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Butterflies

Dilbert called for another beer. He was having a bang-up time with some of his cronies at a little bar not far from the air station. It was pretty late, but why should he worry. All he had to do the next day was to drive a few bodies to Washington in a Beechcraft. If he couldn't cope with an SNB, hangover or no hangover, he deserved to stop flying. That's the way Dilbert had it figured.

He was a little late getting up the next morning.

"Missed breakfast again", he muttered, as he hurriently dressed, "Oh, well, I'll snag a cup of coffee at the snack bar before take-off."

By the time Dilbert had gone through the motions of checking the aircraft and obtaining a clearance, his passengers looked a little impatient so he decided to skip the trip to the snack bar and be on his way. The weather was VFR and he carried no co-pilot. One of his passengers rode in the right hand seat.

He settled down at cruising altitude in accordance with his flight plan. The weather wasn't bad—just a few broken clouds. Turbulence was moderate.

After about 30 minutes, Dilbert realized that he didn't feel so well. His stomach was just a little unsettled. He broke out in a cold sweat, so he opened the sliding window. About this time he experienced a definite feeling of nausea, and asked the passenger in the right seat to open his window too.

He decided that he could not, in his present state, continue with the flight. He had to get on the ground—and quickly. Fortunately a large airport lay just ahead. He mumbled to the passenger in the right hand seat that the weather didn't look too good and that he was going to land and check it. The passenger, being hep to such new fangled contraptions as two-way voice radio, wondered about this decision, but decided not to say anything.

Once on the ground Dilbert heaved a sigh of relief and resolved that before he stepped into the Beechcraft again, he would absorb a little nourishment—or at least try. He informed his passengers that this was a "one hour comfort stop" and that they might as well have lunch, because he was going to wait for the weather to improve. This suggestion met with mixed response, since (a) it was



about two hours until lunch time, and (b) the weather didn't look at all bad; but Dilbert disappeared.

About 45 minutes later Dilbert ran a small experiment which involved a bowl of chicken soup. The experiment was a success and Dilbert felt quite a bit better.

At exactly noon, he announced that the weather was now satisfactory and that the flight could continue to Washington.

He wasn't far wrong this time. Once past Lakehurst, there was not a cloud to be found in the sky. For once the weather was "embarrassingly good".



Grampaw Pettibone Says:

This was definitely one of Dilbert's better days. He was a little late, but he made it without so much as a scratch on the airplane—and for Dilbert that is something.

Of course, there's no telling what might have happened had the weather really turned bad.

Now What Do I Do?

The pilot in the picture below, looks like he has the book out, hunting up the



answer to his problem. The Aircraft Accident Report Says: "When the L.S.O. gave the pilot a cut, he nosed over only slightly and floated up the deck. Realizing that he had not caught a wire, he pushed over into the number one barrier."

An alert photographer snapped this picture just before he settled back to the deck—still right side-up.

Whodunit?



Accident analysts looking over a group of SNB - JRB accidents in which the landing gear collapsed during the takeoff roll noted that several occurred

on the first flight after the plane came out of a 120-hour check.

With this clue, the analysts studied the various items of work performed in a 120-hour check were reviewed to try to find out what might be causing the accidents.

The answer seems to be surprisingly simple. During a 120-hour check, the plane is placed on jacks and the landing gear is cycled electrically and manually in order to determine that both systems are functioning.

If no one remembers to make sure that the landing gear switch is in the "DOWN" position upon the completion of these tests, the plane may be released to the line with the wheels down and the switch for the electrical system in the "UP" position.

Of course, the pilot should note this condition when he goes through his prestarting check, but he doesn't always do this. He knows the wheels are down because the plane wasn't sitting on its belly when he climbed in. Normally, he doesn't have to do anything with his landing gear until right after takeoff. Therefore, he more or less is conditioned against doing anything about it until he gets off the deck. If the switch has been left in the "UP" position and he doesn't catch it, the accident will be charged to "pilot error," but the pilot will feel that he has been "booby-trapped." He's about right at that, however, this won't change the record.

Difference of Opinion

The pilot of an F4U-5N went through the check-off list prior to takeoff on a local test flight. He used the following tab settings for takeoff: four degrees right rudder, one degree nose up.

The takeoff was normal and he retracted the landing gear and closed the canopy. As he began to gather airspeed, he flipped the switch for the electric rudder trim tab control to add a little left rudder. The mechanism malfunctioned (probably because of a short circuit) and immediately threw in full left rudder tab.

As there is no override system for the rudder tab, the pilot made repeated efforts to eliminate the left tab by putting the switch to the right. When this was unsuccessful, he called the tower for an emergency landing. In order to avoid mountains on the right, he started a 180° turn to the left to get back to the field. After about 90° of this turn, he was unable to hold sufficient right rudder to prevent a threatening stall. The F4U started a spin to the left and the pilot cut power and pushed the nose down recovering at an altitude of about 200 feet. He was then about half way down the length of the runway he had hoped to use and some distance to the left. He ruled out a belly landing parallel to the last part of the runway as he felt he would be unable to stop before hitting a hill beyond the runway. Adding just enough power to clear the top by about 20 feet, he made it over the hill.

By this time his right leg was growing weak and beginning to cramp. The bay of the submarine base came into view and he decided to make a water landing rather than risk another spin—should his leg give out.

The water landing was uneventful, and he was picked up by a helicopter shortly after the ditching.



Grampaw Pettibone Says:

The pilots on the accident board decided that there was only one way to determine accurately the extent of this fellow's problem after the malfunction of the rudder tab. Three test flights were made in similarly configured F4U-5N's to simulate this difficulty at safe altitudes. In the course of these experiments, they made some interesting discoveries, the first of which is that in a fix like this, a short pilot has an advantage over a tall pilot. Two of the pilots were of slight build and their legs were short enough that they were able to lock the knee joint in the full extended position while holding the rudder. The third board member was of about the same build as the pilot who ditched and had to maintain the pressure at all times with his leg bent. He was able to do this for 35

minutes by using alternate legs on the same rudder.

During the tests, one of the two smaller pilots had an identical failure of the rudder tab control and found that he was no longer simulating an emergency. He had one!

He had, in addition, the advantage of recent practice and knowledge of what he could and couldn't do with the plane in this condition, and he flew the F4U back to base where he made a satisfactory landing. He stated that he would have had a great deal of difficulty except for the fact that he locked his leg in the full extended position and when his right leg got too tired, he used both legs on the right rudder.

By a split vote the board assigned material failure as the primary cause of the ditching and pilot error as the secondary cause. They made the following suggestions as to correct procedure in such an emergency:

1. If the tab failure occurs right after takeoff, concentrate on climbing straight ahead to a safe altitude, rather than trying a hasty turn back to the field, with the attendant high power settings, low airspeed, and lack of altitude.

2. The plane will handle normally as long as you can maintain enough rudder pressure to keep the ball centered. Use one leg to rest the other, and if necessary use both legs on the same rudder.

Run For Your Life

The accident pictured here developed a couple of brand new track stars—the occupants of the parked truck, who didn't know how fast they could run until they spotted the F8F leaving the runway and heading in their direction.

Fortunately, both were well out of the way before the impact.

The accident was caused by a combination of circumstances. The brakes on the F8F were weak; there was a crosswind from the right; and the pilot bounced badly as he touched down. The truck was parked 117 feet off the duty runway.

On landing the *Bearcat* weather-



cocked into the wind and the pilot found that he didn't have sufficient control to straighten it out. He went off the runway on the right hand side at an angle of about 70° and tried without success to miss the truck which loomed up ahead by applying right brake and rudder.

The external fuel tank which contained about 20 gallons of gas was sheared off on impact and the gasoline ignited. The pilot, who was uninjured in the crash, got out before things got too hot for comfort.



Grampaw Pettibone Says:

If you have any doubt about the condition of the brakes, your best bet is to ground the plane until they can be fixed. If you discover a probable brake failure by pumping your brakes prior to landing, as occurred in this case, grab the mike and let the folks in the tower know about it. They can see to it that trucks, planes, and other movable objects are placed where you won't be so likely to run into them if you have little or no control after touching down.

Fatal Errors

The pilot had just completed a ground school course in the FH-1 and had taken a written examination on the plane. He had been given a thorough cockpit checkout. An instructor was with him until the moment that he taxied out for his initial flight.

The FH-1 carried a full drop tank, and the takeoff was made with full flaps. At an altitude of about 100 feet one engine apparently failed. A large puff of smoke was observed, and immediately afterward the pilot radioed, "Mayday, Mayday, I'm settling in. I can't help it!"

Seconds later the jet settled in a heavily wooded area. The impact and subsequent fire killed the pilot and destroyed the plane.



Grampaw Pettibone Says:

Of all the times to have an emergency—I think the worst possible is on your first takeoff in a new type aircraft. In this instance, the pilot appears to have made two mistakes which cost him his life:

1. He didn't jettison his belly tank when the engine failure occurred, even though he had enough altitude and was over an unpopulated area.

2. He didn't handle his flaps properly in the emergency. When they probed through the wreckage, investigators found the flaps in the full extended position.

The FH-1 handbook recommends one-fourth to one-half flap for normal takeoff. It further warns that, if the takeoff has been made with full flap and an engine failure occurs, the flaps must be retracted to the one-half position at 105 knots and then fully retracted at 120 knots IAS.