

### DACT SHARPS PILOTS OVER THE ATLANTIC

*One of the largest European training area's for combat aircraft is the Delta 79 Area starting some 40 miles south of Gran Canaria and stretching until 140-160 miles south. Here fighters can go out freely and simulate several aerial combat manoeuvres. The Spanish military command MACOM and it's Canary counterpart MACAN organizes annually a dissimilar air combat drill which is more and more joined by other NATO partners and hereby growing in importance.*

### DACEX IN THE PRELUDE

The drill starts from the Spanish Air Base Gando at Gran Canaria which is the home of Spanish Air Force Ala 46 equipped with EF/A-18A+ Hornet. Other fighter units of the Spanish air force such as Ala 12 (Torrejón) and Ala 15 (Zaragoza) equipped with EF-18M Hornets and Ala 11 (Morón) and Ala 14 (Albacete) equipped with Typhoons are part of the exercise. The Spanish air force is eager to maintain currency in fighter techniques of all combat units. The Dissimilar Air Combat Training (DACT) 2016 was scheduled from 24th February till 11 March 2016 together with the DACEX exercise (exercise Air Defense Canary Islands) with the main goal to exercise advanced training in air combat and with the second objective to test the air defense systems of the Islands. In addition the responsiveness of the forces permanently stationed in the area were checked and integrated in the exercise.

This included also the military airfield of Lanzarote. Flight deployment of units from the Peninsula were first to be used to exercise the air defense system of the Canary Islands including the involvement of Ala 46 F-18's acting as Air Defense Wing 46. The wing was reinforced by a squadron of Ala 15 from Zaragoza operating from Gando. Simulated threats forced the aircraft to react on it. During the deployment threats were increased. Simulating a hypothetical crisis Anti Aircraft Artillery under command of the Spanish Army was operated from Lanzarote including personnel of Anti Aircraft Artillery Regiment 94 with means of the Mistral battery artillery Regiment Campaign 93. In Total a semiautomatic battery of NASAMS missiles, three sections of SKD 35/90 cannons and three platoons of Mistral missiles were deployed to counter threats on medium, low and very low altitude. In addition on countering the threats quick reaction alert of interceptor aircraft were part of it. Some other activities also were important for checking alertness and Special Operations squadron (SAO = Operaciones Aéreas Especiales) of paratroopers (EZAPAC = Escuadrón de Zapadores Paracaidistas) saw action on Lanzarote. This actions involved a Getafe based CN-295 from wing 35 while 802 SAR squadron Super Puma's were also active above Lanzarote.

### DACT IS A NECESSITY FOR SPANISH COMMAND

The second phase was focussed entirely on the DACT in a multinational environment with all combat units and combat support units under MACOM joining, together with fighter aircraft of the allied countries Belgium, France and Germany. The tactical control (TACON) of air operations was under direction of the GUALERCON (Grupo de Alerta y Control) warning and control group following the guidelines of the Air Operations Center (AOC) of MACOM. The DACT Campaign is placed within the framework of the advanced training plan of the air force air defence units. Fighter pilots are getting in the DACT campaign the opportunity to put in practice in a simulated scenario air combat techniques between aircraft of different capabilities. The missions increases in difficulty as the campaign advances and pilots and mission planners are subjected to increasing challenging, complex and advanced combat scenarios.

### AERIAL COMBAT IS BASED ON EXPERIENCE FROM THE PAST

Why it is important to match with aircraft of different capabilities asks for a look back in the past. Today's focus is laying upon interoperability and cooperation of different countries in war time scenarios must be build on trust and participants rely on each others capabilities and working routines. When it comes to combat there are no rules, just surviving in combat manoeuvring and pain your opponent or destroy him

or better avoid direct combat situations with the use of BVR weapons. Off course in DACT exercise one must follow the rules and on the other hand finding the 'edge' to become an excellent fighter pilot. The rules of engagement (ROE) must be obeyed and therefore dominated by security in order to bring back the pilots safely. To achieve advantage above the opponent his ROE can be restricted. In general the 'Blue force' must fight as good as they can and the opponents in the 'Red force' must let them struggle and are supposed to let them win in the end unless the Blue fighter is making a lethal mistake. The real lessons learned are to find out what your weapon system can do and cannot do with different challenges. This of course are the different type of aircraft in engagements. Once there was ever the mistake to train in a symmetric way with the same aircraft. This was found out to be a disadvantage when being engaged with another aircraft different of your type. Even when your performances are much better, you are not aware of thinking in the eveloppe of fighting tactics of your opponent. After that, instruments as U.S. Navy 'Top Gun' saw existance. The threat can be very different, either superior aircraft (Sukhoi Flanker) or inferior aircraft (older generations fighter aircraft) can occur in battle depending on where you go an who is in that war.

## **ASSYMETRIC THREAT CAN MAKE YOU SMART**

Today in training combat manoeuvres aircraft types are used to resemble threads which are not accesable in your training. To resemble slower movers A-4 Skyhawks are introduced in the theatre. Two aircraft of the private Canadian Discovery air defence, flown by ex- CAF CF-18 pilots are contracted by the German Air Force under the Contracted Airborne Training Services (CATS) program and provide Red Air threat replication. The Germans joined with four Typhoons but also brought the Discovery air A-4N Skyhawks with them. The Typhoon with its state-of-the-art sensor package is an air-superiority aircraft and French Mirages and Belgian F-16's can outline their capabilities against the Typhoon and develop tactics to do better. Typhoons do resemble pretty good a Flanker capability but have a smaller IR and visible profile.

Of course all sceario's like 1v1 and 2v2, 4v4 etc. even with unequal numbers were practised and radar limitations as a handicap are also standard in this exercises but when it comes to improve your qualities as a fighter pilot you learn from the experienced pilots and find answers on the tactics exposed to you. The results are recorded by own ACMI pods while a NAEWF E-3A AWACS is in the Delta 79 area to oversee and control the actions. In addition a German LearJet 35 aircraft with a Cassidian 1003 SmartRadar under the wing contributes in the game. The Cassidian 1003 with a modular architecture permits scalability of bandwidth, frequency band and processing performance. The lear jet not only can play in assesment role but also has the possibility to influence the game. DACT exercise with a 'fair' replication of threat are outstanding instruments to train fighter pilots to deal with this threats and this type of exercises will gain more and more importance in future. The lessons learned will bring even more skilled Spanish pilots and they will continue their work in the next issue.

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