Too Close f

by LCdr. Chris Rollins

I was working up for what would be my last boat as an LSO in the training command. We had just started night FCLPs and my students would be in the first wave. The class was small, and only two LSOs were waving. The other LSO was working his first boat, though. As I waved, I was also training the new LSO and waving him. It was his first work-up, and he needed night FCLPs himself. In order to get him bounced and back out to the shack as soon as possible, I placed him in the first wave with my students.

This plan was fine, except it left me in the shack by myself at night. I knew this was a violation of LSO NATOPS, but had no one available to act as my "assistant" (the term used in LSO NATOPS). Thus, rather than cancel the bounce period for my new LSO, I opted to wave the first period by myself.

The stage was set. I, the salty wing LSO, would go it alone, while waving a pattern full of students in the A-4 at night. What could possibly go wrong? I knew what to watch for, and I

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Photo by Peter Mersky
Photo modification by Patricia Eaton

for Comfort

planned to keep the waveoff window out at a reasonable-to-somewhat-conservative distance. If things got too busy, writing down the passes would be my lowest priority.

The weather was good, no airplane problems cropped up, and everyone kept interval nicely. Everything clicked along perfectly during the first period.

Our wing policy was that students were allowed to depart and reenter for the night break if they chose. However, they were discouraged from doing this. The feeling was that their fuel would be better used turning downwind after takeoff and executing a direct entry. The 45-degree-AOB night break wasn't the same one they would execute in the daytime at the ship, so there was minimal training to be gained from it. Unless they were fat on fuel and needed to burn down to max trap, most students simply do the direct pattern entry.

In the middle of this fateful period, as Skyhawks continued to trickle into the pattern, I was contacted on downwind after takeoff.

"Paddles, 700".

"Go ahead, 700".

"Sir, my AOA indexers aren't working and they worked when I took off."

I asked him to check his thumb wheel, which adjusted the brightness. He did to no avail. I then asked him to turn off his external lights master. (In the A-4 this is the only way to get the AOA indexers to switch to day intensity). He did this but had no indexers on the day settings either. I rogered that he had no indexers and told him to full stop on his first pass and get another airplane.

When he showed up in the groove, he had a decent start, called the ball and indicated that he had no indexers. I rogered his ball call, repeating that he had no indexers and added "full stop." Our students were instructed to acknowledge these instructions by saying "with the gear." He did so. This phrase means two things. First, that they understood they were to full stop, and second, they had checked the gear down and were making the mandatory call to tower for a full stop.

I then began waving the pass. The first thing I noticed was that there were no approach lights on the port wing root. This did not surprise me, since they were repeaters of the AOA indexer in the cockpit. It wasn't unusual for these lights to be inoperative on our A-4s. I decided that I would have to visually check the gear, since I had no indications that the gear was down, other than the pilot's "with the gear" call, which isn't considered a positive indication.

As the plane got to the middle, the pilot began going flat. By then I could start to see the bottom of the plane, lit up by the single, red, anti-collision light. I couldn't yet see his gear, but again this didn't surprise or alarm me. That single light does not illuminate the bottom of the plane well. At about the in-close position, the plane's glideslope continued to flatten out. I still couldn't see his gear. "That damn, weak anti-smash," I thought. "It sure makes the landing gear hard to see."

At the latter part of the in-close position, I got a good look at the bottom of the plane. To my horror, I finally realized why I had not seen the landing gear: his wheels were up! I immediately hit the pickle and called, "Wave off, wave off." I watched helplessly as the plane continued to come down as the engine spooled up. I breathed a huge sign of relief when I saw that this story would be an *Approach* article, not a statement to a mishap

board. As the plane bottomed out, the drop tanks cleared the runway by less than 20 feet.

In the debrief, the student told me that, as I suspected, he had raised the gear out of habit prior to turning downwind. When I asked him why he ignored the wheels-warning light flashing at him, I was further alarmed when he told me he had no wheels-warning light because he had raised the flaps, too! I was terrified to think how far back on the power he had to be when I waved him off, and how fortunate I was that he had not landed on or at least scraped the drop tanks.

As a pilot, he had fallen into a trap: getting distracted by the lack of AOA indexers and not completing his landing checklist. In the A-4, the indexers indicate that the weight-on-wheels switch is working. If that switch is broken, reducing power below 80 percent with the spoilers armed would cause them to deploy in flight. Lots of Skyhawk pilots wait to see indexers prior to arming the spoilers for that reason. Then they execute the landing checklist. The hero of this story immediately started troubleshooting what he thought was an indexer problem and never went through his landing checklist.

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Anytime your routine is broken, the prudent thing to do is to back up to the beginning of the checklist and start over. This is especially true with the landing and takeoff checklists.

As an LSO, I made some notable mistakes. The first was violating LSO NATOPS. Another set of eyes would have helped, and another person analyzing the problem would have definitely increased the possibility of detecting the student's mistake. Second, I had no indication of gear down and locked. At night, the procedure for this is clear-cut: an in-close waveoff and a visual check that the gear is down. I have no excuse for not doing this. There was no wheels watch on station (mandatory in the training command when student's solos are in the pattern) and the runway approach lights were off. Both absences were at my request. The wheels watch is useless without the approach lights to illuminate the bottom of the plane. The LSOs always had the approach lights turned off to provide better training; they took responsibility for wheels watch. This situation made it impossible to visually see the landing gear from a safe distance.

Finally, there was no pressure to land that airplane on the first pass. A waveoff and visual check was clearly what should have been done. That didn't occur to me because we hadn't discussed a gear problem, and the procedure is usually thought of in relation to CV ops.

Sometimes the most obvious thing eludes us because we can't believe we made a mistake. When the pilot told me that his indexers didn't work but had worked on takeoff, the first thing that came to my mind was that he had just described the indications of having raised the gear on takeoff. Then I thought, "No way, no one would do that and not remember it." Just like the pilot, I had disregarded the obvious, and then made matters worse by not following procedures. In the end, the only thing I did right was waving him off, although it ended up being too close for comfort.

LCdr. Rollins flies with VFA-27. At the time of this incident, he was the CTW-1 LSO.