

Why the Su-35 not the Mig-29 M\M2?

By: Dino Ramsey, March 2014



There has been a lot of talk in the media and the press that the EAF (Egyptian Air Force) is in the final stages of finalizing a deal with the Russian military export company Rosoboronexport for a total of 24 Mig-29 M\M2 multi-role jet fighters. While the Mig-29 M\M2 is a good choice for a multi-role combat the jet, given the needs of the EAF, the Su-35 would have been a better choice and would have served the immediate and future needs of the EAF better than the Mig-29 M\M2. There are many reasons involved in the EAF's decision, mainly financial and political ones, yet there are many reasons why the Su-35, or any modern derivative of the Su-27 Flanker family was for sure the wiser choice. First let us look at the immediate and the future needs of the EAF and means of meeting those needs.

Lagging behind the IAF (Israeli Air Force)

The IAF doctrine in aerial combat is based on the 'Asymmetrical model' of aerial warfare, which makes the assumption that IAF will have a one-sided advantage in combat achieved by the possession of **Airborne Early Warning and Control (AEW&C)** and networking, which is uniformly assumed not to be a future capability operated by the EAF or any other potential opponents and that the opponent is assumed to always be dumb, and neither operate **AEW&C** and networking, nor be capable of understanding the situational picture, something that will always give the IAF an advantage over the EAF. While on paper, and just by examining raw numbers the IAF and the EAF seem to be closely matched as far as the numbers of aircrafts, a careful examination of the types of combat aircrafts, their equipment and capabilities reveal a distinct disadvantage for the EAF. I'm not going to go into a generalized comparison between the two air forces, instead I'm going to focus on the Air-Superiority fighter part. The EAF uses mainly the French **Mirage-2000** for this role, augmented by a mixture of heavily upgraded Chinese **J-7s**, which are a copy of the Soviet **Mig-21** and also upgraded **Mig-21s** of Soviet origin. The Mirage-2000 is a very capable dogfighter, compared to the F-15As and F-15Is of the IAF, experts agree that even with equally trained pilots, the F-15s have the edge over the Mirage-2000s, also the radar of the F-15I, the latest



version in the IAFs inventory is equipped with the **APG-70I** radar (variant of the APG-70 but with a slightly downgraded capability) which has a search (mapping) range of 300 km max and tracking range of a 195 km, while the Mirage-2000 BM in the EAF's inventory are equipped with the **Thomson-CSF RDI** radar with a search range of only a 100 km max and a tracking range of 70 km. And in general even the best radars in the EAF's inventory is not as powerful in range and over all capabilities of the APG-70I of the IAF. To simplify things, the combat aircraft that can detect other aircrafts first can get a lock-on first, shoot first and have the upper-hand, so a radar with a better range gives its operator a huge edge in air-combat situations and from above we can see how big an edge the IAF has in that field, not to mention other systems in their aircrafts that makes that edge bigger, systems that the USA, supplier of the most advanced aircraft in the EAF and the most numbered too, 240 F-16s of different blocks (ages and capabilities), refuses to supply to the EAF but supplies to the IAF. Also, if we look at the future plans of the IAF, they already signed a deal with **Lockheed Martin** of the USA for a special variant of the F-35 fifth-generation Stealth multi-role fighter called the F-35I (I for Israeli) which will incorporate locally made Israeli electronic warfare systems, such as sensors and countermeasures, and it will equipped with a latest technology in radars, **AESA** (active electronically scanned array). The IAF already signed a deal for 19 F-35Is with a future plan that calls for a total of 70 units, and even with all the short-comings of the F-35 compared to other modern 4++ and 5 generation combat aircrafts, still for how things stand as of right now, the F-35 will only work on widening the technical gap between the EAF and the IAF.



Other regional powers growing capabilities

Beside the IAF, being the traditional adversary of the EAF, other regional powers are spending never before seen sums of money on military procurement and their Air Forces are on-top of their shopping list, most notably the **RSAF (Royal Saudi Air Force)** and the **UAEAF (United Arab Emirates Air Force)**. The RSAF operates the very advanced and capable **F-15SA** (Similar to the F-15E) and the Eurofighter **Typhoon**. Both 4++ Generation multi-role combat jets with very advanced Radars and weaponry. Although those countries are strong allies of Egypt but the rapidly shifting political nature of the region may see that change quickly before the EAF can react. Also Iran is building-up its military might, although when it comes to air-power, not as fast as other branches, still, Iran is making steady steps and they, like the Arab Gulf States, do have the resources to buy modern combat jets and technology, and especially now that the sanctions that have been in place imposed by the west might be eased, or even lifted as a result of the warmer relations between Iran and the West we are all hearing about in the news now a days. EAF has to start a rapid modernization program to keep up.

Lagging behind in BVR and all-aspect AAM (Air to Air Missiles)

The EAF lacks a true **BVR (Beyond Visual Range)** capability. Although the EAF has the French **MICA** AAM (Air to Air Missile) for use on its **Mirage-2000**, it is the **MICA-IR** (Infrared) homing type, not the **MICA-ER** Active Radar Homing type with longer range (the RDI radar of the EAF's Migage-2000s probably doesn't support them). And although the EAF's F-16s can be fitted with the American **AIM-120 AMRAAM** (Advanced Medium-Range Air-to-Air Missile) and its latest variant the **AIM-120D** with an operational range > 180 km, the United States repeatedly refused to supply it to Egypt although it did so with the IAF, RSAF and the UAEAF. Again, the issue of operational range comes to play, just as in radars, the combat jet that can see its target first can shoot at it first, given that you have the weapon with the further reach to hit your opponent with, in both cases the EAF has a severe deficiency, and that is a handicap in air to air combat that needs to be addressed as soon as possible. The EAF depends on the shorter range **AIM-7 Sparrow** AAM as its furthest-reaching AAM for their **F-16s** till now. Israel

also has a long history of developing their own AAMs, the **Shafir** line of missiles, later renamed **Python** line of missiles. Shafir-2, considered by many experts to be one of the most successful and deadly missiles ever made, was introduced in 1971 and during the 1973 October (Yom Kippur War), the IAF launched 176 Shafir-2 missiles, destroying 89 enemy aircraft. Worthy to point out here is the latest in the **Shafir\Python** line, the **Python-5 AAM**. Currently the most capable AAM in Israel's inventory and one of the most advanced AAMs in the world. As a beyond-visual-range missile, it is capable of "lock-on after launch" (LOAL), and has all-aspect/all-direction (including rearward) attack ability, giving the IAF a massive advantage in Air-to-Air Combat (AAC) encounters. The EAF lacks any anything comparable or a true-long range and ultra-long-range AAMs necessary for modern AAC.



Limited ECM and ECCM capabilities

In modern military conflicts **ECM** (Electronic Counter-Measures) and **ECCM** (Electronic counter counter-measures) play an extremely important role and they can make all the difference in the outcome of a conflict as they have the means of completely blinding one side's defenses and rendering them useless, and we have seen this many times in modern conflicts. Very few information can be found on the EAF's ECM and ECCM in



open sources except what can be pieced together from bits of information on certain systems that the EAF has and their capabilities. However from what we know the EAF operates the **AN/ALQ-131** on their C-130 and F-16 Block 40/42, the **AN/ALQ-184** on their C-130 and F-16 Block 40/42 and the **AN/ALQ-187 V2** advanced jamming ECM pods (the most advanced the EAF has for use on their F-16 Block 50+). However those pods have different versions, each with different capabilities and it is well known that the United States always maintained a policy of keeping the EAF well behind the IAF in capabilities to give the IAF an edge over the Arab Air Forces in case of any conflict. Adding to that the Israelis are very well advanced in the field of ECM and jamming, and their ECM equipment were used to almost perfect results in the 1980s against the Syrians during the Lebanon war and their military industry is one of the most advanced world-wide in the field of ECM and ECCM and their products are used by many militaries around the world including the Indian and even the Chinese military. Although catching up to the IAF's capabilities is a hard task and will take years, what the EAF can do is try to narrow the gap as much as possible by buying very advanced Russian and European systems as the Americans supplied to the EAF is of inferior quality and are no match for the IAF. We also have to assume that American ECM and ECCM systems are better known to the IAF compared to Russian and European systems so that is why a non-American system is a logical choice for the EAF, plus since the 1990s Russian combat jets are built using open architecture for their sub-systems in order for them to accommodate systems of non-Russian origins depending on the customer's request, something that was not available during the Soviet time.

Operating too many types of combat jets

Another problem the EAF faces is that it operates too many combat jets. The problem this presents is the coast of operating all those combat jets. Each kind has its own engine, radars and all of it requires different equipment for maintenance with little to no commonality which presents a costly logistical challenge that puts a big financial strain on the already cash-strapped EAF. A big number of those combat jets are old and coast even more to keep them airworthy and flying, plus the constant coast of modernizing those old airframes, some of which are well beyond their airframe's life span and keeping those flying coasts even more. Below is a table showing the different kinds of combat jets the EAF is currently flying in the jet-fighter role:

Aircraft	Origin	Type	Versions	In service
F-4 Phantom II	 United States	Fighter bomber	E	32 (all Retired)
F-16	 United States  Turkey	MRCA	Total	240
			C	186
			D	54
Mirage V	 France	OCU Interceptor MRCA Reconnaissance	Total	53
			SDD	
			E	
			SDE	
			DDR	
Mirage 2000	 France	OCU MRCA	Total	18
			BM	3
			EM	15
MiG-21 Fishbed	 Soviet Union	MRCA Interceptor Reconnaissance OCU	Total	63
			MF	42
			PFM	12
			R	6
			UM	3
Chengdu J-7	 China	Interceptor	B/M	57

Source: wikipedia

The number of combat-jets can be lowered to 2 or 3 max using a high-low mix that utilizes the 240 F-16s the EAF already has and a new true modern and very capable multi-role jet that can fill as many combat roles as possible to replace some of the old jets flying and currently filling those roles.

EAF still using old Soviet-style doctrine

The EAF is still using old Soviet-Style tactics that depends heavily on **GCI (Ground Control Intercept)** an air defense tactic where radar stations or other observational stations are linked to a command communications center which guides the aircrafts to an airborne target. The disadvantage of aircrafts performing an interception by themselves beyond visual range is that they would have to search the sky for intruders with their own onboard radars, the energy from which might be noticed by the intruder's aircraft's **Radar Warning Receiver (RWR)**, thus alerting the intruder aircraft that they may be coming under attack. With GCI, the defending aircraft can be vectored to an interception course, perhaps sliding in on the intruder's tail position without being noticed, firing passive homing missiles and then turning away. Alternatively, they could turn their radars on at the final moment, so that they can get a radar lock and guide their missiles. This greatly increases the interceptor's chance of success and survival. In modern air combat GCI has been supplanted, or replaced outright, with the introduction of **Airborne Early Warning and Control (AEW&C)** aircraft. AEW&C tends to be superior in that, being airborne and being able to look down, it can see targets fairly far away at low level. A combination of both techniques is an ideal solution. Also GCI can cover far more airspace than AEW&C without costing as much and areas that otherwise would be blind-spots for AEW&C can be covered by cleverly placed radar stations. Although CGI offers advantages over AEW&C, in recent conflicts those ground-based radars were quickly taken-out through surgical airstrikes, something that rendered the defending air forces virtually blind and with catastrophic results so having a dedicated redundant AEW&C system is a must, so in case the ground radars are taken out, the AEW&C systems can still operate and offer guidance to aircrafts. This offers multiple layers of redundancy. The most important part of this system is the **Command Center**. The Command Center is the most vulnerable part of this system, as if it is taken out early in the action, CGI would be of little effect. The EAF only relies on ground Command Centers, again redundancy is of great importance here, ground-based Command Centers, even if there are more than one, should be supplemented by mobile ground centers and also airborne ones. The problem with that is the very high coast of Command Centers in general, making redundancy a very costly choice, however in light of experiences learned from recent conflicts, Command Centers and ground radars were taken out even before the actual conflict started, disabling and blinding the defender's air-power, effectively neutralizing an important part of the Integrated Air Defense system. Therefore redundancy is a must, even if it comes at a high price and it is the new doctrine the EAF has to adopt this as it is now only relying on the Northrop Grumman **E-2 Hawkeye** of which it operates 8 aircrafts, the capability of whom is not the same as a full AEW&C system, plus it is a slow piston-engine aircraft with a maximum speed of 350 knots (648 km/h) and a limited service-ceiling of only 34,700 ft (10,576 m). A more capable AEW&C system is needed that can fly faster and higher than the E-2C Hawkeye and with a more capable radar and systems. Besides, the important part is that the EAF still relies on Command Center to receive all the data from their aircrafts and relying it to other aircrafts to share target data and such, in other words, the EAF lacks a common data-link between aircrafts, so everything has to be filtered through Command Centers, so if those Command Centers are taken-out, those aircrafts can only communicate with each other verbally over the radio, if there is a data-link between aircrafts radar data can be shared electronically, including radar on-screen data directly from one jet to another without dependency on Command Centers.



SOLUTION

The most important step in closing the gap between the EAF and its potential adversaries, especially the IAF (being the most capable and the most threatening as of now) and who is about to acquire the 5th generation stealthy Supercruise capable (although a limited ability of Mach 1.2 for only 150 miles) **F-35I** precisely to be able to penetrate deeply into hostile airspace and kill off an opponent's AEW&C, and other ISR and counter-ISR

assets. The EAF has to change a future aerial conflict with the IAF to a 'Symmetrical model' where both sides are closely matched in the ability to jam each other's ISR and networks, and aiming to shoot down each other's ISR platforms. Now the question arises, given the challenges facing the EAF, what would be the best choice for a true modern multi-role fighter to answer as many of those challenges as possible? There are few contenders for that, but given the political and financial situation in Egypt now a days, those choices are a bit limited. Fortunately one of most capable candidates out there is available through the Russians, the 4++ generation Sukhoi **Su-35**. Aside from the American F-22 Raptor stealth air superiority fighter (which is not for sale outside the USA anyways), the **SU-35** is the best answer to the immediate and future needs of the EAF, not the **Mig-29 M\M2**. First, a quick comparison between the two:

	Su-35	Mig-29 M\M2
Type	4++ generation heavy multirole fighter	4+ generation medium multirole fighter
Crew	1	1 (M) or 2 (M2)
Max take-off weight	34,500 kg (76,060 lb)	22,400 kg (49,383.54 lb)
Power-plant		
Type	2x AL-41F1A	2x Klimov R-33MK
Max thrust w/afterburner	14,500 kgf (142 kN, 31,900 lbf) each	9,000 kgf (88.26 kN, 19,840 lbf) each
Rate of climb	>280 m/s (>55,100 ft/min)	330 m/s (65,000 ft/min)
Thrust to weight	1.13	1.02
Supercruise capable?	Yes	No
Max speed		
Low altitude	N/A	Mach 1.4 (1,500 km/h, 932 mph)
High altitude	Mach 2.25 (2,390 km/h, 1,490 mph)	Mach 2.35 (2,600 km/h, 1,491 mph)
Ferry Range	4,500 km (2,430 nmi) with 2 external fuel tanks	2,000 km (1,240 mi) / 3,000 km (1,860 mi) (twin seat)
Service Ceiling	18,000 m (59,100 ft)	17,500 m (57,500 ft)

Source: Dino Ramsey

In general, the Su-35 is much more capable than the Mig-29 M\M2 in many ways, here is why:

Size matters

The Su-35 is a much larger combat jet than the Mig-29 M\M2, that means its operational range is bigger (almost twice that of the Mig-29 M\M2) and it means also it can carry a lot more weapons & fuel than the Mig-29 M\M2. Although longer operational range was not of much importance to the EAF in the past, as its main adversary, the IAF was in range of almost all combat jets, this has changed now a days, as new adversaries are now entering the picture and the Egyptian government does have a serious problem with Ethiopia, which is over 3200 km from Egypt, and it is more than likely that the EAF and its combat jets will see action there in the near future, if not, at least the EAF will have a long-range, multi-role combat jet that can be a strong deterrent to the Ethiopians. Also the Su-35 can be fitted with what is referred to as the "Buddy Refueling System" in which one Su-35 can act as a tanker to refuel other Su-35s in the same flight formation, something that is not available on the Mig-



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29 M\M2 being a medium size combat jet and with limited take-off weight compared to the Su-35. The Russians make this system, so as a UK company called Cobham that makes a system for the Su-30 MKI of the Indian Air Force which would be compatible with the Su-35. The argument here is simple, size does matter, a larger jet means it can carry more which, most important, means that the EAF can buy less jets to do the same job.

AESA Radar and avionics

The most important aspect of a modern combat jet, and what makes all the difference are its radar and avionics suite. Nothing on the market today is superior to the **Irbis-E** radar that is made for the upgraded Su-27s family of combat jets. **NIIP**, the manufacturer of the **Irbis-E**, claim a detection range for a closing 3 square meter radar signature target of 190 - 215 NMI (350-400 km), and the ability to detect a closing 0.01 square meter target (that is less than the estimated radar signature of the **F-35I**, the new IAF' fighter) at ~50 NMI (90 km). In Track While Scan (TWS) mode the radar can handle 30 targets simultaneously, and provide guidance for two simultaneous shots using a semi-active missile like the **R-27** series, or eight simultaneous shots using an active missile like the **RVV-AE/R-77** or ramjet **RVV-AE-PD/R-77M**. The **Irbis-E** was designed to support the ramjet **RVV-AE-PD/R-77M** missile in BVR combat against reduced signature Western fighters like the F-35I, F-15E and such at ultra-long **BVR** ranges, unlike the **Zhuk-ME** radar of the Mig-29 M\M2 which will be largely ineffective to counter the **F-35I** threat from the **IAF**. Below is a comparison between the two radars:

Radar	Zhuk-ME	Irbis-E
		
Antenna Type	Slotted Array	AESA
Frequency Band	X	X
Carrier Frequencies	16	N/A
Weight	220 kg	N/A
Antenna Diameter	624 mm	900 mm
Scanning zone - in elevation: - in azimuth:	+50/-40 deg ± 65 deg	± 60 deg ± 120 deg
Max Target Detection range	120 km	350-400 km
Max Target engagement range	70-80 km	150 km
Number of targets Tracked – Engaged	10 - 4	30 - 8

Source: Dino Ramsey

The **Irbis-E** AESA radar would give the **EAF** a huge advantage, aside from the radar of the **F-22 Raptor** of the **USAF (United States Air Force)**, the **Irbis-E** is the most capable radar on the market today, and the Russians are offering it for export. The argument is simple here, again as mentioned earlier, the combat jet that can spot another jet first, can fire the first shot and given that there is a long enough range AAM is available, will most certainly prevail. The **Irbis-E** coupled with new generation Russian **BVR** AAMs is unbeatable in that field, and

according to its manufacturer, it can detect fighters with a radar cross-section of the IAF's **F-35I**. The **Zhuk-ME** radar of the **Mig-29 M\|M2** is not as half capable as the **Irbis-E**, however, there is an **AESA** radar available for the Mig-29 family called **Zhuk-AE**, although it is not as capable as the **Irbis-E**, it still offers significantly better performance than the **Zhuk-ME**. It is unclear now which radar will equip the **EAF's** new **Mig-29 M\|M2**, but if the **Zhuk-AE** was used, then the Mig-29 variant is usually referred to as the **Mig-35**, which was not the case with what is in the news about the **EAF's** new Mig29s, so I assumed that the **Zhuk-ME** is what will equip them, however the **AESA Zhuk-AE** will always be an available option.

Another important feature of the **Su-35** is its ability to carry the **KNIRTI SPS-171 Sorbstiya** wing-tips jamming pods, which is not available for the **Mig-29 M\|M2**. Russian jamming equipment is much more refined than Western equivalents, the **Sorbstiya** jamming pod boasts a wideband phased array RF stage, much more effective against monopulse emitters, and more sophisticated than the wideband horn or lens emitters in Western equivalents. This is important because of the Israeli significant advantage over the **EAF** is that field. The rest of the systems on the **Su-35** can be also found on the **Mig-29 M\|M2**.



SPS-171 Sorbstiya wingtip jamming-pod

BVR Missiles

There are an array of Russian **AAM (Air-to-Air Missiles)** available for both jets, the one that is important is the **K-100**, also known as the **KS-172S** super long-range AAM. The importance of this AAM is that it has a speed exceeding Mach 3 and a maximum range of 300 km. **K-100** may be installed with a warhead with active guiding



radar or an anti-radiation warhead. The **Su-35** equipped with such missiles will enhance **EAF's** air superiority in the Middle-East. In addition it will greatly improve the combat effectiveness as it gives

the **EAF** a true **BVR** capability it lacks right now. There are other **BVR** AAMs available for both the **Su-35** and the **Mig-29 M\|M2** like the **R-27 Alamo LB (Long-Burn)**, nothing comes with the range of the **K-100**, a true **BVR** missile and fitted with an anti-radiation warhead, it is a true **AWE&C** platforms killer, also note the **IAF's** big dependency on those systems.

Expert Opinion

I'm going to quote **Dr. Carlo Copp**, from the military think-tank **Air Power Australia**, he is one of the most respected experts on combat jets and their sub-systems, and here is what he said about the **Su-35** compared to other multi-role advanced combat jets:

[The other production Boeing fighter is the **F/A-18E/F Block II Super Hornet** with its much vaunted **APG-79 AESA** radar. The **Su-35** outperforms it on all cardinal parameters, including radar range, but excluding the somewhat academic measure of clean radar signature – academic since in combat external stores must be carried by both fighters.

Lockheed's **F-16E / Block 60** subtype with **AESA** and conformal fuel tanks is not competitive against the **Su-35** on any parameters, the **SU-35** cleanly outclasses it across the board.

The **Lockheed-Martin F-35 JSF** will be outclassed in all cardinal performance parameters, with the exception of radar signature when the JSF is flown clean with internal stores only. That advantage may also be entirely academic if the Flanker is networked with low frequency band radar to cue it to the JSF. It is also not entirely

clear whether the radar signature of the export variants of the JSF will be low enough to deny lock-on by the powerful **Irbis-E** at useful missile ranges.

The **Eurofighter Typhoon with AMSAR** will compete with the **Su-35** in terms of close combat agility and dash speed, but it does not have a decisive advantage in systems and sensors and cannot match the radar range of the **Irbis E**, and will not match a supercruise engine equipped Flanker.

The **Dassault Rafale** share many qualities with the Typhoon, but is smaller, and much the same comparisons apply to the **Su-35**. A key advantage the Flanker will possess against all but the conformal tank equipped **F-15** is combat persistence, which provides far more flexibility in choosing engagements and the opportunity to run an opponent out of gas.

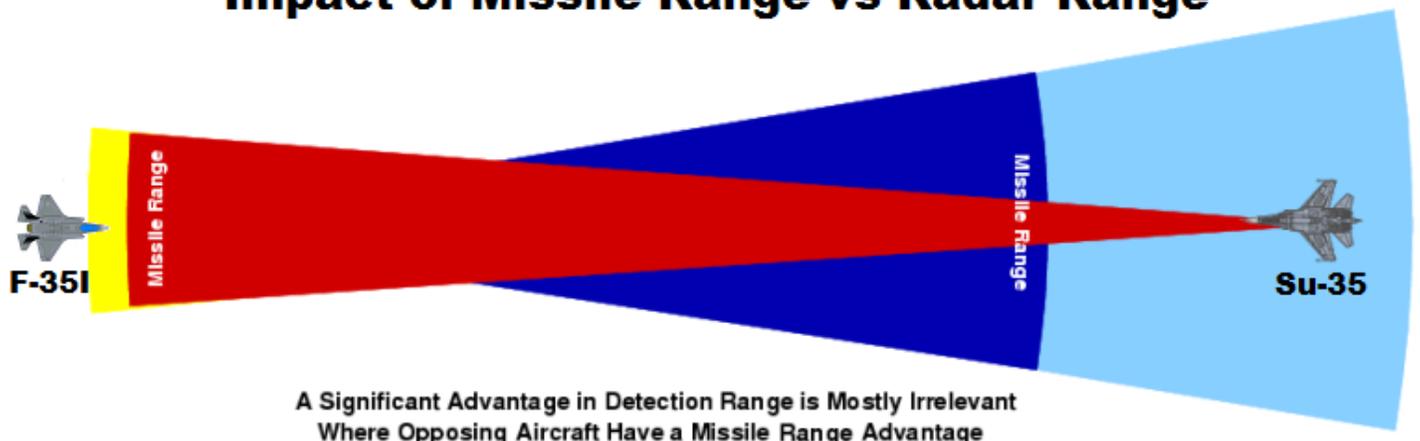
The smaller **MiG-35** shares the high agility of the Su-35, but lacks its brute force in raw performance, combat persistence, radar range, and internal volume for mission avionics. All of the Western fighters will compare more favorably against the **MiG-35** series, but this may be another entirely academic comparison given that none have been ordered as yet.]

Note here is that the **Mig-35** is another heavily upgraded **Mig-29** using the same engines and very similar to the **Mig-29 M\M2** except for using a more advanced **AESA** radar, the **Zhuk-AE**. Also note the distinct advantage the **Su-35** has over the **F-35** as noted by Dr. Copp.

CONCLUSION

Clearly the **Su-35** is a true 4++ generation multi-role air superiority combat jet, one that can fill many roles using the same combat jet. The **Su-35** has the radar detection and targeting ranges, coupled with the **K-100** long-range AAM makes it a lethal weapon that can outperform any current combat jet in the region. As shown in the illustration below, it is important to have both, a long range detection\targeting radar and an AAM to match that range, one without the other makes any advantage irrelevant.

Impact of Missile Range vs Radar Range



The **EAF** has to start adopting a **High-Low Mix** strategy for its air-combat assets, meaning rely on a larger number of cheaper, less capable combat jets supplemented by a lower number of more advanced, and thus, more expensive ones. The **EAF** already operates about 240 **F-16s** of different age and capability, more than half of those are newer Block 40 or higher (even the older blocks can be upgraded), those coupled with such and advanced and capable air-superiority jet like the **Su-35** would give the **EAF** the perfect High-Low mix it needs. The **Mig-29 M\M2** is not by all means a bad combat jet, but it is comparable in role to the more advanced,

higher blocks **F-16s**, and it is no match for the **IAF's** new **F-35Is** or even the **F-15 A\I**. Up till now, March of 2014, it is only known that the **EAF** has ordered 24 **Mig-29 M\M2**, without any mention of what kind of radar will equip them or the armament package that will come with them, so going by **RAC-MIG's** catalog for the **Mig-29 M\M2** I assumed it will be equipped with the **Zhuk-ME** radar, because the **Mig-29** modern variant equipped with the **AESA Zhuk-AE** is usually the **Mig-35** variant, but only time will tell, and also it is important to note that there is no official confirmation of the deal yet from neither the Russian nor the Egyptian sides. There are also many other considerations to be considered, mainly the relatively higher price of the **Su-35** compared to the **Mig-29 M\M2**, and it is well known that the recent Egyptian-Russian weapons deal, which will include other items also, is financed by Saudi Arabia, who might be reluctant to finance a deal that will give the **EAF** a better combat jet than the ones they have. Also we have to keep in mind the political side of it too, are the Russians willing to give the Egyptians such an advanced combat jet that might give them an edge over the **IAF** and the **Iranian Air Force**, not to mention the Saudis too, that I don't know, it is something the decision-makers in the **EAF** are fully aware of, and it must be a great influence in their choice. However I must note that the Russians have been aggressively marketing the **Su-35** and its radar, the **Irbis-E** for export, and they have already offered it to a number of countries, which usually means they won't mind exporting it to the **EAF** as the Russians are less influenced by Israeli pressure than the Americans. There is also the possibility that the **Mig-29 M\M2** is a step, and that the **EAF** does have plans to acquire a more modern jet, it might be a stop-gap solution and they might be waiting for 5th generation combat jets to mature, mainly the Russian **PAK-FA** and acquire it, as it is supposed to be only few years from now. Like I said, there are many factors involved here, my opinion is only on technical needs for the **EAF**, and given the technology on the export market now, and out of all the candidates, even the American and European ones, like the **F-15, F\A-18, Eurofighter Typhoon, Rafal and Jas Grippen** the **Su-35** is still a better choice than all of them, and quiet cheaper than a number of them too although more capable, simply, it will give the **EAF** the modern combat jet than will make a difference and be a true deterrent too.