An historic account of a 1946 flying record

This is an interesting story about a Navy P-2 that flew non-stop from Perth Australia to Columbus , Ohio in 1946. More than 11,000 miles and more than 55 hours in the air!

The oxidized Lockheed 'Truculent Turtle' had been squatting next to a Navy Air Station's main gate, completely exposed to the elements and getting ragged around the edges. Finally recognizing the Turtle's singular historic value to aviation, it was moved to Pensacola to receive a badly required and pristine restoration. It is now - gleamingly hanging - from the National Naval Aviation Museum 's ceiling where it earned its distinction.

Taxiing tests demonstrated that its Lockheed P2V-1's landing gear might fold while bearing the Turtle's extreme weight before carrying it airborne. And during taxi turns its landing gear struts could fail carrying such a load. For that reason, the Turtle was only partially filled with fuel before it was positioned at the head of Australia 's Pearce Aerodrome runway 27 at 7 A.M. on September 29th, 1946.

Lined up for take-off, all fueling was completed by 4:00 p.m. At the same time JATO packs were carefully attached to its fuselage for the jet-assistance required to shove the Truculent Turtle fast enough to take-off before going off the end of the runway. The Turtle would attempt its take-off with CDR Thomas D. Davies, as pilot in command, in the left seat and CDR Eugene P. (Gene) Rankin, the copilot, in the right seat. In CDR Rankin's own words: "Late afternoon on the 29th, the weather in southwestern Australia was beautiful. And at 1800, the two 2,300 hp Wright R-3350 engines were warming up. We were about to takeoff from 6,000 feet of runway with a gross weight of 85,561 pounds [the standard P2V was gross weight limited at . . 65,000 pounds].

Sitting in the copilot's seat, I remember thinking about my wife, Virginia, and my three daughters and asking myself, 'What am I doing here in this situation?' I took a deep breath and wished for the best.

At 6:11 p.m., CDR Tom Davies stood hard on the brakes as both throttles were pushed forward to max power. At the far end of the mile-long runway, he could make out the throng of news reporters and photographers.

Scattered across the air base were hundreds of picnickers who came to witness the spectacle of a JATO takeoff. They all stood up when they heard the sound of the engines being advanced to full military power. Davies and Rankin scanned the engine instruments. Normal . Davies raised his feet from the brakes.

On this day, September 29, 1946, the reciprocating engine Turtle was a veritable winged gas tank . . thirteen tons beyond the two-engine Lockheed's Max Gross Weight Limitations.

The Truculent Turtle rumbled and bounced on tires that had been over-inflated to handle the heavy load. Slowly it began to pick up speed. As each 1,000-foot sign went by, Rankin called out the speed and compared it to predicted figures on a clipboard in his lap.

With the second 1,000-foot sign astern, the Turtle was committed. Davies could no longer stop on the remaining runway. It was now fly or burn.

When the quivering airspeed needle touched 87 knots, Davies punched a button wired to his yoke, and the four JATO bottles fired from attachment points on the aft fuselage. The crew's ears filled with JATO bottles' roar, their bodies feeling the JATO's thrust. For a critical twelve seconds, the JATO provided the thrust of a third engine.

At about 4,500 feet down the runway, 115 knots was reached on the airspeed indicator, and Davies pulled the nose wheel off. There were some long seconds while the main landing gear continued to rumble over the last of the runway. Then the rumbling stopped as the main landing gear staggered off the runway and the full load of the aircraft shifted to the wings.

As soon as they were certain that they were airborne, but still only an estimated five feet above the ground, Davies called 'gear up.' Rankin moved the wheel-shaped actuator on the pedestal between the pilots to the up position, and the wheels came up. Davies likely tapped the brakes to stop the wheels from spinning, and the wheel-well doors closed just as the JATO bottles burned out. Behind the pilots in the aft fuselage, CDR Walt Reid kept his hand on the dump valve that could quickly lighten their load in an emergency.

Roy Tabeling, at the radio position, kept all his switches off for now to prevent the slightest spark.

The Turtle had an estimated 20 feet of altitude and 130 knots of airspeed when the JATO bottles burned out. The JATO bottles were not just to give the Turtle additional speed on take-off, but were intended to improve the rate of climb immediately after lift-off. The Turtle barely cleared the trees a quarter of a mile from the end of the runway.

The field elevation of Pearce Aerodrome was about 500 feet, and the terrain to the west sloped gradually down to the Indian Ocean about six miles from the field. So, even without climbing, the Turtle was able to gain height above the trees in the critical minutes after take-off.

Fortunately, the emergency procedures for a failed engine had been well thought out, but were never needed. At their take-off weight, they estimated that they would be able to climb at a maximum of 400 feet per minute. If an engine failed and they put maximum power on the remaining engine, they estimated that they would be forced to descend at 200 feet per minute.

Their planning indicated that if they could achieve 1,000 feet before an engine failure they would have about four minutes in which to dump fuel to lighten the load and still be 200 feet in the air to attempt a landing. With their built-in fuel dump system, they were confident that they were in good shape at any altitude above 1,000 feet because they could dump fuel fast enough to get down to a comfortable single-engine operating weight before losing too much altitude.

Departing the Aerodrome boundary, the Turtle was over the waters of the Indian Ocean . With agonizing slowness, the altimeter and airspeed readings crept upward. Walt Reid jettisoned the empty JATO bottles. The Turtle was thought to have a 125 KT stall speed with the flaps up at that weight. When they established a sluggish climb rate, Gene Rankin started bringing the flaps up in careful small increments. At 165 KT, with the flaps fully retracted, Tom Davies made his first power reduction to the maximum continuous setting.

The sun was setting and the lights of Perth were blinking on as the Turtle circled back over the city at 3,500 feet and headed out across the 1,800 miles of the central desert of Australia . On this record-breaking night, one record had already been broken. Never before had two engines carried so much weight into the air after the JATOS quit.

Their plan was to keep a fairly low 3,500 feet for the first few hundred miles, burning off some fuel, giving them a faster climb to cruise altitude and [hopefully] costing them less fuel for the total trip. But the southwest wind, burbling and eddying across the hills northeast of Perth , brought turbulence that shook and rattled the overloaded Turtle, threatening

the integrity of the wings themselves.

Tom Davies applied full power and took her up to 6,500 feet where the air was smoother, reluctantly accepting the sacrifice of enough fuel to fly an extra couple of hundred miles if lost, bad WX or other unexpected problems at flight's end.

Alice Springs at Australia 's center, slid under the Turtle's long wings at midnight and Cooktown on the northeast coast at dawn. Then it was out over the Coral Sea where, only a few years before, the LEXINGTON and YORKTOWN had sunk the Japanese ship SHOHO to win the first carrier battle in history and prevented Australia and New Zealand from being cutoff and then isolated.

At noon on the second day, the Turtle skirted the 10,000 foot peaks of southern New Guinea , and in mid-afternoon detoured around a mass of boiling thunderheads over Bougainville in the Solomons.

As the sun set for the second time since takeoff, the Turtle's crew headed out across the vast and empty Pacific Ocean and began to establish a flight routine. They stood two-man four-hour watches, washing, shaving, and changing to clean clothes each morning. And eating regular meals cooked on a hot plate. Every two hours, a fresh pilot would enter the cockpit to relieve whoever had been sitting watch the longest.

The two Wright 3350 engines ran smoothly; all the gauges and needles showed normal. Every hour another 200 miles of the Pacific passed astern. The crew's only worry was Joey the kangaroo, who hunched unhappily in her crate, refusing to eat or drink.

Dawn of the second morning found the Turtle over Maro Reef, halfway between Midway Island and Oahu in the long chain of Hawaiian Islands . The Turtle only had one low-frequency radio, because most of the modern radio equipment had been removed to reduce weight. Radio calls to Midway and Hawaii for weather updates were unsuccessful due to the long distance.

Celestial navigation was showing that the Turtle was drifting southward from their intended great circle route due to increased northerly winds that were adding a headwind factor to their track. Instead of correcting their course by turning more northward, thereby increasing the aircraft's relative wind, CDR Davies stayed on their current heading accepting the fact that they would reach the west coast of the U.S. somewhere in northern California rather than near Seattle as they had originally planned.

When Turtle's wing tip gas tanks empty, they were jettisoned over the ocean. Then the Turtle eased up to 10,000 feet and later to 12,000 feet. At noon, CDR Reid came up to the cockpit smiling. "Well," he reported, "the damned kangaroo has started to eat and drink again. I guess she thinks we're going to make it."

In the fall of 1946, the increasingly hostile Soviet Union was pushing construction of a submarine force nearly ten times larger than Hitler's. Anti-submarine warfare was the Navy's responsibility, regardless of the U.S. Army Air Force's opposing views.

The Turtle was among the first of the P2V Neptune patrol planes designed to counter the sub threat. Tom Davies' orders derived straight from the offices of Secretary of the Navy, James V. Forrestal, and the Chief of Naval Operations, Fleet Admiral Chester W. Nimitz.

A dramatic demonstration was needed to prove beyond question that the new P2V patrol plane, its production at Lockheed representing a sizeable chunk of the Navy's skimpy peacetime budget, could do the job. With its efficient design that gave it 4-engine capability on just two engines, the mission would show the Neptune 's ability to cover the transoceanic distances necessary to perform its ASW mission and sea-surveillance functions.

At a time when new roles and missions were being developed to deliver nuclear weapons, it would not hurt to show that the Navy, too, had that capability.

So far, the flight had gone pretty much according to plan. But now as the second full day in the air began to darken, the Pacific sky, gently clear and blue for so long, turned rough and hostile. An hour before landfall, great rolling knuckles of cloud punched out from the coastal mountains. The Turtle bounced and vibrated. Ice crusted on the wings. Static blanked out its radio transmissions and radio reception.

The crew strapped down hard, turned up the red instrument lights and took turns trying to tune the radio direction finder to a recognizable station. It was midnight before Roy Tabeling succeeded n making contact with the ground and requested an instrument clearance eastward from California ...

They were 150 miles off the coast when a delightful female voice reached up through the murk from Williams Radio, 70 miles south of Red Bluff, California . "I'm sorry" the voice said. "I don't seem to have a flight plan on you. What was your departure point?"

" Perth, Western Australia."

"No, I mean where did you take-off from?"

"Perth, Western Australia."

"Navy Zero Eight Two, you are not understanding me. I mean what was your departure airport for this leg of the flight?"

"Perth, Western Australia."

"BUT, that's halfway around the world!"

"No, only about a third. May we have that clearance, please?"

The Turtle had departed Perth some thirty-nine hours earlier and had been out of radio contact with anyone for the past twenty hours. That contact with Williams Radio called off a world-wide alert for ships and stations between Mid-way and the west coast to attempt contact with the Turtle on all frequencies. With some difficulty due to reception, the Turtle received an instrument clearance to proceed on airways from Oakland to Sacramento and on to Salt Lake City at 13,000 feet.

The weather report was discouraging. It indicated heavy turbulence, thunderstorms, rain and icing conditions. As Gene Rankin wrote in a magazine article after the flight:"Had the Turtle been on the ground at an airport at that threatening point, the question might have arisen: 'Is this trip important enough to continue right through this stuff?

The Turtle reached the west coast at 9:16 p.m. about thirty miles north of San Francisco . Their estimated time of arrival, further north up the coast, had been 9:00 p.m. They had taken off about forty hours earlier and had covered 9,000 statute miles thus far.

They had broken the distance record by more than a thousand miles, and all of their remaining fuel was in their wing tanks which showed about eight-tenths full. Speculation among the pilots began as to how much further the Turtle could fly before fuel exhaustion. The Turtle's oxygen system had been removed for the flight, so the pilots were using portable walk-around oxygen bottles to avoid hypoxia at higher altitudes.

The static and atmospherics began demonstrating the weird and wonderful phenomenon of St. Elmo's fire, adding more distractions to the crew's problems. The two propellers whirled in rings of blue-white light. And violet tongues licked up between the windshields' laminations. While eerie purple spokes protruded from the Neptune 's nose cone.

All those distracting effects now increased in brilliance with an accompanying rise in static on all radio frequencies before suddenly discharging with a blinding flash and audible thump. Then once again slowly re-create itself.

The St. Elmo's fire had been annoying but not dangerous. But it can be a heart-thumping experience for those witnessing it for the first time. The tachometer for the starboard engine had been acting up, but there were no other engine problems. The pilots kept the fuel cross-feed levers, which connected both main tanks to both engines, in the 'off' position so each was feeding from the tank in its own wing.

Somewhere over Nevada , the starboard engine began running rough and losing power. After scanning the gauges, the pilots surmised that the carburetor intake was icing up and choking itself. To correct that, the carburetor air preheating systems on both engines were increased to full heat to clear out any carburetor ice. Very quickly, the warm air solved the problem and the starboard engine ran smoothly again.

With an engine running rough, CDR Davies had to be thinking about their mission. The Turtle had broken the existing record, but was that good enough? It was just a matter of time before the AAF would launch another B-29 to take the record up another notch. The Neptune was now light enough for single engine flight, but how much farther could it go on one engine? And was it worth risking this expensive aircraft for the sake of improving a long-distance record?

Over Nevada and Utah , the weather was a serious factor. Freezing rain, snow and ice froze on the wings and fuselage, forcing the crew to increase power to stay airborne. The aircraft picked up a headwind and an estimated 1,000 pounds of ice. It was problematic because the plane's deicing and anti-icing equipment had been removed as a weight-saving measure.

The next three [3] hours of high power settings and increased fuel usage at a lower altitude of 13,000 feet probably slashed 500 miles from our flight's record-breaking distance.

After passing Salt Lake City , the weather finally broke with the dawn of the Turtle's third day in the air. The Turtle was cleared to descend to 9,000 feet. All morning, CDR Davies tracked their progress eastward over Nebraska , Iowa , and the Missouri and Mississippi Rivers . To the north, Chicago 's haze was in sight. But not surprisingly, the remaining fuel levels were gaining more attention from every member of the crew.

The wingtip tanks had long ago been emptied and jettisoned over the Pacific. The bomb bay tank, the nose tank and the huge aft-fuselage tank were entirely empty. The fuel gauges for both wing tanks were moving inexorably toward zero.

CDR Davies and his crew consulted, tapped each fuel gauges, calculated and recalculated their remaining fuel and cursed the gauges on which one-eighth of an inch represented 200 gallons.

At noon, they concluded they could not safely stretch the flight all the way to Washington , D.C. , and certainly not to the island of Bermuda . CDR Davies chose the Naval Air Station at Columbus , Ohio to be their final destination.

At quarter past one that afternoon the runways and hangars of the Columbus airport were in sight. The Turtle's crew were cleaned-up and shaven and in uniform. And the fuel gauges all read empty. With the landing checklist completed and wheels and flaps down, CDR Davies cranked the Turtle around in a 45 degree left turn towards final. As the airplane leveled out on final, the starboard engine popped, sputtered and quit.

The port engine continued smoothly.

Down to 400 feet, as they completed their final turn, both pilots simultaneously recognized the problem. Their hands collided as both reached for the fuel cross feed fuel lever between their seats. During the landing pattern's descending final turn in the landing pattern, the near-empty starboard tank quit feeding fuel into the starboard engine. Within seconds, the starboard engine began running smoothly again from fuel rushing in from the open cross feed. The Turtle had been in no danger, since they were light enough to operate on one engine. On the other hand, it would have been embarrassing to have an engine quit, in view of the growing crowd watching below.

At 1:28 p.m. on October 1st, the Neptune's wheels once more touched the earth with tires intentionally over-inflated for our take-off at Perth , 11,236 miles and 55 hours and 17 minutes after take-off.

After a hastily called press conference in Columbus , the crew was flown to NAS air station in Washington , D.C. by a Marine

Corps Reserve aircraft, where they were met by their wives and the Secretary of the Navy. The crew was grounded by a flight surgeon upon landing in Columbus ...

But before the day was over, the Turtle's crew had been awarded Distinguished Flying Crosses by Navy Secretary Forrestal. Next day they were scheduled to meet with an exuberant President Harry S. Truman.

And Joey was observably relieved to be back on solid earth. And she was installed in luxurious quarters at the National Zoo.

The record established by CDR Tom Davies and the crew of the Truculent Turtle's crew did not stand for a fluke year or two, but for decades. The long-distance record for all aircraft was only broken by a jet-powered B-52 in 1962.

The Truculent Turtle's record for piston/propeller driven aircraft was broken by Burt Rotan’s Voyager, a carbon-fiber aircraft, which made its historic around the world non-stop flight in 1986, more than four decades after the Turtle landed in Ohio .

After a well-earned publicity tour, the Truculent Turtle was used by the Naval Air Test Center at Patient River as a flying test bed for advanced avionics systems. The Truculent Turtle was retired with honors in 1953 and put on display in Norfolk , Virginia , and later repositioned at the main gate of Naval Air Station Norfolk, Virginia, in 1968.

In 1977, the Truculent Turtle was transported to the National Naval Aviation Museum in Pensacola , Florida where it now holds forth in a place of honor in Hangar Bay One.

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