



SCATTERING CHAFF: Canadian Air Power and Censorship during the Kosovo War by Bob Bergen

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The Fog of War

The Clinton administration's strategy, which envisioned only gradually escalating air strikes and negated a commitment of NATO ground troops, was deeply flawed from an airpower perspective. By eliminating a ground threat, it ruled out surprise.¹ By seeking only to compel Milosevic, rather than destroy him, it complicated measurement of the campaign's coercive effect.² The rationale for not committing ground troops was that the air campaign was supporting a humanitarian operation. Clinton reasoned that civilian casualties from a ground campaign would be greater than those from errant bombs.³ Soon, however, Gen. Clark realized that a limited bombing campaign aimed at the Serbs' air defences and military facilities alone wasn't achieving the desired strategic effect: to end ethnic cleansing.⁴

Clark pushed to attack targets deeper in Serbia, including police headquarters in Belgrade, that were directing ethnic cleansing. The kidnapping of three American soldiers on March 31 convinced Clark that he must strike Serb ground forces.⁵ "In war, the art is to focus as much combat power as possible at the decisive point. One of these decisive points was the destruction of the Serb ground forces."⁶ NATO planners drew up a list of Phase Two targets including Serb forces, armoured vehicles, troop transporters, support trucks, and petroleum storage facilities.⁷

Capt. Travis Brassington remembers the push by Clark:

The big press from General Clark was troops, artillery and tanks, army in the field kind of stuff, not classic close air

support. We were after parking assemblies which proved to be very difficult. They were pretty good at hiding their stuff. I remember hearing a couple of times about fielded forces, but we'd have so many aircraft in the stack waiting—by the stack I mean waiting in position to drop bombs—but my number never came up. To ensure that we were doing something, we'd always have back-up targets, so the plan was to go and try and destroy fielded forces or find vehicles out there but, if not, we'd move to pre-planned strategic targets like repair facilities or ball-bearing factories. It is kind of a common thing for fighter guys to do. You always have a back-up plan.⁸

NATO planners eventually received approval for more progressively strategic targeting aimed at disrupting Milosevic's ability to command. Phase Three targets constituted axiological air operations aimed at not only targets Milosevic valued—such as his vacant home in the exclusive Belgrade suburb of Dedinje, and TV stations that spewed out his propaganda—but also electrical transformer yards and bridges over the Danube. The assumption was that disrupting the Serb population's quality of life by interrupting electrical service and jamming up civilian and military traffic flows would force a capitulation.⁹

With the targeting changes, the Canadians increasingly were called upon to attack bigger, tougher objectives. 441 Tactical Fighter Squadron Capt. Todd Sinclair—who went by the call sign “Piper”—recalled that his missions' targets ran the gamut from barracks buildings to radio relay stations and bridges.¹⁰ Pilot radio call sign “Chimp” of 416 Tactical Fighter Squadron also recalled the approved target list:

The other guy's military infrastructure and equipment was number one; then we started going after things like fuel that keeps the tanks running and the jets in the air. “Let's blow that up and then they're unable to operate, and ammo dumps.” We wanted to pin them down so they couldn't move about freely, take out antennas and what not, stop

them from speaking and communicating. So that was the nature of it.¹¹

Pilot radio call sign “Tubs” of 433 Tactical Fighter Squadron from Bagotville recalled that early in the war, the Canadians spent much of their time bombing Serbian radio relay sites, barracks, and other military infrastructure. “Later on, towards the third week, we started looking at some of the airports, some of the airfields; some of the infrastructure around the airfields; supply-type areas; storage areas; storage facilities; and petroleum, oil and lubricant storage areas. That sort of thing.”¹²

The pilots discovered, however, that the GBU-12 didn’t have sufficient punch to take out the larger fixed infrastructure targets such as bridges and buildings. As Lt. Col. “Billie” Flynn said: “We have a 500-pound bomb that doesn’t knock the paint off the buildings you’re trying to bomb.”¹³ However, pilots were asked to bomb the same targets repeatedly, with insufficient weapons for the job.¹⁴ The Canadians did have a 2,000-pound bomb with more advanced technology, the GBU-24, but its Paveway III guidance didn’t suit the tactical conditions over Serbia and Kosovo.¹⁵

That risk was unnecessary. As early as September 1998—long before the bombing began—Task Force Aviano requested clearance of a third bomb in the Kosovo theatre, a 2,000-pound GBU-10 bomb that used the Paveway II guidance system already in use with the GBU-12.¹⁶ By October 1998, it was noted that “a wartime clearance to carry GBU-10 weapons within a restricted flight envelope is obtainable with minimal analysis and stores certification testing at this time.”¹⁷ That clearance never was approved. As Flynn said, “Remember, in peacetime, you don’t get anything you want. There’s nothing new about that and when war happens, people jump, and they jump pretty quickly.”¹⁸

On 20 April 1999, deputy minister of national defence Jim Judd recommended that the minister approve spending \$8 million to obtain 200 GBU-10 bombs from the United States at a cost of \$40,000 per bomb.¹⁹ Art Eggleton signed off approval through foreign military sales the same day. Those 200 GBU-10s were listed as an additional procurement, while the operational tempo and length of the conflict might necessitate further procurements.²⁰ Shortly afterward, near the first week of May, the weapons technicians in Aviano were back across the road at the American weapons

dump, using their government credit cards to buy GBU-10 bombs. “I was actually there when we went to buy it. We went in there literally and said: ‘We want 200 of this and 200 of that and 200 of this.’”²¹ The Americans said, ‘here you go.’”²² The actual cost of the bombs came in at US\$8,615,753.²³

Flynn said that once the GBU-10 was approved, the pilots had them within days. “My compatriots from AETE [the Aeronautical Engineering and Test Establishment in Cold Lake] did all our checks and gave us clearance to go with the bomb in about a week, which is unheard of. They flew over, checked how the bomb would fit on the airplane, confirmed the engineering that it would be okay, and gave us a clearance.”²⁴ Back at the Canadian base, the workload ramped up again for loads standards and trainings officers. Once the Canadians had the GBU-10s, it had to be determined how to configure the CF-18s’ antediluvian computers and train the crews in their use, while the other weapons in the Canadian inventory had to be assembled and built. The ground crews’ efforts were stellar given that staff was over-stressed and the unit undermanned.²⁵

Since none of the Canadians in Aviano had ever flown with or dropped a GBU-10, they had to learn how to use them literally on the fly. As Capt. Kirk Soroka said: “No one had ever flown with those except for the test pilots and they basically walked us through a quick how to-in the hangar. You know how to walk around them. They said: ‘Just treat them like a GBU-12 and go drop ’em.’ So that’s what we did.”²⁶

Out of necessity, innovation on the ground and in the air characterized the Canadian contribution to air war as much as scrounging. As one sentence about the first night of Operation Allied Force in the first chapter notes: “Pelletier positioned himself in the lead of the four Canadian CF-18s flying single file and leading the eastern element.” The fact is, they were forced to fly in single-file formations to avoid collisions because they lacked night-vision goggles that allowed them to see in the dark. The “Balkan Bats” flew as blind as the bats that fluttered through the night air at their Piancavallo resort accommodations. That absence of night-vision goggles created a host of problems that were the result of budget cuts and the timing of requests to incorporate them in the CF-18s. To use night-vision goggles, the CF-18 had to be modified. The jet’s instrument panel was illuminated to be seen at night with the naked eye. With night-vision



5.1. Canadian bomb loaders use an MJ loader to lift a GBU-10 Paveway 2,000-pound bomb on to a CF-18. Photo courtesy of the Department of National Defence.

goggles, that would become a problem, because the instruments could not be dimmed with a knob or a dial like a car's dashboard lights.

Pelletier explained that flying with lights out was less effective, but most of the Bagotville pilots had trained in night flying with all lights out except the red strobe, which was similar to flying in total blackout.

It was a requirement to carry out one lights-out intercept, not a bombing run, but a lights-out intercept which is fairly similar. The only difference that it does for you is you get to see the strobe. At night, perception is not there so you don't get to see really or to perceive how far away the other guy is. A strobe at one mile is pretty much the same as a strobe at ten miles, the same thing as a strobe at 6,000 feet is about the same as a strobe at 15,000 feet, so to me it, it does make a difference in the confidence factor. So, guys did train with

it, maybe not as often as we should have, but I think the safety factor was there.²⁷

The senior Canadian military commanders knew that the pilots in Aviano did not have night-vision capability. Jurkowski visited an American F-16 squadron in Aviano to understand what night-vision capability could give the CF-18s. He thought three considerations likely were behind the absence of night-vision goggles in the Canadians' cockpits when the air war began: an understanding of how complicated developing that capability was; a misperception of its true importance; and "typical sluggishness of the bureaucratic process to buy these things in the midst of a whole bunch of other priorities. There's never enough goddamn money."²⁸

Henault, deputy chief of defence staff at the time, had confidence that the pilots had the skill and equipment necessary to conduct their Kosovo missions without night-vision goggles.

That equipment, although it had been integrated in many other coalition aircraft, was not in Canadian aircraft and could never had been fitted in the short time that we were talking about given the complexities. For example, fitting a fighter aircraft cockpit with night-vision goggles is not nearly as simple as strapping the goggles on the helmet. There's a significant amount of cockpit modification that has to be done and so on. So we were aware of those limitations.

I was also aware that direction had been given to our Canadian pilots not to undertake any missions that they did not feel they could undertake given some of the equipment limitations they had. Indeed, all of their missions were undertaken with the clear understanding that they would do the job with the equipment that they had on the aircraft, do it to the best of their ability or not do the mission, if that was the case, and to ensure that—as time progressed, as part of the follow-up to the Kosovo air campaign—we would inject this into the lessons-learned process for the updating of the F-18.²⁹

Flynn, once retired, described the issue differently four years after the war: “It was a huge fuck up. Let me use the words properly: Huge Fuck Up. It was incredibly stupid and typically Canadian.”³⁰

To understand the complexity of the debate one must understand the “typical sluggishness of the bureaucratic process.” In October 1997, Flynn and his 441 Squadron pilots had developed an elaborate case for acquiring night-vision goggles. They reasoned that since the Second World War, about one-third of all air-combat missions had flown at night, to reduce detection. They identified ground school and simulator training needs, aircraft lighting modifications, the different types of kit available, and the types of mission training that would improve as the result of acquiring night-vision capability.³¹ The squadron received approval from a supplier that month to provide two to three sets, and assurances that two to three other sets could be purchased for \$60,000–\$70,000 from the CF-18 risk management program. Wing operations officer Lt. Col. J. M. Ouellet had promoted Flynn’s night-vision goggle initiative to his wing commander. Despite engineering and funding hurdles, Ouellet wrote: “I believe that NVG is a force multiplier at night and offer significant safety benefits.”³² Then-wing commander Col. R. W. Guidinger recommended the idea to the director of air requirements at NDHQ in late October 1997.³³

By November 1997, 441 Tactical Fighter Squadron developed a planning document setting out a concept of operations for the NVGs. It included obtaining six contractor models at US\$9,000 each. The study showed how the CF-18s internal and external lighting could be modified with off-the-shelf lighting upgrades involving minimal modification to the jets’ existing structure and wiring. The type of goggle that was being considered for testing was a lithium battery-powered binocular-type that mounted on a pilot’s helmet by a detachable bracket. The battery life was ten hours. A spare battery would be secured in the cockpit’s right-rear console. The document detailed pilot procedures in the event of vertigo, when they would revert to unaided visual use of instruments, and NVG failures. Combat training rules also were developed.³⁴

By 28 April 1998, a night-vision goggle committee was struck and met for the first time at NDHQ in Ottawa. The costs of a trial program had grown to about \$207,000. Six sets of goggles were purchased at a cost of \$97,000, leaving \$110,000 for aircraft modifications, trials, and incidentals.

Ground trials were expected to be completed by August 1998 and flight trials to commence by October 1998.³⁵

An undated revised timeline pushed back the test date and trials. After contract modifications were completed, the test plan process could be in place by November/December 1998. Flying trials with NVGs would occur from February to May 1999 and reporting on the trials would take place by June 1999. However, the process was frozen with the deployment to Aviano in June 1998.³⁶ Flynn was livid at the bureaucratic inertia that delayed the program's development.

The air force shuffled its feet on it. It was an incredible fiasco. That we never killed anybody is a miracle and we had a handful—at least—of near misses, nearly having guys kill themselves on sorties because you couldn't see anybody. And there was no ability once the war started to ramp up and use night-vision goggles. I'm sure the commander of the air war never knew that we were really flying around totally blind at night as we were. It was incredibly stupid. We could have admitted we couldn't see anything and then we would have been pulled out of the night war.³⁷

Before Flynn and the 441 Fighter Squadron pilots replaced the Bagotville pilots, they flew at night in formations in anticipation of acquiring them. But from the first night of flying on 24 March 1999, the goggles were not available, forcing them to abandon all the training they had conducted for the previous two years. Flynn remains adamant that it was a mistake to send the pilots flying into some of the most difficult and dangerous parts of the air war without night-vision goggles:

Every night-mission was lights out, and more than half of what we flew was at night. Of the 678 missions, half were at night. Me, I flew five night-missions before I became a day guy, and it was terrifying. It was really an incredible workload trying not to hit the guy in front of you, trying not to have the guy in back behind hit you and, oh, by the



5.2. 441 Fighter Squadron Commanding Officer Lieutenant-Colonel William Allen “Billie” Flynn in his CF-18’s cockpit prepares for a combat mission. Photo courtesy of the Department of National Defence.

way, you’re going to go bomb somebody which was no small feat in itself.³⁸

Other CF-18 pilots who flew the night missions have strong feelings about flying without NVGs. Soroka was one of them.

That was nuts. My squadron, 441, had been training to fly at night for two years because our tactical expertise determined that when we went to war it would probably be at night. So, we started conducting night training and, so much so, that we were really comfortable flying at night. However, the training we were doing was with our lights on because we didn’t have any NVGs. We were flying all the NVG formations, but with our lights on because it was unsafe otherwise. We had no training rules at the time to

fly with our lights off. Training rules are set so that we can conduct our operations in peacetime safely and as close to wartime conditions as we can get. We were ready to fly at night, at least we thought, until our first night into Kosovo.³⁹

At least seven sets of problems resulted from the pilots flying without NVGs.

First was their inability to see each other. It forced the Canadians to develop flying procedures that enabled them to fly into combat without running into each other. They abandoned the conventional mutually supporting formations they would have flown. In a mutually supporting formation, four CF-18s fly in a box or a rectangle, depending on their objectives. In battle formation, two lead aircraft line abreast with two wingmen each trailing about forty-five degrees off their wings.⁴⁰ Those formations went out the window along with the mutual support they provided. Instead the Canadians flew in an entrail formation, basically a straight-line formation with three Hornets following the lead—each several miles behind the jet in front of it—and separated by different altitudes.

Second, flying into combat in a single file compromised their effectiveness because the Canadians could not bomb targets en masse. Glaeser explained.

Ordinarily, we overwhelm the enemy by all coming in all at once in line-abreast formations, maximizing our weapons' effects by putting our bombs on target all together, all at the same time. But when you come single file into a target the lead will drop his bomb. A couple of minutes later number two will drop his bombs. A couple of minutes later number three will drop his bombs. You're better off to put all the bombs on the target at the same time to maximize the effect. Night-vision goggles allow you to do that.⁴¹

Third, flying four or more CF-18s dropping bombs on targets, one at a time, all coming from the same direction, made it treacherous for the trailing pilots. Glaeser said:

When you're the last guy in a train of four guys, it isn't a good feeling. If I can make an analogy, if you've got a bunch of police and they're going to go into a building, they're going to do it all at once. That's kind of the idea. Overpower them. Everybody comes in at once. Everybody goes out at once. Overwhelm the enemy. They're not going to go in one at a time, through the door single file because, eventually, somebody's going to get picked off. That's what you don't want to do and that's what we had to do.⁴²

Glaeser found out first-hand what it was like to fly fourth in formation when enemy gunners knew three pilots before him already had dropped their bombs. On the night of May 30, he flew last in a file of four CF-18s on their way to bomb army barracks in Nis, Serbia's second-largest city.

Everybody was to bomb these barracks and I'm the last guy in the formation. A captain from Bagotville was the lead. As he was going in he reported heavy AAA in the target area which means heavy anti-aircraft artillery. I was like, OK, I've heard that before. Number two said heavy AAA also. I think three was Rambo and these guys—remember, because I was four—by the time they came off the target they were actually heading south out of Yugoslavia back down towards Albania. I was still heading north into the target because I was a couple of miles behind them. These guys remember. They looked over their shoulder and all they saw was just massive AAA coming up and it was all at our altitude—like it was getting into the 20,000–25,000 foot altitudes, our altitudes—which is incredible for anti-aircraft artillery. It was pretty heavy calibre; they think it was 90-millimetre AAA. I could actually see it in my FLIR on the horizon, kind of like popcorn exploding. The guys, when we landed, we kind of laughed about it. They said: “Oh, Laser, man, we didn't think you were going to make it.” That was the worst AAA I've ever seen.⁴³

Pilot call sign “Hooker” of 441 Tactical Fighter Squadron’s weapons and tactics officer, agreed that flying single-file formations provided less mutual support for the trailing members, but for a different reason. “I would have to agree that flying entrail formations—not the result that you are leaving number four hanging out there to some degree—but the fact that I think you’re flying at night makes you perhaps more vulnerable because you’re not able to actually check the other guy, you know, visually.”⁴⁴ Having said that, “Hooker” also said an argument could be made that the night pilots were somewhat more protected “simply because it’s dark and it’s more difficult for the bad guy to find you and to shoot you than would be the case in the daytime.”⁴⁵ Night-vision goggles would have given the Canadians greater capabilities and more support, “Hooker” says, but the Canadians had no other choice but to play the cards they were dealt. “Under the circumstances, our feeling in theatre was we had a job to do and we had really only one way of going about doing that and we did what we had to do.”⁴⁶

Fourth, because the pilots had to fly in single-file formation, the trailing pilots did their best to use their radars to “see” the leading CF-18s in the dark. However, Soroka explained, ordinarily, the CF-18’s on-board radar is used to look for air-to-air threats, not to stay in formation.

The three [trailing] formation members relied heavily on the radar to stay in position. But because we had to use our radar to ground map the target area, too, and hand that off to our Forward Looking Infrared targeting pod, there were periods of time when there was no radars looking into the air-to-air threat out there. It did exist, particularly with the targets we were going into that were heavily defended and known positions for MiG-21s and MiG-29s.⁴⁷

The pilots also became skilled at training their FLIR pods—ordinarily used for acquiring their targets—on the jet in front of them as another way of seeing in the dark and staying in formation.

Fifth, no battle plan—including a compromised one that required the pilots to fly in single file—withstands the first encounter with the enemy. Capt. Brassington said, despite planning as best they could, staying

in formation and trying to dodge surface-to-air missiles when the pilots couldn't see each other was a haphazard affair at best.

I don't think there's a guy that can't tell a story of swapping places in the middle of the night as you went into the target or come out on the other side because he just couldn't see. You just kind of cross your fingers and hope for the best, you know, when you go into the target area, especially when things get demanding. I can plan it and say we're all going to go 400 miles an hour and, at this point exactly, we're going to each turn at this heading so that we can keep the train following each other around. The second that one person deviates in air speed or heading then it starts to fall apart.

We had specific procedures in place that if someone got lit up by a SAM threat or a triple-A threat, there were manoeuvres that we would do en masse to try and keep the formation together, but the variables are so great. It doesn't take much for an aircraft to drift out of position. One degree of heading change in sixty miles equals a nautical mile out and we move pretty fast. It's called the one-in-sixty rule. If you're two degrees off and you fly 30 miles you'll be one mile out. Sixty miles is not a lot.⁴⁸

Sixth, with the single-file formation under attack, the evasive manoeuvres they had to execute put them unnecessarily at risk. Capt. Neil McRury, a CF-18 instructor with Cold Lake's 416 Tactical Fighter Squadron, explained:

If we were all going in one after the other at night and the second guy in a train of four had a threat to react to, then the entire formation had to threat-react, because you can't see each other. You basically go on certain on-board devices to determine your separation. We had to watch for things coming up off the ground. The guy in front of you, you had to check a third instrument to make sure you weren't closing in or opening up. If you were No. 2, for example, and I

started stretching away from the guy in front of me, then it goofed up the guys behind me, because they now compressed in on me. If my target reacted, then they're going to be in a world of hurt. Yeah, it was a serious detriment to the safety and effectiveness on behalf of the guys in Kosovo, not having them [night-vision goggles].⁴⁹

Seventh, the crowded battle space over Serbia or Kosovo—which can only be described as controlled chaos—put the night-blind Canadians flying in single formation at risk of collision or being bombed by their own allies. One Bagotville pilot explained:

What's going on is everybody is lights out. Everything is dark. Where you're going, it is just black, but you know there's about fifty or sixty airplanes in the air. All you look at is the black, because everybody is lights out. They all can see each other because they have NVGs, but we cannot see anybody unless you see them on your radar. So, some guys were coming off target, turning towards you, climbing about, whatever, and you see them on the radar. That's good, but if your radar's busy painting the ground, and you're not looking at the sky then you don't see. So, you just hope everybody's following the flow, there's no clowns there that are going to turn in your face at your altitude.⁵⁰

In the fog of war, Glaeser nearly collided with an allied plane, which he attributes directly to the lack of night-vision goggles.

A really huge thing about the night-vision goggles isn't safety from enemy fire, it's safety from running into friendly airplanes. You can make the best plan in the whole world, deconflicted altitude wise, deconflicted everything for safety, but the fact is that the lights are out. Somebody is going to mess up the plan and come flying right through the middle of your formation at night. It happened to us where an American guy, or a Spanish guy, or a Brit, I don't know

which country, but another country. Another allied country flew right through the middle of our formation with one of their airplanes and maybe they saw us, maybe they didn't, but we sure didn't see them. It's a big surprise when another airplane flies right through your formation at night. If you had goggles on you could see that for miles and do things a lot safer.⁵¹

Apart from colliding with an allied warplane, Soroka was almost bombed by one.

I almost got killed during a night strike on April 30 because of that formation and the way we were ingressing on the target. Whenever people start shooting at you, the first thing you do is you go faster. You just want to get into the target area, get out of there, dodge the bullets, and then leave the target area safely. The problem is you have to fly the same speed and we weren't flying the same speed in the formation. There was a turn in the routing to the target and the element behind us overflowed me and delivered their bombs right through my element. I'll never know how close they were, I just know that, by virtue of the attack access and the formation we were in, it was pretty tight.⁵²

Yet another shortcoming of the Canadian CF-18s' standard equipment affected not only Canadian operations but those of the entire NATO coalition air fleet. The whole coalition effort had to use single-frequency jammable radio equipment to accommodate the Canadians because the CF-18s lacked jam-resistant radios, radios that operate on multiple frequencies at the same time. As Capt. Neil McRury explained:

It illustrated the fact that our aircraft, albeit capable, was dated. It forced us to operate in an environment that was compromised insofar as verbal communications. We didn't have a secure radio system to talk to other coalition fighter aircraft. We could talk to the AWACS in a secure manner,

but we couldn't talk to the other coalition aircraft in a secure manner.⁵³

That made it easy for the enemy to determine which frequencies the Canadians were using and then jam them. Not only were coalition communications not heard, but unless they turned their radios off they were forced to listen to whatever was being used to jam their frequencies. Capt. Brassington said:

Anybody with a Radio Shack scanner could eventually find out what frequency we were transmitting on. If you have a really big transmitter with lots of power you can jam out that signal frequency, making it difficult for guys to talk on. Whoever has the most powerful transmitter essentially wins. I'm serious, they were jamming us. Now what that meant was there was nights when, and everybody thinks it's funny, but I listened to Celine Dion. It's a very poignant memory. Yeah. Celine Dion. How appropriate. How do they know it's us out here tonight?⁵⁴

With such powerful and compelling stories to tell, what Canadians could have learned about the heroics of the pilots in combat and ground crews servicing the CF-18s—or not—from the news media during the Kosovo air war—and why—requires a brief departure or glimpse back in time to eight years earlier, a prelude if you will. Central to it is learning what key Canadian Forces personnel remembered from the 1991 Persian Gulf War to understand the dynamics that shaped what the media and—by extension—Canadians writ large could know about the Kosovo bombing campaign. It is somewhat akin to watching sausages being made: unpleasant truths can emerge.