

“Drone strike in the Malian desert”, transcription of the interview of Lieutenant-Colonel Romain, French Air Force officer and drone operator, conducted by Alexandre Jubelin (AJ), published on 09.04.21 (translated from French into English by M. Drevet, L. Mieusset, R. Mignot-Mahdavi, C. Pinel, A. Yehiel)*

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This week, Lieutenant-Colonel Romain, aviator, Air Force officer, now at the War College, more precisely a drone pilot, comes to "Le Collimateur", in partnership with the War College, to talk about the piloting of drones as well as the targeting process.

Q1 Alexandre Jubelin: It is a rather recent memory that you are going to share with us, but let's perhaps start with this: were you always a drone pilot?

Lieutenant-Colonel Romain: No, no. In fact, I have a particularity, which is that I started my operational career in a fighter squadron, more specifically in a reconnaissance squadron, in other words, a combat aircraft equipped with cameras. At the time, they were film cameras. So, I flew Mirage F1 CR, the reconnaissance version of the Mirage F1, and at the end of my time on the Mirage F1 CR, I spent two years at the Air Force headquarters and then I arrived on drones for which I was converted to learn how to fly the MQ9 Reaper drones.

Q2 AJ: Is it quite different?

Lieutenant-Colonel Romain: Well, it is totally different, it is a different mission, it is a different piloting.

Q3 AJ: We can see that there is a different physical aspect, but how long did it take you to readapt to a drone?

Lieutenant-Colonel Romain: Well, in fact, there is a training course which takes place in the United States. When I arrived, it was only done in the United States. Today, little by little, well when I left, the French Air Force started to train its forces while still sending people to be converted in the United States and the conversion lasted about three to four months. Afterwards, what takes a little longer is to master this type of mission. Because in fact, despite what one might think in a rather simplistic way - yes, it's a drone, yes, it is much slower - there are in fact very specific characteristics to piloting which mean that it's not necessarily as easy as it seems to grasp the environment. At first you no longer fly according to external parameters because you are on the ground; the plane is flying thousands of kilometers away and you are on the ground. Therefore, it is not easy to understand the weather and all these things. And then, the second point of course is that we are always converted for the benefit of a mission and the mission of the Reaper is not the mission of a combat aircraft. As a result, you also must learn a very specific mission. And while the fighter plane goes fast, the Reaper goes slow.

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While a fighter plane is passing, the Reaper lasts 24 hours in the air. So obviously the missions are different, the nature of the missions is different.

Q4 AJ: So, to stay on this matter, did it produce a kind of curiosity, I don't know, to wonder what happened once you had left, once the Mirage, I mean your fighter plane, had left the area? And to know that the drone offers time duration and perception of this length of time. Did it satisfy some of your desires as a fighter pilot?

Lieutenant-Colonel Romain: I wouldn't use these words. On the one hand, I had not really thought about it, because at the beginning, piloting a drone was not really one of the options I wanted to choose. On the other hand, I quickly learnt to take it as an opportunity when I arrived on a drone and discovered a profoundly different understanding of time, of operational time, which gave me a lot of, how shall I say, operational interest. Indeed, I saw an enormous interest in it and even on a personal level, I learnt a lot through the four-man crew of the French Reaper - whereas on the Mirage F1 CR I was in a single-seater aircraft. Therefore, I was all alone to accomplish my mission, that alone was a major change.

Q5 AJ: And so, we'll go into memories in a moment, but how long have you been on a drone, that is on the Reaper, since you have been trained to pilot a weapon system, namely the Reaper, which is bought off the shelf from General Atomics, but which is the hegemonic equipment of the French air force?

Lieutenant-Colonel Romain: I've spent, well, almost the same amount of operational time in combat as I did on a drone, as I've spent five years on the Reaper.

Q6 AJ: Perhaps we can move on to what you've come to tell us. So, it's an operation that took place relatively recently, you said it was in 2020?

Lieutenant-Colonel Romain: Absolutely, in 2020, at that time I was sent to the deployable air base of Niamey in Niger. As part of the Barkhane operation. And I was head of the detachment. You must know that the particularity of an air unit detachment commander is that he is a pilot, just like any other pilot. Thus, I manage the command of my teams and participate in the missions as a pilot. And, a few days after arriving on the theatre (after having done what is called a theatre release, meaning, in fact, that you are on a flight accompanied by someone from the detachment who is returning to France, so that you can review the operational procedures a little bit), a few days later, once this detachment had returned to France, I experienced my first shooting with the Reaper, as two months before the air force had declared the armed drones (armed with GBU12 bombs, i.e., 250 kg laser-guided bombs) were brought into operational use.

Q7 AJ: So, we can mention the great novelty that has spilled a lot of ink, but which we talked about, in a long podcast (which was not "le collimateur" but with Christophe Fontaine who was one of the pioneers of this implementation of drones in the French military). It was the great novelty of 2020 to directly arm French drones, which were previously in observation mode, and which obviously also supervised direct actions, but another effector was needed; we needed fighter planes or bombers to hit the targets that the surveillance drones had identified. Instead, now, the drone itself can target. So, tell us about this first opening of the operation.

Lieutenant-Colonel Romain: Well, a few days after our arrival we were in the air since relatively early in the morning, on the border between Mali and Niger, in what is known as the

Liptako zone, and we were conducting an in-depth analysis of the enemy positions, to find the enemy. As in any surveillance mission, it necessarily takes time, and so, at the beginning, a bit like a police investigation, you have a small clue on the screen - in this case it was a motorbike with two people on board - and so we follow this motorbike because the place where we found it, its environment, our intuition tells us that we should follow it. So, we follow it. And then, strangely enough, the behavior of this motorbike is a bit odd since it is heading towards French forces that were deployed on the ground. Naturally, we warned the French forces, who asked us through a JTAC, a "joint terminal attack controller", which is someone who is trained to guide aircraft to support the ground forces...

Q8 AJ: It acts as a liaison between the land forces, the ground component and the air component?

Lieutenant-Colonel Romain: Exactly. So, this motorbike is heading towards them, and we follow it.

Q9 AJ: Well, let's pause a second on this: we know that drones take a long time. Ultimately, what time scale are we talking about? Are they five minutes away? An hour? Or, are they...?

Lieutenant-Colonel Romain: When the motorcycle stops in a small village, they are less than a kilometer away from the first French forces and we've been following it for about 30 minutes (more or less, because I don't even remember exactly) but we must have been following it for half an hour at least. And there, he has a rather surprising behavior because he goes to look for material in a hut. We can't really distinguish him and then suddenly, in a brutal way, he runs. Which is quite surprising. These are not regions where people are very busy like in the streets of Paris, for example. And he gets on a second motorbike and there we have a departure of two motorbikes, quite loaded, with two people on each one. So, of course...

Q10 AJ: It smells like an attack

Lieutenant-Colonel Romain: It doesn't necessarily smell like an attack because you'll see, and this is what I want to explain to you, there are four of us in the crew. Of course, you must imagine that throughout this surveillance process, I can tell you that there are discussions. There are four of us on board, I am the pilot, I have a sensor operator who takes care of the camera, I have an intelligence officer, who is called the tactical coordinator, and I have an image interpreter who is called the image operator. The four of us work together.

Q11 AJ: So, the image operator tries to tell you what we can see and what we can't see

Lieutenant-Colonel Romain: He's the video analysis specialist. The intelligence officer can add other information to confirm/infirm what we are seeing and then the pilot and sensor operator manage the aircraft and sensor part. And so, at this point, there is a lot of discussion and of course, we follow it, we are no longer at a simple little string. The string has grown. But it's not enough. It's not enough because, in fact, in the process of firing, you must be certain that the target is a military one, and we're not sure. There is too much doubt. In fact, in any opening of military fire, you must be sure that the target is military - that's what we call positive identification (P-Id) and that's translated into French as: l'assurance raisonnable (*reasonable assurance*). There may be a degree of doubt, but it is still a reasonable assurance. So that's it. But we're not there yet. So, we keep following them.

Q12 AJ: But if it's one kilometer away, that means you've got what, five minutes, not even?

Lieutenant-Colonel Romain: Right, we don't have much time. But then, the two motorbikes went back in the opposite direction. In fact, it was as if they had picked up some stuff and then went back the other way, having picked up what they didn't want to show the French troops. This is just a guess I'm making as it was never confirmed. The motorbikes followed each other and then at one point there was a small accident, in the sand and at that moment, there was a movement, of one of the guys on the ground, where clearly, we were able to identify a weapon and so there...

Q13 AJ: So, he's got a weapon

Lieutenant-Colonel Romain: He does have a weapon and all the things we had observed since the morning, the stop, and the cherry on the cake, which is the presence of this weapon, mean that, given the area and all these elements, we can say that we have reasonable assurance that these are enemies.

Q14 AJ: No, but since he's going in the opposite direction from the French forces, what do you make of that? I mean, did they go and plant an explosive device? Do you understand their tactical situation? If it is possible to have one?

Lieutenant-Colonel Romain: At that point, in fact, we are constantly reporting to the forces on the ground, and the forces on the ground ask us to follow them. That's what we do. So, we continue to try to get to the bottom of things. But now we have an important element, which is that we know that they are enemies. This is already a huge step forward compared to the very beginning when we didn't know this. And in fact, we knew that they were enemies thanks to the combination of our four crew members as we corroborate everything we have observed and as there are four of us, well we correct the biases of perception that we could have if we were alone staring at the screen.

After a while, it's the command of the Barkhane operation in N'Djamena which also follows the situation and follows our reports via the instant messaging system called chat, telling us, OK, you have the green light for destruction. We didn't really expect it, we thought we would be following the target for several hours. And, so there, well I guarantee you that the adrenaline level rises extremely high. Again, we've only been here a few days and none of the four of us in the crew has ever opened fire in an operation with a drone.

I already have experience of opening fire on combat aircraft, in the Libyan or Afghan theatres, but I don't have it with a drone. So, the adrenalin level is going to be extremely high. For the first time, we are about to shoot, having checked the estimations of collateral damage, and so on. The motorbikes leave just as we are about to press the button, so we stop firing. Then we started a second process and finally, a few minutes later, the two motorbikes stopped, and we were able to carry out the strike. So, carrying out the strike, means checking the angle-of-attack parameters, the activating the laser system. In a nutshell, there is a set of parameters to be respected so that the bomb goes correctly to its target and in the way we have been asked to launch it. Therefore, to answer the question you asked me earlier - is it different from a fighter plane - it is different in the physical sense of the word; it is not different in the intellectual approach, nor even in what you physically feel once you have dropped the bomb. That is to say, the stress level, the adrenaline that rises is exactly the same. You can feel the sweat on your fingertips. Why is that? Because you understand you are carrying out an act which is exorbitant, which is to give death. And that, in fact, I had already experienced it, so I knew

how to get past it. For the other three members of the crew, it was a real novelty. Clearly, it was my job to reduce the mental load of the crew so that we could all approach this shooting with the serenity and operational rigor that we are entitled to expect.

Q15 AJ: Yes, but there is a big difference between the two, which I referred to earlier, that when you are on a fighter plane, you don't stay, meaning a Reaper is not parked, it operates in large orbits and, in any case, your camera will remain focused on...

Lieutenant-Colonel Romain: It will remain above. There, you have the first part, if I may say so, which is the guidance of the ammunition, so that's exactly the same thing as the fighter plane, then the impact and after the impact, well, we conduct what we call the "battle damage assessment", i.e. the estimation of the damage caused by the bomb to know whether or not the mission has been carried out as we had been asked to, under the orders of the command in N'Djamena, so indeed we stay above. There, it turns out that the mission is a success and, well, we go on. That means that we move on in the sense that there is nothing more to be seen at the place where We took note, we gave the coordinates transmitted to the ground forces, who then send a little later in the day, the exact report. And we go back to our in-depth search.

So in the end it is this rather surprising side of... you've opened fire, it's a sort of professional accomplishment if you like, because that's what we've been trained for, and we must leave immediately without any transition. That's something that's special compared to the fighter plane.

Q16 AJ: Yes, and it's very interesting because it raises the question of the psychological consequences for drone pilots. You had already opened fire, but this is the first time you've seen what happens next? Or maybe you can't see anything?

Lieutenant-Colonel Romain: Well, yes and no. Yes, you see things, but you mustn't caricature them in the sense that we're not in famous movies like Good Kill, or things like that. Alright? The use of the Reaper is a military use with distances that are linked to tactical action modes and for which what we see on the camera can be voluntarily, let's say a little degraded because we're very far away, because we want to remain quiet, we want to apply different tactical modes and then our operators, and in particular the sensor operator who is responsible for the camera, does not aim to use the maximum zoom factor to get the details of what we have just shot. The goal is just to make sure that the mission is a success. And for that, you must choose the right level of zoom, if I may say so, to be sure of it, but without being deeply shocked by the images. So, finally, there are two things in your question, there is an operational preparation aspect which is crucial. This is something that is dealt with in France and then there is an aspect which is the first opening of fire. There is always a before and an after. It is deep and I think that not only a Reaper crew can say this. I think that any French soldier who has opened fire in an operation will tell you the same thing. There is a before and an after.

Q17 AJ: And how do you see your role, your complementarity, your relation to the troops on the ground? Do you, well I don't know, I'm saying this completely from the outside, but do you see yourself as, I don't know, as a guardian angel? Well, without going that far, in any case, as someone who clears the ground for the troops on the ground? Which is not possible with a fighter plane, as it only passes by. Or do you see yourself as an effector like any other? How do you perceive yourself, your new role of drone pilot, compared to your role as a fighter pilot before?

Lieutenant-Colonel Romain: Well, I do not compare the roles. Fighters and drones are very complementary. One has speed and the other has persistence. One can be used all over the globe, the other has certain technical constraints such as the satellite footprint or things like this which make it impossible to use extremely quickly. So, they're complementary in the modes of action. What I see in the function and what I have learned is the collective aspect. I was talking to you about a single-seater driver, and I have moved on to a four-man crew. That's it. I went from a mission where I was taking aerial photos to a mission where I was bringing back intelligence linked to surveillance and targeting operations. The time factor has been modified. Then, there is something new in my relationship with the troops on the ground, as we feel deeply responsible for what is happening on the ground. Because in the end, well, we're protected, we're on the ground... so yes, we're on an air base deployed where the threat is not necessarily nonexistent, but we're in a protected zone. We are not the ones on the operation ground. We're not the ones in the air, with the possibility of engine failure, the possibility of fire, etc. So that's really what we're doing, what really sets us apart, and it reinforces the responsibility of the crew even further. This is both for friends, for friendly troops, but also for what we will define as the enemy. In other words, we feel deeply responsible for complying with international law. In the sense of really making sure in a way...

Q18 AJ: In other words, who can do the most, can do the most?

Lieutenant-Colonel Romain: Exactly, that's a bit like this, yes, you're right, that's exactly it.

Q19 AJ: It wasn't the same at the time when you used to spend a quarter of a second, when you had to try to guess what could...

Lieutenant-Colonel Romain: Exactly, now we have time, time to decide, it is not a matter of 20 minutes more or less. I'll give you a very simple example. When we have doubts about what we've just observed, we have the capacity to review the sequence, (that's the role of the image operator, it's normal, he's the specialist) and we run a replay. The others continue to watch what we call real time, and he runs a replay. And, if necessary, he will run 5 or 6 replay sessions and if a doubt persists, well, it will end with a doubt. Because there's no way we can sell information that isn't true.

Q20 AJ: But to come back to this precise memory, it's a question I often ask, do you know who these guys were, after...

Lieutenant-Colonel Romain: We know afterwards, although of course I can't tell you...

Q21 AJ: But you know because, we understand that...

Lieutenant-Colonel Romain: We have a report...

Q22 AJ: ... that there is always a doubt, the doubt is inherent in fact since you are not there, since in any situation there is a doubt. But you knew afterwards who they were, what they were doing, why the tactical situation required the strike?

Lieutenant-Colonel Romain: Yes, indeed, so the PCIAT, the military theatre command center in N'Djamena, gave us the information a few days later, by telling us who it was and how they had finally validated our own analysis, which is why it led to the shooting.

Q23 AJ: There is an order.

Lieutenant-Colonel Romain: There is an order.

Q24 AJ: And it's not for you to understand.

Lieutenant-Colonel Romain: It's not up to us to understand it, and what's more, it doesn't contradict what we've just observed. Since we had already said that they were enemies and so, afterwards, it's not up to us. In any case, this was an inter-army maneuver that we were following. And afterwards, we had an exchange. This exchange is very important for us, for two reasons. The first is psychological, it allows us to clear up any doubts we might have had. The second (which is very operational) is that by knowing what we have done, we can review our own analyses and therefore potentially correct any bias we may have had at the time of an analysis. This is crucial, and this is how we gain...

Q25 AJ: Do you have the answer to the investigation?

Lieutenant-Colonel Romain: Exactly, and in fact it is crucial to accumulate the experience of each operational detachment. You must know that the patrol detachments are arranged by the same unit in France, so in fact, after a while, people follow one another and do several detachments.

Q26 AJ: Yes, building a kind of collective experience.

Lieutenant-Colonel Romain: Exactly.

Q27 AJ: Moreover, what's interesting about this is that, as you said, there's a camera, well, there's a film. A film that can be replayed, in real time, but that we can also transfer to others. Even more, therefore, the constitution of good practices.

Lieutenant-Colonel Romain: That's it, that's exactly it and moreover it's part of the good practices of each detachment in the unit. So, we capitalize on it enormously. I would like to come back to what you said earlier, you went on another mission after the strike, after having checked that everything was good and then we were relieved. In fact, ...

Q28 AJ: How long does that take?

Lieutenant-Colonel Romain: Well, on average, the shift lasts four hours. It can be more, it depends on the squadron commander, but on average in operations it's four hours.

There are two reasons for this duration, because as you've understood, when you want to understand a situation, 2 hours is too short, because in fact the life that we observe on the ground does not go very fast, so we need time to grasp all the elements. And, beyond 4 hours, there's the issue of hypo vigilance. You fall into hypo-vigilance, your focus drops, you must understand that in a Reapers cockpit, you have for each of the operators, about 5 to 6 screens to monitor. Not constantly, but in any case, there are 5 to 6 screens to scan. So that's quite a lot. When we were released, and this is a very important element which really comes from the air force culture, we started to debrief. We debriefed, in fact, what had just occurred, the four of us. And, as the person in charge of the mission and therefore in charge of the strike, I absolutely had to make sure that I oversaw...

Q29 AJ: You mean to verbalize?

Lieutenant-Colonel Romain: Exactly. To verbalize both for psychological reasons and if there is a mistake, you have to be able to say straight away that there is a mistake and that you mustn't make it again. So it allowed us, well, it allowed those for whom it was the first opening of fire, to verbalize what they had felt. It ensures that they can be deployed again as I remind you that we were in the first detachments and that, then, we had to keep the pace. And the pace was quite, let's say, not tense but sustained and intense.

Q30 AJ: Thank you very much, Lieutenant-Colonel Romain.