

Força Aérea Portuguesa/ Portuguese Air Force – Part 2



Base Aérea No. 11 – Beja

Base Aérea de Beja officially designated as Base Aérea No. 11 (BA11) was established on 21 October 1964 and it occupies an area of approximately 800 hectares and was originally built to serve as a training facility for the German Air Force due to airspace limitations within West-Germany. The German Air Force operated from Beja until 1993 and it was used particularly for weapons training. In 1987 the FAP relocated 103 squadron, flying the Lockheed T-33 and Northrop T-38, from Montijo to Beja. Between 1993 and 2018 the Portuguese Air Force has operated the Dassault/Dornier Alpha Jet which were donated by Germany as compensation for leaving the air base in 1993. Construction of a civilian terminal was undertaken in 2009, with this facility being aimed at low-cost carriers. Beja's runway is the only mainland Portugal runway capable of accommodating an Airbus A-380. Now the base is modern and well equipped and one of the most important training facilities of the Portuguese Air Force.

Colonel Carlos Lourenco, Base Commander stated, “I obtained a military pilot-aviator certificate in 1994 being selected to take the Complementary Piloting Combat Course which was concluded in 1995 and got assigned to Esq201



“Falcões” as a F-16 pilot. In August 2005, I was assigned to Esq301 “Jaguares”, operating the F-16M aircraft, where I served as Operations Officer and Squadron Commander until June 2010, having made around 3.000 flight hours on the F-16. In June 2010, I was placed in the Air Command as Head of the Exercises Division until 2016. In 2016, I was posted in the Deployable Air Command and Control Center (DACCC), in Poggio Renatico, Italy, where I served as Combat Operations Division Head until 2019. In 2019,

I was reassigned to Air Command as Chief of Staff and in 2021 I became Base Commander of Base Aérea No. 11 Beja. Currently I'm not flying because Base Commander is a full-time job and I want to do it properly”.

He further continued, “Since 2010 the Portuguese Air Force has gone throughout a well-chosen path of organising events and exercises with dimension and complexity. This was driven by the operational capacities, but also by the logistical knowhow and some geographical aspect, being the available airspace and metrological conditions. However, the human factor who drives this all is the most important, the attitude, the motivation and commitment of our personnel is exceptional and it's this, combined with our cultural hospitality, who determines the success and outcome of these events. That's why a lot of exercises have been and will be held here at Beja, like Real Thaw, Hot Blade and European Tactical Airlift Programme – Training (Etap-T). It takes a lot of work to run these exercises. The Portuguese Air Force strives to deliver an operational product/event of excellence, so the flying units can obtain new knowledge, experiences and skills in a safe and sound manner. In this context, we want to promote the image of Portugal as a security producer in the international scene and to be recognised for the capacity, quality and knowhow in organising this type of exercises. We can and are ready to make the difference and set up an European Red Flag exercise in Beja”.

Esq101 – Roncos (Roars)

Captain Joao Teixeira, Operations Officer stated, “New student pilots start their flight training at Sintra air base and when they've completed the academic part of their

training and perform around 40 hours on the DHC-1 Chipmunk, they are ready to start Phase 2 here at Esq101 on the Aerospaciale TB-30 Epsilon. The TB-30 is a basic training aircraft, fully aerobatic, tandem-seat single engine with a two-blade propellor. The TB-30s are in service since 1989 when eighteen aircraft were delivered to the Portuguese Air Force. Between heavy overhauls and small maintenance procedures, we keep fourteen TB-30s available. The TB-30s are undergoing a small avionics upgrade with the MVP-50 and, therefore, will gain glass cockpits and new sensors for the engine instrumentation. While a dedicated group is working on a Mid Life Update (MLU) to extend their service life to 2030, there is also ongoing work being done to plan the retirement and replace the TB30 in the near future”.

He further stated, “Regarding the training syllabus, the course lasts around ten months and it's divided in three distinct phases: Elementary, Fundamental and Mission. The students start the Elementary phase in the classroom for approximately one month and when they pass their exams they start the simulator missions. We have two operational flight training simulators which have a 180-degree field of view. On these devices, the instructor pilot has a console to manage and follow the flight but is also able to interact with the student, prompting him with different weather conditions or an inflight emergency. In addition to the simulators, we are currently studying the implementation of a new training device, which incorporates virtual reality glasses into the simulation. Around 40% of the course is executed in the simulator, and the implementation of a solid and robust pre-flight phase, with heavy simulator dependency, allows us to work earlier





on particular student difficulties, enabling them to go on their first solo flight much earlier on their training timeline. On the Fundamental Phase, there are three elements: Transition, Navigation on Visual Flight Rules (VFR) and on Instrument Flight Rules (IFR) and Formation. The course totals approximately 110 flight hours and 60 hours on the simulator and at this moment we have thirteen students and ten instructor pilots. When the student successfully completes the Phase 2 Flight Training, they receive their wings, and they will proceed on their follow-on-training on to fighters, transport airplanes or helicopters, on to a squadron within the Portuguese Air Force. That decision is based on students' final classification, individual skills and overall airmanship.”

Esq552 – Zangões (Bumblebees)

Captain Luís Dias, Tactical Planning Officer stated, “The Portuguese Air Force was flying the Sud Aviation Alouette IIIs for many years and were searching for years for a replacement. In December 2017 the Portuguese Ministry of Defence announced the procurement of five Augusta Westland AW-119Kx Koalas for Esquadra 552 with an option for another two. The AW-119s were delivered between February 2019 and September 2020. At the end of 2019 the squadron was fully operational with

the first helicopters and the Alouette IIIs were withdrawn from use in June 2020 after almost 60 years of service. The AW-119 is a single-engine helicopter with a top speed of 280 kph which makes it one of the fastest single-engine helicopter. It has a glass cockpit which integrates virtually all avionics in easy view enhancing situational awareness, fully compatible with night-vision goggles (NVG), five communication radios which covers almost all frequencies, a searchlight, a rescue hoist which can hoist up to 204 kilogrammes and a removable emergency flotation system. The AW-119 has the ability to have a Bambi Bucket filled with 900 liters of water as underslung and carry a team up to 6 firefighters. It can also place tactical guns in both doors or attach fast rope and rappel gear for troops. Normally the AW-119 is flown by one pilot and one systems operator and is able to transport six or four fully equipped persons. It’s also possible to transport a person on a stretcher and four persons”.

Continuing the conversation he stated, “In 2018 the first two Instructor pilots started their ten-week type course and four groundcrew started their five-month course in the United States of America. When they successfully completed their course and the first AW-119s were delivered they were tasked with converting the rest of the squadron with the help of Leonardo which gave training for the remaining groundcrew. In the summer of 2019 we started with firefighting command and reconnaissance duties. In Portugal firefighting has been done by civilian companies with help from Greece, Italy and Spain while the AW-119 is monitoring the airspace and is telling which aircraft or helicopter needs to go where. A new squadron will be set up especially for firefighting and six UH-60 Blackhawk helicopters have been bought with the delivery of the first two helicopters scheduled at the end of 2023. Then we have the equipment and knowledge but no experience while firefighting is becoming more intense”.

“At this moment we have five helicopters which is too less because one or two should be on maintenance, in order to regenerate flight potential and at least one should be used for maintaining the pilot’s qualifications. From May till October one or two are detached in central and one is permanently detached in north Portugal for Search and Rescue (SAR) missions. We would like to participate in many exercises to get more experience but at this moment it is difficult. We’ve participated in the Tactical Leadership Programme (TLP) for experiencing the Combat Search and Rescue (CSAR) theoretical and hopefully also practical in the future. We participate in exercises like Real Thaw and Hot Blade because they are being held here at Beja. Luckily the option for another two helicopters has been approved and they will be delivered in October 2023 which gives us more space to enhance our tasks”.

Esq601 – Lobos (Wolves)

Navigator Lieutenant Luís Xarepe stated, “The 601SQN was officially formed in March 1986, with the acquisition of six former-Royal Australian Air Force





P-3B Orion aircraft by Portugal. In August 1988, the first P-3P was delivered at Air Base No. 6 (Portuguese: Base Aérea N° 6, BA6), at Montijo, Portugal, where the squadron was based. In 2004 we realised that the onboard equipment of the P-3s no longer met the needs of the Portuguese Air Force due to new and more modern threats so the Government started a programme to substitute the ageing P-3Ps. The Dutch Government were offering their P-3Cs to the German Navy and we purchased five P-3Cs with the expectation that all five have been modernised to the Capability Upkeep Programme Plus (CUP+). Two were already modernised and the other three were modernised by Lockheed Martin between 2007 and 2012. The CUP+ variant includes modern avionics and software. The Alverca-based company OGMA is responsible for modification and deep maintenance of the P-3s. The smaller maintenance is being done here at Beja itself. In 2008 the squadron moved from Montijo to Beja Air Force base”.

Continuing the conversation, “In total the squadron has performed more than 38.000 flight hours, 25.000 flight hours in the P-3P and 13.000 flight hours in the P-3C CUP+. The squadron performs Search and Rescue (SAR), Intelligence Surveillance and Reconnaissance (ISR), Maritime Patrol and Anti-submarine warfare missions. For the SAR operations we have a Quick Reaction Alert (QRA) which means we have one aircraft and one crew available around the clock all year. A crew consist of two pilots, one engineer and ten crew stations, each with a

separate task like pilot, co-pilot, flight engineer, tactical coordinator, navigator for three sensor stations, ordnance operator and the in-flight technician. The missions we’re flying can last around 9 hours and a few of the main missions are sea pollution, illegal migration, transportation of illegal substances and monitoring military activities. During the summer months we’re also responsible for the early detection of forest fires to start up the fire-fighting. We also take part in border management missions like EU Frontex, NATO Baltic Assurance Measures (BAM) and the Mediterranean Sea Guardian”.

“The P-3C CUP+ is a diverse aircraft built with 18 armament stations, eight in the bomb bay and five stations in each wing. Depending on the mission the aircraft can be loaded with up to four AGM-65 Maverick air to ground missiles, up to six AGM-84 Harpoon anti-ship missiles, up to eight Mark 46 Torpedoes, Mark 82 general purpose bombs and Mark 62 quick strike mines. The sonobuoys system can store 36 sonar devices, with three pressurised chutes and one free-fall chute inside and 48 unpressurised chutes from the outside, so in total 84 various sonobuoys can be loaded”.

Esq506 – Rinocerontes (Rhinos)

Major Miguel Pousa, Squadron Commander stated, “In 2019 the Portuguese Government ordered five Embraer C-390 and one simulator. The C-390 fill all the requirements we need to comply our mission and the other competitors did not fill the requirements that we



expect and also the technology is incomparable when we compare it with the C-390. The first KC-390 arrived here at Beja Air Force base in October 2022 for its presentation and then returned to Brazil. In March 2023 the KC-390 arrived back at Beja to do some “NATO certifications” and in July 2023 it returned again to Brazil to finish all types of certifications that a new aircraft needs prior to delivery. The delivery of the first KC-390 to the Portuguese Air Force is set for October 2023. We expect the second aircraft to arrive in March 2024 and the simulator in December 2024. In November 2021 the first crew successfully completed their qualification course at Base Aérea de Anápolis, Brazil. At the moment we have five pilots and six loadmasters

who are finishing their qualification courses. We’ll be the first European squadron and the second country in the world to operate the Embraer C-390. Our tasks will be air transport, fire-fighting and aerial refueling. As you can see all our squadron buildings are brand new and will contain multiple offices, briefing rooms, preparation rooms as well as all other needed squadron facilities. In this building we also have the simulator, a Rheinmetall Defense Electronics simulator which comprises of three types of simulation: cockpit procedures, full flight motion and cargo hold station for the training of our loadmasters. Still a lot of work have to been done but we are looking forward to operate the C-390 within the Portuguese Air Force”.

Base Aérea No. 6 – Montijo

Base Aérea de Montijo was established in 1952 as the Scadura Cabral Naval Aviation Centre and was officially re-designated as Base Aérea No. 6 (BA6) on 3 March 1953. The Naval Aviation units known as ForçasAeronavais continued to operate from BA6. In early 1957 the integration of the units of Portuguese Air Force at BA6 was complete. In 2018 it was announced that BA6 would also become a civil airport, serving Lisbon, for low-cost carriers by 2022 but at the moment nothing is happening at BA6.

Base Commander Colonel Diná Azevedo stated, “I joined the Air Force Academy (AFA) in 1990, and after 4 years I started my pilot training on the Epsilon TB-30 aircraft. On my first operational assignment I flew the



Casa C-212 Aviocar transport aircraft for several years. From 2000 until 2002 I was appointed as Flight Instructor at the AFA. In 2002 I was stationed at Geilenkirchen, Germany for 3.5 years flying the NATO Boeing E-3A Sentry (AWACS), logged 1,200 flying hours as Pilot, Pilot in Command, Instructor Pilot and Pilot Evaluator (the first NATO European woman to become an evaluator in this aircraft)".

"The Portuguese Air Force decided to replace the Casa C-212 Aviocar by the C-295M and in 2007. At that time, I was qualified as Pilot in Command of the new C-295M, a transport and surveillance aircraft. Between 2007 and 2010, I was stationed at Seville, Spain, being the Portuguese Air Force pilot responsible for the flight testing and approval of this aircraft by the Air Force. From 2012 till 2014 I was 502 Squadron Commander here at Montijo, and afterwards I joined the Staff Headquarters in Lisbon as chief transport and helicopter adviser. From 2016 till 2022 I served as military advisor to the President of the Portuguese Republic and in October that year I became Montijo Air Force Base Commander, of which I'm very proud, leading more than 650 people and 32 aircraft".

Esq751 – Pumas (Pumas)

Captain André Maia, Co-pilot stated, "In the 1960s Portugal was involved in wars in Africa and there was a need for a larger helicopter to transport troops and infantry and the Portuguese Air Force decided to buy twelve SA-330 Puma Helicopters. After the wars ended the Puma Helicopters were mainly used for Search and



Rescue (SAR) on the mainland and also at the Azores and Madeira. In 1999 a replacement programme for the SA-330s started and it took till 2003 when the contract for twelve EH101 Merlins was signed. The first delivery was in the beginning of 2005 and the last one was delivered at the end of 2006. Due to major maintenance issues the squadron had very low availability on the Merlin and the Puma's were brought back in service again! It took till 2010 before the Merlins could take over all the tasks and the Puma's were withdrawn from use after 40 years of active service with over 70,000 flight hours".

"The Merlin has a clean weight of 9,600 kilogrammes and a maximum take-off weight of 15,600 kilogrammes.



We have three variants of the EH101 Merlin, six have the standard configuration (Mk514) and are mostly used for Search and Rescue (SAR) and troop transportation, two are for fisheries surveillance and enforcement (Mk515) and four are for Combat Search and Rescue (CSAR) (Mk516). The Mk514 and Mk516 have the availability of carrying an extra fuel tank to add 1,100 liters of fuel for longer missions. It's also able to transport 25 troops fully equipped, but the more persons and or cargo less range the helicopter has. When we fly a SAR mission the crew consists of five people, two pilots, one system operator, one rescue swimmer and one flight nurse. We have the rescue litter and basket with us. The winch can carry a maximum weight of 272 kilogrammes and we have two stretchers inside the helicopter which we can expand to a maximum capability of 16 stretchers. This helicopter has emergency floatation systems but due to the weight on top (engines and main gearbox) it's possible that it can capsize and for that we undergo the Helicopter Underwater Escape Training (HUET). It's also equipped with a Forward Looking InfraRed (FLIR) device including colour image and a capable Galileo radar. The Mk515 is fitted with a console for the surveillance operator to control illegal fishery and due to that it is unable to carry the extra fuel tank and has the shortest range of the three variants. The Mk516 is the tactical variant and equipped with an electronic warfare self-protection suite. It also has a foldable main rotor and tail to be stowed on warships. One Merlin is 24/7 on alert in Montijo airbase so we can act fast if we're needed. We also have two SAR deployments, two Merlins are based at Lajes, Azores and one Merlin is based at Porto Santo, Madeira, both deployments also perform medical evacuations. The crews of those detachments are changed every two weeks. All the maintenance of the helicopters is been done here at Montijo in a shared effort between squadron mechanics and employees of OGMA. When the helicopters which are detached at the Azores or Madeira islands needs maintenance we switch the helicopters but to Madeira it's four hours and to Lajes it's five hours flying. At the moment Esq752 will be re-activated at Lajes, Azores, which was de-activated when the Puma's were withdrawn".

Esq502 – Elefantes (Elephants)

Captain Dionísio Matias stated, "In the past our squadron was based at Base Aerea No. 1 Sintra with the Casa 212 but in 2009, with the arrival of the first Casa 295s, the squadron was moved to here, Base Aerea No. 6 Montijo. We have a total of twelve Casa 295Ms in four variants; tactical transport, maritime patrol, medical evacuation and Search and Rescue (SAR). All the Casa 295Ms are based here but we have detachments at Montijo, Lajes (Azores) and Porto Santo (Madeira). Each has one aircraft on a 24/7 duty for Search and Rescue (SAR), Medical Evacuation or donor transport. Other tasks of the squadron are Intelligence, Surveillance and Reconnaissance (ISR), transporting paratroops and air cargo. We can carry up to 48 paratroopers fully equipped and up to 69 soldiers not fully equipped. The Casa 295M can also carry out the same missions of the C-130s and burns less fuel and has a shorter crew making it a lot cheaper to operate than the C-130".

"At this moment one Casa 295M Maritime Patrol aircraft is at Malaga, Spain for Frontex which is the European Union's border control agency and we are monitoring the flow of illegal migration and smuggling from Africa to Europe. In the past we participated multiple times in Frontex but also in the United Nations (UN) Multidimensional Integrated Stabilization Mission (MINUSMA) in Mali. We also participate in the European Tactical Airlift Programme – Training (ETAP-T) course to work with other countries and learn from them to increase our knowledge. For the maintenance the A and B checks are done here at Montijo but the C checks are being done by Airbus Defence and Space, Spain. We still don't know when but probably the Casa 295s will get an Mid-Life Update (MLU) by Airbus Defence and Space, Spain in the future. It is great to work with the Casa 295 so we are very happy with it and it is a perfect aircraft for the Portuguese Air Force because it's very versatile".

Esq501 – Bisontes (Bisons)

Lieutenant Eurialo Viana stated, "The C-130 entered service in 1977 and a total of six aircraft were delivered to the Portuguese Air Force until 1991. Unfortunately, one of these aircraft was lost, and another is currently non-operational, resulting in a fleet of four currently active C-130s. Out of these, two are currently undergoing modernisation at OGMA, Alverca. These enhancements are designed to extend their serviceability until 2028, at which point the C-130H is anticipated to be phased out.

This modernisation, encompasses structural changes and a significant modification to the aircraft's avionics systems, integrating a highly substantial set of new equipment, navigation systems, and communication systems. In preparation for the future, the Portuguese Air Force has made an investment in the KC-390, which is scheduled to join the Air Force in the upcoming years as a replacement for the C-130H. The transition to the new platform is already underway, with some crews undergoing training and conversion. The 501 Squadron has been doing a variety of different operations, missions and treaties around the globe, including search and rescue, tactical airlift, humanitarian aid, and special transport like Open Skies, Desert Storm, Provide Comfort, Blue Beam, Operation Turquoise, IFOR, SFOR, KFOR, UNTAET, ISAF, EUFOR BiH, UNHCR, UN WFP Lebanon, EUFOR Congo, EUFOR Chad, ISAF/ESAF, Haiti and multiple times MINUSMA. We also took part in Tactical Airlift exercises like Volant Rodeo, Advanced Airlift Tactics Training Course (AATTC), Polygone, NATO Tiger Meet, Hot Blade, ETAP-C, ETAP-T, Lusitano and Loyal Arrow and also in Search and Rescue exercise like ASAREX. In the past we've been detached to Zaire, Rwanda, Australia (East Timor), Mozambique, Afghanistan, Gabon (Congo), Chad, Mali and Pakistan. As the primary transport asset of the Portuguese Air Force, the 501 Squadron remains prepared to respond to a wide array of challenges, reaffirming its motto: "Anytime, Anywhere".

Article and photos: Lowpass Aviation – Rene Slegers and Bram Marijnissen

<https://www.lowpassaviation.com>

[facebook.com/lowpassaviation](https://www.facebook.com/lowpassaviation)

<https://www.instagram.com/lowpassaviation.com.nl/>