

## On Patrol with the Coastguard

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When you ever stay in Holland at the North-Sea coast, you might see the Dornier DO-228-212 in it's white-red-blue colors, flying along the coastline. Only a few know what kind of tasks are assigned to this plane, but they who had something to do with it do know better..... ! The plane and it's (military) crew keep an eye on the Dutch part of the Northsea, and that is urgently needed. The observers in the plane are primarily responsible for the identification of environment summary offences and in particular concerning oil- dischargings. Moreover an important task is the Search and Rescue task for ships in need there, a role which was more or less taken over from the P-3C Orions that were sold to Germany and Portugal.

### Capable for its tasks

The DO-228 is equipped with a TERMA Side Looking Airborne Radar (SLAR) under the fuselage. This radar is excellent suitable for discovering oil-spots on the sea-water surface. Transmitted radar pictures return a picture (image) of the sea-surface – even through the clouds – with the only condition that there is daylight present, and the sea-surface should not be completely plane without any single little wave, such as in the case of complete wind-silence. (no wind at all) The sea reflects on the transmitted radar-beams, a ship returns indicated as a hard blank image and an oil track returns as a subdued dark indicator image. This also applies to some other chemicals, called 'floaters', because the chemicals that 'sink' and 'solve' you cannot trace anymore. This accidentally discovered application of the SLAR, an instrument what found its origin in the military industry, appeared so very valuable that nearly every Coastguard around the European seas have been equipped with this instrument. Beside these SLAR observing visually remains an important component of the work. Regularly there is flown at a very low altitude, and very low means at this height that the Captain of the to be observing ship can be 'looked in the eyes'. This is a real exiting experience, it just looks when you are in the plane that you 'ride on water'. The daily environment-checks on (oil)pollution are held in order of the Dutch organisation 'Rijkswaterstaat' which is a governmental organisation, and owner of the plane itself. The pilots are 'hired' from the Royal Dutch Navy of VSQ-7 squadron at Den Helder Navel Airbase. This way a select group of pilots and other crew-members exist, who are only assigned to this kind of work only, and this way they are highly specialised in this work. The crew is very often assisted by members of Police, Customs authorities and even the General Information and Securities Service. (Comparable with 'Secret Intelligence Service')

### Showing the flag

Our crew of this day exists of First Pilot Captain Mark Foppele in the left-seat, and first Pilot Roel Hondema in the right-seat as co-pilot and navigator. Today's 'Missioncommander Environments Control' is Bert Backus, in the back of the plane. Mark today is a replacer, the original pilot 'did not feel quite well today'.

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Mark speaks in the intercom: 'You should go to McDonalds instead of having your girl-friend cook....!!' We have a laugh, and immediately the mood is good ! it is sweltering hot and we sweat as otters in our orange plunge-survival-suits. We are packed up in a not so very large plane (maximum 19 passengers when executed as passenger plane) and it is filled up with consoles and equipment. We start a 3,5 hours observation flight starting from Schiphol Airport- East in Amsterdam. Normally the homebase is Den Helder Naval Air Station, but due to maintainance the plane is

'rainbow' for colors, and 'metallic' for silver color and finally 'true color' for a massive dark-brown color. With these data you can estimate within a minimum-maximum trajectory how many cubic meters (gallons) oil there can be drifting on the water. After this analysis, the decision is made if there is to be sent a special ship to fight and clear the oil because as weird it may sound, the best view you have from out of the air and this is the best place for immediate important decisions. In earlier days the public knew the well-known ship called 'Smal Agt', but this ship is more or less outdated and now 'Rijkswaterstaat' uses the oil pollution fighter-ship 'Ms. ARCA' which – by the way- can be made operational within one hour to sail out for oil-pollution fighting. Earlier known techniques as used by the former 'Smal Agt' has been developed, and the Environment Specialists have also been asked for improvements. Not without any pride Mr. Bert Bachus tells us that he himself was often present on these ships and he knows all the aspects (and tricks!) in this business. As a 'One-scene Commander' he was involved in the oil-fight after the disaster with the Sea Empress at Wales (1996), the Erika in the Biskaje Gulf (2002) and recently the disaster with the Prestige in front of the North-West Spanish coast.

### **International oriëntation**

Hardly any territory is so depending on its neighbour-countries as guarding the sea. A tight international company with very clear and far-reaching cooperation is nearly a condition. Within this 'Bonne Agreement' (gentlemen's agreement red.) the so called Northsea countries Germany, Denmark, Sweden, Norway, Great Britain, The Netherlands, Belgium and France make eight times a year the 'Tour d'Horizon' where all countries do this tour once a year. It is an international flight of three days, where you stay the night at Inverness Scotland, and Bergen Norway. It's a reciprocal check on each other's continental zone, specially the off-shore, because also oil-drill platforms may 'loose' some oil every now and then. Also it is important to share and exchange procedures and techniques and to know where you stand in this work. In the project Eumarex there is an exchange of pilots and expertise between amongst others The Netherlands and Finland, who also fly the Do-228 from Turku. Another project is CEPCO (Coordinated Extended Pollution Control Operations) in which several countries and planes are involved. The idea is to scan a certain part of the sea for 24 or 36 hours with radar, SLAR, visual and infra-red imaging. A variety of countries and planes are involved. The Do-228 is functionally seen a good plane (Netherlands, Germany and Finland), the Casa CN-215 is used by Letland and Spain, the Cessna 406 by France and England. Norway uses a Swaeringen Metro, the Danish a Challenger, Sweden flies also the Casa from Karlskrona and the Polish use the Antonov Bryza-28. Difference in quality is also a fact, Letland used recently only one laptop, a moving map sea-card, and 'visual-eyes' in a Let L-410 while the Finn's use a 360° surround looking radar and their plane also use for border patrol on the eastern border.

### **Not only oil**

More important matters need checks on the Northsea such as checking on fishery-quota, checking on refugees in boats, (too many people on a ship) losing cargo (containers get lost 'suddenly') drug transports (contrabande) but also simple tasks such as routing. Several one-way routes exist where there has to be a certain control,

but also certain ship-routes know restrictions. Above the 'Wadden islands' tankers with a capacity over 10,000 barrels (and chemical tankers over the 5,000 barrels) are not allowed because the risk for the 'Wadden-sea's' population of seals for example is too large. They must take a more Northern route to direction Germany, however if the tanker is empty he can take this route anyway. Logical they try to make abuse of this fact. There is however a sublime cooperation with the Germans, and Port State Control knows to handle. Many summary offences are made and many times they have to pay their fines. Bert Backus has his console in the back of the plane, and behind a separate console in front of the plane often seats a police officer, douanier etc, who work in some kind of a 'pool' of observers. If nobody is present in the front, I'll be there as well says Backus because he's qualified for these tasks as well. 'We are the foresters of the Northsea' claims a sneering Bert.

### **The Coastguard flies for us all**

Next to this police-work also surveillance and SAR is made and there is a 'Crew Ready 3' engagement which means that within three hours after alarm a flight can be started for maximum 4 hours. The pilots praise the plane because of its fine flight characteristics, its low stall-speed of 85 knots, and its excellent flying characteristics at very low altitude (to 100 meters above sea-level) About 1200 hours are flown a year but this will change to 1700 hours when two new planes have been purchased to replace this one, and six mission commanders will be in charge from that moment on. After a low-level check over some small pollution-spots we fly to a certain place where a ship-wreck is being lifted by the well known company 'Smit-Tak', we have to see if any oil comes out of this wreck. But after some visual checks where the Dornier almost flies in 90 degrees, we see through a hole in the clouds that all is ok. This wreck, the 'Michelle', is seen, lifted by Smit-Tak-7, the contours are to be seen very clearly and no oil is leaking. After a three hours flight with our eyes 'on alert' over the Northsea we arrive in the Helicopter protect Zone, where there is a busy helicopter traffic and we change to their frequencies. The job is done, and we are impressed of the way the sea is guarded and the work is done. Only a few people know about these activities, and the achieved goals, not a job for the claustrofobians! One thing is sure, it's a comfortable idea that there is this kind of watching for our security, safety and also the security of the life in sea and environments!

### **Dornier Do-228-212**

Length	16,56m
Wingspan	16,97m
Height	4,86m
Range	1000-2700 km
Max. speed	369 km/hr
Max. weight Start	5700 kg
Max load	1783 kg
Engines	2 Garret TPE-331-5-252D 579 Kw (802pk) each

### **Wim Das & Kees Otten**

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