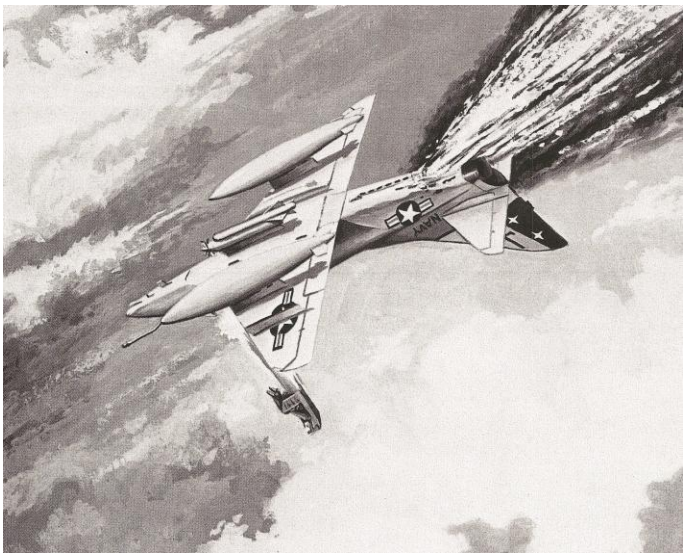
On 10 December 1976, I was forced to eject from my A-4E approximately 30 miles at sea off the coast of North Carolina. After the ejection, I felt the worst was behind me. Based on my survival training, I felt I knew all there was to know about water survival. I was confident all I would have to do was broadcast my position on Guard and then wait for the SAR helo to rescue me. How wrong I was!

The following account of my experience is intended not as a survival lecture, but rather as food for thought. Because every survival situation has its own peculiarities, it would be impossible for any training film or lecture to depict every situation that might arise. The purpose of this article is to stimulate you pilots and NFOs into thinking what you would d

confronted with a similar cold water survival situation.



Down in the Cold Atlantic

By LT Jerome L. Petykowski
VC-2

I WAS scheduled as a backup target tow on a routine air-to-air missile firing exercise. Unless my services were needed, all I would have to do was fly up and down the coast in a standby status. So, early that morning as I dressed for the event, I toyed with the idea of not wearing the bulky, restrictive CWU-33/P ventilated wet suit. The last few days had been warm for December,-;and although the water temperature was 50^0, the air temperature had been a bit warmer. Besides the normal clumsiness and discomfort, wearing the suit meant that I would be unable to reach the upper ejection handle if anything did happen. In the end, however, common sense prevailed. I complied with SOP and donned the wet suit.

After checking in with GCI, I established myself in the prescribed holding pattern. I was flying along — fat, dumb, and happy — when in quick succession, I noticed a bright red and white flash to my right, heard a loud explosion, and felt a tremendous push forward. The flight controls and UHF were immediately inoperative, and the plane began to spin inverted. I was in a poor ejection position — off the seat and nearly pinned against the canopy. Because of the tremendous negative G forces, however, there was no way I could better it.

After attempting several Mayday calls, I reached for the lower ejection handle and attempted to punch out. Unfortunately, I did not have a firm grasp on the handle, and my hand slipped. The second time, I made sure that I had a good grip. As I

yanked the handle, I tried to throw any body back to get into some sort of acceptable ejection position.

In a flash I was out of the aircraft and spinning violently as I experienced seat-man separation. The next thing I remember was that I was perpendicular to the risers, watching the parachute canopy deploy. I saw the spreader gun fire and the canopy blossom. The opening shock knocked the wind out of me. Once I was able to clear myhead, I tried to assess my situation. I felt OK, but was still trying to regain my breath.

Looking straight ahead, I saw an aircraft in a nose-low, left-wing-down attitude. At first I thought it was my A-4. Then I realized that it was not on fire and was afraid that I had panicked and punched out of a salvageable aircraft. Once I was able to focus my eyes, I realized it was not an A-4 but an F-4. Although confused, I was relieved to see that he was coming back to circle me. I attempted to contact the *Phantom* via my PRC-90 survival radio. I could hear some static, but was unable to receive any voice transmission. After making a couple of calls to let them know that I was OK, I began preparations for water entry.

I replaced the radio in my survival vest pocket and inflated my LPA. It worked as advertised, although the right side of the collar failed to inflate fully due to the restrictiveness of the *Velcro* tape. As I reached back to loosen it, a shot of pain went down my neck and back. For the first tine, I realized that I had been slightly injured during either the ejection or the parachute opening.

With the LPA inflated completely, I reviewed my survival procedures for water entry. I decided against deploying nmy liferaft at that time because the CWU-33/P made even the slightest movement seem like a Herculean task. I decided that as long as my LPA was inflated, I'd have plenty of time to deploy the raft once I hit the water. I then checked for the Koch fittings and found them easily within my grasp. I realized, however, that I still had my gloves on. I stowed them in my survival vest and again reached up and put my fingers near the opening of the release fittings. As I drifted down through a solid undercast and toward the black Atlantic, I thanked God that I had decided to wear the wet suit despite its drawbacks. Once my feet touched the water, I pulled down on the release mechanism, and the chute drifted away about 20 feet behind me.

For 2 hours / was lost, and the SAR people had only a general idea of where / was. The only reason the H-46 finally did sight me was by pure chance. The pilot in the right seat happened to look in my direction and saw me floating in the ocean. They never saw any of my flares or other signals.

Once in the water, I took out my radio to contact the *Phantom* which had been circling me on the way down. I still didn't deploy my raft because I was confident that I'd be picked up soon. The *Phantom* pilot obviously had a good fix on my position and was probably radioing it back to the SAR helicopter. Besides that, I had expended quite a bit of energy because of the wet suit, and I felt exhausted. I decided to lie in the water and rest until I could again catch my breath.

After about 10 minutes, the *Phantom* left but was almost immediately replaced by a C-130 which I spotted approaching my position. He was proceeding directly toward me, so I called him on my radio. As he passed over., I called again to give him an "on top" call. As he turned away, I figured that he would circle my position until the helicopter arrived.

Little did I know at this time that no one was reading me nor did they have me in sight once I entered the water. I

2 was just a black spot in a black ocean. Five or ten more minutes passed, and the helicopter still hadn't arrived. I was getting rather uncomfortable now, so I finally decided to deploy the liferaft. As I was crawling into it;the radio which had been *in* my survival vest somehow slipped free and fell overboard. I had not ensured that it was attached to my vest by a tether line. I felt sick that the radio was gone, but cheered myself with the thought that the SAR helo would be there very soon.

As time passed, I could not understand what was taking so long. The seat pan had an emergency beacon, and I was sure that everyone would home in on that. I had also dispensed some green dye marker, so I also had a constant visual marker in the water.

I noticed several aircraft in the area, generally circling my position. I attempted to get their attention with my pencil flares, but this seemed to have little effect. I realized I had to make myself more visible, so I reached into my survival vest and took out my strobe light. I pushed the button; it worked for about 20 seconds and went out completely. I always carry two strobe lights, so I was not too worried as I pulled out the second. I became concerned, however, when it failed to work at all. Aircraft — C-130s, H-is, and H-46s — were continually passing either over my position or within a mile and a half of it, and I could not attract their attention!

By this time, I had been in the water for an hour and was becoming rather anxious. I could not understand why none of the aircraft made an effort to rescue me. I began to think that I might have had a midair and the SAR efforts were being

concentrated on the other crew. I still had no idea what had caused any plane to explode and crash.

Finally I noticed an H-46 coming almost straight towards me. It was no more than 100 yards away and approximately 200-500 feet off the water. My hopes soared as I took out a smoke flare to attract his attention. By the time I had popped the flare, the helicopter was nearly abeam of my position. My confidence took a nosedive as I watched him continue toward the coast without acknowledging my signal.

I now became very concerned that things just weren't right. Another 20 minutes passed before a Coast Guard C-130 flew directly over me. I tried to signal him with a pencil flare — again to no avail. At this point, my confidence was at its lowest. Despite all my efforts, no one had spotted me, and I couldn't understand why. I could see the C-130s and H-46s conducting their expanding square search pattern approximately 5 miles to the southeast of my position. I was becoming very cold by this time, but I refused to let myself think of what would happen if they did not find me soon. Instead, I took an inventory of my remaining signaling devices and planned how best to use them once another opportunity presented itself.

Two hours had gone by since I had entered the water when a Marine C-130 passed directly over the top of my raft. I fired another signal flare, but again no acknowledgement. Then it occurred to me that although the liferaft was bright orange and should have been easily visible, my flight suit was dark like the ocean, and my body was covering most of the orange raft. I unrolled the orange edge flaps and began to wave them. The plane began to circle my position, and I thought that someone had finally sighted me. I heard an H-46 coming and shot a flare directly in front of its path. I was overjoyed when the pilot initiated a hovering turn toward me. I popped the night end of my flare to help him with the wind direction and waited until he lowered the horse collar. I then abandoned the raft, swam to the harness, and was lifted aboard the helicopter.

It was not until later that night that I found out the full story. The F-4 that had originally spotted me had me in sight until I hit the water. Once I released myself from the chute, I became virtually part of my surroundings. The *Phantom* was low on fuel, so it was forced to return to base prior to the C-130 arriving on station. Although the C-130 crew had a TACAN position, they were too high to see me in the water. In effect, I was invisible. Since I had lost my survival radio, I could not contact them verbally nor could I use the emergency beacon. The radio in the seat pan worked for only 15 minutes before it too succumbed to the elements. For 2 hours I was lost, and the SAR people had only a general idea of where I was. The only reason the H-46 finally did sight me was by pure chance. The pilot in the right seat happened to look in my direction and saw me floating in the ocean. They never saw any of my flares or other signals.

Looking back on the experience, I would like to offer some conclusions and recommendations. The mostimportant and vital point that I'd like to pass on is the importance of that antiexposure suit — providing it's on your back rather than on a hanger in the paraloft. It is very possible that I would not be around today to write this article had I not worn my CWU-33/P. I don't like wearing "the bag" any better than anybody else, and I could have rationalized not wearing it because I was "within gliding distance of land." But look how far my A-4 glided with a Sidewinder up its tailpipe!

Anybody that doesn't comply with the letter and the spirit of the 120° combined sea/air minimum temperature rule is literally betting his life that his airplane is going to make it back. Personally, I like living too much to make that bet.
Other comments I'd like to pass on:

• The Navy should double its current efforts to develop an acceptable antiexposure suit which provides protection from the elements while still affording mobility for the pilot. Although the CWU-33/P protected me as advertised, it also effectively eliminated one element of my escape system by nullifying my ability to reach the upper ejection handle. In addition, because of its heavy weight and restrictiveness, I used twice the amount of energy normally required to perform the simplest of tasks. Floating in-the water just served to increase my awkwardness and my expenditure of energy.

• My complacency in thinking that my exact position was known caused me to delay my actions in this emergency. My strong advice is not to delay your survival procedures when faced with any type of emergency situation. Use every means available to you in order to speed your discovery and ultimate rescue.

• I carried two packs of pencil flares with me and used most of them during my time in the water. I was to find out later that although the flares are easily sighted at night, they are difficult at best to see in the day or in poor visibility.

• The strobe lights should have been of much greater value to me. However, despite a recent 90-day survival vest inspection, the batteries were weak enough to go dead once they were exposed to the elements. In this case, I suggest that the Navy revise its standards as to what determines satisfactory battery performance or find some other, more reliable, power source.

• The green dye, although highly visible during bright sunshine, was virtually useless because of the overcast sky that prevailed during my excursion in the Atlantic. Not exposing the orange raft flaps could have been a contributing cause in my delayed rescue. Another way I could have increased my visibility would have been to use the orange-colored side of the solar blanket provided in the seat pan survival kit. By cutting a hole in the center large enough to slip my head through, I could have worn the blanket — serape style — thus offering a large orange target for the SAR crews to spot.

• During the initial portion of my experience, I triedremoving my helmet in order to relieve some of the weight. As soon as I lifted it from my head, I felt an icy rush of air pass over my scalp. I realized then that the helmet was helping me to conserve precious body heat, as 75 percent of one's body heat can be lost through the head. I kept it on the remainder of my time in the water. Also, during my ride up the rescue hoist, the helmet served me once again by protecting my head when I was summarily lifted into the underside of the H-46. If I had removed it, I'm sure I would have received a painful souvenir of my first helo ride.

• I now carry the large antiexposure mittens that I had previously thought too large and cumbersome to carry with me in the A-4 cockpit. Although *my Nomex* flight gloves somewhat shielded my hands from the wind, the insulated mittens would have afforded me infinitely better protection against the elements. Toward the end of the 2-hour ordeal, my hands were numb and I was having difficulty manipulating the signal flares. If my rescue had been delayed much longer, I'm sure I would have lost the dexterity necessary to use any of the rescue devices.

• Finally, eat the *Charm* candies provided in your survival kit. Sugar is energy. Energy provides strength and warmth, both of which are highly desirable in a cold weather survival situation.

My purpose for writing this article has been to share the knowledge I gained from my survival experience so others might avoid the pitfalls I fell into. A cold water survival situation is not pleasant, and preparation and advance planning are the best lifesaving techniques you can employ. I sincerely hope that no one reading this article ever finds themselves in a similar situation, but if they do, I just hope that they have prepared themselves. Believe me, the Atlantic Ocean in December is totally intolerant of complacency and unforgiving of error.

Aircrew Systems Change No. 369 was introduced 11 October 1977 and should provide the solution to the bulk and mobility problems which LT Petykowski encountered. Details of the change are:

1. *Removal of the Nomex outer shell, which improves arm and upper torso mobility and reduces assembly bulk. The neoprene inner shell provides good flame and thermal protection.*
2. *Removal of the ventilation spaces panels from the neoprene inner shell, which reduces assembly bulk.*
3. *Shortening and customizing the neoprene inner shell sleeves and installation of Nomex cloth sleeves. This facilitates arm mobility, prevents water entry into the sleeves, and provides flame and thermal protection for the arms.*

4. Installation of any combination of shin, thigh, and pencil pockets to the neoprene inner shell — provides stowage capability (optional). — Ed.

Time will erase the painful memory of that mistake you just made.

So will the next mistake.

Ace L.

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