August 2018 Issue 1

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TWT International c/o
TWT GmbH Trans World Technologies
www.twt-info.com
www.twt-international.com
contact@twt-international.com

TWT Gazette

The MIL Mi 8/17 Helicopter Dilemma

Why a good product nevertheless carries a lot of problems

The MIL Mi 8/17 Helicopter Family, with its long type history and the many different military and civilian model variants in operation, is generally accepted as one of the world's most successful helicopters of all times.



It's Soviet design, though of old age and not really beautiful, is still most effective and one of the best in the market.

Currently i.e. Mi 171 A1 type models with their up-to-date, international modifications provide globally still for best performance and rotary wing air mobility solutions.

Especially in challenging human resources, geographic and climatic environments the MIL Mi 8/17 helicopters are generally a performance class of its own providing best operational effects and results for end-users.

The coming next generation MIL Mi 171 A2 type combines best all of the designer's, manufacturer's and operator's lessons learned so far.

One could say an almost perfect product, if it were not for the

unfortunate MIL Mi 8/17 Industry set-up and situation suffering already too long time from greyand black market corruption.

Though still following very much a state controlled business model the formerly homogenous Soviet era MIL Mi 8/17 Industry today since the 1990's has become very much fragmented.

It is easy prey for unscrupulous business operators who need and wish to trade cheap in order to maximize their profits.

Refined MIL Mi 8/17 Industry interests, customer satisfaction and aviation safety are not really on their list except for protecting their own territory.

With the end of the Soviet Union comfortable orders and stable business for the MIL Mi 8/17 Industry have also vanished.

Today the MIL Mi 8/17 Industry basically consists of the MIL Moscow Helicopter Plant Design Bureau as principal design organization, developer and legal type certificate holder, the Ulan Ude Aviation Plant as only remaining final assembly serial manufacturer and the MIL Original Equipment (OEM) Manufacturer Approval Holder (PAH) Supply Chain, all located in the Russian Federation



Exception is the TV3-117 family engine's serial production incorporated at MOTOR SICH, located in Ukraine.

The transition from communist plan to free market economy for the MIL MI 8/17 Industry all these years has been similar to other such industries in Russia with actual little development and benefit for the core works and workforce behind the MIL Mi 8/17 Product.

It is true that better access to international markets could be developed globally which also over the past almost 30 years has definitely led to important design, technology and technical improvements.

Despite better marketing opportunities little however has been achieved in terms of smart consolidation, investment and innovation of the MIL Mi 8/17 industrial base.

Production compared to the industry's potential today is rather small, almost boutique like, with the producers and their work forces generally suffering and struggling for decent survival.

The 1990's presented business people once-in-a-lifetime chances to get any MIL Mi 8/17 helicopter at a bargain price and in not few cases the many surplus MIL Mi 8/17 state assets in the former Soviet Union and Eastern Europe were literally a "steal" for some privileged few.

Without having to invest much and without thinking for any need to recoup the pre-investments of the industry and state many newly established operators this way could enter the medium- to heavy-lift helicopter market with new low level prices then never before seen in the market.

Up to date few persons consider the necessary returns of investment to

MIL the Mi 8/17 Industry realistically. Most people and organizations are used that production comes from originally state invested assets including work forces which no longer are fairly represented in the calculation of any business model.

Similar helicopters of western production often with less performance are i.e. calculated at cost of around e.g. USD 15.000 to USD 50.000 per flight hour in order to reflect cost of investment into the product, industry organization, quality materials and fair labor conditions.

Too many MIL Mi 8/17 Operators on the other hand up-to-date still indulge in the luxury (or better rather folly) to offer charter prices still as low as e.g. USD 5.000.- per flight hour based on outworn or ill-maintained MIL Mi 8/17's which automatically should alarm anyone especially with concerns for flight safety.

As price always is a decisive argument to sell the MIL Mi 8/17 low cost charter offers therefore quickly found their way in the market and even until now have great impact in the international helicopter transport markets polluting quality prices.

Especially for i.e. the United **Nations** humanitarian aid various other international missions (unfortunately with this generally erroneous tender consideration that only the cheapest price offer could be best to allow contract award) the cheap MIL Mi 8/17 operational offers came in handy and then ready availability of large numbers of MIL Mi 8/17 Helicopters until today with decreasing technical conditions continue to be essential to cope with the ever growing international demand for helicopter air mobility.

This way the MIL Mi 8/17 has become also in the commercial area

a success story and the world's most utilized helicopter type for helicopter based transport missions.

The downside of such dumping price policies is however obvious:

It prohibits sound and safe calculation with enough revenues neither for operators, service providers nor the MIL MI 8/17 Industry behind the product.

Revenues are too small and when profits then are also still being misused, reserves for investment are not available with the effect, that ultimately necessary typical contingencies such as i.e. required maintenance, replacements, innovations, safety margins, troubleshooting etc. are not being effected as they must.

In the case of the MIL Mi 8/17 the in the meantime almost already traditional lack of quality calculation seems to be the main root of all existing negatives surrounding this helicopter type and pertains to all the different areas of the business.

Operators with tight budgets and /or earning not enough typically have little money to spend for reinvestment into the good upkeep, upgrade and/or replacement by new order of their MIL Mi 8/17 equipment with the MIL Mi 8/17 Industry.



At the same time, independent of being state or private operators, they mostly continue to squeeze their MIL Mi 8/17's for maximum profits which regularly leads to over-utilization (as seen the last years e.g.

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with US and NATO sponsored Afghanistan Air Force fleets) and to ever more cost cutting new benchmark efforts.

Increasing revenues for the original MIL Mi 8/17 Industry not for dividend payout but for investment into the basic organization and quality of the product while staying competitive in the market definitely is one, but not the most important part of the MIL Mi 8/17 Dilemma.

Critics considering this rather commonplace should better recognize it as simple truth and counteractions the only real way forward for the MIL Mi 8/17.

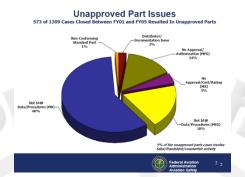
Sensible saving of unnecessary cost of course is generally nothing negative and something fully commendable.

In the case of many MIL Mi 8/17 Operators however such relative general accepted saving policy unfortunately too often is replaced by absolute saving actions combined with an unacceptable willingness to compromise on common sense in order to ensure highest personal profits from their dumping price and marketing policies.

Besides the historic opportunity for cheapest ever acquisition of MIL Mi 8/17 assets, operators and owners were quick to formulate demands strategies for cheaper and maintenance, repair and overhaul services based on still cheaper (many times MIL unapproved, low quality, non-conform) so-called Suspected Unapproved **Parts** (SUPs).

Unapproved Parts (UPs) or even worse intentionally falsified so-called BOGUS Parts always easily can then be utilized in an aircraft, when quality controls, because of corrupted ethics and management, are compromised or no longer exist.

SUPs are a very real and serious problem that threatens the supply chain of many aviation organizations and international aviation safety.



SUPs cover a multitude of aspects parts lacking proper such as documentation; parts of inferior material quality, counterfeit (BOGUS) parts; parts rejected during production because defects; improperly maintained parts, etc.

Constant training, vigilance, control and sanctions are paramount to reduce the number of unapproved parts being introduced into the aviation system and to ensure that the harm SUPs impose is addressed by each individual operator, customer, service organization and manufacturer.

The combination of surplus inventories, scrap and their demand early on had opened from the 1990's quickly venues for grey- and blackmarket actions which until today dirty MIL Mi 8/17 business and reputation in general despite the helicopter's principle good qualities.

Instead of going back to the MIL Mi 8/17 OEM / PAH Supply Chain, operators often looked and still look for vendors who typically promise them unusual high discounts compared to the official MIL Mi 8/17 Price Lists.

Though discounts themselves are not at all unusual, in the case of MIL

Mi 8/17s they often actually are unethical and something totally different:

Most MIL Mi 8/17 Vendors are not at all MIL OEM / PAH Supply Chain approved but have entered and are in the market too often to sell to operators and maintenance, repair and overhaul service stations non-approved and equally also bogus spare parts at dumping prices for highest possibly profits.

This way surrounding the MIL Mi 8/17 there are unfortunately some strong grey and black markets foremost in the area of product worldwide lifecycle sustainment support (WLSS). High risk exists that any MIL Mi 8/17 Helicopter easily can become corrupted and destroyed respectively actually worthless because of the supply with Suspected Unapproved Parts (SUPs) if and when there are not fully valid and true MIL Mi 8/17 Industry Approvals and Interstate Aviation Committee Certification.

Especially in the areas of line and base maintenance it happens too often that dumping priced spare parts as well as components are offered and accepted without that transaction participants apply or even wish to apply necessary controls to verify if this what they sell and buy is real quality or SUP/BOGUS.

The ultimate control and defense against such improper if not criminal actions should normally be the inspections on occasion of any required depot level general overhaul.

In the case of the MIL Mi 8/17 however grey- and back-market strategies in the meantime have found their way also into the manufacturer approved overhaul service center system.

Over time many ways have been developed around MIL Mi 8/17 SUP and BOGUS often with truly criminal energy applying corruption, falsification, contraband and other techniques in order to profit from MIL Mi 8/17 end-user requirements for cheap spare parts and MRO services supplies.

Never such actions had, have or shall have the official approval of the MIL Mi 8/17 Industry and/or relevant state authorities.

Compromise leading to corruption of the system might start relatively innocent.

An operator requires a certain spare part or component and decides not only to look for the certified approved factory new solution but to allow also offers for used condition supply in order to reduce investment exposure.

He probably wants only true quality supplies but the many vendors connected to the grey- and blackmarket networks, specialized i.e. to refurbish scrap or to procure other non-compliant parts, often re-tagged with false production and/or airworthiness documentation, effectively convince the operator to buy without him ever to understand the scam until later there are proper expert technical inspections.

Another typical scenario is the supply of factory new products out of uncontrolled / unauthorized production at MIL OEM / PAH Supply Chain works if and when grey- and black-market operators have managed to corrupt a specific OEM / PAH entity.

Sadly such really exists though the actual process and act of previous corruption is always more difficult to prove than SUP and BOGUS identification and confirmation on occasion of earnest inspection.

In the US civil aviation, largely due to the high profile nature of and the potential serious negative safety consequences from the Suspected Unapproved Part issues, the DOT Office of Inspector General and other law enforcement offices in recent years have been very aggressive pursuing criminal actions against corporations and individuals, with indictments and convictions following.

There as well as i.e. in the EU an airline or a repair station does not want to get the publicity deriving from any OIG public notice.

Knowledge of the intricate criteria, which differentiate between airworthy and illegal parts, is the best, proactive defense against such claims for any organization in the daily exercise to good keeping of the privileges of an FAA certificate (Parts 65, 121, 135, 145).

Can you determine the airworthiness of the parts? By looking at them, by examining their markings, by reviewing their paperwork, by comparing with their TC documents?





These are extraordinarily difficult questions; the answers are certainly not intuitive, cannot be discerned by only reading the FARs and can have bad outcomes and the bad exercise of airworthiness decisions can have criminal implications.

Besides the dumping price offers of flight operators, which do not correspond to the actual cost of new MIL Mi 8/17 investments, the corruption of the production unfortunately remains the other core element of MIL Mi 8/17 negatives existing on the side of the supply chain, WLSS and MRO industry.

Serious MIL MI 8/17 Industry Representatives understand very well the vicious circle, which exists.

Attentive, serious end-users and customers just the same should have common interest to fight SUPs and non-quality, non-warranted WLSS maintenance, repair and overhaul works.

particular the occurring In corruption of the MIL Mi 8/17 Industry own approved service center system is especially poor as it should otherwise be the strongest and really is the last defense against corruption of the MIL Mi 8/17 Product Quality in the sense of guaranteeing only reliable and international aviation safety standard technology and technical compliant aircrafts.

For those however who are honestly concerned there exists easy and effective MIL Mi 8/17 Industry Quality Control verification either via MIL or via authorities i.e. GosNII GA (State Research Institute of Civil Aviation) and since 2018 newly the Federal Service for Technical and Export Control of Russia (FSTEC).

As a matter of fact the MIL Mi 8/17 is such a proven product with good perspectives that today pricing for customers should no longer be the most decisive factor to ensure its market share though price in the end of the day needs to remain fairly competitive.

On the contrary, if the problem of MIL Mi 8/17 Dumping Price Problems (does not matter if in the area of new aircraft sales (where the problem is not so strong) or product support) is not positively resolved

eventually, then the future of the MIL Mi 8/17 Industry surely is questionable and the continued existence of the MIL Mi 8/17 Helicopter as viable quality product itself is threatened.

The MIL Mi 8/17 Industry and stakeholder authorities today have it in their hands to bury the MIL MI 8/17 or better to still resolve once and for all the existing MIL Mi 8/17 Dilemma.

Best would be for the MIL Mi 8/17 Industry to consolidate and start exercising again more control over its product by starting with aggressive combating corruption from grey- and black market operations.

The MIL Mi 8/17 Industry also urgently needs to better communicate with and educate customers as well as end-users about the benefits of better MIL Mi 8/17 Product Support quality standards.

They are core for maintaining residual investment values at a high level and for providing better utilization and profitability yields of the helicopter in line with keeping guaranteed international aviation safety requirements.

Benchmark for the future approach of the MIL Mi 8/17 Industry towards customers and operators should also be to advertise better ethical standards as defined in comparison by global market leaders such as i.e. Airbus and Boeing.

Operators, customers and partners whose business model is based on dumping prices and who are willing to corrupt or let corrupt quality standards for profits should be recognized for what they really are towards the MIL Mi 8/17 Industry:

They are threatening the MIL Mi 8/17 Quality Standards and risk the good MIL MI 8/17 Product Image.

Such persons should therefore no longer be welcome with the MIL Mi 8/17 Industry but clearly labeled "persona non grata" at least for minimum defined periods with need for fresh compliance audits prior to be able to rejoin the MIL MI 8/17 network.

End-users, customers and partners looking for product support services such as i.e. depot level overhaul demanding and ready to accept unrealistic dumping price offers also must be educated better by the MIL Mi 8/17 Industry.



When service providers in the MIL Mi 8/17 market today offer depot level general overhauls for dumping prices as low as i.e. USD 3 million then it should be clear right from the outset that this could never yield quality results and obviously must be considered completely unserious.

Such low price expectations and quotes however still exist in the market.

They stem from the 1990's original misconception that everything connected with MIL Mi 8/17s, does not matter if the helicopter itself, its parts and components or the services around it is concerned, should always continue to be the eternal "steal", only because in history the end of the Eastern Bloc provided for some people once good opportunity to pay no real, but symbolic or no

prices at all, when it came to acquire original state invested assets cheap.



Dumping price levels actually have so big impact that even otherwise serious state organizations take obvious ridiculous price and other historic questionable data as their formal basis and reference for their specifications, requests for budget as well as requests for proposals which then are openly published and tendered.

Wrong information and basic data this way gets into the public information pipeline and quickly is being considered to be correct because of its official pseudopedigree.

This way the vicious circle is fueled starting with wrong expectations and misinformation which lead to misinterpretations easily resulting in misconceptions and finally in bad (grey and black market) product support.

Presently a Mi 17 depot level general overhaul budget calculation meant for a fall 2018 public tender call e.g. in Bulgaria has been calculated at roughly USD 3,25 million per aircraft.

It is a good example how state authorities are mislead in their planning because of historic greyand black-market experience and data in the market and how they contribute (unintentionally) to the grey- and black market business models.

How the Bulgarian procurement system expects to get MIL Mi 8/17 Industry approved and Interstate Aviation Committee certified quality for such small expenditure investment is highly questionable and remains to be seen.

In any case SUP's and BOGUS must be expected and the MIL MI 8/17 Industry as well as civil and military aviation authorities in general should be alarmed from such events.

The US under its sponsorship and management of Afghanistan Air Force MIL Mi 8/17 fleets originally was more quality oriented in its requirements and at least for some years was engaged to seriously invest in sensible MIL Mi 8/17 WLSS including overhaul budgets.

The MIL Mi 8/17 Industry itself is at fault for not setting transparent list price standards.

A quality MIL Mi 8/17 Overhaul with full warranties realistically should cost a customer somewhere between USD 8 to 12 million if properly calculated considering MIL MI 8/17 pre- and re-investments.

Industry typical price discounts should be considered only in case of typical volume business or other strategic considerations.

US authorities repeatedly have stated i.e. via Army Contracting Command Redstone, that it is desired from USG, that contractors / vendors concerning US / NATO sponsored AAF MIL Mi 8/17 WLSS should i.e. "

... possess and maintain certification from Mil Moscow Helicopter Plant (MMHP) and the Interstate Aviation Committee (IAC) for civil and military variant aircraft, documented intergovernmental agreement with the Russian Federal Service for Technical Military Cooperation (FSTMC), documentation the company is approved to provide overhaul/repair/modification

of Mi-17-1V, Mi-8MTV-1, Mi-171 and /or Mi-17-V5 as well as the capability to enter into contracts with foreign military customers for military purpose overhaul and repair.

There should be existing contractual relationships with Rosoboronexport, or documentation from FSMTC indicating a contract with the United States Government (USG) or the Government of the Islamic Republic of Afghanistan (GIROA) in support of Afghanistan aircraft would allow for continued utilization of other existing Original Equipment Manufacturer reach back capability for spare parts, services, manuals, and engineering support ..."

Professional customers and endusers, i.e. the US / NATO et.al., today must always be wary and understand that a dumping price tag shall never buy them any true MIL Mi 8/17 Industry approved quality and warranties but surely brings only the risk of SUPs and liabilities because of connected risks such as i.e. potential breach of international aviation safety standards.

If operators, customers and partners wish to pursue such venues then the MIL Mi 8/17 Industry must be prepared for a course of decisive actions against such including actions to sanction end-users, customers and partners who threaten to corrupt and damage the MIL Mi 8/17 Product.

Part of the MIL Mi 8/17 Dilemma is of course also that its industry stakeholders currently neither have easily the organizational nor the financial resources allocations, which are necessary to turn the tide so to speak.

Their executives nevertheless must ask themselves the question in how far the MIL Mi 8/17 Industry shall remain part of the problem or in how far it can develop solutions necessary to reposition the MIL Mi 8/17 Industry anew productive and profitable.

Only serious productivity with stable order intake, production and innovation outlooks which are attractive and rewarding for endusers, customers, partners, shareholders and the workforce alike can assure also in the future any MIL Mi 8/17 Industry market position as long-term leading global helicopter manufacturer.

With many hundreds of Mi 8/17s in operation and use globally the MIL Mi 8/17 Industry still has a stable basis to bank on, to reorganize and to develop change from a weak to again a strong manufacturing business.



Reviving mass production is the only true perspective to guarantee competitive pricing combined with best quality for operators and customers.

Continuing to allow dumping prices and the grey- as well black market operators to rule the MIL Mi 8/17 Industry shall only guarantee its eventual destruction with no incomes, no returns of investments, no profits, no work, no innovations and in the end no more future for the people making and living from the MIL Mi 8/17 Industry.

It surely would mean mean also many unhappy customers and endusers which today happily own and operate MIL Mi 8/17s because of its proven workhorse qualities.

To rethink and resolve the MIL Mi 8/17 Dilemma therefore is "THE#1" task without which the MIL Mi 8/17 Product otherwise has no real good future prospective. *Dirk P. Schneider*