

## OVERVIEW OF EVENT OF 14 NOVEMBER 2004

On the morning of 14 November 2004, Commanding Officer “X” and his WSO launched into the clear blue Southern California sky about a hundred miles southwest of San Diego. Their Call Sign was FASTEAGLE 01. His wingman and WSO launched just after them in FASTEAGLE 02. They climbed overhead the ship and rendezvoused in normal fashion before setting off to their assigned work area in the open ocean south of *USS Nimitz*. Normal day, normal ops for the pre-deployment work up cycle they were in the middle of.

The *Nimitz* Carrier Strike Group had been on station for a few weeks already, working to integrate the operations of the carrier with her various support ships, including the Ticonderoga Class Guided Missile Cruiser, *USS Princeton*. As far as CO “X” was concerned, it was a standard day in a normal work up cycle. Another step in the long journey in preparing the ships of the Strike Group and the planes of the Air Wing to work harmoniously for their upcoming combat deployment.

What the CO didn’t know was for the past several days, *Princeton* had been picking up some bizarre returns on their SPY-1 radar. On several occasions beginning 10 November, the Fire Control Officer and the extremely experienced Fire Control Senior Chief had detected multiple returns descending from far above the radar’s scan volume—somewhere higher than 80,000 ft. The targets would drop from above 80K to hover roughly 50 feet off the water in a matter of seconds.

Always over the same spot, a Lat/Long about 30nm off the coast of Baja, roughly 70nm southwest of Tijuana. At the time, the SPY-1 was the most sophisticated and powerful tactical radar on the planet. With it, they were able to track these targets while they descended, hovered and then zipped away at speeds, turn rates and accelerations faster than any known friendly or threat aircraft.



**VFA-41 ‘Black Aces’ CAG resting on the ramp after a sortie.**

Once the Air Wing's planes arrived aboard *Nimitz*, the Fire Control team on *Princeton* saw an opportunity to use those assets and eyeballs to help solve the mystery of the unknown radar targets.

At the same time FASTEAGLE flight was wrapping up its scheduled training, the CO of Marine Hornet squadron VMFA-232, Lieutenant Colonel Y, was completing a post-maintenance check flight not too far away. He was the first fast-mover contacted by *Princeton*. The communication was strange and intriguing. He was asked to investigate an unidentified airborne contact. This wasn't a terribly unusual request while a Strike Group was in transit or deployed far from home waters, but it was more than a little strange practically in sight of the San Diego Homeport. To add to the unusual communications, he was queried as to what ordinance he had on board. He replied, "None."

While *Princeton* was communicating with CO "Y", they were also attempting to hand off their target contact to the Air Wing's E-2C Hawkeye, also airborne at the time. The crew from VAW-117 had been providing intercept control for FASTEAGLE flight during their training. *Princeton* now wanted the E-2 to guide the Super Hornets to an intercept with the target contact, currently hovering about 20,000 feet over the ocean.

The target returns had not been strong enough to show up on the E-2's broad sweep, but once they focused their radar on the coordinates *Princeton* directed them towards, they managed a faint contact. The radar returns from the contact weren't enough to generate a target track however, so *Princeton* cut the E-2 from control and contacted FASTEAGLE directly.

As CO "Y" approached the spot he was being vectored to, *Princeton* advised him to stay above 10K as the section of Super Hornets were approaching the target. His radar picked up the FASTEAGLE two-ship, but no other contacts. A moment later *Princeton* directed him to "skip it" and return to the ship. Since he was so close, he decided to fly over the action and sneak a peek.

The sea was calm, almost glassy smooth and it was late morning on a beautiful SoCal day. Perfect conditions. As CO "Y" flew over the spot he saw a disturbance on the surface of the ocean. A round section of turbulent water about 50-100 meters in diameter. It was the only area and type of what he called, "whitewater" describing that it looked as if there was something below the surface like a shoal or what he had heard a rapidly sinking ship would look like.

He overflew the disturbance and circled back in the direction of *Nimitz* without ever seeing what caused the water to froth. As he turned away, which happened to be the moment the Super Hornets converged on the location, the whitewater cleared and the ocean surface returned to its smooth state. The spot of the previous disturbance was completely indiscernible.

A few thousand feet below him, CO "X" had gone through the similar surreal experience of being asked by *Princeton* if the FASTEAGLE jets were carrying any ordinance. The WSO reported that all they had were two captive-carry training missiles. The two F-18 Super Hornets were given bearing and range vectors to a set of coordinates and told to investigate an unknown aerial contact over that spot.

With no further information on the contact, the F-18s descended to the low 20s and scanned with radar, picking nothing up. The APG-73 radars were both new and had performed perfectly during the previous hour's training. Yet the screens from both planes were clean all the way to the point *Princeton* called "Merge plot!"

All four aircrew were eyes out from this point forward. The first unusual indication CO "X" picked up was the area of whitewater on the surface that CO "Y" was looking at over his shoulder as he flew away. He remembers thinking it was about the size of a 737 and maybe the contact they had been vectored on had been an airliner that had just crashed. He maneuvered his F-18 lower to get a better look. As he was descending through about 20K he was startled by the sight of a white object that was moving about just over the frothing water. It was all white, featureless, oblong and making minor lateral movements while staying at a consistent low altitude over the disk of turbulent water.

CO "X" put FASTEAGLE 02 into high cover passing through about 15K and she and her WSO witnessed the events from a perfect vantage point. The CO continued his dive lower towards the object, now also attempting to slave the radar through his HMCS to achieve a short range lock. No luck. His intention was to pass the object close aboard at about 350 kts, but as he got closer he noticed that the target had oriented one of its skinny ends towards him, as if, in his words, "It had just noticed us" and it was now pointing at them.

The target then began to rise from its hover. The object, which CO "X" would later describe as a white tic-tac, rose in right 2-circle flow about a mile cross-circle from the CO's Hornet. BFM instincts took over and the CO dug nose-low to cut across the bottom of the circle. As he was looking at the target and pulling his nose up to bear, he tried again to slave his radar via the HMCS. Again, the APG-73 was unable to lock on the white, fighter-sized flying object now just a couple of thousand feet away and closing.

All through these maneuvers, the WSO was broadcasting the real-time events of the intercept to *Princeton*. The radar operators in the E-2 listened on the secure net to what sounded like one of the hundreds of intercepts they had heard over the years. With the notable exception that the aircrew's voices were more stressed and the verbiage to ID the target was unlike anything they had heard before.

In debrief comments, the CO, his WSO and the two other crews stated the target had initially been hovering like a Harrier. They described it as uniformly white, about 46 feet long (roughly fighter-sized), having a discernible midline horizontal axis (like a fuselage) but having no visible windows, nacelles, wings or propulsion systems.

As CO "X" was pulling for nose-on and trying to get a dogfight lock with his radar, the target tightened its turn, "lift vector on, then aft" as the CO described, passed behind his tail and accelerated away at multi-Mach speed. The CO immediately queried *Princeton* for a snap-vector but the SPY-1 radar had also lost the contact. The first calls from *Princeton* were "picture clean." A few moments later *Princeton* came back with, "You're not going to believe this, it's at your CAP." *Princeton* had picked up the target hovering at 24K at the assigned Lat/Long the CO had used earlier during training as his orbiting point.

Though low on gas, the FASTEAGLE flight swung through the CAP position to try and pick up the target again. They saw nothing more on their way back to *Nimitz*. Even the 100 meter circle of turbulent ocean water had disappeared.

Back on *Nimitz* after recovery, the four crew headed down to the paraloft to remove their gear. The next four crews from VFA-41 were getting dressed for their training mission to the same area, using the same assigned Lat/Longs as CAP points. The CO and his crewmembers passed on what they had seen to the new guys and reminded them to get tape if they could.

By the time the new crew launched, rendezvoused and checked in with the E-2 for control, it was early afternoon; 1500 hrs. The planes separated, with one heading to that same southern CAP location. They were cruising along at 20K and 300kts, max endurance. Again, the jet, radar and also, this time, the FLIR were spanking new and operating perfectly.

The WSO first picked up a contact on the radar around 30nm away while it was operating in the RWS scan mode. He checked the coordinates and it was indeed hovering at their precise CAP point. He attempted several STT locks, to no avail. Later, in the debrief, he explained that he had multiple telltale cues of EA.

The target aspect on the track file was turning through 360 degrees along with some other distinct jamming indications. In the less precise scan mode, the return indicated that the object was, in the WSO's words, "A few thousand feet below us. Around 15-20K– but hovering stationary." The only movement was generated by the closure of the fighter to the CAP location.

The WSO resorted to the FLIR pod on board, slaving it to the weak track the RWS mode had been able to generate. He recorded the following sequence to the on-board recorder. Using the IR mode, he was able to lock onto the target. It showed up on his screen and on tape as a white object in a black background hovering without visible means. The IR camera did not detect roiling hot gasses blasting from below the target, as they would with a Harrier or a helicopter. It was simply hanging in midair. He switched to the TV mode and was able to again lock the FLIR onto the object while still trying, with no luck, to get a STT track on the radar. As he watched it, the target moved out of his screen to the left so suddenly it almost seemed to disappear. On the tape, when it is slowed down, the object accelerates out of the field of view with shocking speed. The WSO was not able to reacquire the target either in RWS or with the FLIR.

According to CO "X", a government agency with a three letter identifier had conducted an investigation into this incident and had exhaustively interviewed all parties involved. All of the seven flight crew, including 6 aircrew from VFA-41 and CO "Y" from VMFA-232. The Fire Control Officer and Senior Chief from *Princeton*, and the radar operator on the E-2. They even queried the crew of the USS Louisville, a *Los Angeles*-class Fast-Attack submarine that was in the area as part of the *Nimitz* Carrier Strike Group who reported there were no unidentified sonar contacts or strange underwater noises on that day.