

Boelcke's

Bombers go multi-role

JAGDBOMBERGESCHWADER 31 (JbG 31) was the Luftwaffe's first fighter wing to receive the Panavia Tornado when it retired its F-104 Starfighters in 1983. Nearly 30 years later, the Tornado still forms the backbone of the strike fighter fleet, but the end is near: in December 2009 JbG 31 became the first fighter-bomber wing to transition to the Eurofighter and the Luftwaffe is scrapping Tornados for spare parts at a rapid tempo to keep 85 jets airworthy until 2015. The Eurofighter will then become the Luftwaffe's primary fighter jet.

Deputy commander of JbG 31, Lt Col Stefan Kleinheyer, is very experienced with the Eurofighter. After flying the F-4F Phantom for ten years, as well as the F-16C for three years in the United States, he became the first commanding officer of the Luftwaffe's first Eurofighter squadron (732 Staffel at Laage) in 2003. When *AFM* asked him about the role of JbG 31 in relation to other Eurofighter wings, he said: "One of the objectives of the air chief of staff is that all Eurofighter wings will be able to do both air-to-air and air-to-ground [missions]. The aim is that there will not be wings focusing on one specific role. All wings are going to be multi-role, but this wing will set the standards for air-to-ground, do the testing and evaluation, because we have pilots with that background."

Transition

As the first fighter-bomber wing to convert to the Eurofighter, the transition was a little different to other units; before JbG 31, a training wing at Laage (JG 73) and a fighter wing at Neuburg (JG 74) converted to the Eurofighter, both being pure fighter squadrons. Kleinheyer: "Any pilot with more than seven years of flying left will be transferred to the Eurofighter. Some 70% are former Tornado pilots, but they are trained in the air-to-air role as 90% of the missions we fly at the moment are air-to-air. Then we have another

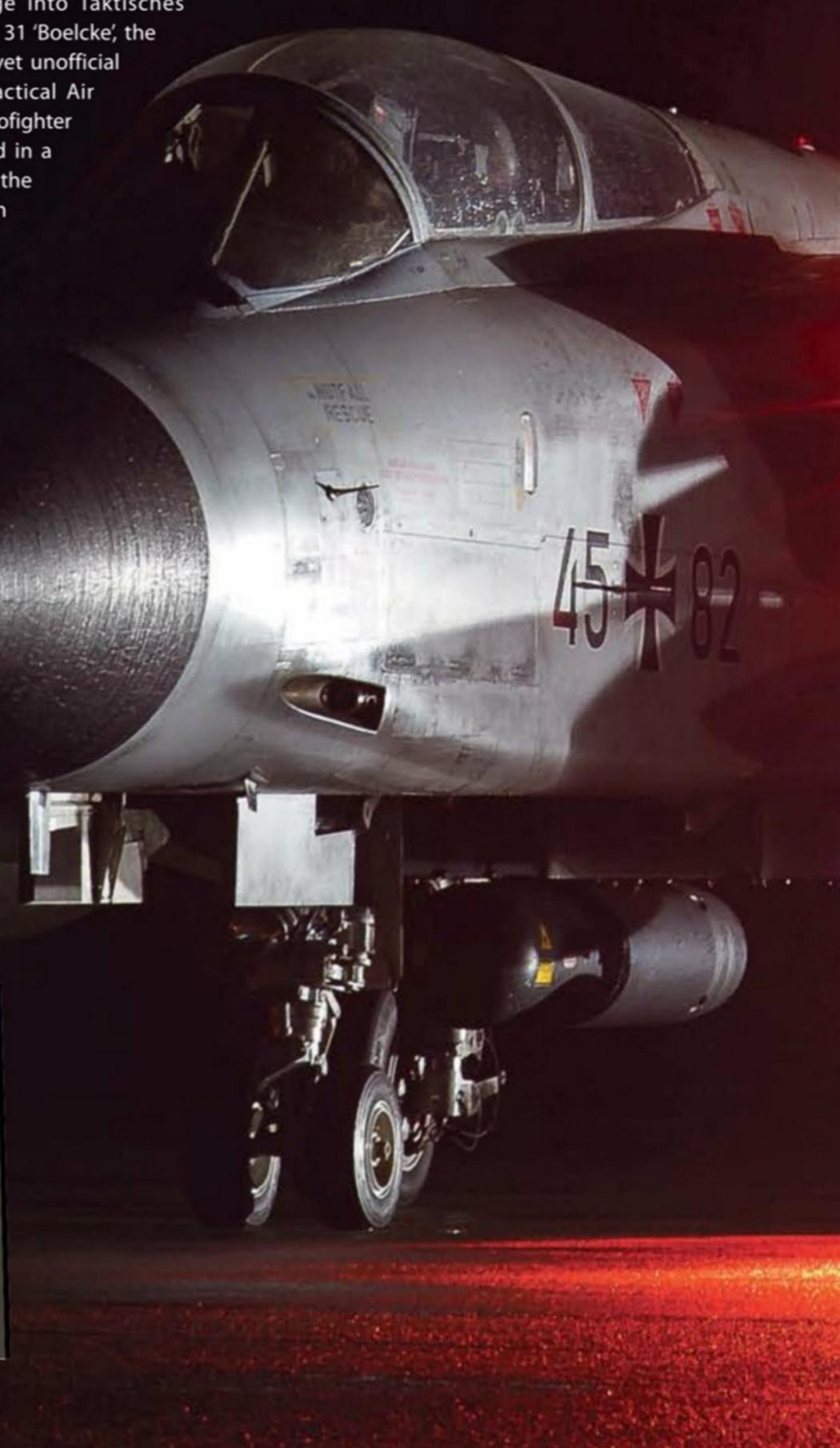
30% with a Phantom background, who are familiar with AMRAAM [Advanced Medium-Range Air-to-Air Missile]. This is a great mix for us. Some of them are also instructor pilots. They take care that we have a good level of understanding of the air-to-air role before we move on to air-to-ground."

Due to the wing's switch to multi-role fighters, the name will change into Taktisches Luftwaffengeschwader 31 'Boelcke', the most logical – but as yet unofficial – translation being Tactical Air Force Wing 31. All Eurofighter wings will be renamed in a similar fashion. When the Eurofighter arrived in December 2009, 35 jets were planned ▶

Dirk Jan de Ridder and **Menso van Westrhenen** visit Jagdbombergeschwader 31 'Boelcke' at Nörvenich, the Luftwaffe's first fighter bomber wing to replace the Tornado with the Eurofighter Typhoon

Oswald Boelcke

In 1961 Jagdbombergeschwader 31 was given the name 'Boelcke' in remembrance of First World War ace Oswald Boelcke. He not only achieved 40 kills, but also developed many fighter tactics still in use today. In 1916 at the age of only 25, Boelcke died after colliding in mid-air with his wingman during a dogfight. Germany's premier ace, Manfred von Richthofen (the Red Baron), was one of his students and continued to praise him after his death: "After all I am only a combat pilot, but Boelcke, he was a hero."





Left: *Several of the unit's Tornado pilots continue to fly the aircraft out of Büchel, while carrying out their ground functions at Nörvenich.*

Below: *As a back-up nuclear base, Nörvenich has all the facilities to carry out the QRA interception role, including fenced aircraft shelters, but when the F-4F retires in June 2013, the unit will protect German skies with a permanent detachment to Wittmund in the north.*

"All Eurofighter wings will be able to do both air-to-air and air-to-ground [missions]"

to be delivered to Nörvenich, but this has recently been reduced to 31, which will be flown by 51 pilots. At the end of 2012, the unit will have 19 aircraft and 16 pilots.

The number of flying hours for 2012 has doubled to more than 2,000, not least because of the many exercises and deployments on the unit's calendar. In April, six Eurofighters took part in the two-week Frisian Flag exercise in the Netherlands. Lt Col Kleinheyer: "Frisian Flag was our first international exercise. At that moment we only had 13 pilots and almost everybody went there. Not all of the pilots took part in the flying, but we had young guys observing and flying in the backseat. We also had instructor pilots in different stages of training. They needed to gain some experience in leading a two-ship [formation] while being part of a bigger exercise. Even though they already had some Red Flag missions under their belt, albeit with a different type of aircraft, it was a main objective for them to gain experience in order to set the 'red lines' for the young guys. We are planning to take part in Frisian Flag 2013, because we thought it was a very well organised exercise."

Later this year, the wing will deploy to Decimomannu in Sardinia. This used to be an annual deployment, but it hasn't taken place since the conversion to Eurofighter. Some of the missions there will include air-to-ground and close air support, so that former Tornado pilots can keep up their skill sets. In November four aircraft will visit the Advanced Tactical Leadership Course in the United Arab Emirates; two pilots will take part in the course, while another four or five will be flying 'shadow missions'.

Tranche deliveries

Eurofighter Typhoons will be delivered to partner nations in three instalments: Tranche 1, 2 and 3. By March 2008, 44 Tranche 1 aircraft had been delivered to the Luftwaffe. Eurofighters currently rolling off the production line are Tranche 2 versions, of which 79 will be delivered by 2014. The last batch of Tranche 3 jets will comprise 31 aircraft for the Luftwaffe. JbG 31 currently operates both Tranche 1 and Tranche 2 jets, as Lt Col Kleinheyer explained: "There are many differences for the technicians, but for me as a pilot those differences are less important. For example, we are now using the Tranche 1 aircraft to join the NATO Response



Above: Deputy commander Lt Col Stefan Kleinheyer.

Force [at Jagdgeschwader 74], because they have got some better software upgrades than the Tranche 2. As a pilot going to the flight line, sitting in a Tranche 1 or 2 jet, those differences are minor. There are differences when it comes to the Defensive Aids Sub System, our chaff/flare and ECM. It is better integrated in the 2 than in the 1."

Concerning future capabilities, he said: "When we have a basic air-to-ground capability with upgraded Tranche 2 aircraft, including the laser designator pod, that will give us the capability to fight our way through with AMRAAM and lase [targets] or even drop [bombs] on GPS coordinates. When it comes to sensor fusion and systems like our helmet-mounted sight, which we are already testing here on the base, I expect the integration of all these systems to be even better with Tranche 3 jets."

Future loadout

The Eurofighter's main air-to-ground weapon for all-weather precision attacks will be the 1,000lb (450kg) GBU-48, consisting of a Mark 83 bomb with an explosive mass of 440lb (200kg). It can be guided by GPS or laser from the Litening III targeting pod. Both the Mark 83 and the Litening are already in use with the Luftwaffe's Tornados, but have yet to be integrated into the Eurofighter fleet. The Luftwaffe plans to modify the GBU-48 with a

JbG 31 Eurofighters (as of July 1, 2012)	
Tranche	Serials
Tranche 1	30+04*, 30+12, 30+15, 30+31*
Tranche 2	30+66, 30+72, 30+75, 30+76, 30+78, 30+79, 30+82, 30+83, 30+84*, 30+85, 30+90
*Twin-seater	

Trojan Improved Penetrator (TIP), which combines increased penetration with reduced explosive power to minimise collateral damage. Air-to-air capabilities are going to improve with the arrival of the MBDA Meteor beyond visual range (BVR) missile that will replace the AIM-120B Advanced Medium-Range Air-to-Air Missile (AMRAAM), effectively increasing the attack range from 45 miles (75km) to 60+ miles (100+ km).

Eurofighters will also be tasked with the role of manned reconnaissance through the use of the RecceLite pod. The Luftwaffe has not yet set a date for its introduction, but has stated that it will follow the Meteor introduction. As the Eurofighter comes of age, more and more weapon systems, such as the MBDA Brimstone anti-tank missile, AGM-88 anti-radiation missile and Taurus air-launched cruise missile will become available for the aircraft. It seems very likely that these will eventually equip the Eurofighter, although JbG 31 staff could not confirm any other air-to-ground weapon other than the GBU-48.

One wing, two bases

One of the aircraft types being replaced by the Eurofighter is the F-4F Phantom, which will retire at the end of June 2013. The Luftwaffe has stated that it wants to keep a fighter jet presence in northern Germany, so JbG 31 will take over the quick reaction alert (QRA) role with a detachment at Wittmund beginning July 1, 2013. Personnel belonging to JG 71 will then be brought under JbG 31 command. Four aircraft, including two back-ups, are needed to guarantee the QRA mission, and two or three additional aircraft will be based at Wittmund to make sure there is always a spare. This will be the Luftwaffe's first long-term QRA deployment without a real end date, so the exact working schedules are still being formulated. Another option under investigation is to fly QRA from Nörvenich, which as a back-up nuclear base (to Büchel) has all the necessary facilities. There will not be any local training flights at Wittmund, although the Luftwaffe is known to practise scrambles at least once a day. JG 71 will eventually get its own Eurofighters during the second half of this decade – by that time, the Eurofighter will have grown into a mature aircraft and Boelcke's bomber pilots will have set the standards for all Eurofighter wings to become proficient in the air-to-ground role.



Below: This Eurofighter, 31+16, was painted in JbG 31 markings in May 2010 but was delivered to JG 73 at Laage in the July. LtCol Ulrich Metternich

