NATO Efforts to Counter the Threat of MANPADS

MANPADS are a major threat to military and civil aviation. A broad spectrum of complementary measures is necessary to protect military and civilian aircraft. These include: counter proliferation diplomacy; threat performance and airfield/airport area vulnerability analysis; crew awareness- and avoidance training (tactics/procedures); aircraft design, redundant avionics and signature reduction; consequence management in case of damage; and self-protection equipment.

In addition to specific measures to protect aviation assets NATO is also engaged in a programme of activities to ensure the safe storage, handling and destruction of MANPADS.

Protection of Military and Civil Aviation Against MANPADS

To protect NATO crews and aircraft, a large database on threats, aircraft signatures, scenarios, infra-red counter measures tactics/techniques and self-protection equipment has been developed and is kept up to date. Bi-annual trials are held to keep abreast of threat development, to test and optimise self-protection equipment and tactics and to update a compendium on future self-protection suites as a reference for national programmes. Self-protection measures for commercial aircraft in a civil aviation environment could also be evaluated on the basis of the database and accumulated experience, and procedures and existing technologies could be adapted from military to commercial aviation. A comprehensive stocktaking study currently under way should be finalised later this year and will be used for a more detailed information exchange with civil aviation authorities. The stocktaking study will cover, inter alia, departure and arrival procedures, power settings, use of landing lights and auxiliary power units, vulnerability investigations of airfields and their vicinities, and advice on modelling and simulation as well as crew training.

As the vulnerability zone around airports is considered too large for totally effective policing (transport aircraft and airliners as well as helicopters are most vulnerable during takeoff and landings, where they travel at low speeds and low altitudes), Allied forces rely increasingly on installed self-protection equipment on transport aircraft/helicopters. Allies are requested to have an effective self-protection suite installed on their combat aircraft before their NATO assignment of such aircraft is accepted. The primary technology to counter new generation MANPADS with quasi-imaging or imaging seekers is laser-based Directed Infra-Red Countermeasures (DIRCM) to blind or destroy missile seekers. Such systems are already installed in small numbers on high value (VIP) carriers and will become more widely used in the years to come. In response to this growing threat and
based on this technology, NATO is working on equipping Allied aircraft (beginning with transport aircraft and helicopters) with effective self-protection suites ensuring maximum protection in the foreseeable future.

**Storage, Handling and Destruction of MANPADS**

In addition to measures to enhance the safety of civil and military aircraft, NATO is engaged in a range of comprehensive measures to ensure munitions such as MANPADs do not fall into the hands of unlawful users. Storage, movement and handling of all munitions is tightly controlled by national regulations that are based on agreed NATO principles. All NATO countries exercise strict control over the storage and movement of all types of ammunition, with even more stringent controls being applied to those categories of munitions considered to be of special interest to terrorists. These more stringent rules apply to items such as MANPADS, shoulder fired rockets, grenades and small arms ammunition.

In addition, NATO has developed a complementary programme of cooperation with NATO and non-NATO states (stretching from Canada to Central Asia) taking part in Partnership for Peace. NATO cooperation with non NATO nations should be seen in the broader context of ongoing efforts within the Partnership for Peace to assist nations in the transformation of their armed forces and security structures and NATO’s commitment to countering terrorism. Practical cooperation focuses on three main areas: stockpile management and security including site and procedures; safe destruction of surplus stocks; and export control. These operational aspects are considered an essential role in the fight against terrorism as the overwhelming majority of weapons and equipment, such as MANPADS, used by terrorist groups and criminal organisations are believed to originate from unsecured excess stocks of national armed forces.

The Ad Hoc Group on SALW, is the primary focal point for multi-lateral efforts between nations. This includes provision of national experts to assist in drafting of appropriate export controls. The Ad Hoc Group is also the focal point for the exchange of information between governments, NGOs such as Safer World and Small Arms Survey, and other government institutions. The 2004 programme of activities gives special attention to SALW issues related to the terrorist threat, such as MANPADS, export controls, and efforts undertaken in other frameworks such as Wassenaar Arrangement, the OSCE and EU.

As part of NATO’s cooperation related to defence reform, NATO staff and nations experts assist non-NATO nations to develop appropriate and sustainable defence structures. This

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1 As of 29 March the 20 Partnership for Peace nations include: Albania, Armenia, Austria, Azerbaijan, Belarus, Croatia, Finland, Georgia, Ireland, Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation, Sweden, Switzerland, Tajikistan, The Former Yugoslav Republic of Macedonia*, Turkmenistan, Ukraine, Uzbekistan. (* Turkey recognises the Republic of Macedonia with its constitution name.)
includes practical support such as training courses and expert teams to conduct site inspections, identification of surplus inventories and development of plans for their safe destruction. This expert advice is available to all twenty non-NATO Partners\textsuperscript{2} and to the seven nations of the seven Mediterranean Dialogue partners\textsuperscript{3}. The PfP Trust Fund is one of the practical tools for the safe destruction of munitions. Since 2000, NATO and non-NATO nations raised 10 million Euro in voluntary contributions for the safe destruction of surplus munitions, SALW and Anti-personnel Landmines (APLs). In addition, NATO will on request provide expert teams to assist in the development of detailed destruction plans. A current project proposal for Ukraine aims to destroy 133,000 tons of munitions and 1.5 million SALW. In May a NATO expert team will visit Kazakhstan to discuss destruction of a range of stocks including a number of MANPADS.

\textsuperscript{3} Algeria, Egypt, Israel, Jordan, Mauritania, Morocco, Tunisia