
DACT - DISSIMILAR AIR COMBAT TRAINING SPAIN

DACT VALUES EFFECTIVENESS

Air warfare is a complex matter, no one would argue with that. Circumstances are constantly changing by new elements. The quality of the aircraft or so-called weapon platforms is not the only counting aspect for the outcome. Different variables coordinated by smart thinking are of influence. Important is the doctrine and how to put the systems in the theatre but also the experience of the pilot in flying the aircraft and his management of the circumstances, helped by the capability of the avionics and level of awareness created. Maybe most important of all is probably the knowledge what your system can do in the battlefield of threats.

To encounter realistic war zone conditions aircraft has to train against other aircraft resembling enemy forces. Using different types of aircraft against you to measure your own capabilities and find out where you are is called Dissimilar Air Combat Training (DACT). This kind of exercises can be experienced on national level when there are more fighter types in the inventory but is also a type of exercise practised by different countries in a meeting with carefully planned scenarios. A good recent example of this DACT was the international exercise initiated by MACOM on the Spanish Canary Islands.

GANDO'S LARGE EXERCISE AREA

The Spanish Air Force Combat Command (MACOM) organizes and directs the Dissimilar Air Combat Training from Gando airbase (home of the 46th Wing equipped with EF-18A+ Hornets) because of its splendid air space availability just south of the islands, free of commercial routes and without limitations in chaff/flare release or supersonic flying. Last few years have seen some several issues. The exercise lasted for two weeks which is a similar set up to other exercises of this type, starting with an academic phase during the weekend with conferences about tactics, weapons, intelligence, safety etc.

The flight phase started at Monday with basic scenarios (1 vs 1 and 2 vs 2) in Air Combat Manoeuvres (ACM) and within visual range and was building up in complexity involving a higher number of fighters (8 vs 8) and more dynamic scenarios with strict rules of engagement (ROE). Training also comprised enforcing No Fly Zones, addition of external assets, introduction of slow movers, use of tankers, protection of high valuable assets, escort of CSAR units etc. In the second week a new batch of pilots replaced those of the first week and all started over again. As many pilots as possible have to take their chances to operate in exercise circumstances which asks for critical decisions in short period of time and resembling real situations in conflicts in the world.

Participants faced the objectives not only to train in modern air combat tactics but also to improve joint operation and coordination between the different participating units. Integral in this exercise was also to train the expeditionary character where

fighters are deployed two weeks from their home base and keep up flying with a high operational tempo. In spite of the participation of Sea Harriers no Naval Assets were involved. Slower movers such as the casa C101 Aviojet were put into the exercise to see how fighter aircraft could defend this. Some missions concerned not purely air combat but simulated attacks to 'ground' targets, taking into account that this 'ground' aerea(the sea) is located on the south of the island Gran Canaria.

OBJECTIVES

Purely seen the objectives of the DACT exercise are summarized:

- Train fighter pilots in modern air combat tactics.
- Improve joint operation and coordination between different participating units.
- Train and improve air to air refuel capabilities.
- Teach and develop new tactics and procedures.
- Train expeditionary situations: you have to take into account that the Canaries are more than 1500 km way from mainland, so fighters have to deploy their normal operating bases to Gando and keep flying there for two weeks with a high operational tempo.

FOCUS ON AIR COMBAT

The exercise was focused on air combat purely and there were no air to (real) ground operations with strikers and COMAO packages. Although within visual range basic fighter manoeuvres were practised the main focus was on complex missions with 12 or more fighters involved, using mainly beyond visual range (BVR) engagements. No life firing was practised but all the aircraft used GPS guided techniques/devices to evaluate training results. Each unit played red air and blue air depending on the mission. Months before the exercise, the different participating units, send to the MACOM what training goals they want to achieve during the exercise. MACOM is organizing the missions having in mind their own goals and the particular goals of each of the participating units, so mission and fighters/units are assigned to blue or red taking that in account. This year next to different Spanish units the only foreign unit was from France with Mirage 2000. Another goal of this exercise was the integration of fighters without link-16 and how the Link-16 equipped ones can help to improve the Situational Awareness of the rest of the blue air assets. Link-16 is used with those aircraft which have Joint Tactical Information Distribution System (JTIDS), basically EF-18M and Typhoon.

LESSONS LEARNED

Every morning and afternoon different waves were flying out and different pilots were flying the sorties with more than 24 sorties on each wave. During DACT the combat readiness is always extremely high, somewhere above 90 % which say something about the good work carried out by the maintenance staff. The fighters were assisted by a NATO E-3A AWACS and KC-707 and KC-130 tankers. SAR was covered by a Cougar and F-27. The combat performance differs between aircraft. The Typhoon



flies completely different to EF-18 or Mirage 2000. each aircraft has its strong and weak points, the EF-18 performances at low speed and high angles of attack are superb, while the Typhoon rely more on its power and long range sensors. Lessons learned are of value.

There is no doubt that participation of Spanish Air Force EF-18M in operation Odyssey Dawn above Libya have provided a lot of useful experience on real combat operations for Spanish Air Force fighter pilots. Of course lessons learned during the operations have been underlined this year, but there is much more evolution on tactics and procedures that comes from the idea of different units with different weapon systems flying and fighting together, using different performances of each weapons system to improve the lethality of the other.

Afterwards there was a unit briefing, where the pilots of each unit review the mission, and then there was a full briefing with everyone involved in. all the pilots plus staff from MACOM. Both exercises at Leeuwarden and Gando showed similarity but in the meanwhile a different shape. DACT exercises are most valuable, encounters the real combat situation closely and are necessary to give pilots precisely the know how of how to act in combat and masters his own aircraft against others.

Special thanks to Alejandro Afonso (The Fighter Community)

Participants DACT 2012 GANDO

Air Force	Type	Wing	Nr.
Spanish Air Force	EF-18M	12 th wing	7
Spanish Air Force	EF-18M	15 th wing	5
Spanish Air Force	Typhoon	11 th wing	6
Spanish Air Force	EF-18A+	46 th wing	6
Spanish Air Force	AV-8B+	Spanish Navy Eslla 009	3
French Air Force	Mirage 2000C	EC02-005	5

(The Fokker F-27 was not planned but actually operational during the exercise)

[Kees Otten, Wim Das & Koos Heemskerk](#)
