This article aims at focusing on what seems to appear as the seeds of the first military air force of a terrorist organization.

This assumption, based not only on an academic ground but also on military officials' statements\(^1\), raises the issue as to the characteristics of an air strike controlled by a terrorist organization.

It is expected that experts on terrorism would find the evidence of what seems to be the evolution of a military air-force, an interesting perspective, especially when realizing that, to the best of the author's knowledge, there was no evidence that terrorist organizations of the 60's, 70's and 80's had an interest in an air-force platform, mainly due to the huge financial and logistic sources needed to build an effective military air-force.

Carlos Marighella, the 'spiritual leader' of modern terrorism, explained in his famous book 'Mini Manual of the Urban Guerrilla (1969) that urban guerrillas (authors note: or terrorists) need light weapons, in order to achieve an advantage over the equipped defenders, i.e., mobility vs. stability.

Marighella's point of view is based on the assumptions that the urban guerrilla lacks huge financial resources and a logistical infrastructure which are needed for the construction of an air-force.

Moreover: the guerrilla/terrorist fighter cannot adopt the military strategy and platforms as nations have, since the most efficient advantage of the terrorist is mobility, hiding from the 'enemy' by changing locations, minimizing the need of a large, visible military infrastructure, as well as the ability of assimilation among a supporting population.
It is clear that hiding a terrorist equipped with a rifle is much easier than hiding an aircraft, not to mention a landing field…

So what has changed regarding terrorists’ fighting philosophy from the late 1960's to the late 1990's?

A few aspects will be discussed, in order to emphasize the understanding that although a terrorist of the 1960's is still the terrorist of the third millennium, the *Modus Operandi* has changed dramatically, and decision-makers should modify their entire thinking towards modern terrorism. The rifle has been replaced by a rocket and the hand-grenade by a flying bomb.

Historically, the idea of using flying-weapons was raised years before the creation of Hezbollah and the terrorist organizations of the 1960's: Johann Most, one of the Mass- Destruction Philosophers predicted the possibility of an aerial terrorism tactic by indiscriminate bombing from the air.

When discussing the issue of terrorists and air-infrastructure, it should be emphasized that this article focuses on the implementation of an aerial-weapon platform as an integral means within terrorists' arsenal, and not the simple use of a civilian airplane, by hijacking or sabotaging it, a well-known Middle-East tactic of terrorist organizations, starting with the PFLP(Popular Front for the Liberation of Palestine) headed by Habash and Haddad, Gibril's PFLP-GC (General Command) and closing the list with Al-Qaeda’s suicide-mission operation of September 2001.

The possibility of a so-called air-force operated by a terrorist groups, rises as technological and financial abilities become accessible and when terrorists gain more and more intelligence as to the "enemy's" weaknesses on ground, sea and air.
'Gliders' night': The seeds of an air-force?

On November 25, 1987, a flying terrorist, equipped with a motor-glider, managed to cross the Israeli border, taking off from Lebanon (another glider landed in the security strip between Israel and Lebanon and the terrorist was killed by Israeli forces), and due to the size and its low altitude, the glider managed to overcome Israeli radar air control. Six soldiers were killed following this incident. The terrorists were affiliated with Gibril's PFLP-GC, and this incident marks the first incident where terrorists were equipped with aerial means.

Since this incident, little attention was given to the possibility of the implementation of aerial-weapons by terrorists. This fact may be the result of several reasons, but some perspectives related to technological and organizational aspects should be emphasized:

1. Historically, terrorists used 'conservative' weaponry, such as pistols, hand grenades, mines, machine guns, light vehicles and rocket launchers. Most of these weapons came from the Soviet Union, and are delivered by supportive Arab countries especially to Palestinian organizations and their supporters, such as the Badder-Meinhof(RAF) group, the IRA and others.

   These types of weapons were easily transported, easy to hide, and matched the financial ability of the terrorist group. Adopting Marighella's philosophy, light and less-visible means, not to mention many sources of suppliers, have made these weapons highly-favored by terrorists.

   Certainly, the Russian AK-47 and the RPG-7 were inseparable to almost every terrorist of the 1970's and 1980's. Therefore the fact that a terrorist organization used such an un-common weapon (glider), did not absorb much attention. The focus was on the AK-47 and not on the flying machine.
2. 'Terrorist Bourgeoisie', or 'terrorist aristocracy': Terrorists modify their tactics and weaponry. Terrorists are in a constant search for the 'weak link' in the enemy's security fence. When they think that they have found such a weak link, then that is the point where they will attack. Since aerial control is normally monitored by technological means, terrorists have learned (even a terrorist group is a learning organization) that technological means suffer some disadvantages. In the case of radar, flying at low-altitude causes difficulty in monitoring the flying machine, and despite the understanding that 'big is good' in the case of gliders or ultra-light planes- 'small is better'.

3. Qualification, modernization and Globalization:
Terrorists are everywhere! They grow among a supporting community; they live in Europe, America, Africa and the Middle-East. They learn in universities, gain knowledge in technology, aviation and chemistry. They become intellectual and professional. Therefore accessibility to 'modern' weaponry which demands highly-professional operators becomes more and more relevant when potential terrorists gain more and more knowledge. Taking for example the IRA, one of whose highly-professional expertise was the use of remote-controlled bombs, using toys which everyone can buy at a toy shop, and converting the remote-controlled lorry toy into a powerful bomb. It is obvious that one cannot control every person who wishes to buy his son a Thanksgiving Day present…

But globalization has also made use of new weapons more and more accessible: in a world of one-click global shopping, one can buy an electric or gasoline-powered aircraft, some of them weighing a few kilograms, and within 48 hours a delivery agent offers the terrorist-buyer door-to-door service. The ability of converting such flying toys into a flying bomb makes it an alternative for terrorists who wish to escalate their operations, emphasizing that 'if I escalate, it means that I operate' and turning these flying toys into a potential threat.
4. Establishment of a terrorist organization in the political order: Hezbollah is no longer ‘another terrorist group’: its strategy, infrastructure, massive support by Iran and Syria, well-trained terrorists and its establishment in Lebanon (including representatives in the Lebanese governmental systems), have turned this organization into a new entity: far more established compared to a traditional terrorist group, but less-established compared to a national entity. This fact makes the Hezbollah the dominant factor in Lebanon, and its influence and ability to extend its facilities offers them the opportunity of finding new methods to fight against Israel.

The information that the Hezbollah is equipped with surface-to-air missiles, aimed at the Israeli surveillance flights over Lebanon demands new thinking as to the new terrorist organization: less moving from one place to another, and more entrenching in areas where they become the dominant authority.

5. Glorification causes Imitation: A well known fact is that terrorists try to imitate others' success: Habash did not invent aviation terrorism. He copied this tactic from other places, such as the Cuban-USA saga hijackings of the 1960's. Similar to Habash, The LTTE (Tamil Tigers) leader, Velupillia Prabhakaran admitted that the suicide bomber tactic that the LTTE adopted (the first LTTE suicide attack occurred on May 1987 in Sri Lanka) was a result of being inspired by the Lebanese Shia, who committed their first suicide attack in December 1981 against the Iraqi Embassy in Beirut⁴.

Speaking of the LTTE, recent evidence shows that it has managed to acquire an aircraft from East Europe and bring it to Sri Lanka after preparing a landing field. This fact was raised by Bahkutumbi Raman, director of the Institute for Topical Studies in India, following the ICT's conference on counter-terrorism, 2005.

Back to the imitation factor, it is clear that a successful operation causes others to imitate the tactic. Taking into account the other element which was highlighted above, one may see that aerial-weaponry may become more and more familiar to terrorists organizations.
In the author's thesis\(^5\), significant attention was given to the potential threat of aerial-weaponry used by terrorists, focusing on either human-operated or UAV (Unmanned Aerial Vehicle) means, which become more and more available.

The use of such flying-means can be adapted to the intelligence aspect but also for the use of loading explosives on a small aircraft (whether conventional explosive or even worse- the use of the aircraft for the purpose of spreading WMD (Weapon of Mass Destruction).

Since the use of an aircraft for this purpose demands special modifications, a terrorist organization can start a 'tailor-made' production line of flying vehicles while gaining knowledge and experience of converting the vehicles into flying bombs. Turning a crop-duster aircraft into a flying bomb demands minor modifications. Such a threat was emphasized by Rabkin (2004), managing Director of the Homeland Security and Justice Issues, following his testimony before the US Senate, claiming that the 11 September terrorists were studying the possible use of crop dusters to spread biological or chemical agents\(^6\).

While Al-Qaeda focused on large, commercial aircraft, one may see that terrorists started focusing on other types of aircraft: small or UAV.

According to Israeli officials, some UAV's ('Ultra-Light') were captured in Arafat’s headquarters in Ramallah ('The Muqatah') by the Israeli forces during the 'Al Aksa Intifada' (ICT, 2005).

The understanding that a come-back of Bin-Ladin's operation of 2001 is less likely to become possible mainly after strengthening security standards, terrorists will search, \emph{inter alia}, for aerial weak-link and they have probably found it: the 'holes' in aerial space control. But even if border-control is efficient, it should be emphasized that terrorist organizations are not only cross-border oriented: they can operate even within the state. It is clear that launching a glider from a village in East Jerusalem or from a small air-strip in the Galilee (Northern Israel) is a potential threat that security agencies should take into account.
The threat is 'in the air' and attention should be given to how to monitor the purchasing of a gasoline-powered toy aircraft, which can be purchased almost anywhere, especially via the internet.

A combination of technological knowledge, financial ability, and day-to-day delivery makes the possibility of the creation of 'mini air force' by terrorist organizations (or individuals) a significant threat.

Notes:

1 Col. Ram Dor, head of the security and information department of the IDF, was stated saying that: "...They(Hezbollah) are at the beginning of the UAV(Un-Armed Vehicles) field"(Fishman, A. "IDF's Long Ear"; Yedioth Ahronoth, 19.9.2008)
3 he.wikipedia.org/wiki/
4 Audrey Kurth Cronin, "Terrorists and Suicide Attacks ":congressional Research Service: (August 28, 2003)
5 Hillel Avihai, (PhD thesis)"Evolution and escalation of aviation terrorism: From bargaining chip fashion to total destruction orientation" (UK:Anglia Ruskin University, 2006).