, in response to the experiences from Arab-Israeli wars in 1967 and 1973. Originally, 13 airfields were re-built by British contractors, and in all of them also a number of hardened aircraft shelters were built. Subsequently companies from Yugoslavia - previously engaged in building bridges in Iraq - became involved. Due to their specific construction – which included taxi-ways leading right out of hardened aircraft-shelters and laid diagonally to the runways – these bases became known as "Trapezoids" or "Yugos."

In addition to 13 re-built airfields during the mid-1980s the Yugoslavs also built five entirely new facilities, code-named 202A (H-1 New AB), 202B, 202C, 202D, and 202E (Tallil AB). The code-names for Samarah East, Balad, and al-Bakr remain unknown, but it is known that each covered on average an area of 21.5 square miles (40 square kilometres), and had one or two concrete runways, usually at least 2,800m long and 45m wide.



Above and below: the Ali Ibn Abi Talib AB (better known in the West as "Tallil"), had a sizeable dump, with a large number of highly interesting "exponates". This airfield was captured early during the war in 2003, and US troops found there mainly wreckage of IrAF aircraft destroyed already in 1991, including this and three other MiG-23BNs. (Jeff Wilkinson)





The facilities on the super-bases were divided into two categories: "surface" and "underground." The "surface" facilities were actually the "soft" ones, and included maintenance hangars of metal construction, and HAS of concrete construction. In total, the Yugoslavs built no less than 200 HAS on different airfields in Iraq during the 1980s. The protection of each HAS consisted of one-metre-thick concrete shells, reinforced by 30cm-thick steel plates. There was only one entrance and it was covered by sliding doors, made of 50cm-thick steel armoured plate and concrete. The HAS' were usually built in small groups - seldom more than five, with each group sharing the same water and power supply. Besides having its own backup gasoline-powered electrical generator, each HAS was equipped with a semi-automatic aircraft-refuelling system.

In addition to "surface" HAS, the Yugoslavs additionally built 24 "semi-surface" HAS at H-1 New, and 12 at H-3 South West, positioned near the end of the runways, with entrance and exit on each side.

The third type of structures at these "Super-Bases" were underground facilities that could shelter between four and ten aircraft on average. In order to build these the Yugoslavs used equipment and construction techniques identical to that use in underground oil-storage depots, additionally concealing the extension and the true purpose of the whole project. The underground facilities were all hardened to withstand a direct hit by a tactical nuclear bomb, buried up to 50 metres bellow the ground and consisted of the main aircraft "hangar" (consisting of two floors in several cases, connected by 40-tonne hydraulic lifts), connected with operations, maintenance, and logistical facilities via a net of underground corridors.

Former Soviet MiG-29 flight instructor in Iraq, Lt. Col. Sergey Bezlyudny, later said in an interview about the Iraqi super bases:

*- I should admit that this air base literally overwhelmed me. I had never seen anything like it before, although while serving in the [Soviet] Union I had been in scores of garrisons. The equipment, shelters, and blast walls - everything was the last word in equipment and of outstanding quality. As far as I could see, it would have been virtually impossible to destroy this [hardened aircraft] shelter with tactical weapons, even very precise ones, and it could probably be done only by using nuclear weapons.*

The total cost of building these five "Super-Bases" was \$4.3 billion, and the project was completed in 1987.

Despite their size – or exactly because of it – most of these airfields were barely defended in 2003. Many actually lacked any defences: several former Iraqi officers complained they were not given even MANPADS, nothing else but AK-47 Kalashnikovs. Interestingly, on some of these “defenceless” bases, the aircraft were neither disassembled nor buried, despite a strict order from the regime. For example, at al-Sahra, the main base of the IrAF Air Academy, the US troops found 30 dispersed L-39 Aero Albatros, few MiG-15UTIs, more than 40 Zlins, and at least 50 other “light trainers.” A small number of Jet Provost airframes – used as ground instruction airframes – were also seen, but their condition not confirmed. In addition to these aircraft also five destroyed Su-20/-22s and two MiG-25s were found at the site.



The US troops in Iraq found also a sizeable number of lighter- and training aircraft, including this MiG-15UTI in quite good condition. (US DoD)

At the nearby al-Fat'h AB, approximately a dozen Embraer EMB.312 Tucanos were found, and at K-2 AB also were a number of Pilatus PC-7s, albeit, all with their wings removed.

Interestingly, the US troops found traces of substantial reconstruction work going on HAS and other buildings of the Qadissiya AB (better known as "al-Assad"). On this airfield also a MiG-21 or F-7B, a MiG-25, and a MiG-29 were confirmed found dispersed intact, plus a single destroyed MiG-25. A “substantial number” of additional MiG-21s and/or F-7Bs were reported as being sighted there, but there is no confirmation so far.



Surprisingly enough, several IrAF MiG-21PFMs were also found in reasonably good condition. Only one batch of these aircraft was supplied to

Iraq, between 1966 and 1967, and it is definitely interesting to see that some of these continued to soldier until 2003! (US DoD)

No less than 51 different IrAF fighters were found hidden under camouflage nets near Tammuz AB (al-Taqaddum), in western central Iraq by Australian SAS. Although still only scant details are known about these aircraft, US and British military sources reported that these 51 aircraft included three MiG-25s (including a single MiG-25PU two-seater), a Su-25K and a Su-7U, a MiG-29, several F-7Bs and Su-22UM-3Ks, as well as one Ilushin Il-76 transport. On the same airfield the US forces also found the hulks of five remaining Iraqi Tupolev Tu-22B “Blinder” supersonic bombers. All were still sitting in their revetments where they were hit and destroyed by Coalition air attacks in 1991. Near them the wreckage of the the Adnan-1 AEW aircraft, 3rd example was found, also destroyed by air attacks in 1991, as well as the wreck of the last Iraqi Tu-16 or H-6D bomber, which survived 1991, and was made operational in 2000 again: this old bomber was observed in flight – together with the sole surviving Iraqi Su-24MK – as late as February 2003, but was then obviously hit by US air strikes. The last Iraqi Su-24MK was apparently captured intact, and there are rumours that it was meanwhile flown to the USA as well. Another rarity reported to have survived the war at Tammuz were several Ilyushin Il-28 “Beagle” bombers, including one Il-28U training aircraft. Supplied to the IrAF in 1960, this aircraft must have certainly seen quite some service history: they were used during the extensive campaigns against the Kurds, in the 1960s, 1970s, and 1980s, as well as early during the war against Iran, in the 1980s.



The huge Tammuz AB (better known as "al-Taqaddum" in the West) was found bristling with older IrAF aircraft, including a whole row of Il-28 bombers (US DoD)

Not far from Tammuz is the old RAF base Habbaniyah. Built in the 1930s by the British, this airfield became the main IrAF base during the 1960s, harbouring two squadrons of Hunters, and then also the Iraqi Tu-16 fleet. Repeatedly hit by the Iranian Air Force in September and October 1980, it was completely rebuilt in the subsequent years, but then excessively damaged during the war in 1991. Apparently, Habbaniyah was never repaired: eyewitnesses reported that the runways were still in derelict condition and much of the infrastructure damaged as late as mid-



1990s, and in 1996 there were also reports that Saddam ordered the closure of this airfield after repeated unrests within its personnel. Still, the US troops found no less than 25 MiG-21 and F-7B as well as two semi-buried Su-22M-4Ks there: all the aircraft – except a single MiG-21MF and the two Sukhois – were in a derelict condition and with their tails removed.



In some cases the Iraqis literally buried their aircraft in a very crude manner: in no way could anybody expect this poor Su-22 to survive a threatment of this kind!. (US DoD)

Attempts by the authors and several local friends to visit one of these two bases and at least photograph the wreckage there were so far prevented by the local authorities. It is significant to mention here, that this was especially frustrating for Iraqis: the areas near Habbaniyah and al-Taqaddum were off-limit for non-Ba'th Party members already since the 1970s. They could not visit even the holiday resort by the Lake Habbaniyah. Now the new authorities – out of security concerns – do not permit any movements of civilians from the outside into this area either.

Very little is known about the condition of the airfields in western Iraq, and only after the USAF released a gun-camera video taken by an AC-130 during an assault against H-2 AB around 31 March 2003, it became known that a – probably derelict – MiG-15, a Su-7 and a Hunter acting as decoys were destroyed on the ground there. The airfield had otherwise its runways blocked by trucks and concrete pylons and was – just like the H-3/al-Walid AB, some 150km to its west – supposedly captured by US special forces early during the war. The US Central Command (CENTCOM) was obviously not especially interested in attacking and destroying Iraqi airfields, and the few reports released about attacks upon these were mainly showing strikes on obsolete and inoperational aircraft, or secondary facilities.



Most of IrAF aircraft attacked by US and British fighters during the Operation Iraqi Freedom were either derelict wrecks, used as decoys, or true decoys, placed by Iraqis. Apparently due to agreements with leading Iraqi officers most of IrAF aircraft that could be found exposed were left intact. This is a still from a video showing an attack by USAF AC-130 gunship against H-3/al-Wallid AB, in western Iraq, in March 2003. (US DoD)

The airfields closer to Baghdad had not much more to show. Only four transports, reportedly An-24s and/or An-26s, were found even at such a giant installation as al-Bakir AB (Balad SE) – previously the main base for two IrAF units (No. 118 and 119 Sqns) equipped with Su-25K/UBKs. Instead, several Su-25s were found at Tammuz.



This Su-25K also had to first be unearthed for inspection by US troops. Many observers are amazed at the fact that Iraqis buried even those aircraft that could have been at least of limited effect in combat against the US-British invasion. (US DoD)

At al-Rashid AB, an airfield in southern Baghdad that was not operational since mid-1980s, only remains of several Mi-8 Hips (some rotor-less), five or six Mi-6 Hooks (most derelict and only a tail of one), and several derelict BO.105s and Bell 214STs were found.

Nevertheless, the US forces were swift to recover a number of ex-Iraq aircraft and transport them away. Within only a week after the capture of Baghdad, no less than six MiG-25s, two MiG-21s or F-7Bs, two Mirage F.1EQs, and two BO.105 helicopters were flown out to the US, together with huge amount of Russian and Western weapons and gear captured in Iraq.

The remaining aircraft of the former IrAF and the IrADF had a much bleaker future: as first several bases were looted, and many pieces from different aircraft removed. It is logical to assume that among the so-called “looters” were some Iranian or Syrian agents on a “shopping spree,” while other parts were removed by the US military. What usually disappeared as first were radars and items from the avionics bays and cockpits. Subsequently, most of the airframes and different other components – including wings, engines etc. – were piled on special dumps, and then everything was sold for scrap – at prices up to \$0.25 per kilogram. While this theoretically enabled somebody to get a whole – even if only partially intact – MiG-25 or MiG-29 at around \$4,000, there was no chance: the scrap-handlers melted most of the airframe

structure of whatever they could get their hands on into aluminium ingots. By autumn 2004 only some 20-25 aircraft and helicopter wrecks were left scattered around many Iraqi airfields. It can therefore be said that this destruction of the Iraqi Air Force was probably one of the most complete such actions in the history of military aviation – at least when it comes down to equipment.

### **Post Scriptum**

Despite the complete destruction of the IrAF, within the US military there were solid plans for the organization of a new, “Free” Iraqi Air Force, already since the late 2002. While the new IrAF meanwhile received a number of transport aircraft and helicopters, in the future it should become a defensive arm and eventually have a main combat strength of between three and four squadrons with a total of between 36 and 48 F-16A/B fighters, armed with AIM-9 Sidewinder and AIM-7 Sparrow missiles only. One of the units is to become an OCU, equipped with eight F-16Bs and four F-16As.

The USAF has enough surplus F-16s at hand to meet the eventual Iraqi needs within a very short period of time, but it is doubtful if the new IrAF is to be eventually built to such strength and get so many such aircraft within the next three or four years. Namely, not only would the USA have to train their new technical personnel and pilots, but a new democratic Iraqi government would have to be installed, and prove its ability to govern and control the country as well as its new armed forces. It would also finally have to be able to officially order – and pay – for these aircraft, as well as to accept the condition that the new Iraqi military would remain limited in size for at least the following ten years.

The last would not only be in the US, Israeli, or British interest, but also ascertain that at least the people of several neighbouring countries - foremost Iran, Kuwait, but also Turkey and Saudi Arabia – are going to have a better sleep at night.

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### **Nigh Harvest: Iranian Fighter and two Helicopters found in Iraq**

In April 2003, while underway in southern Iraq, at the dump near the Tallil AB, south of the City of Nasseriyah, the US troops found a large junkyard of derelict Iraqi aircraft. Aside from a number of MiG-23BNs and MiG-23UBs, as well as two or three Mi-4s, one or two Mi-8s, at least a single Mi-4, and some other aircraft and helicopters, to their surprise the US soldiers found also a wreckage of an McDonnell Douglas F-4E Phantom, still showing the markings of the Islamic Republic of Iran Air Force (IRIAF). There is much guessing about how this aircraft ended in that place.

The Phantom II in question was one of two F-4Es flown by defecting Iranian pilots to Iraq, in late August/early September 1986. These defections were organized in the frame of a joint FTD/CIA operation (FTD = Foreign Technology Division of the USAF, at the times operating under the USAF Systems Command), called "Night Harvest."



Night Harvest was not limited to Iran, but in this case it resulted in deliveries of not only Iranian Phantoms but also a single F-14A (which in turn was one of the reasons for rumours flying around about an Iranian Tomcat being delivered to the USSR). The purpose of the operation in Iran was to find out how were the Iranians able to keep a large number of their F-4s and F-14s operational during the war with Iraq.

While another Phantom was taken over by FTD-operatives and then flown by US pilots out to Saudi Arabia, this F-4E was at the time found by the American crew in such a poor condition (despite being flown by the IRIAF in combat only a day earlier!) that the pilot refused to fly it out. Consequently, the plane was stripped down of all its sensitive equipment and left behind in Iraq: obviously, while some efforts were undertaken to destroy the most sensitive parts of the aircraft. Although the poor aircraft was subsequently hit during US and British attacks against Tallil, in 1991, enough of the wreckage and some of the markings survived, enabling identification. The word is about the F-4E with IRIAF serial 3-6552, which indicates that it was one of the aircraft belonging to the second batch of F-4Es supplied to Iran, in 1973.



Sad remnants of the former IRIAF F-4E 3-6552, as found by US troops at "Tallil" AB. (Jeff Wilkinson)



At al-Taji AB, north of Baghdad, the US troops found also two Boeing/Elicopteri-Meridionali CH-47C Chinook transport helicopters of the Iranian Air Force. Most of the foreigners and locals who saw them could not contemplate how it came that Iraq had two such helicopters, even if few US Army troops came to the correct conclusion that these were former Iranian aircraft, captured during the war in the 1980s.

Indeed, both of the Chinooks (one example was serialled “5-4089”) were former mounts of the Islamic Republic of Iran Army Aviation (IRIAA): one was captured in late November 1981 near Ammarah, after being flown to Iraq by defecting IRIAA officers, who took their families with them.



Former Iranian Army Aviation CH-47C "5-4090" (manufactured by Elicopteri Meridionali, in Italy), as found at al-Taji AB, in central Iraq, in 2003. (via chinook-helicopter.com)

The other was captured on 15 October 1982, after running out of fuel and landing north-west of Mandaly, while attempting to recover an Iranian recon unit from the area. The crew and the passengers were recovered by another IRIAA helicopter operating in the same area, but they lacked means and time to destroy the helicopter as two IrAAC Mi-25s were pursuing them.

The Iraqis made use of both helicopters, flying them in public on a number of occasions and then putting them on public display: the Iraqi pilots that flew them report of having liked flying Chinooks very much.

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## Sources

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