



UNKNOWN OCCUPATION: BOOM OPERATOR

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The boom operator, also called Boomer, is the linchpin in the refueling of F-16s with the KDC-10 tanker aircraft in the air. A very responsible job, but how do you become a Boomer, how many are there in The Netherlands due to the very large and combined exercises and what do they do exactly? Louis Martin, one of only 10 in the Netherlands, tells his story. If you operate the boom, or in fact as they call it 'fly' the boom, you manage the fuel-tube of the tanker aircraft (for instance KDC-10, Eindhoven Air Base). This tube connects the KDC-10 with the fighters so they can be provided with fuel in only seconds. In addition, you are a loadmaster, so a two-in-one professional. It is not a 'jeans' appeal, meaning that as a citizen you can not enroll in this profession. Louis first worked for 10 years in the Royal Air Force as avionics specialist. Suddenly he knew: "I want to be Boomer," as he had observed that work so often. One second, that brings a lot of questions at the same time. Can I do it ? Do I have the right level ? Can I keep up to the demanded requirements? Can I handle the stress ? Will I be able to complete the training?

THIS WAY YOU BECOME A BOOMER

The selection requires at least five years of experience as a technician on the KDC-10. Also five years of experience as a load-controller of the RNLAF-Cargo, or loadmaster on another type of aircraft is required. Psychological testing at the Center for Man and Aviation in Soesterberg (CML), a fly-medical examination and eye-hand coordination tests are part of the inspection Louis explains. After that five months of training will follow (USA), the first six weeks implicate a basic training at Lackland base. Much theory and calculations, the translation of cargo from 'freight' to place and space in the aircraft, and as many information about the actual refuelling of planes air to air. Only then the specific training will start at McGuire on the type of aircraft on which you will perform your job. Slightly by that time with the training on the simulator your new job is getting a little bit of the real image of this fine occupation. An instructor will guide you up to the time that the trick has 'landed' in your fingertips, even during the first real flights the instructor will be on your side if help is needed. In the Netherlands, you will learn to fly the boom using using 3D (three dimensional) screens simultaneously and thereby communicate with the cockpit and the "receiver" (the receiving unit) at the same time, a special technique.

THE FLIGHT

In a pre-briefing for the entire crew are all the information and aspects are discussed in detail by function, as well as departure time, destination and expectations as the weather. Also, the number of participating F-16s, how much fuel will be delivered, and at long distance flights the work & rest schedule. An example: To fly from Eindhoven Airbase to Goose Bay in Canada with six receivers and 30,000 pounds of cargo is feasible. After the briefing and under responsibility of the Boomer a so called pre-inspection takes place in the RARO station (Remote Air Refuelling Station Operating). A pre-flight and boom-check to make sure all equipment is working properly. Then Safety Checks follow (oxygen masks, extinguishing), catering, passenger and cargo, the (dis) arms of the doors and evacuation items, it all runs under the responsibility of the Boomer.

Any small deviation inside or outside the plane does mean an absolute no flying yet ! The so-called Weight & Balance sheet is being prepared in cooperation with the flight-engineer. With these data he further calculates its take-off performance. At this point the pilots will arrive and last and final flight briefing follows. At the take-off the Boomer is sitting on 'seat 4' behind the pilot for a monitoring function on electronics, hydraulics, air conditioning, etc. where a backup exists for all elementary systems. After take off at 10,000 feet again a visual check follows by the Boomer as called "completely through the aircraft", regardless whether there are passengers and cargo or not. The whole is peppered with precautions, sometimes a refueling can not continue because of turbulence, but then a short break or another flightlevel can bring the solution.

ACTUALLY REFUELLING WITH THE RARO STATION

RARO stands for Remote Air Refuelling Operator Station, the Boomers workplace. Differences between the KC-10A (USAF) and the KDC-10 (NL) are that the KC-10A has no windows and has more fuel capacity, basically said a flying fuel tank. The KDC-10, however, has a passenger section, a cargo section and four fuel tanks (total 265,000 pounds) situated under the cargo section. The USAF's Boomer is situated in the back (tail) of the plane and has sight through a window (he has a direct view of the action) and the KDC-10 is working with five monitors in the front of the plane where the Boomer features stereoscopic 3-D glasses to see a good depth for an accurate picture. The screens allow the Boomer to see under the belly of the fuselage of the KDC-10 and have a faraway view as well as the left wing and right wing side of the tanker. The F-16's approach and take position behind the left wing, guiding them to the so-called 'astern' position, the (hover) 'stabilized and ready' position using light signals and / or radio contact between the Boomer and F-16, the "receiver".

By deployment in crisis areas, the F-16's only are coached correctly through light signals under the fuselage of the KDC-10 to avoid any radio contact which could be received by the enemy which could give them information that- and where you are there. The boom consists of a set of eight meters steady and a pull-out part of seven meters, which then has been extended already by the Boomer. He has two 'joysticks', a left telescoping stick for the extension of the boom, and a right flight control stick to 'fly' the boom around the cockpit of the F-16 where the boom is brought in position this way for the connection to the (terminal) receptacle.

BREAKAWAY !!

Louis tells us he didn't get into any weird situations himself in all these years and shows himself to be very experienced during the interview. Despite all the security measures a sudden unwanted situation can arise through all the 'Safety First' regulations. You can never exclude this. The Boomer is 'always in charge' and if really an aberrant situation would arise how ever minor, the Boomer will shout instantly "*breakaway - breakaway - breakaway*", and the Boomer immediately disengages, the Captain of the KDC-10 immediately increases speed, and the receiving F-16 directly decreases the speed and thus falls back behind the tanker. Such a "situation" could be that after (or within) three attempts did not succeed while turbulence also disrupts the party. The F-16 takes distance, and that is also why the to be refueled F-16's fly left of the tanker, and the already refueled planes fly right of the tanker. In general however this is very unlikely to happen because all factors are looked at and judged before and during the actual moment of refuelling. Also a total fuel dump is possible if ever a precautionary landing is to be made. In such a case and at this altitude the fuel will not be of any danger for the ground because kerosene never touches the ground, it evaporates before it can hit the ground. By the way aircraft only discharge kerosene in absolute emergency situations. This fuel is much too precious to waste.

On the final question whether Louis wants to add something, a surprising answer follows. "After all these years in the morning I step in my car and I still think: What a wonderful profession I do have !"

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