

Blues Skies Podcast

Season 1, Episode 12

Saving an Ajeet and Chasing an Eclipse

Wg. Cdr. CM Jaywant:

I had the experience of doing an integrated combat sortie with the MIGs. That was where we scored basically because of our size. They couldn't spot us till it was very late. And the initial advantage in a combat was with us. And then, of course, if you took the fight into the vertical plane, then they were at a disadvantage.

Ganapathy:

Hello and welcome to the Blue Skies Podcast. I'm PR Ganapathy, your host.

It's my great pleasure today to speak to Wg. Cdr. CM. Jaywant. Wg. Cdr Jaywant was commissioned into the fighter stream of the Indian Air Force in 1974 and after 22 years of service, he retired in 1996 with thousands of hours of military aviation, primarily in the Gnat and in the MIG 23/MIG 27 aircraft. In fact, he's one of the few officers that I've come across who's successfully dodged non-flying assignments through his career and has been in flying pretty much all along. He has some very exciting experiences that we'll go into, and spend time on, during this conversation. But welcome to the program Wg Cdr Jaywant.

Wg. Cdr. CM Jaywant:

Thank you for having me on your podcast and it's a new venture of yours and I wish you all success with it.

Ganapathy:

Thank you very much. We really appreciate you taking the time today. Can we start, Sir, by getting a flavour of your childhood? Growing up, where did you grow up? What were your influences and what motivated you to join the Air Force and what was that process like?

Wg. Cdr. CM Jaywant:

So I was born and initially brought up in Bombay, and after the 6th grade I went to Nagpur where I completed my schooling. Growing up was in Bombay at Shivaji Park where we had a very nice swimming pool of Olympic size. And I started swimming at a very early age. My father was very keen on me taking part in all kinds of sports. So there was swimming, athletics, football, badminton all along the school years. And in later years in Nagpur, I represented the Nagpur University in the Nationals for swimming. So there was interest in the NCC I joined and later on in Nagpur, some of my friends had family members in the

Services and that's how the interest was there, especially for the Air Force. It's a little fascination for flying. So that was the main background. And generally, I think the interest and the capabilities and sports helped me out during my training and career.

Ganapathy:

Do you remember when you saw your first fighter aircraft, what that feeling was like?

Wg. Cdr. CM Jaywant:

Oh, I hadn't seen a fighter aircraft till I joined the Air Force.

Ganapathy:

Wow, that's amazing.

Wg. Cdr. CM Jaywant:

There wasn't any connection at all. I didn't have any relatives. The friends that I had whose relatives were in the Services, we were never near at that time any Air Force Base where I could go and see the aircraft.

Ganapathy:

Right. I recall you're telling me earlier that your parents weren't very keen that you joined the Services.

Wg. Cdr. CM Jaywant:

Yes. That's true. Being the only son, there is this feeling that I shouldn't join a risky profession, as they thought it was. But one of the things I said is, do you mean to say that if there were two sons, you wouldn't mind if one sort of goes away? So that wasn't a valid excuse, I felt, and they wanted me to join, as was the norm in those days, join IIT or something. And I was asked to appear for the Entrance exam. I just wasn't keen, so I just gave blank papers.

Ganapathy:

Wow, blank papers.

Wg. Cdr. CM Jaywant:

It's only when they came to know, Father agreed to sign the Consent form for appearing for the NDA Entrance exam.

Ganapathy:

Right. What was experience like in NDA? Did you get any flying at that time in NDA?

Wg. Cdr. CM Jaywant:

NDA was good. Like I said, the sports helped me a lot, and the only flying experience I got was on the Glider, where that was a thrilling moment to do a solo in a Glider. And especially later on when I did this...

Ganapathy:

Wow. Which Glider was this?

Wg. Cdr. CM Jaywant:

This was the I don't recall now whether it was the Rohini. I think it was the Rohini.

Ganapathy:

Wow. Open air with wind in your hair sort of thing.

Wg. Cdr. CM Jaywant:

Yes. And complete silence later on. Whatever flying I did, there was always the sound of the engine, whereas in the glider it was absolute silence.

Ganapathy

You're flying in that sense, yes.

Wg. Cdr. CM Jaywant:

And of course, I had the honour at that time, the Deputy Commandant in NDA was later the Chief of Naval Staff, Ronnie Pereira. So I got my first Wings on the Glider at his hands.

Ganapathy:

Sweet. That must have been a sweet memory.

Wg. Cdr. CM Jaywant:

Yeah, it was. Or is.

Ganapathy:

And where did you do your flying training after graduating from NDA.

Wg. Cdr. CM Jaywant:

So after the NDA, I went first to fly the HT-2 in Bidar, and that was also an interesting experience, the first time I was flying a powered aircraft. And the high points of the training, of course, besides the solo and getting, progressing, and whatever training was imparted was doing a spin on that aircraft. That was one thing that could be a little daunting because you are in a kind of an uncontrolled state of flight and you have to have the presence to be able to recover from that. So that training and that experience was a high point. And, of course, the aircraft had a tendency at times, on landing, to swing and do a 360 on the ground, which you're landing, luckily, I didn't experience that, but there were a lot of people who went through that experience.

Ganapathy:

So for those of the audience who don't know what your spin is, I would point them to, I think, the movie Vijayta, where young Kunal Kapoor struggles to recover from a spin in a Kiran. What was the spin like in an HT-2?. How many turns did you do, before recovering?

Wg. Cdr. CM Jaywant:

Yes, we had to do two to three turns. And the height that we did it, at climbed up so that it's a

safe thing for recovery. And basically it's a stalled condition where there's a rapid yaw and pitch combined so the recovery is that you have to un-stall the aircraft and sort of recover and ensure that you get enough speed to pull out of the subsequent dive.

Ganapathy:

Right. And you flew the Harvard after that in your advanced stage T6G.

Wg. Cdr. CM Jaywant:

Yeah. It was a very nice aircraft to fly, in fact. And I did my first night flying on the Harvard during the training, and one of the comings again was the engine was in front, and at times there used to be an oil leak and the whole windscreen used to get covered with oil leak, but otherwise it was...

Ganapathy:

Holy cow!

Ganapathy:

What would you do in that circumstances? Just land by side reference?

Wg. Cdr. CM Jaywant:

Yeah, side reference. And at times, some of it used to get sort of blown away by the wind, but it was a nice experience to fly the Harvard.

Ganapathy:

And so you came to FTW for your fighter training?

Wg. Cdr. CM Jaywant:

Yeah. So FTW, I flew the Vampire and that's after which I got Commissioned and got my IAF Wings, which, as they say, the Wings are always earned and it's a lifetime that you sort of keep them with you, that you got your IAF Wings. And the tradition was that the Instructor gives you the Wings. So that was an interesting tradition that was followed. So once I got Commissioned, the next step was to go to OCU at Jamnagar, which was the Operational Conversion Unit. So we were trifurcated. Some of our coursemates went to Helicopters, some went to Transport and some went to Fighters. So the Fighter lot went to Jamnagar for the Operational Conversion Unit, and in fact ours was the last course to do the conversion at Jamnagar, after which the OCU moved to Kalaikunda.

Ganapathy:

Fascinating.

Wg. Cdr. CM Jaywant:

Compared to the aircraft I had flown till then, the Hunter was more of a sophisticated aircraft. It was much bigger, too. And besides the introduction to all the tactical flying that we did, we were introduced also to firing guns and rockets, which was a really thrilling experience for the first time.

Ganapathy:
Fascinating.

Wg. Cdr. CM Jaywant:
So that's what finally we were training for.

Ganapathy:
Yeah. Do you remember any of those sorties of the first time you fired rockets, what did it feel like?

Wg. Cdr. CM Jaywant:
Yeah. I mean, it was part of training, but it was a culmination in a way, of all the training, the build up is quite gradual. So we did the practice dummy runs and then the live. When you're firing, you're diving towards the target and the aircraft is accelerating towards the ground and you have to have the presence to fire at the correct range while still tracking the target, and pull out of the dive at a safe height. So those were things that, of course, we were trained, but it was a nice experience to do that

Ganapathy:
You know this range and things like that did you have any aids or was it largely based on your gauging the distance and estimating the range.

Wg. Cdr. CM Jaywant:
No, this was estimating the range because you get into the dive at a particular height and then you have the marker on the target, and the size of the cross on the target indicates your distance, because it would cover the target, the canvas target, or circle, that is, for the rocket, it will cover it at a particular distance. So that gave an idea of what the range was that you had to fire. So you start when it is a particular size, a little more than what the target size is appearing, and you continue with the cross in the center of the target.

Ganapathy:
I'm told some pilots get so fascinated by the sight of the rockets going into the target that they lose track of speed and altitude. How do you prevent that from happening?

Wg. Cdr. CM Jaywant:
All routines are there, but as is the case in other things, something can go wrong, later on in my career, when I was a Flight Commander in a MIG 27 Squadron,, one of the young boys, he was given a full load of rockets to fire in a sortie, and I had briefed him to fire well out of range, but somehow he just didn't pull out and went into the ground.

Ganapathy:
Oh, my goodness,

Wg. Cdr. CM Jaywant:
Yes that was a tragic thing.

Ganapathy:

And so from there you were then posted to an operational Squadron.

Wg. Cdr. CM Jaywant:

Yeah. So after everyone does the operational conversion on Hunters, then the type of aircraft is decided and you're sent to a type training squadron. So I was given the Gnat as an aircraft to get operational on.

Ganapathy:

What are the options at that time for somebody coming out of OCU? What are the various choices?

Wg. Cdr. CM Jaywant:

The fighters that were there at that time were the MIGs, the Gnats and there were some who even went to the Canberras.

Ganapathy:

Right, Sukhois, Hunters were also there.

Wg. Cdr. CM Jaywant:

Yes Sukhois were there. Hunters I think there was just one Squadron or two Squadrons that were there, but they were on their way out. The Hunters were on their way out, but mainly these aircraft, actually, even Sukhois, there were only two squadrons. Incidentally, there was the HF also. All right, of course, yes the Marut..

Wg. Cdr. CM Jaywant:

I was posted initially to a training Squadron, which was in Gorakhpur 21 Squadron, and within six months the Squadron was moved to Bakshi Ka Talab at Lucknow.. So the balance operational training was done over there. And then, of course, I went on to a short stint in 24 Squadron at Hasimara and then onto Hindon in 9 Squadron. So that was my progression on the Gnat aircraft.

Ganapathy:

And I heard the Gnat didn't have a trainer. Was that the case in your time also?

Wg. Cdr. CM Jaywant:

Yes. So actually, when you did your solo check, you did it on a Hunter trainer and it was the solo was the first time that you flew the Gnat on your own. So there was no trainer that you flew with an Instructor who cleared you to fly the Gnat. So it wasn't the same aircraft. You were checked out on the Hunter and you were just launched off.

Ganapathy:

And these were the days before simulators. So it's not like you had had any simulator experience or anything of that sort?

Wg. Cdr. CM Jaywant:

No, not at all.

Ganapathy:

Did they have some airmen sit on the tail plane and give you the site picture of a take off altitude and landing altitude?

Wg. Cdr. CM Jaywant:

Yes, we did. We did have that because it was a totally different perspective as compared to the Hunter.

Ganapathy:

Right.

Wg. Cdr. CM Jaywant:

What was your first impressions of the Gnat and what was that first flight like?

Wg. Cdr. CM Jaywant:

The first flight itself? I mean, you go through it, By then you're so used to being trained in a certain way and your instinct takes over and you fly the aircraft. So the first solo and all was something that went through in a flash, compared again, especially after the Hunter, which was a big aircraft, to fly the Gnat was a small, lightweight aircraft, which was. I would, in a way, compare it with the sports car for a pilot. It was built around the pilot and it was, in a way, an extension of the pilot. We had things like, one of the advantages was that it being lightweight in combat, we used to find that in the vertical plane it did very well, and also it was very difficult to spot because it was a very small aircraft. So those were advantages of the aircraft. Disadvantages, it was a very basic kind of a thing, the technology was low. There were a lot of control problems, and in fact, I lost a few friends and close mates to accidents on the Gnat. So that is how it was. It did very well during the Wars, both in 65 and 71, especially against the Sabre.

Correct.

And I had the experience of doing an integrated combat sortie of with the MIGs, and that was where we scored basically because of our size, they couldn't spot us till it was very late. And the initial advantage in a combat was with us. And then, of course, if you took the fight into the vertical plane, then they were at a disadvantage.

Ganapathy:

Wow If you remember details of that, sortie, I just love to hear a little more about it. So was it two versus two, one versus one? Where did you start out?

Wg. Cdr. CM Jaywant:

Yeah, it was two versus one and it was from Halwara. We had gone in a detachment. Basically the detachment was for range firing, but because we were co-located with a MIG Squadron, we did this integrated flyingt, and basically they couldn't spot us. So to manoeuvre, the initial manoeuvring to get to a position of advantage, once you do that, then

the evasive manoeuvre that the aircraft in front of you would do, that you are already at an advantage and you can then sort of lead the fight into a vertical plane where you use your advantage to get behind the aircraft for the kill. So both in terms of being spotted late as well as the vertical plane.

Ganapathy

So you picked them up before the merge.

Wg. Cdr. CM Jaywant:

Yes. Because MIG was a bigger aircraft and we could spot it much faster. Generally, what does happen is that you do your training with similar aircraft in the Squadron. So you're used to seeing that size of an aircraft, so you have that advantage. So if they are used to seeing a MIG which is much bigger, they are likely to miss out. So that was the importance of integrated training in fact so that they would get a flavour of how it is to spot and fight smaller and more fragile aircraft.

Ganapathy:

So where did they finally pick you up? Are you already behind them?

Wg. Cdr. CM Jaywant:

No. Once the manoeuvring starts and you come closer, then what size of an aircraft they would otherwise pick up, their own type of aircraft, when you reach that size, which is much closer than what they would pick up their own aircraft. If they would pick up the aircraft at about 2 km, they will pick up a Gnat about 1.5 km or lesser. Then it's too late by then.

Ganapathy:

Right. So what was the operational syllabus like on the Gnat? What are the things that you did?

Wg. Cdr. CM Jaywant:

Yeah. Just one more point. I wanted to tell you about the scramble time of the Gnat.

Yes, of course.

Wg. Cdr. CM Jaywant:

That was one of the advantages that was there. From the time we got the scramble order. we used to have wheels up in about a minute and 45 seconds to two minutes we were airborne.

Ganapathy:

And this is when you sat outside the cockpit, not cockpit ready?

Wg. Cdr. CM Jaywant:

Yes. Maybe about 50 to 100 steps of running, because you are normally resting in ORP somewhere and you have to run to the aircraft and there were no ladders for the Gnat you have to vault in as if you are getting onto a horse, and you jump in and you get strapped up

with the help of the ground crew, while there used to be air bottles, which used to sort of turn the engine or the start and you had a button, which was the re-light cum light up button. So you press that button while the engine is turned by compressed air and that's it. You reach a certain rpm beyond which they remove that and you're ready to go. So that was an advantage also of the Gnat.

Ganapathy:
Right.

Wg. Cdr. CM Jaywant:

Yeah. So you were asking about the exercises done. The operational syllabus and getting fully operational..

Yeah. The syllabus is very well planned and gone through. You start at a certain level where you get familiar with controlling the aircraft. So you do handling exercises. You get familiar with what kind of control inputs would get a response from the aircraft. Then you do medium level tactical, you do tail chase, you do practise interceptions, you do semi-evasive manoeuvres. That means you have to film instead of firing, you film the aircraft. So you track the aircraft and sort of film it. So whatever you film it, if you were doing light firing, you would shoot with your guns at the enemy aircraft. And the assessment is done based on how steadily you can put the pipper, as we called it, on the other aircraft and keep tracking it for a duration of time so that in real terms when you're in combat, you would be able to fire the guns better.

So there were two distinct roles. There was a syllabus for the air defence part of it which after doing it at medium level, we went down to low level doing the similar exercises. And then there was a ground attack which was low level navigation, followed by strikes and live firing over range and those kind of things. In the air defence role, we also did escorts and cap. So escorts was when there's someone going in for a strike mission, you have aircraft, because the people who are doing the strike are concentrating on their navigation and preparing for the accurate strike, and to help them keep safe from enemy aircraft attacking, you had escorts, so there used to be aircraft behind this formation which their job was just to make sure that they are keeping the lookout for enemy aircraft and keeping the strike aircraft safe so that you will escort the strike to its target.

Ganapathy:

So if a strike is low level, close to the ground at 2-300ft, what altitude would the escorts be at?

Wg. Cdr. CM Jaywant:
Marginally above.

Ganapathy
Okay, not significantly, not 10,000ft

Wg. Cdr. CM Jaywant:

Not significantly above things like cap. So if you're doing a cap over an area, the air feed or the point defence or an area defence, then you are at a height the enemy is likely to come for a low level strike. So you're keeping a lookout with the help of the radars, giving inputs to spot the incoming strike aircraft and as far as possible catch them before they offload their weapons onto the target. Okay, so initially you're just going around in a cap formation and as soon as the radar spot the incoming strike, you are vectored onto that direction and you're manoeuvred in such a way by the controller in the radar cabin to get you behind the strike, which is incoming, the enemy strike.

Ganapathy:

Okay, it's against the background of the fields and whatnot it's incredibly hard to pick up. Yeah, how do you all do it?

And they're camouflaged, right?

Wg. Cdr. CM Jaywant:

So that's even more difficult to spot the aircraft when they are camouflaged. But again, it's training. You're looking for a moving spot against a particular background because you're getting guidance from the controller and depending on the terrain on the ground, you look for areas where it might show up. So let's say strike is 5 km away and you have manoeuvred over there, now on the ground, if you find that there are certain land bodies or lakes or water body or something, you wait for it to sort of appear against that background where you will be able to spot it. So those are things that you use with experience and if not, then you have to catch them on the way out. That used to be a little easier because they are crossing the runway. So against, the backdrop of the runway, it's easier to spot. It used to be the aim to spot them before they can do the damage.

Ganapathy:

Now, how long does this operational conversion take? How many hours, how many sorties, how many months?

Wg. Cdr. CM Jaywant:

It takes about a year and a year and a half, depending on the kind of flying you get, depending on the serviceability of the aircraft. And, of course, there are various stages. So besides doing the syllabus and being declared operational, you have to do your two aircraft leads. So you're a two aircraft leader where you can lead a formation of two aircraft and you go and do a four aircraft lead. Then you can lead a formation of four aircraft. Then in the progression of that, you get your trainer Captaincy, where you can do the checks for other people, younger people in the Squadron. So it's a progressive kind of a thing. And after being declared operational, that's just the beginning. You have to be, you have to stay in touch and you have to keep honing your skill to get better at it. So that is where continuously on a regular daily basis, you do sorties keep in touch and improve your skill. And of course, there used to be day flying, night flying, the bird menace used to be there. So there were certain timings for low level flying when the bird activity is low,

Ganapathy:

Green period they used to call it.

Wg. Cdr. CM Jaywant:

And otherwise you did medium level and then you have evening flying again, there used to be a green period in the evening and then night flying. So there was also limitations on the number of sorties you could do in a day. So with seniority, you could go up to even four sorties in a day.

Ganapathy:

Wow.

Wg. Cdr. CM Jaywant:

So it used to be quite a strenuous thing. You go in the morning, do your green period, low flying, then you do maybe a medium level sortie, then you go for the evening green period, then you do a night flying.

Ganapathy:

Wow. Truly a 24/7 job.

Wg. Cdr. CM Jaywant:

Yes, that it was. And then, of course, we used to have the inspections. There used to be the AEB Aircrew Examining Board and DASI Directorate of Air Staff Inspection, which used to check out on the combat and readiness of the Squadron to go to War. Those things need to happen. Constantly new things were happening and we were doing new things and doing interesting things and improving on our skills in a constant way. And of course, life and the Air Force was always full of fun. So while all this was going on, there were the parties, they were the outings, there were the picnics, there was the drinking.

Saturdays used to be a day to hit the bar in the afternoon. There was no evening flying on Saturdays because everyone went to the bar at lunchtime.

Ganapathy:

Fascinating. Play hard, party hard.

So your Squadron moved to Sinagar at this time?

Wg. Cdr. CM Jaywant:

Yeah, I was coming to that. So from that converted from Gnats to Ajeets and we moved to Srinagar. And that was a lovely time to fly over there in the Valley. Besides a different place to do the training and different local area to fly, we had a lovely time doing Valley flying and you know that was something new that we did.

Ganapathy:

Right. Just before we get into that, can you just tell us the difference between the Gnat and the Ajeet?

Wg. Cdr. CM Jaywant:

It was just an improvement of the shortcomings. Like I told you, the controls had a problem, so they improved that and basically it was an upgraded version. It was a Gnat Mach2 kind of thing. There was not much of changes.

Ganapathy:

Was it designed by us or was it designed by the original manufacturer?

Wg. Cdr. CM Jaywant:

No. Basic design was off the Gnat, but only the modifications were mainly in the system. The airframe more or less remain the same.

Ganapathy:

Ajeet had a trainer, is what I remember. Is that it?

Wg. Cdr. CM Jaywant:

No, we didn't. No. I think they had done a prototype and they had one but in the Squadron we continued having a Hunter as a trainer.

Ganapathy:

I guess that's what I might be remembering is there was a prototype of energy trainer, but probably never found its way to service.

Ganapathy:

Great. So coming back to flying around Srinagar in the Valley.

Wg. Cdr. CM Jaywant:

Yeah. So I was saying it used to be a very nice picturesque to fly. Spring and the summer season. There used to be fields of poppy, red flowers as a carpet on which we used to fly, especially the low level sorties that's there in my mind as a picture that stayed in the mind. And also when it snowed in the winter, we were, of course, locked down for days together when the weather was bad, but when it used to clear up and they used to sort of clear the snow off the runway, and when you used to get airborne, everything was white. And there were these two strips, the Srinagar airfield and the Avantipur air field as black strips. That is all. Everything else was white. Absolutely. And at times, in fact, there was a chance of getting disorientated because there used to be a cloud cover on top which was white, and even below everything was white. So it was like flying in a bowl or in a balloon kind of a thing. Everything white.

Ganapathy:

Can I ask you to elaborate on that a little bit? Because I think for the average non flyer, this idea of spatial disorientation just seems almost incredulous. What's it about? Have you ever had it? What does it feel like? What is the recovery procedure?

Wg. Cdr. CM Jaywant:

Many times. so what does happen is that over a period of time when you don't have the reference on the horizon. If you look outside, there is no horizon. I mean, normally when you

apply, the reference is the horizon. So if your nose is pointing below your sort of going down, you'll be losing height and you'll be accelerating and all those things, if it is above the horizon, then you're dropping your speed and gaining height. Whereas when you're in this kind of condition where the horizon is not visible, that reference point is gone. So the only reference you have is your instruments, though you're not in a cloud, normally you do total instrument flying only in a cloud. There is a tendency when you are not in cloud, to try and look outside, because intermittently you might see some land reference and get a reference from there, or you might see the horizon for a short while. The training given is that under these conditions, don't try to look out and look for some references, just go purely on instruments. Assume you're in cloud, because what does happen is that at times, if you're at an angle, if the rate of change is very low, your senses don't register that change. So you might be turning, but you get a feeling that you're level or you might be level, but you get a feeling that you have a high bank on. And then the tendency would be to correct for it. So your instruments are telling you something, your instinct is telling you something, or your sensory perceptions, your ears and balance and everything is telling you something. And there's a difference between what the instruments are telling you and what your instinct is telling you. And at times, if you don't ignore your sort of instincts and go only on the instruments, you might get into a situation where you stall the aircraft or go into a spin.

Ganapathy

Yeah, I think it happens to all pilots, but in a civil environment, you might have multiple pilots, you might have an autopilot, but I think for you all you are alone. There's no autopilot in at least aircraft like the Gnat

Wg. Cdr. CM Jaywant:

And also the avionics are totally different. We had basic avionics.

Ganapathy:

Right. So tell me about Valley flying. How low are you? Which are these values and what is the tactical reason for practising this?

Wg. Cdr. CM Jaywant:

And one of the reasons why the Valley flying is done is to sort of, when you're going on a strike mission, if you're in the Valley, you're not likely to be picked up by the radar, so that is the basic reason. So you do your navigation through the valleys and then you surprise the enemy by popping up somewhere and carrying out your attack. So as far as the height above the floor of the Valley is concerned, that's not very critical. We used to keep a safe distance, but you have definitely got to be below the tops.

Ganapathy

Stay below the rim of the Valley.

Wg. Cdr. CM Jaywant:

Reason for which you are going in the Valley is that so you have to stay below the top so that you're not spotted by the radar. And the peculiar thing about the Valley flying was that unlike in a flat terrain where you're doing navigation, you've got certain reference points, you

have time to study your map, look at the map, look at the ground and all here, because the Valley is turning and twisting very rapidly, you have to have studied the map in advance and have an idea that after this there's a left turn because there are small bifurcations, which you might get into the wrong valley. So you have to familiarise yourself as well as have the map sort of pictured in your mind, mental picture of the Valley in terms of both the direction as well as the time after which there might be a turn coming up or something, Or obstructions.

Ganapathy:

Did that ever happen to you?

Wg. Cdr. CM Jaywant:

Yeah, I recall a time when in a formation, we took a wrong bifurcation and we ended up in Pakistan because they didn't have any radars and no presence over there. But having studied the Valley and all, the Leader of the formation realized that based on the direction, because the Kargil Valley is more sort of west to east, whereas we suddenly found that we were going northward in a Valley. So obviously we are going into the area which is presently held by Pakistan. So we turned around and came back into the Kargil Valley.

Ganapathy:

Fascinating.

Wg. Cdr. CM Jaywant:

So that does happen. The other thing is that when you're turning away from the hillside, you have your belly towards the Hill, so you're blinded, you don't know how close you are.

Ganapathy:

Very true. Wow.

Wg. Cdr. CM Jaywant:

So when you're doing the turns to follow the contours of the Valley, you have to be very careful about the flying. And the same was true even when later on we did landing at Leh on the Bahadur. In fact, the M IG 27, the approach was a little tricky because you had to turn onto finals from base leg in the circuit with your belly towards the Hill. So that was tricky.

Ganapathy:

Wow. And what speeds and what G are you pulling during this Valley flyinf?

Wg. Cdr. CM Jaywant:

No G, not much, because you're anticipating and you're gently following the contours of the Valley, unless, of course, there is a sharp turn in the Valley where you have to increase the rate of turn, but otherwise it's a comfortable speed, I mean, the equivalent of what is used now in kilometers, about 7-800 km bar that you continue with, That has to finally be also your optimum operational speed, so that if there is an attack or something, you have to have sufficient speed to take on the enemy aircraft. So those things are also there,

Ganapathy:

Right. Only a fighter pilot will call 7-800 km/hour a nice, comfortable speed.

Ganapathy:

So you had an emergency in the Gnat and you recovered the aircraft and were awarded a Shaurya Chakra.. I'd love to have you tell us in as much detail as you can.

Wg. Cdr. CM Jaywant:

We had converted from Gnat to Ajeet.. That was in 9 Squadron and we were moving to Srinagar. The Squadron was being relocated. We were on a ferry for aircraft formation, being led by Late Wing Commander.Cheema.. Srinagar airfield is about 5500 ft elevation and then we were about 1500 above that. While running into rejoin, I had a flame out.

Ganapathy:

Okay, flame out for our audience. I think they are not familiar with the term so...

Wg. Cdr. CM Jaywant:

The engine just wound down and it was like that experience which I said about the glider. Everything was silent. There was no engine noise, of course, rapidly losing height. And it's totally unexpected. I mean, you don't expect that in a straight and level flight that suddenly your engine will wind down and come to a halt.

Ganapathy

Particularly this is after a long flight that you are ferrying the aircraft from.Hindon

Wg. Cdr. CM Jaywant:

We were from Hindon to Srinagar. We had reached Sriagar. At that time, Besides the routine calls that I gave to the..

Ganapathy:

What were the calls you gave?

Wg. Cdr. CM Jaywant:

That I have a flameout, trying to relight and I said relight not successful. And in the meantime, Wg Co Cheema gave a call to the ATC to keep the runway clear. When he gave that call, I looked to my left and I looked for the runway because we had by then crossed in the run-in, we had crossed the runway and I turned and I saw the runway. So when I saw the runway, I thought maybe I can put it down. Normally a fighter aircraft is not landed without engine, you eject, but I thought I could put it down. So the first thing to do was to lower the undercarriage because with the engine off the hydraulics would deplete, both in terms of not having an undercarriage to land, as well as the controls also are hydraulically run, so you might have that also becoming a difficulty. So I put the undercarriage down and the rate of descent was of course very high compared to what I was used to. So it was more of an instinct that I have to reach that beginning of the runway as a person..

Ganapathy:

Wow.

Wg. Cdr. CM Jaywant:

So whatever inputs I need to give to the aircraft in terms of controlling the speed and the turn of the curved approach to cut corners, I have to do so that what I am instinctively feeling that I am able to reach that point, I have to cut corners to that extent. So it was an instinctive thing and like what you do when your normal approaches and all this that you're doing more of a regulated and a preconceived idea of what your circuit pattern is. So this was totally different both in terms of the rapid rate of descent. Also, I had to keep in mind that when I try and of course I had to keep the speed a little higher because at the last moment if I'm falling short, I should have something to stretch the light. The other thing, of course, is because of the height there would be a higher rate of descent in terms of both the engine not being there and the mush, the momentum itself. And you give a control input. The rarer the atmosphere at that height, you would go a little lower before the rate of descent gets adjusted. So manage to do a reasonably smooth landing in spite of all this and sigh of relief when the aircraft came to a halt. Luckily I had the brakes also available till the end, because that would also run by hydraulics would deplete.

Ganapathy:

Fascinating. Wow. 1500ft above the ground is just almost nothing. Amazing. Do you think some of your gliding experience was instinctively kicking in at that point?

Wg. Cdr. CM Jaywant:

No, not at all, because that was way, way long time back and just a few launches and a solo in the glider. Whereas after that I had done hundreds of hours of flying.

So the Air Force doesn't give simulated forced landings in fighter aircraft. It's not approved anyway, so I guess...

Wg. Cdr. CM Jaywant:

Not in the operational squadron, because you're not supposed to force land you're supposed to eject. In the training, it is done. In the training phase in the HT2 and the Harvard and the Vampire, there we used to do the pattern.

Ganapathy:

Okay, great. So from there you went on to become a flying instructor, is that right?

Wg. Cdr. CM Jaywant:

Yes. In 82 I went for the FIS course and then for two and a half years I was an Instructor at Hakimpet Secunderabad

Ganapathy:

You had mentioned you were the last Vampire group. So what aircraft were they teaching on?

Wg. Cdr. CM Jaywant:

This was the Iskra, II mean, later on they went onto the Kiran and the pattern of training

changed. But during our time and during the time when I was the Instructor, they had the Iskra aircraft, which again was a very peculiar aircraft. The seats were positioned in such a way, one behind the other, that the Instructor from the rear seat could barely see anything in front. So you have to keep moving your head sideways to align with the runway, especially when you're doing instructional and, especially at night. It used to be a little tricky.

Ganapathy:

And there was no mirror like you have in the MIG trainer?

Wg. Cdr. CM Jaywant:

No. Especially if the pupil does a mistake close to the ground. In fact, there was an accident. One of my friends, very close to the ground, the pupil made a mistake. And before this person could recover, they had a landing accident, the pupil was injured quite badly.

Ganapathy:

So after that you did Staff College. And then did you do any staff tenures, or did you go straight back to Squadron?

Wg. Cdr. CM Jaywant:

No. After the Staff College, I went back to flying, but later in my career I did a bit of staff job at Command Headquarters, but the Staff course itself was a very enjoyable course.

Ganapathy:

What is Staff College? What does it teach you? What does Staff mean?

Wg. Cdr. CM Jaywant:

It's called Defence Services Staff College, which you do a Course. It's a one year course where you're trained in doing Staff duties and what that involves is mostly paperwork, but it's thinking paperwork. In the sense you have taught to analyze, do problem solving plan for missions, plan strategy. So it's a very comprehensive kind of a thing. And at the end of the course, you get a Master of Science in Defence Studies, and it's an integrated course in the sense that all three Services come together over there to do this Course. So besides the basic flying training, you're taught to do Staff work, which goes into planning and execution of missions and strategies and all those things, at a little senior level, when you're not just an operational flying pilot in the Squadron.

Ganapathy:

Right. Okay, great.

Wg. Cdr. CM Jaywant:

But it's a beautiful place to spend a year, including sailing, trekking and riding. Very nice.

Ganapathy:

Wellington in the Nilgiris.

Wg. Cdr. CM Jaywant:

And it's so well maintained and it's a huge campus. So once again, it was, you know, work hard, both at the exercises that we did, the paper exercises as well as enjoy after that. It was a good tenure.

Ganapathy:

And so you came back to a Gnat or Ajeet squadron after that or did you convert?

Wg. Cdr. CM Jaywant:

No, I was posted to MIG 23s in Halwara. I went to 221 Sqn.

Ganapathy:

Which type was that, ground attack or the air defence version?

Jaywant:

Yeah, the ground attack one. Okay. That's called the BN.

Ganapathy

BN. Right.

The air defense is the MF. What was the MiG-23 less must have been quite a generational change

Wg. Cdr. CM Jaywant:

It was a huge heavy aircraft. There was no air defense role. It was basically a ground attack aircraft, the kind of exercise, though, even if you're in a ground attack mission, you might get into a combat. So there were some combat training sorties, but mainly it was training in ground attack. That stint was a little short because within a year I was posted to 222 Sqn on MIG 27. So this was again an improved version of the MIG 23, and some of the shortcomings had been corrected and these were swing wing aircraft. So this was the first time that I was....

Ganapathy:

For the audience who are not familiar with what a swing wing aircraft is, could you explain what that means and why an aircraft needs to have it?

Wg. Cdr. CM Jaywant:

So normally you have the wings. The design of the wing is that it is at a certain angle for the air flow to go over it and give lift and those kind of things. So that is a design aspect. But if you have fixed wings, then it limits the range of speeds and manoeuvrability that you can have. So if you have the wings swept forward, you can have slightly lower speeds and a different kind of manoeuvrability at low speeds, whereas if you start sweeping the wings back, you can go much faster because the drag reduces. So that feature was there on the MIG 23 and MIG 27. So normal sorties were done at 45 degree sweep. And like when you're doing a getaway, you want to go at the high speed, then you do it at 72 sweep and other landing and all was done at a sweep 16 degrees.

Ganapathy:

Other famous aircraft that have a swing wing are the F 14 Tomcat and F 111. Right?

Wg. Cdr. CM Jaywant:

Yeah. Some of the carrier borne aircraft also have those things, but the features are slightly different in those. I'm not very familiar with the design aspect of those aircraft..

Ganapathy:

What was it like to fly as an aircraft MIG 27?.To put it rather bluntly, after Gnats and Ajits, it was like flying a bullock cart, but it had much more of armament than it could carry. You know we did rocket firing, the gun was much better for ground attack. The number of Rockets that you could carry was much higher. That's it. I mean, mainly it was that even some of the avionics

Ganapathy

Did it have a lot of aids that helped in precision delivery of armament?. Like laser ranging?

Wg. Cdr. CM Jaywant:

Yes. Some of the things are there, but compared to what you have now, it was very rudimentary. We had this navigation system which used to take aids or inputs from the RSBN. It was a Russian ground based beacon which used to give signals and you get your position updated. But that never really worked very well. So we were still, in spite of that, we had to have maps in our hands and you know, use the clock to do our navigation.

Ganapathy:

And you were low level single pilot, I presume?

Wg. Cdr. CM Jaywant:

Yes. No, I was saying that in the MIG 27, that was when I got posted to the MIG 27, we had the activation due to Operation Brasstacks. And the Squadron moved to the OPS location. Avantipur and I had just been posted, so I had not done my conversion also, so I did a abridged some 3-4 sorties of conversion at Hindon and then joined the Squadron in Avantipur. Okay. Though we were activated, there was not initially much flying because you're just waiting for something to happen and it was quite cold and to be down in the bunkers huddling over there. But then when things eased off and we did some flying also there, but then we did high altitude range. There's a range called Toshemaidan, somewhere beyond the peaks of Nunkund, so we used to do that. Then we did some sweep sorties over Siachen Glacier to sort of flag our presence.

Ganapathy

Oh, wow. What was that like?

Wg. Cdr. CM Jaywant:

We used to fly to the base camp and follow the glacier just short of Indra Col , which was the point where the last point where the line is demarcated. From there, it's supposed to presumably go straight northward, but India claims that it goes along the glacier direction. So

you used to go short of that and turn around. It was more to just show our presence to the enemy over there because they didn't have any presence at all.

Ganapathy:

So you never had fighters come up on the other side and track you or follow you or anything?

Wg. Cdr. CM Jaywant:

Not at all.

Ganapathy

What was the sight like and what altitude were you at? And I think Siachen is what, 15-18-,000ft?

Wg. Cdr. CM Jaywant:

No, but we used to be at height, we didn't go down

Ganapathy

Did you fly to 30 thousand feet?

Wg. Cdr. CM Jaywant:

I presume one of the things that... The intention was to show yourself and show the presence, the idea was not to hide and go there, right? And Secondly, I suppose also there are certain parts of the army which your aircraft vibrations and all might, noise and all might dislodge some of the snow.

Ganapathy:

And I'm presuming for the Jawans hear you guys roaring overhead would also be motivated.

Ganapathy:

We are chatting earlier, you were telling me about this test firing of the TV guided missile, what was that like?

Wg. Cdr. CM Jaywant:

Yeah, after all this is over when we were back at Hindon, there was the X 29 TV guided missile which we had got from Russia and those had not been integrated onto the MIG 27 and ASTE was to do the first trial on it,

Ganapathy:

If you can just explain to the audience what is the TV guided missile, what does it do?

Wg. Cdr. CM Jaywant:

Okay, so the basic concept is that a missile needs guidance, so either it is radar or like you have for the anti tank missile, the wire guided or something. So there has to be a guided system in this missile, there was a TV mounted on the head of the missile and in the cockpit you had a screen on which you could see what this TV is seeing from the head of the

missile. And when you're flying towards the target, the picture of the target comes up onto the screen and it's a little magnified, so even when you're about 8 or 10 km away, you can start seeing the target and you align the cross, which is there on the screen with the target, So you manoeuvre the aircraft such that on the screen your cross is on the target and then you lock it. Now, this locking process makes sure that the TV has got the picture of the target in the cross, and now it keeps matching the picture of the target and the cross, So if you have kept it in the center, the missile tracks it over there and once it is launched, it will keep correcting itself on its own there's a guidance mechanism which manoeuvres the missile in such a way that that picture is maintained. So if you have a cross on the target, if it's going away to the right, the controls on the missile will operate in such a way to get it back - the cross on the target,

Ganapathy:

Okay, so you fire and you forget you can turn away after you launched? Yes, wow, yeah, now you're single pilot, you're doing all this, you're flying the aircraft, you're putting the cross on the target and you're launching, you're doing everything yourself?

Wg. Cdr. CM Jaywant:

Yes.

Wow, okay, and so what was this first firing like?

Wg. Cdr. CM Jaywant:

So it was good actually, the first sorting was done by ASTE pilot, the guidance system has its limitations, so it didn't hit the wall and mine was the second one. I don't recall now what range? The first one was 5, but the permitted range was between, if I recall, 7 and 3 km. So you had to turn off by 3 km. And I remember because the first one had not hit. I said, let's see if I go a little closer before I lock it, whether the recording of the picture of the cross and the target before locking in is a little clearer. So I steadied it, waited for a little while until I was just outside the minimum range and fired and turned off and it went and hit the right side of the wall. Successful hit.

Ganapathy:

And is that TV signal recorded till the missile hits? Because the camera would be transmitting to that point, isn't it?

Wg. Cdr. CM Jaywant:

Yes. So this is the sort of stuff we see on YouTube because you're also seeing it, right? Yeah. After launching, you continue seeing it on the screen in the cockpit.

Ganapathy:

Oh, nice. Okay. You also had an ejection in a MIG 23, I believe so if you're comfortable speaking about that.

Wg. Cdr. CM Jaywant:

So after this, the last stint was in 9 Squadron on MIG 27s as the Flight Comander. I was

then posted as a Staff officer to SASSO, which is a senior staff officer of Southwestern Air Command at Jodhpur. So it was a ground tenure, I wanted to continue flying as any person would, so luckily they were Squadrons co-located, so there was no MIG 27, but there were MIG 23 squadron 220 and 10.. So I started flying with 220 Squadron to keep in touch and I was doing a full syllabus again because it was again going back to the MIG 23. And during one of the combat sorties, I went into a spin and attempts at recovery failed and I was getting close to the ground. So I ejected.

Ganapathy:

What altitude were you at when the spin started?

Wg. Cdr. CM Jaywant

Started at about three and a half kilometers, I think

Ganapathy:

About 10,000ft

Wg. Cdr. CM Jaywant:

Above that it was 4 km or something. And I ejected it at 1.8 km. And luckily there were no injuries. But that itself is an interesting thing. There are no simulators for Ejection, at least we didn't have at that time. So the exercise of pulling the handle, as we say, you have to unlock it by pressing a clutch like thing and then pull it. One is not trained to know how much of pressure, how hard you need to pull. So it's a totally first time situation when you eject and in a spin you're being thrown around and your hands also, once you leave the control stick you reach out and throttle to reach out for the handle to eject. It takes an effort to bring your hands to that handle, Peel around, find where it is, hold it in the same position that it needs to be, press it and then pull it upwards. So all that inner spin is a little tricky at times. Luckily it was a safe ejection. I didn't have any major injuries. Do I have a niggling pain in the shoulder and neck. Because it depends on the kind of posture you have.

Ganapathy:

Where did you land? This was in the desert.

Wg. Cdr. CM Jaywant:

I mean, it was not very far away from a village.

Ganapathy:

And you were picked up by a helicopter soon after?

Wg. Cdr. CM Jaywant:

Yes. Some villages came first and then I was picked up by a helicopter, taken to the hospital, X rays and all those things. So no major spinal injuries or anything. After this, I was posted on the Staff in SWAC itself, and that was partially I did some of the work that I learned in Staff College, and also one interesting experience of planning and executing a major exercise involving all the Squadrons of the Command in live strike missions over Pokhran range. And this was multi directional. So the initial running point for a particular range,

there's a fixed point, which is the run-in point, but this because they wanted it from different directions, still in the safe arc so there was a lot of detailed planning required to sort of get convenient run-in points, as well as, because they were coordinated strikes, the timing had to be worked out precisely. And also after the strike, the aircraft is returning, other aircraft are coming in. So the height separation and the lateral separation, that's to be worked out, which direction they will turn, what height they will climb to. So it was a very detailed planning to be done. And it so happened that I was given this task to do it single handedly. So it was a lot of pressure also, because if you do wrong planning and it's not necessary that all the aircraft would know all the other routes and plans. So I was the only one who had to sort of coordinate these things. So it was a very interesting and challenging exercise to do.

Ganapathy:

Fascinating. I guess now that gives us a sense of what Staff does and how important that role is, making sure all the assets are used both safely and effectively. Amazing. So when you left Service, how many hours of flying did you have and how is that roughly distributed between training aircraft the Gnat and the ..

Wg. Cdr. CM Jaywant:

I had less than, I think, 2000 hrs or so. out of which, about 700-800 were on Gnats/Ajeets and the rest on all the MIGs. So after this stint at Command, I was posted to MIG 25, which was a reconnaissance aircraft Foxbat

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Ganapathy:

Mach 3 Foxbat

Wg. Cdr. CM Jaywant:

It was highest flying and the fastest flying aircraft that we had. So this was in 95 that I was posted to Bareilly. Now, I was being positioned to take over the Squadron command the Squadron, but I was posted while I was doing my conversion. I was posted to the Wing Barielly Air Force Station and attached to 102 Squadron to do the conversion. So I did my full conversion day and night, full syllabus. And I was fully Ops. And during this time, besides flying the aircraft, one interesting thing was there was an ISRO project for filming the solar eclipse.

Ganapathy:

Oh, boy. Okay.

Wg. Cdr. CM Jaywant:

So what they wanted was from a height, because we were above 65,000ft, and they thought that they would be able to film the shadow on the ground. So the solar eclipse cast a shadow on the Earth's surface between Bareilly Allahabad and full stretch. And it was going on towards Calcutta ultimately. So it was moving, the shadow on the ground was moving. And so I got airborne, I positioned timing it in such a way that the eclipse, which was to go from somewhere near Delhi towards Calcutta, I aligned myself along the eclipse and then fly over the thing at a higher speed than at the rate at which the eclipse was going and filmed the shadow. Now the interesting part of this was that I got airborne on a bright, sunny day and

suddenly everything started becoming dark. So all the cockpit lights and all anticipating, they had been put on. So it was total dark night, flying. And after I got out of the thing, it was again daylight, full, bright daylight bright flying. And of course, during that time, I had to do the full process of doing the filming, starting the cameras and everything. That was a very interesting experience.

Ganapathy:

So love to hear what it is like to fly the MIG 25. And did you fly over Pakistan at the time, if you can share whether you did that?

Wg. Cdr. CM Jaywant:

No, we didn't have any operational sorties at that time when I was there for a short while . But it was a big, very heavy, very powerful aircraft. And in spite of being very heavy, the engines were such that during the take off, you had to really point the nose up in the sky so that speed would not go higher than what was required.

Ganapathy:

Oh my. Wow.

Wg. Cdr. CM Jaywant:

Also, there was a very critical situation whenever you came in to land because the weight was such that if you had fuel for two circuits, then you're overweight. So after the safety was over, you had to do a straighten approach and landing with fuel only for one overshoot.

Ganapathy:

My goodness.

Wg. Cdr. CM Jaywant:

So it was very critical that you land off the first long straightened approach that you do, because if you don't make it, then you have only one more chance to do the landing.

Ganapathy:

My goodness. Wow.

Wg. Cdr. CM Jaywant:

And even that, it was tricky. There were some accidents landing accidents also because especially when you're used to a fighter, the way you manoeuvre. I remember in my first solo, the visibility dropped drastically and the landing aids were all unserviceable suddenly. And I had to land into the sun with haze and very poor visibility. And if you spot the runway late, you can't manoeuvre the aircraft very vigorously because you might stall. Too big for that. But then again, in that stage, I didn't have fuel again for one more overshoot. So some fighter pilot instinct kicked in and put the aircraft down safely. In the career, there are many instances where things could have gone wrong and lucky and trained well to come out of it.

Ganapathy:

Wonderful.

Wg. Cdr. CM Jaywant:

So it was a nice ride of 22 years in the Air Force. Really enjoyed it.

Ganapathy:

Amazing. Thank you so much for your time today. It's just taken almost an hour and a half and really lovely talking to you and hearing about all your experiences. Thank you for your service and thank you for your time today.

Most welcome and I hope this comes out very nicely. All your podcasts get listened to by everyone and they are more informed. I think there is a need for keeping as they say, civilian population informed about what goes on Services. So good. Nice talking to you.

Ganapathy:

Hello friends. I hope you enjoyed that conversation. I know I certainly did some things that really stood out to me. The first was, of course, the dead stick landing in the Gnat 1500 ft is nothing. Any fighter aircraft, once the engine quits, sinks like a stone, and to be able to try to re-light the engine twice to make the right radio calls, then to align the aircraft with the runway in a curved approach to put it down flawlessly, just shows you the level of training that he received and how the instincts worked at that point. I'm not surprised that he was awarded a Shaurya Chakra for that.

The second was his experience on the MIG 23, both fighting the X 29 missile as well as the injection that he had. Reminds you that these pilots are pushing the edges of the envelope of performance and sometimes the aircraft departs controlled flight even with an experienced pilot and I'm glad he was able to eject safely.

The last was, of course, the fascinating story of chasing the eclipse on the MC 25. And I hope somebody somewhere can find that ISRO tape and that video because we'd love to see what he could see.

Anyway, thank you so much for joining me this week. Join us again next week. In the meantime, sign up for updates at BlueSkiespodcast.com. There you'll find links to follow us on Twitter, Facebook and Instagram. You can also write to us with your comments, questions, suggestions and feedback from the website or to Blue Skies at PR Ganapathy.com. Subscribe to the podcast on any podcasting platform such as Stitcher, Google Podcasts, Spotify, Apple Podcasts, and even on YouTube. If you like what you heard, share it with your friends, give us a rating in your favourite podcasting app and write us a review. It will help other people find us. I want to give my thanks to Saurav Chordia for our logo and Prithvik for the music. I want to reiterate that all the views expressed here are personal and this podcast has not been approved by or reviewed, by the Air Force, Ministry of Defence, or any branch of the government. In the meantime stay safe and Jai Hind.