Liberty Tree

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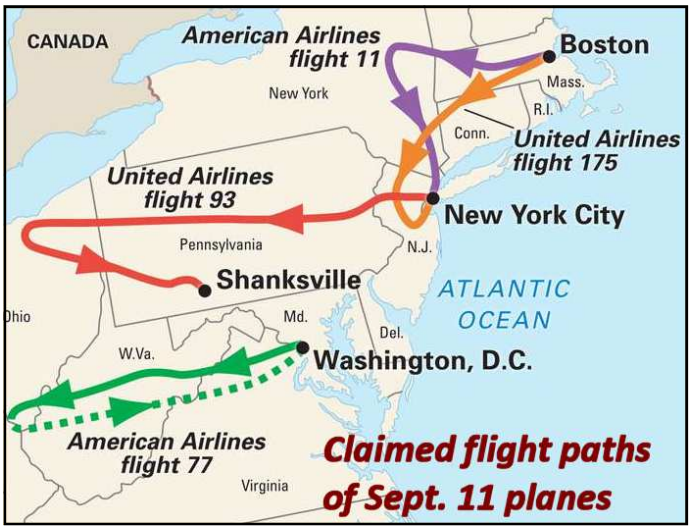

ANOTHER LOOK BACK

By Dick Greb

Primary radar is a system where the ground-based antenna transmits a radar pulse, then listens for the return energy *reflected* from an aircraft. **Secondary radar** requires an airborne transponder which responds to the pulse from a ground-based antenna by *transmitting* a return signal.

Note the dotted green line for AA flight 77: it is claimed that the transponder was turned off, so the plane *disappeared* from air traffic surveillance, and the dotted line represents the *speculative* path. Primary radar detects planes without transponder activation; yet the official story still claims the path is not known.

My, how time flies. It's been twenty years now since the grand slam of hijackings that were used as the excuse to entrap us in a never-ending War on Terror.[1] On this auspicious anniversary ('china,' wouldn't you know), I once again feel compelled to offer a few comments about that gigantic criminal enterprise which resulted in the deaths of thousands of New Yorkers. Not nearly as many as died as because of Governor Cuomo's insane order forcing nursing homes to accept COVID patients, of course, but at the time, it seemed like a lot. As expected, the government was quick to pooh-pooh any and all conspiracy theories, except for the one it conjured up itself — one in which all participants died, so no need to dig any deeper. Move along ... nothing to see here.

Over the decades, there have been many individuals and groups trying to do what the government refused to do — actually investigate what happened on that fateful day, so that we the people might finally come to know the truth of the matter. Not long ago, I came across a video produced by one such group — Pilots for 9-11 Truth — titled "9-11 Intercepted."[2] What interested me the most about this video is that it looked at the events of September 11, 2001 from the perspective of pilots and radar operators (air traffic controllers, or ATC). They were able to obtain quite a lot of data concerning the radar tracks, flight information, and especially, telephone and radio communications among the various Air Traffic Controller (ATC) stations and with central command structures (including military air defense) as well as pilots of other planes in the vicinities of the hijacked planes.

In my previous articles about 9-11,[3] I wrote about the war games and hijacking simulations that were happening at the very same day and time as the actual hijackings, and the conspiratorial implications of the confluence of those events. The "9-11 Intercepted" video also addresses those war games and simulations. That got me to thinking about my own personal experience with radar systems, and that's what I want to share with you here.

Back in the 90s, I was working as a radar technician at Westinghouse, and for a number of years, I tested

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during the hours of 8-7 EST (most weekdays). Please note there is no voice mail at this number. The SAPF phone system is out of service temporarily; any donations toward its repair are most welcome!!

1. At least the second-longest war — the one in Afghanistan — is finally being allowed to wind down.
2. https://tinyurl.com/nw88tmku
3. See *Liberty Trees* from September 2011, and October through December 2017.

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commercial radar systems. The two main systems I worked on formed the major part of the Air Traffic Control system in the US at that time (and probably still today). My main duty on those programs was to conduct what was considered the 'system test,' because it was the first time that all the separate components of the system were assembled together. However, due to the extreme high-power microwave output of the radar transmitters, we obviously could not be transmitting inside the factory. Thus, one vital component — the antenna — was missing, and so our transmitters were terminated into a dummy load (which dissipated the microwave energy into heat).

My normal assignment was the Airport Surveillance Radar (ASR) program, although I was occasionally loaned to another program, the Air Route Surveillance Radar (ARSR),[4] when people were out. The system was fully redundant, being able to automatically switch between the two mirrored sections any time its internal self-tests detected errors. The ASR consisted of two receiver/processors, and two transmitters, each in a separate cabinet. Besides these major components, there were two secondary units: one was the 'maintenance' PPI ('Planned Position Indicator'),[5] and the other was called the 'remote' terminal.

Now, the 'final test' was actually a series of tests, beginning with an alignment run (most particularly to get the transmitter pulse properly tuned), and ending with an end-to-end sell-off test which had to go through with no errors throughout the entire test. These tests were performed through a test console which had an integrated computer, and the print-out of the sell-off test was signed off by an FAA representative. The main point here is that the testing of the system *was performed by computer*, by which all operations could be performed, and if memory serves, the main interface between the test set and the radar system was the 'remote' terminal.

All is not as it appears

With these preliminaries out of the way, I (finally) come to the main issue – the simulations. Right at the beginning of "9-11 Intercepted," my ears perked up when I heard: "Turn the sim switches off. Get rid of that crap." That comment was put in its full context around 24:30 of the video, with a NEADS[6] radar operator saying: "You know, let's get rid of this goddamn sim. Turn the sim switches off. Get rid of that crap." The operator was referring to the war-game simulations going on that day, but I admit that I don't know what such a 'sim switch' might be. It sounds as if it's a control on the ATC units, but I have my doubts whether it could be effective to remove ALL simulations that might appear on their screens, regardless of the claimed purpose of the switch. And here's why.

As I mentioned above, the final testing of the ASR had to be done without access to its antenna. On the transmitting side, this made little difference, since we were looking at pulse shape, power output, etc. as it appeared in the transmitter cabinet. But, on the receiving end of things, it was a totally different story. Since, in normal operation, all the signal processing is done on the data received from the antenna, the absence of the antenna during testing creates a huge problem – there's no actual data being received to be processed. Therefore, all data which would normally come from the antenna had to be simulated by the computer in the test console.

These simulations were called 'scenarios' in our test setting, and were 'injected' into the front-end of the receivers. Of course, for testing purposes, these scenarios represented known targets with known tracks, at known altitudes, etc. Thus, the test was designed to verify that the receiver/processor recognized and handled these simulated targets correctly, so the results could be passed along to the ultimate end users – the ATC screens. We had no ATC screens, only the maintenance PPI console (which looked like it belonged in a WWII submarine or something), which was also tested using those scenarios. And so, the computer verified the outputs of the receiver/processors against the programmed scenario inputs and passed/failed based on those results.

My understanding is that as far as the system was concerned, there was absolutely no difference between what would normally be received from the antenna and what was being injected into the system as scenarios. In other words, to the system, there were no 'simulations,' only received data. It did not, and indeed could not, distinguish the one from the other. If that is so, then a so-called 'sim switch' on an ATC unit could have no effect on whether such unit would see a scenario that was injected into the system as described above. The 'scenario' targets would be as real as the actual planes themselves. And they would remain in the system until the injections were terminated.

In our test situation, the initialization and the termination of the injection of scenarios took about one to two minutes to take effect. I mention this because the war-gaming simulations that were being used on that day could have been disabled – thus preventing the additional confusion among the ATCs – within a matter of minutes after the first confirmation of an actual hijacking. Allowing those false simulations

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4. ASRs were positioned at airports and had a range of 60 miles, while the ARSRs provided the coverage between airports, with a range of 250 miles.
5. This PPI was a rudimentary version of the many-featured video screens used by the TRACON operators. It was the only visual representation available to us at this system level, and it consisted for the most part of a round screen with a sweeping radius line (think of a clock's second hand), which showed the target 'blips' as it swept past.
6. Northeast Air Defense Sector.

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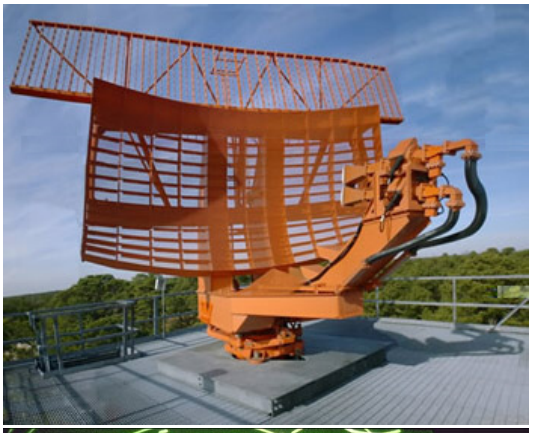
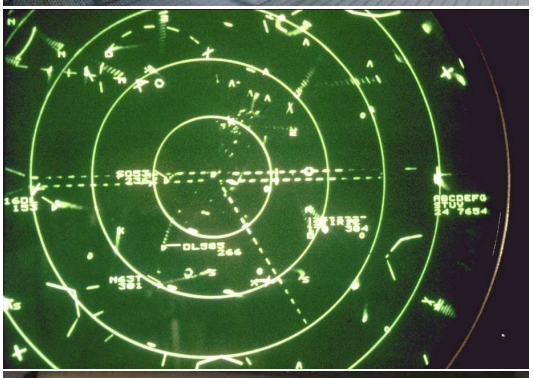
to continue to languish in the system for so long afterwards was egregious, if not actually criminal.

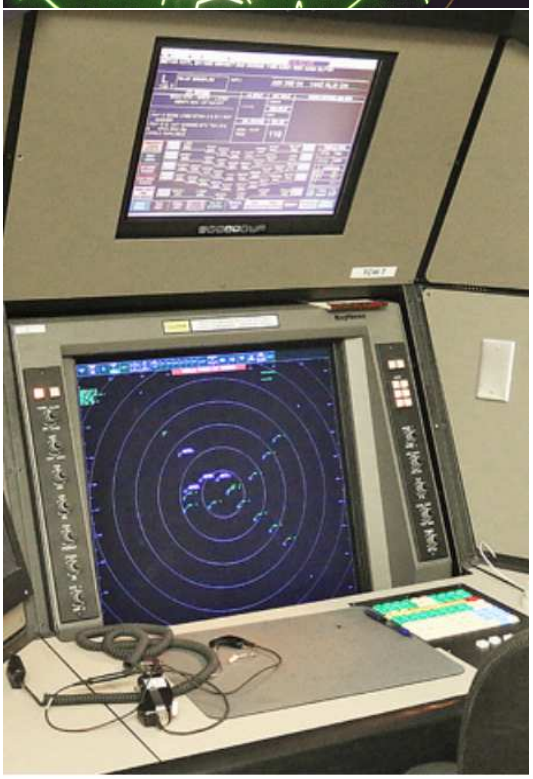
Friend or foe?

Before going on, this seems like a good time to raise the issue of transponders. I doubt that many in the general public know any more about transponders than the little bit the mainstream media said about them – which was pretty much that they got turned off, making it harder to track the flights. Yet I know from my prior work experience that the transponders are actually part of the Identification Friend or Foe (IFF) system. Being a curious sort, I had occasion to question one of the friendlier engineers with whom I worked as to how the IFF could tell the difference between a friendly plane and an enemy plane. I was told that enemy planes would not transmit the IFF signal back. In other words, 'no transponder' equals 'enemy aircraft.' So when I heard on the news that transponders had been turned off, I had to wonder, "Why would a hijacker want to turn off the IFF and make himself a target?" Not being able to come up with any sensible reason for that, I deduced that since no transponder means an enemy aircraft, turning off the IFF was more likely a signal that a pilot could use to notify the ATC that there was trouble aboard the flight – a silent alarm, so to speak. Thus, when an ATC noticed that the flight information disappeared from his screen, he could immediately put hijack/intercept procedures into effect.

Now, as mentioned above, the media routinely said that the lack of transponders (from here on out, I'll just refer to them as IFF) made the flights disappear from the ATC screens, and the only explanation I've heard was that ATC operators routinely only display the secondary data (IFF) and not the primary (the actual reflected target data). However, switching between primary and secondary data (or both at the same time) must surely be a simple matter for an ATC without even leaving their seat, so I'm sure they were able to see the targets. And in fact, ATC operators can be heard in the video multiple times informing other operators that the target was available on "primary only."







Top: An ASR-9 radar antenna.
Middle: ATC radar screen, 1950s, similar to the display used by the author in testing.
Bottom: ATC console in 2017 in Atlanta airport (training room). Many of the systems still in use today are decades old.

If I'm correct, then in an actual hijack situation, you would have a 'naked' target, which while unidentified, would still be fairly easy to track, since all other planes on the screen would still be identified. However, on 9/11, with four planes being hijacked at the same time, and flight paths which were not too distant one from the other, then keeping track of any one 'naked' target gets that much more complicated. It should still be possible, however, to know that the 'naked' targets are the four hijacked planes, even if you can't be certain which of the four any particular target is.

Why all the confusion?

But of course, there was more to it than that. Because, on that fateful day, there were also *hijack simulations going on at the same time*. And this brings me back to injected scenarios. In a hijack simulation, there has to be a hijacked plane that shows up on the screens. For the sake of authenticity, a target must be created from scratch. In order for it to appear like a normal flight, it must have the secondary IFF information along with its primary data. So, it must have a *flight number* associated with it, as well as altitude, speed, location coordinates, etc. Well, what number do you choose? Is there some never-used number, like the 555 area code that all phone numbers in TV shows use, or just a number that isn't being used at that particular time?

To my mind, this is an extremely important question to be answered. Since the simulations would have been planned in advance (that is, before it should have been known which actual flights would ultimately be hijacked), then the choice of flight numbers could be quite telling. If the entire day's worth of ATC data has been saved for investigative purposes, it would hopefully be

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possible to isolate and specifically track each and every simulation flight from beginning to end – from the time they were first injected until the time they were terminated. This should be possible by eliminating the tracks of all known 'true' flights from that day. It should also be possible to compare the data from the 'simulation' tracks with the original programming of the scenario (if indeed they are still available) to see that they match. After all, a simulated flight can have no characteristic outside of what it has been programmed for. If it veers right, or takes a dive, or turns off IFF, it can only be because it was *programmed* to do exactly that. Unless …

This brings me to another point, relating back to my years prior to my work on the ASR. Besides the radar systems I already mentioned, Westinghouse also manufactured quite a few military systems. The one of particular interest here had four operator stations. I was never assigned to this system, but a buddy of mine worked on them. Like the ASR, part of the test process was to load scenarios to check receiver/processor functioning. Unlike the ASR, however, the operator stations on these systems were more modern than the rudimentary 'maintenance PPI,' although still not as advanced as actual ATC consoles. The relevant issue here is that the scenarios on these systems could be *manipulated through the operator stations*. I don't know if that was because of the way the scenarios were originally programmed, or whether my buddy modified one to make it possible, or if it was always possible, but nobody had tried to do it before. But anyway, we could 'grab' the simulated planes, and actually use the track ball and other controls of the operator station and 'fly' the things all around. It was like a super expensive video game. Three of us would get in on the fun at the same time. We set up obstacle courses on the screens and raced through them. It was a real blast! The point of this little side story then is that it is at least *theoretically* possible that an injected scenario could be *manipulated in real time*. It should also be recognized that many different scenarios can be run simultaneously — and manipulated independently of each other. So, there could be multiple *official* scenarios running at the same time that multiple *unofficial* scenarios were also being injected. And since communication with the system could be effected through a modem, those various scenario programs could likely be loaded from different physical locations as well.

Because it was planned!

With all this in mind, consider the 'phantom' tracks of the hijacked flights, even after they had crashed, flying in places the actual flights never flew. Let me say right up front that, as far as I'm concerned, an air traffic control radar system that displays false information is a FAILURE, and should be immediately taken off-line. After all, if it can display planes that *aren't* there, it might also *not* display planes that *are* there. What possible confidence could anyone have in such a system? I have to believe that such a situation is rare indeed. And in fact, the "9-11 Intercepted" video quotes Captain Jeff Latas, a former F15 fighter pilot, as saying that "false inputs on radar screens are unprecedented." However, if more than one radar system saw planes that weren't actually there, it seems less likely that it was due to system errors, and much more likely that the tracks were not 'phantom' – that is to say, *false*, but rather *simulated* tracks. In other words, every track seen on the ATC screens on that day were either actual real planes, or they were injected simulated planes. I see no other realistic options.

The bottom line of all this is that if there were radar tracks that showed already crashed planes still flying around, then it was because a scenario was running which was actively injecting that track. It reported whatever flight number, altitude, speed, and location was programmed into it, whether at the time the scenario was originally designed or 'on the fly' as described above with respect to the military radar system. If it's the former situation, then the flight numbers of the planes which would actually be hijacked at a future time must have already been known to the scenario designers — that is, foreknowledge, not necessarily by the actual programmer, but by whoever chose the flight numbers to be used in the program. If it's the latter situation, then the flight numbers could have been added/altered after the initial hijackings by an active participant in real time. However, any such active participant would be an accessory to the hijackings in that they would be 'running interference' for them, and so making them more likely to succeed. Thus, in either case, there seems no way to avoid the conclusion that, within the structure of whatever agencies or groups planned and executed the war-game simulations on 9/11, there were co-conspirators to the murders of some 3,000 people. Even if they were unwitting accomplices before the tragedy, they would certainly recognize the part they played afterwards. And though they may have eluded justice so far, one day they will stand before the judgment seat of Christ.