Blues Skies Podcast
Season 1, Episode 33

Maritime Jaguars at Red Flag

with AVM Sunil Jayant Nanodkar

(00:41)
Ganapathy:
Hello and welcome to the Blue Skies Podcast. I'm P R Ganapathy, your host.

(01:00)
Ganapathy:
I have the pleasure today of speaking to Air Vice Marshal Sunil Nanodkar. Air Vice Marshal Nanodkar was commissioned into the fight stream with the Indian Air Force in 1981. He's flown many different types of aircraft, but a lot of his operational experience has been on the Jaguar, various types and versions of the Jaguar and various situations. So we're going to spend some time today just talking to him about that. But he's had a fascinating, long career with lots of interesting experiences. He retired in 2017 after 36 years of service. Welcome to the program, sir.

AVM Nanodkar: Thank you, thank you Gana.

(01:43)
Ganapathy:
Great, sir. So as we start on this program, so I just love to back up and hear about your childhood growing up and what were your motivations and inspirations to join the service?

(01:53)
AVM Nanodkar:
Well, it dates back to, I think 1971, when the first 747 came into India. And I was fortunate enough to see it being flown in to land at Santa Cruz, we were in Bombay. Since I knew the exact time I had taken permission to bunk school that day, I was watching it from our terrace when I saw this huge aircraft coming in for landing, flying right over our house. What attracted my attention was two little tiny aircraft on its wing and flying all the way along. There after a while, they just peeled off, these two aircraft. When I say peeled off, I didn't know that time what it means, but they just vanished from the scene and this aircraft must have gone and landed. I was fortunate to have my maternal uncle in Air India those days working there. And I was desperate to meet him and ask him. And when I met him, he first asked me, so how was the experience seeing the jumbo jet? So I said, I will talk to you about jumbo jet later. But what were these two aircraft flying on the wing of jumbo jet. So he said,

oh, there were the two gnats escorting Jumbo all the way from the time it entered the Indian Skies. Month of December, I was in class seven then and I heard these gnats doing all the heroics during the War of 71. So from that time onwards, I was truly fascinated with fighters. And I had decided that one day I'm going to sit in the cockpit and fly and escort these big fellows, if required. I joined Air Wing NCC through College and did my C certificate. And I was fortunate enough to get selected for flying in Bombay flying Club, flew Piper Super Cubs there. And was fortunate to get selected through NCC entry into the Air Force. And rest is, of course, history.

(04:03)
Ganapathy:
Wonderful. That is some serious dedication and determination to, of course, first time yourself to watch the jumbo, but then after that to notice the fighters and then go and inquire about it and that sort of thing. Amazing story. Okay, great. That's just amazing. Which aircraft did you do your basic, advanced?

(04:24)
AVM Nanodkar:
Yeah, I flew the HT-2 in Bidar and thereafter we went to Air Force Academy where I flew the Kiran, Mark One and Mark One A. Thereafter we got commissioned and were fortunate to be selected for fighters and then flu Eskra in Hakim peth.

(04:46)
Ganapathy:
Wonderful. So that was truly the realisation of a long dream in that sense. Any memorable thoughts from your time as a cadet training in the HT-2 or in Kiran or in the Eskra?

(04:58)
AVM Nanodkar:
Oh yes. I remember when I joined Bidar and when our flying started. My instructor had just come from FIS after doing the course. He was a Dakota and an An-32 pilot and since he had just joined the Air Force Station Bidar he had to do his own clearances for instructional. But then I was a little anxious as to why is he not calling us for briefing and not taking us for flying? When my other course mates started flying and in the meantime we were sitting on the ground and then my CFA caught me and he said come, let's go at least do your air experience. So I was thrilled but he said okay, go and strap up. So I strapped up in the HT-2 and he started the aircraft and then sheepishly asked him ‘’Sir, can I attempt taxi?’’ No, wait, I'll just take you out of the flight line. So I said okay. So then he took me out of the flight line and then again I said sir, can I take over now? So looking at my probably enthusiasm and he said okay, just be very ginger with the breaks. And I said okay sir. And I started taxing and I could taxi that aeroplane pretty easily because I had experience on Piper.

(06:35)
Ganapathy:
You had experience from the Cub? I had forgotten about that.

(06:37)
AVM Nanodkar:
Exactly. So I taxied it out and then he started talking to me, ‘’Son, you're okay with the taxing? So continue taxing and for the first time you are doing well.’’ Probably being a CFI he must not be remembering everybody's background profiles, things like that. So then we went and we did all the ground checks and all and we were ready to line up. So I asked him sir, can I attempt to take off? He said oh well, you taxied it well. So let me see if you can handle her lined up. And I was quite reasonably comfortable though. HT-2 and Piper Super Cub, HT-2 was a real beast. But because of that 35-36 hours of experience on Piper with the tail-wheel getting up and mind you, Piper Super Cub has a stick. Thats another advantage. HT-2 having a stick and not the yoke. So I had a huge advantage there. So I pushed the nose down a little bit, tail-wheel came up and we got airborne and it sort of trimmed it okay, right? So thereafter he kept talking to me and we were flying and then he of course took over controls and showed me the local flying because that was important as far as that sortie was concerned. Then we did a little bit of manoeuvring where I also was having controls and things like that. Then something came to his mind because he saw me very comfortable in the cockpit. So he says, okay, I will show you some monkey tricks in the record. And then he started doing aeros. Piper didn't do aeros. We used to do up to spin. Right. But not beyond that. But he started doing aeros. Then that was something which was absolutely fascinating. For the first sorte, when I was doing the actually it was an air recky, kind of a sort of where we were supposed to show you just the ground features and all in and around the airfield and give you a first feel of the air. And here I was very happily watching him do aerobatics. And I was really fascinated. So he came down and he asked, son, you're very comfortable in the cockpit. I'm very glad. I don't think you need to wait for your instructor. We'll do a couple of more sorties together. Okay? So go and relax. I said, sir, how about DV? No, damn it, you're very comfortable. That is what is required in the first sortie. They just go and relax, have a cup of coffee, and then we'll fly your second trip tomorrow. It was a huge advantage for me and that came in handy on my first sortie itself on HPT. Otherwise, of course, later on as a QFI, I realised what a beast that aeroplane was when you had to really do things to show to the pupil instructors as to what is required to be done to teach cadets.

(09:37)
Ganapathy:
Right. Wonderful. How is the Kiran? How was the experience flying the Kiran transitioning to a jet?

(09:42)
AVM Nanodkar:
Yes, Kiran, of course, we were all looking forward to getting onto the jets. And first time in my life I sat in a cockpit which was so silent in the air, so beautiful feeling that everything, the world around you is so silent. And particularly when you did your first solo, because otherwise till then that propeller was rotating in front of you. It was doing all that and those sounds and some fumes go by the open windshield and that smell. Whereas here it was calm and quiet so quickly you got off the air and went to the height that you were supposed to go to. The first solo was an amazing experience on Kiran. And that time one realised that what really it is to be alone in the air. And that was relued to your sitting in a single seat

cockpit subsequently in fighters. So Kiran experience was amazing.

(10:47)
P R Ganapathy:
Wow. And Iskras? you did jet conversion. And then after that some operational fighter conversion.

(10:51)
AVM Nanodkar:
Right after commissioning, we were trifucated and we went on to Iskras. Our course was pretty big, so a large number and ours was a Golden Jubilee course our Commandant had decided that nobody will fail. I can make a monkey also a pilot. Oh, my goodness. He stuck to his philosophy and he passed out every one of us. We came to AFA, but then when we went as a big chunk to Hakimpet, then the hack started right from the word Go. People started bouncing and we were a select few on Iskras and the remaining guys flew the Kirans and getting back onto the tandem seating was good fun because you didn't have to see the face of the instructor when you're goofing it up. Right. But Iskra was fantastic again, one of its kind as far as trainer is concerned. So beautiful to manoeuvre, so easy to fly. And it gave you that real feel of fighter. 20 of us, the lot which flew who did well in the course, they were sent directly onto the Mig-21s and remaining coursemates, flew the Hunters and joined the Mig-21s six months later.

(12:16)
P R Ganapathy:
And what sort of things do you do in that phase? Do you do guns firing? Do you fire Rockets, drop bombs?

(12:18)
AVM Nanodkar:
Yeah. In fighter training wing quickly after doing the initial conversion, they quickly got us onto the tactical flying. So we did two aircraft tactical, then four aircraft tactical flying at medium level, then graduating to low levels. And then we did tail-chase on that aeroplane there, which was one of the very demanding exercise in that phase. And then of course, we did complete range phase. So we fired 7.62mm and 23 mm guns, 7.62 was on Kirans and 23mm on Iskras. And then we dropped practice bombs and fired 57 mm rocket projectiles. So the complete gamut of air to ground. We did that. Of course, we were taken to Jamnagar to fly there because of the range proximity there. So it was an experience of doing long cross country to Jamnagar and operating from a foreign base. This is all part of training to a fighter pilot. Once I got from a place A to place B on your own and operate from there on a detachment.

(13:33)
P R Ganapathy:
And so you went straight to Mig 21 after that?

(13:34)

AVM Nanodkar:
That's right.

(13:36)
P R Ganapathy:
Which Squadron or what you went to MOFTU?

(13:38)
AVM Nanodkar:
No, that time there was no MOFTU. We went initially to 47th Squadron but then quickly we were shifted to 8, 28 and 30 SQN in Tezpur. But I did my Mig conversion in 8th SQN, the Pursuits.

(13:57)
P R Ganapathy:
The Pursoots. Yeah, my dad's first SQN. And so tell me about the migs. What was that like?

(14:02)
AVM Nanodkar:
Oh, MiG 21 was a thrilling experience, truly. And the speed really hit us hard because till then it was all honky Dory. And suddenly you find that you're rotating at 300 plus kilometres and by the time you realise you're gone past 600 km and then you're climbing, doing all the manoeuvres at 800 km, it was something that was not really expected. Worst part was by the time you were blinking your eyelids, your fuel is over and you have to get back. So that was a real hard hitting fact, which earlier, of course, we realised the better it was. Then we realised what real fighter flying is all about and what really time means to you in the air. Because one has to grasp everything quickly, understand it, and deliver it back as a performance. That told you that if you're sitting in a fighter cockpit, there is no time to think twice. So whatever you have to do, you have to do it first time and do it right. That is what our instructor used to say on the ground. And of course, the way the emergencies and all used to be handled, the way that seriousness came about react emergencies, because we realised that there's no time in the cockpit to even forget about blinking an eyelid, not even a thought crossing your mind, which is at variance with what you are supposed to do. And that way, in a place like Tezpur and Chabua, where jungles are around, hardly any ground features because of the vegetation. Now to see things navigate. And it was amazing, demanding.

(15:45)
P R Ganapathy:
This was the first aircraft you flew that was capable of going supersonic. Do you remember the first time you broke the sound barrier and what was that feeling like?

(15:52)
AVM Nanodkar:
Okay, frankly speaking, I was expecting a lot to happen. Okay. One was briefed on the ground. That what you expect actually happens to the people on the ground. Right. You don't

get to hear all that bang of the shock wave breaking and all that. So don't expect anything much in the cockpit, but focus on how the speed jumps and how the pressure instruments jump. Right. That is the indication that you have gone supersonic. And thereafter how the handling of the aircraft changes, except for the flying characteristic changes and the pressure instruments showing you that you have gone supersonic. Not much happened, but then one realizes the speed at which you are covering the ground because you're observing how fast the ground is going past you. That is something that really is amazing.

(16:46)
P R Ganapathy:
And what happens? What are the control feel like after you cross the Marh One?

(16:50)
AVM Nanodkar:
As long as the artificial feel is there on the control, they try to give you as much of comfort as possible. But otherwise they're transonic to supersonic, the controls get a little heavier and aircraft manoeuvring becomes a little sort of sluggish to be careful if you want to sustain supersonic flight. And of course, aircraft manoeuvrability is a little lesser. So you have to be careful in what you're doing. Otherwise you will stress the aircraft more. So all these things happen as you go supersonic.

(17:25)
P R Ganapathy:
Right. And how fast have you had it? capable of what? 2.2 Mach? What's the fastest you've been at?

(17:40)
AVM Nanodkar:
So I have been up to 1.6, 1.7 Mach, not beyond that.

(17:40)
P R Ganapathy:
And how high have you got it up to what altitude?

(17:44)
AVM Nanodkar:I've been up to 13 Km. That is a maximum.

(17:51)
P R Ganapathy:
Did you have to wear a pressure suit for that altitude?

(17:53)
AVM Nanodkar:
Yes, we had to wear a pressure suit, and that itself was a challenge. Getting into the pressure suit, getting into the cockpit of Mig 21 and flying the aircraft, that was one amazing experience.

(18:06)
P R Ganapathy:
Right. So you were fully off on the Mig 21 by the time you were transferred to the Jaguar?

(18:13)
AVM Nanodkar:
Yes, I was fully off 21 in 101 Squadron. Subsequently, I joined 101 Squadron in Sirsa.
Oh, nice. And then shifted to Jaguars in 14th SQN in ambala.

(18:34)
P R Ganapathy:
And did you volunteer for it or were you just detailed and how was that selection process?

(18:39)
AVM Nanodkar:
There was no volunteering for anything. But of course, in our annual report, one would ask as to what would you like to do next? So those days there were two fascinating accounts which were available in the Indian Air Force. One was Jaguar and other was Mirage 2000. Okay. So every time we would write and we want to fly one of these next one. Fine. Morning, I got my posting on Jaguars.

(19:08)
P R Ganapathy:
Right. How many hours did you have in the big 21 when you converted?

(19:10)
AVM Nanodkar:
Yeah, I had about close to 350 hours when we shifted to Jaguars. Okay.

(19:28)
P R Ganapathy:
Yeah. What was your first encounter with the Jaguar like? What was that conversion like? One question that I've had is the Jaguar is a very specialised aircraft for that deep penetration strike role, whereas the Mig 21 is used for both air defence as well as for ground attack. And is there something that the Air Force was looking for in pilots that made them hand pick particular people for the Jaguar? Are there particular skills, attitudes, capabilities that they were looking for?

(19:59)
AVM Nanodkar:
There was some kind of criteria laid out to select people for Jaguars then, when we got selected and when we went there, we didn't know what the criteria was. But skills, of course, must be the first criteria because it was advanced, It was one of the most challenging cockpits, which of course I realised much later because initially you don't get to discern all these things when you're just focused on establishing yourself. It was a huge jump from in

terms of technology, also from going from Mig 21 to Jaguars. Secondly, you're moving from single engine to twin engine. Managing that itself was one of the things. But as far as your quality of pilots is concerned, I presume that one must be the skill level. Second must be your performance in various aspects of air to ground weapon delivery that you did on Mig 21 or any other platform from where people came on to Jaguar. Mostly all of us were from Mig 21 background because that was the platform generally was available for operationalizing.

(21:22)
P R Ganapathy:
What was it like to fly the Jaguar? And how is it different from the Mig 21? And I know the missions would have been quite different because of the low level strike and things like that. But it's love to hear your experiences flying the basic version of the Jaguar and then we'll come to I know you have lots of experience also in the upgraded DARIN versions and the maritime version and so on and so forth.

(21:44)
AVM Nanodkar:
See, when you say basic version, actually, I will call it that was the most advanced version in negative sense. First of all, going from Mig 21 to Jaguars, technologically, we were jumping in terms of avionics and engine performance. Visibility itself, when you sat in the cockpit was amazing. I mean, one couldn't imagine that from a fighter cockpit, one could see so much. So first time when we sat in the similarity itself, it was different. Ground training was entirely different. You had to do certain exercises on simulator, they were well supervised and then you graduated onto the actual aircraft, so simulator itself was very amusing experience. And of course, the Jaguar cockpit is so well laid out as far as pilot's comfort goes. What was challenging was these avionics that you had in the cockpit, like the Navas jaguar, which was the basic Jaguar that came first, that had the Gyro based platform and the Gyros drift. And because of the drift, those Gyros would feed everything to the other avionics. So one had to manage those systems. Then you had the radar warning receiver, which was very advanced those days. Then you had the laser in front to carry out laser designated attacks. And of course, the fuel system of Jaguar is those days, We used to feel it is so complicated as compared to Mig 21, one had to really manage the fuel as long as the automatics work. It was beautiful. But if we had to get into manual management, then it was a little challenging task. So all that single cockpit pilot had to do then one of the very critical areas in Mig 21, as long as the engine was running, we never bothered about manoeuvring and power and all she was so forgiving other than close to the ground at low speeds, right. But otherwise this aircraft was so different to handle because it was very optimally balanced for low level flying. Fuel consumption was very less as compared to other Russian aircraft that we were used to, right. So it was all optimised for the performance that we got from that platform. So to get used to that was a huge demand on us in Jaguar. So initially getting used to the head up display was itself a big challenge, right? Yes. Because one was not used to head up display and the information available on ahead of display, one would search for a head on display which you are used to. It just for your people listening. Head up and head down displays are duplication done to keep the fighter pilots head outside the cockpit as much as possible to look for enemy. So your basic parameters are available on the glass in front, so that is called head up display. And we were not used to. So then, of course, later on during the

conversion, we were taught how to fly on single engine. That was one of the critical parts as far as lowering and recovering the aircraft on single engine was concerned, particularly when the account was heavy. So these are a few things on Jaguar that one had to go through. But then once we got used to the platform and once we got used to taking it down to low levels, I don't think there is any other platform in the world so steady and deliver so accurately than Jaguar.

(25:42)
P R Ganapathy:
So were you doing mock strikes on other a basis regularly to both test your skills as well as test their defence skills? And if so, can you remember any memorable sort of, where you got in and out without anybody picking you up?

(25:53)
AVM Nanodkar:
Yeah. Jagot pilot's, ego light there. When you really got down low, without many radars detecting you, you challenge the radar. Of course those days, the radars were not as good as what they are now, but then you challenge the radar by going as low as possible. And of course, there are restrictions as to how low you can go, but then one could sustain there all throughout the final run into your target airfields. That was the key to success. And the camouflage of the Jaguar was so good that in Punjab, Haryana, that sector to pick up a Jaguar incoming Jaguar visually was really very challenging. And I remember we used to regularly go and strike Airbases Adhampur and Srinagar, I think seven out of ten times we were not detected last and invariably, people used to get after us when we were getting away after doing our job. It used to be good fun, but very demanding, very challenging,

(27:01)
P R Ganapathy:
Because you are about 200ft off the ground at that point.

(27:03)
AVM Nanodkar:
Yeah, officially

(27:05)
P R Ganapathy:
I won't ask you anymore. Especially at night, How do you navigate effectively? Of course, you did have the moving map and things like that, but it just seems quite incredible how you navigate that low and that fast.

(27:17)
AVM Nanodkar:
Yeah. The challenge was, of course, navigation, particularly, we had this extended low flying area allotted to us, which was bordering Haryana and Rajasthan, and you went into desert sector. Then particularly there was a huge challenge navigating at night. But yes, when you compare to Mig 21, you had the moving map display available to you, so you had your

situational awareness being provided by these gadgets. But then the bad part was that you had to manage those gadgets well, because at times they took you for a ride, once drifted and if you didn't catch them in time, they would take you for a real ride. And that is what happened to people who have got lost in even a Jaguar or any other advanced aircraft. They have not managed their system. That used to be the challenge. But, yes, if the systems were with you and you are managing them well, it was a piece of cake to navigate, but then to navigate at low level with all these systems, these lights flashing all in the cockpit and looking outside, doing your job on a dark night at low altitudes and in Elta, mind you, during daytime, we could go down in our attack phases to 100ft. Imagine flying at 480 knots. That's around 900 plus kilometres at 100ft at low levels.

(28:47)
P R Ganapathy:
Fascinating. And you also saw some maritime action at that time?

(28:50)
AVM Nanodkar:
Because, see, what happened was, I did my day offs on Jaguars and I was posted to form the Maritime squadron itself, Jaguar Maritime squadron. Oh, wow. Along with stalwarts like, then Group Captain Mike McMahon, he was designated as CO. Then I was first pilot to go and take over the Maritime Jaguar with him from HAL. And these Maritime Jaguars were DARIN Jaguars, which were already inducted into the Air Force, and they had put the maritime radar in that. And this entire upgrade was done by one fantastic team of pilots led by stalwarts like then Group Captain Ajit Apte, R K Sharma and I was fortunate to fly the Maritime Jaguar and form the Maritime element of six squadron, the Dragons.

(30:02)
P R Ganapathy:
So, tell us about maritime operations in the Jaguar. What's that like? What are some of the machines used to do against the Navy? Against the Navy practice.

(30:14)
AVM Nanodkar:
Each and every fighter project must go through that experience of flying over the sea, and particularly flying overseas on a dark night. Dark night means there is no moonlight. No moonlight. Right. So there is no reference available to you. Once you go, say, about 50 nautical miles from the coast, then there are no lights because trawlers are always fishing or merchant ships. They're all gone. So there are no lights. It's nice. One black bowl that you're flying. And if you fly at low level and fly well and deliver your weapons accurately and navigate over sea, that is something that each and every fighter pilot must go through just to experience.

(31:01)
P R Ganapathy:
Right. And just for the audience, it's not like you have an autopilot in this. You're hand flying completely, isn't it?

(31:05)
AVM Nanodkar:
Absolutely. Jaguar did not have autopilot then. It has some kind of autopilot now. We have modified them, but those days we didn't have autopilot. So whatever one and a half hours plus you did to Hunt for ships in ocean, where they were exercising and in peacetime, you always have a blue Navy and a red Navy and you are part of one of them. And then you're striking the other ships. And mind you, the ships don't keep the lights on, you have to pick them up on your radar. So you have to do head down radar work. My goodness. Radar spoke was down in the pure instrument panel. And at times it used to show up on the head up display, but that was a little distracting. So most of us used to do a little bit of time sharing between head up and head down. Flying to do all these things at low level and fly the aircraft continuously. Maintaining accuracy of height, speed and direction to reach the target accurately is a huge demand on a human being. I think there can be more demanding flying than that. I don't think so. Now it doesn't sound like it's for the weak hearted at all. And to add to that, if it is cloudy at low levels then it is more fun because then by the time you come back from a sortie I think the best of the pilots had to take out their overalls and get a lot of water out of them in the body drenched inside of it. Absolutely you're drenched in sweating because naturally you're adrenaline is continuously at such a high level during such sorties unknowingly or sweating. But the more you prepare for this the more anxious you get during these sorties. So these are very demanding sorties, maritime, dark night, low level.

(32:51)
P R Ganapathy:
So we spoke to Group Captain Apte earlier, we spoke about some of the initial development but from a Squadron pilot perspective what was the difference, advantage benefit from moving to the DARIN in combat system from the navigation system that you saw.

(33:07)
AVM Nanodkar:
First of all the basic platform from which all these inputs were the sensors part of it that you got were much reliable. The technology was step or two higher technology which mind you was already conducted in some form in Mirage 2000. But then we made sure that similar if not better technology is put on Jaguars. And because of that the pilot's life as far as navigation and basic jobs that you did as a pilot during the strike missions was made much easier because of these modifications and the displays became better. The sharpness of the display on the head up was much better. The information available on the head up was much more which was highly essential from what it was available on Navas. Navas of course was 70s technology and DARIN platforms and associated avionics that we upgraded. They were of 80s and 90s technology and subsequently of course we have gone through the upgrade of DARIN II and DARIN III now. So we have gone much further away from what the Navas Jaguar was in terms of providing cockpit comfort to the pilot for system handling. So pilot is much at ease when he thinks about a sortie today and he can deliver the weapon much more accurately, do a lot of more jobs so he can handle complicated weapons and he can also do the self defence job in a much better manner in today's Jaguar.

(34:47)
P R Ganapathy:
Okay. Right. And in terms of the weaponry that you would carry on the Jaguar, were there dumb bombs, smart bombs? Did you do any rocket work in the Jaguar at all or was it not really a good platform for that sort of stuff?

(35:01)
AVM Nanodkar:
We did all kinds of weapons, right from 30 mm cannons to rockets to small caliber bombs to 1000 pound bombs to laser guided bombs. And now, of course, we have graduated to much more complicated and sophisticated weapons of anything and everything in the inventory of Indian Air Force. A Jaguar can deliver and deliver it well. And secondly, there was an air to air missile on top of the wings, which was something unique on that platform, and that also we have now modified to have a much better air to air missile. So you can think of a weapon and Jaguar could carry it and deliver it well, just to draw a similar Indian Air Force tries out most of its weapons on Jaguar. Whenever induct any new weapons, we want to try them out. The first platform that comes to anybody's mind is Jaguars.

(36:00)
P R Ganapathy:
Right. I was reading about your citation for leading the exercise against the US Air Force. I'd love to hear what that was all about and how you planned it, how you went about it and how we performed there. I think you took six Jaguars and a few IL-76 and a few IL-78 tankers and went there to Alaska. It's love to hear that entire experience.

(36:27)
AVM Nanodkar:
Yeah. I handed over the squadron, and had come to Air Headquarters as Director, Tactical Operations. And one fine day, my boss told me that Vice chief was calling you, and fortunately that time, Vice Chief was Air Marshal McMahon. He was my Ex-CO in Six squadron, as I told you. Yes. When he called me, he said, you bloke. I don't know why, but Chief has selected you to lead the exercise at Alaska. First, I couldn't believe that Chief has selected Jaguars to go to Alaska because this was in 2004 and we already had Su-30Ks on our soil for a little while. And there were talks that we will send Su-30s for this exercise. And I was stunned. And he said, So how do you feel? I said, Sir right now, I'm not feeling anything, but I will get some feeling once I go to the office. Why? I said, sir, because I don't know what is supposed to be done. And that was a fact, because imagine first time fighter aircraft were flying out of our country, and that to straight to Alaska. Secondly, we were supposed to take the tankers with us that were just about one year old. Wow. So they were formulating operational procedures and they were getting used to various situations and exercises, so we were supposed to take them on. And the only experience of Alaska we had was that the previous year, one IL-76 had gone there, but it had not participated in the exercise actively, and it had experience how the exercises conducted. That was done by then Group Captain S R K Nair, who had taken his IL-76 and gone. That was the only experience that we had. But flying a transport aircraft, I presumed, all the way to Alaska and taking the fighters all the way to Alaska, slightly different kettle of fish. Yeah. So it took us about we had about eight,

nine months to plan this complete thing. And, of course, Americans were also not used to Indians messing around during their exercise. And mind you, there were a total of twelve nations participating, though all of them were not participating for flying, but about eight nations were actively participating in flying. And later on, of course, we came to know that mostly these exercises are conducted for NATO forces. So we were the only non NATO country participating that time. It was a huge challenge trying to plan this exercise because we did not know how to plan the ferry because it's not a simple ferry. You had to do two to three mid-air refuelings, which has a different process than just a ferry from Point A to Point B. So when probably Jaguars came from UK or Mirages came from France, they just ferried from Place A to Place B, following the predesignated routes, and they landed at an air field, refuelled and took off and came back. Whereas for air to air refuelling, you have to have separate corridors. You have to have entirely different planning process that one has to go through. So we have to learn that, RAF was very helpful to quickly let us learn those processes. Then RAF attache M Sundaram, he helped us out in that. Okay. But mind you, whatever we did because of our enthusiasm and the team that I had to work on, this was amazing because every time we had to learn something new, we were quickly getting onto the job and staying ahead of what others were doing. We wrote our own software, and 2004 was not today's software writing was as easy. And mindful this software writing was done by people in the Air Force.

(40:18)
P R Ganapathy:
And so what was your route of ferry? Finally, did you go by Japan and up the Pacific Coast?

(40:23)
AVM Nanodkar:
No. Those days, because of the constitutional restrictions allowing the foreign air forces to operate from Japan, we were not allowed we had planned both ways in our initial planning, but then because of this restriction from Japanese government, we had to drop that idea and we had to go on a Western route. So we went from here to Doha. Then we went to Egypt, then Italy, then Portugal, then Azura Silent, middle of ocean there, the Atlantic Ocean, and from there to Gander in Canada, then Edminton and then Alaska.

(41:08)
P R Ganapathy:
Wow. And once you got there, you were assigned to one of the two forces, or were you split up?

(40:14)
AVM Nanodkar:
Yes. We were part of the Blue Forces. And there were Canadian F-18s there. There were F-16s ,US Air Force F-15s. Then there were Japanese F-15s. There were F-14s from Germany and RAF. Wow. Whatever forces were operating from Isles and Air Base in Alaska, they were all part of the Blue Forces. And Red Forces were deployed on some other base in Alaska, and the territory is huge. They have got demarcated area for this exercise. They

have got automated range there, and it was a wonderful experience. And to participate first time in that environment was something out of one.

(41:58)
P R Ganapathy:
Amazing. Can you tell us about some missions that you all mounted and who were the opposing forces and how did you perform? I presume they assigned your low level strike missions and things like that?

(42:09)
AVM Nanodkar:
Yeah, we were part of the Blue Force, and one of the few things I'll cover before I come to the mission that we had a little bit of disadvantage being a non NATO participant. That some of the equipment that was allocated to NATO participants that was not available with us. So we had a little bit of handicap to start with.

(42:29)
P R Ganapathy:
For example, what would some of that equipment be?

(42:30)
AVM Nanodkar:
Yeah, they have monitoring pods. Oh, right, monitoring. And they were data linked to the ground. So real time everything was available. Whereas since we could not carry those pods those days, now, of course, when we go, we carry those pods from them. Our positioning was done based on the radar feed. So there were little complications in all these things, but we overcame these complications very fast and they were very helpful and very positive in giving us all the support and just to make sure that we participate in the exercise. And mind you, one of the best things that happened during the exercise that whatever missions were allotted to us, not a single cancellation of a sortie. That means whatever we do, 100% missions with success. Of course, there were some missions where you were fired at some of our elements that we were not in a position to fully carry out the attack and destroy the target. But the success rate during that time, our success rate was about 60% plus in terms of reaching the target and destroying the target. So which was for the first time in an environment like that with limitations that I just specified, it was amazing. It was good. So our pilots did very well. Our tanker flew some sorties during the mission. Again, the success rate of transferring the fuel and tanking was 100%. So performance wise, we took part in all the mission. Coming to specific mission, we always were part of the F-15s, Jaguars and F-16s would go together for strike, in formation. Tornadoes would be, of course, along with the Jaguars. So there used to be huge packages trying to RV with everybody, get on with your route, making sure that you have adequate air defence cover in a BVR environment which we are operating probably for the first time beyond visual range environment which they were used to, and they were practising for many years. Striking the target and getting back was a challenge. Then there was a mix of going at low level and medium level. Mostly the mission used to go at medium level, because then your escorts, F-18 and F-16 escorts, they would take care of you. As far as your safety is concerned, your survivability is concerned.

So that way it was good. But at times they sneak through and Jaguar being Jaguar, trying to get it quickly at low level and escaping. That happened many times and we could win over them in some of those sorties. And that is why our success rate was 60% plus. So that way our equipment held. Our entire lot, because that was important, because we wanted the radar warnings in time so that we could take our tactical actions shortly. So our entire equipment worked beautifully there. It could be because of the environment also and are charged up from technicians. They were working 24/7 to keep the aircraft and systems going. So it was amazing. I can tell you a story. We changed the engine in Canada outside, in rain because we didn't have a cover. So we did some usual Indian Jugaad technology and we changed one Jaguar engine. And that is how we reach all the way up to Alaska as planned, on time, without losing anything. When we went there, we found that RAF people or Germans, when they flew relatively modern aircraft, they had left behind certain number of aircraft enroute and all six Jaguars, both tankers and IL-76, we reached on time on track.

(46:20)
P R Ganapathy:
Wow, amazing. And did they have AWACS in the air? I presume they did.

(46:25)
AVM Nanodkar:
AWACS picked us up, but both sides had a AWACS. So they would warn our pilots that a different aircraft of Blue Force would go ahead and take them on and shoot them off. Okay, so all that was happening in there, so AWACS was there on both sides. So that was very helpful. And we learned a lot of lessons there because those days we didn't have AWACS. So some of our pilots went for experience in AWACS, I along with some pilots, we flew in their tankers and they have got human socket kind of. We couldn't use it that time because we don't have the system, but we went and flew in the tanker just to see how they do that. Everything that was given to us, we experienced it without any shortcomings or failures. And they were very forthcoming to let us do many things that we are wanting to do. So it was a huge learning for our boys, both air crew as well as the ground crew.

(47:34)
P R Ganapathy:
Fascinating. On that really happy note, I want to thank you for your service and also thank you for spending so much of time with me and going into so many fascinating, lovely experiences in so much detail. Thank you very much.

AVM Nanodkar:
Thank you for having me over. And we must catch up on these things more often.

P R Ganapathy:
Most definitely, sir. Thank you.

(48:11)
P R Ganapathy:

Well, folks, that's all we have time for 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 platforms 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 Sourav Chaudia 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.