

Before the Hurricane Hunters

Storm Patrols and the Lost Hurricanes

WIKIMEDIA COMMONS/USAAF

by Neal Dorst

U.S. Army Air Forces North American AT-6C-NT
Texan trainers in flight near Luke Field, Arizona, in
1943.



You've probably heard about the tale of the first man to fly a plane into the eye of a hurricane deliberately. It was in the midst of World War II. On July 27, 1943, Lt. Colonel Joe Duckworth of the US Army Air Forces (USAAF) was teaching instrument flight rules (IFR) flying to cadet pilots at Bryan Field, Texas, when word came down that all training flights had been canceled for the day. That morning, a hurricane had struck Galveston (150 miles southeast of Bryan) with little warning. Squally weather was expected in the area as the storm passed to the south. Anxious to test his IFR skills, Duckworth rounded up Lt. Ralph O'Hair as navigator, fueled up his AT-6 "Texan" trainer aircraft, and took off on a southerly course to intercept the storm. The pair encountered moderate turbulence but soon broke through into glorious sunshine with the Texas countryside visible below as they entered the hurricane's eye. They took a couple orbits inside the eye then turned around and landed back at Bryan Field. Lt. William Jones-Burdick, the base meteorologist, had heard about the flight and demanded Duckworth take him up to see the storm. Duckworth complied, and Jones-Burdick scribbled down the first temperature observations made while flying into a hurricane. And without much notice or fanfare, that was it.

However, over the years, the legends surrounding this event have been embellished. Stories arose that several Royal Air Force (RAF) pilots, who were in training at Bryan, expressed disbelief that missions would be canceled for just "a bit of dirty weather." Some even questioned the worthiness of American aircraft, especially their AT-6 planes. Duckworth supposedly took umbrage and bet the morning mess coffee tab, or maybe the evening's bar tab at the Officer's club, that he could fly into the storm. It was said that Duckworth's senior officer called him on the carpet for endangering Government equipment and threatened his rank, but cooler heads up the chain of command prevailed. Some even attributed this flight with inspiring the USAAF to begin regular hurricane reconnaissance flights.¹

None of that was true. There were no RAF pilots training at Bryan Field. Duckworth made his flight simply because he was curious and wanted to test his aircraft in rough conditions. There was no irate commanding officer; Duckworth had permission from General Henry 'Hap' Arnold to fly in any kind of weather. And, as we shall see later, regular hurricane reconnaissance was already planned, so this flight didn't spur or inspire them.



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Burial with military honors of a reported 116 victims of the 1935 Labor Day Hurricane, Miami, Florida.



General Henry 'Hap' Arnold.

What is little known by the myth-builders is that Duckworth had accomplished a similar feat 10 years earlier. Prior to the war, Duckworth had been a commercial pilot for Eastern Air Transport Service (later Eastern Airlines) with considerable instrument flying experience. In August 1933, on his regular mail run from New York to New Orleans, he encountered heavy weather upon approaching Washington, D.C. A hurricane had just struck the Chesapeake area with little warning and was moving up the Potomac. He managed to fly into the eye of the storm and found his airfield along the western periphery. He landed his plane and took off again using his IFR skills. It was those skills that prompted General Arnold to make him chief trainer at Bryan Field a decade later.

Like that Chesapeake storm, the “Surprise Hurricane” into which Duckworth flew in 1943 had struck with little warning. Unfortunately, this situation was far too common in the pre-satellite era. It was called the “lost hurricane” problem. With the 1906 invention of the wireless telegraph by Guglielmo Marconi, marine weather forecasting had been revolutionized. No longer did a ship have to make port to pass along its weather observations, including storm encounters. Ships at sea could use radio waves to transmit telegraph reports about their current weather observations in real time to the forecasters onshore. Plotting and then analyzing all the reports, the weathermen could even detect forming storms by their

cyclonic wind signature in the ship reports. Once a storm was detected, the weathermen would telegraph warnings to the ships in the probable path of the tempest. Prudent captains would then steer their ships away from the storm and its future track. But this opened up a wide gap in weather reports just where the weathermen most needed them. Hence, a storm would become a lost hurricane, and its exact location wouldn't be known until it made landfall. This meant it could strike with little warning. The Corpus Christi hurricane of 1919, the Great Miami hurricane of 1926, and the Lake Okeechobee hurricane of 1928 were all lost hurricanes, and all were deadly disasters.

One such lost hurricane prompted a bizarre and ill-fated effort to reconnoiter hurricanes at sea. In August of 1932, a major hurricane struck Galveston with just 4 hours of warning. The city had been nearly destroyed by the 1900 hurricane and had been struck several times since. But this encounter motivated the Galveston Commerce Association to set up a committee under Capt. W. L. Farnsworth to find some way to avoid future surprises. The Coast Guard had just assigned a cutter, the USCGC *Saranac*, to their Galveston station. The Committee requested that next time there was a hurricane in the Gulf of Mexico, the *Saranac* would sally forth and find the center of the storm and track its motion. The base commander rejected the request. He wouldn't risk his ship or crew against the high seas that would surely swamp the cutter.

Then in August of 1934, another Gulf hurricane was heading for Galveston, and the city braced for its arrival. Nothing happened. People were worried. Had it slowed down and would arrive later, had it turned away, or maybe it had dissipated? The city government telegraphed the US Weather Bureau (USWB) headquarters (HQ) in Washington, D.C., asking the senior forecaster for the latest update. They were shocked to receive the reply:

“Forecaster on golf course—unable to contact.”



Damage from the 1928 Okeechobee Hurricane.

As it turned out, the storm had turned south and dissipated somewhere east of Brownsville. But Galvestonians weren't mollified. They had turned to the Weather Bureau in a time of peril, but the senior forecaster was in his plus-fours.

To comprehend the USWB reply, it is important to understand how the Bureau functioned in those days. Across the nation, weather-observing stations would take observations twice a day, twelve hours apart. The data were then transmitted via telegraph to USWB HQ, where they were plotted on maps, and the temperature and pressure fields were analyzed. Then the senior forecaster would view this and previous maps and use his intuition and experience to guess what the next day's weather would look like. The forecast would then be transmitted back to the observing stations and to newspapers. In between these 12-hour cycles, the forecaster had nothing to do and was free to leave the office.

This leisurely pace of observation and forecast was perfectly fine for day-to-day weather. Large synoptic-scale high- and low-pressure cells would drift languidly from west to east across the fertile plains, bringing their weather with them. Warnings of coming rain could be posted well ahead of time. It was, however, an inadequate tempo for severe weather, which moved at a quicker pace and could easily form and dissipate within 12 hours. Hurricanes were known to change course and speed in less time.

Willis Gregg was just recently appointed as the Chief of the Weather Bureau. Embarrassed by a string of lost hurricanes surprising coastal communities, he was determined to update the Bureau's hurricane warning effort. He obtained an \$80,000 supplement from the Agriculture Department to this end and by March 1935 rolled out the new system.

Instead of all forecasts coming out of USWB HQ, four hurricane warning centers were designated; Washington, D.C.; New Orleans, Louisiana; Jacksonville, Florida; and San Juan, Puerto Rico. Washington would handle all hurricanes north of Cape Hatteras. San Juan had any hurricanes in the deep tropics and eastern Caribbean Sea. New Orleans had the western Gulf of Mexico, and Jacksonville the area between the other jurisdictions. A dedicated telegraph line was set up to connect these centers with each other and would operate during hurricane season, which at this time went from June 15 to November 15.

In addition, all weather stations would make four observations a day during hurricane season. Stations were to stay open 24 hours a day to accommodate this new schedule. If a hurricane

was threatening, observations would be made even more frequently.

To staff these warning centers, the best hurricane minds of the era were assigned. Washington had Charles Mitchell, a long-time HQ senior forecaster. Isaac Cline, who'd been the Meteorologist-in-Charge (MIC) at Galveston during the devastating 1900 storm, was in New Orleans. Richard Gray, Miami MIC during the 1926 storm, was sent to San Juan. And Grady Norton (later to be dubbed "Mr. Hurricane") was placed in Jacksonville, with junior forecaster Gordon Dunn sent from HQ as his assistant.

The system was put to the test that inaugural year. On August 31, a tropical storm was detected over Long Island in the Bahamas. Gordon Dunn was assigned to track this storm and issue forecasts and warnings. By later that day, it moved over the southern tip of Andros Island and strengthened into a hurricane. Dunn issued a warning, and ships in the Florida Straits and the Bahama Channel scurried for port. This opened a large data gap in ship reports and the storm was 'lost' somewhere over the Cay Sal Bank. Dunn made a persistence forecast, that the hurricane would maintain its present course and forward speed. That indicated a landfall on the northern Cuban coast near Camaguey by the morning of Sept. 2nd, Labor Day.

All through Sept. 1, no data from the Florida Straits were received, and the forecast was unchanged. By early on Sept. 2, there was no sign of the hurricane all along the Cuban coast. No falling barometers, no squally weather, nada. Weathermen became concerned. Had the hurricane slowed down, turned, or just dissipated? No one could say.

At 10:30 a.m., the regularly scheduled Pan Am flight from Key West to Havana arrived at its destination. The pilot contacted Dr. Juan Carlos Millàs of the National Observatory, the Cuban weather service's HQ. During his flight, he saw heavy, dark clouds to his east, which he took to be the hurricane, but it was farther north than where it had been forecast. This set off alarm bells. A slightly more northerly track meant the target was not Camaguey, but Havana itself!

So, Dr. Millàs huddled with some officers of the Cuban Army Air Corps (*Cuerpo de Aviación del Ejército de Cuba* [CAEC]). He asked if they could send up a plane, find the storm, and determine what direction it was headed. Capt. Leonard Povey leapt at the chance.

Povey was an American. He'd learned his flying skills after the First World War and had turned to barnstorming and stunt flying. In 1934, the Government of Cuba was staffing its newly

formed CAEC and sent a delegation to the Tampa Air Show to recruit talent. There they saw Povey perform an unusual Figure 8, where he inverted his aircraft on the crossovers. Improvising, Povey told the delegation he called it the “Cuban 8.” The Cubans hired him on the spot. He moved to Cuba and began training their pilots. The Cuban trainees admired his style and daring. He was always willing to undertake any mission, no matter how dangerous.

So shortly after noon on Sept. 2, Povey took off in his open-cockpit Curtiss Hawk II airplane and headed east. He quickly found the storm. He later described it as “a cone-shaped body of clouds, inverted, rising to an altitude of 12,000 feet. The waves in the sea below broke against each other like striking a sea wall.” He flew around the periphery of the cloud mass and determined that the storm was moving to the northwest. The target wasn’t Havana, but the Florida Keys. Povey radioed back his observations, and the National Observatory relayed the information to the Jacksonville hurricane-warning center. At 1:30 p.m., Dunn put out a special update statement, raising hurricane warnings for the Florida Keys. However, the update contained the old storm position just north of the Cuban coast. This may have misled people to think they had more time before the hurricane arrived. A corrected position was only included in the 4:30 p.m. bulletin.

All along the chain of islands, the long-time residents, the Conchs, began boarding up their homes and bracing for the blow. But not everyone is the Keys that summer was a savvy Conch. The Florida Economic Recovery Administration (FERA) had begun to build the Overseas Highway,

a roadway connecting Miami to Key West. The Highway paralleled Henry Flagler’s Florida East Coast (FEC) railway track and was meant to boost the fortunes of the economically depressed Keys. FERA had hired hundreds of men for the task, mostly World War I vets and members of the Bonus Army that had marched on Washington in 1932. The Highway project was meant to provide these men with gainful employment as much as it was to provide an economic stimulus to the Keys.

The men were spread among three tent camps on Windley and Lower Matecumbe Keys. Luckily, many had used their holiday day off to go to Miami for a baseball game or south to Key West to sightsee and just maybe bum a drink off of Ernest Hemingway at Sloppy Joe’s Bar.

FERA had a hurricane plan, or at least the rough outlines of one. If a storm were to threaten the area, FEC would be contacted and asked to send a hurricane evacuation train to the camps, pick up the men, and transport them to Miami and safety. When the local FERA administrator Ray Sheldon in Islamorada received news of the 1:30 p.m. update, he decided to implement the plan. He put in a call to his boss in Jacksonville, Fred Ghent, to authorize FEC to assemble the train. Unfortunately, he just missed Ghent who had gone to lunch and left no words as to where he would be. Sheldon spent a long, agonizing period waiting until Ghent came back to the office. When Ghent returned, he sent word out to the FEC Miami station to send the hurricane evacuation train.

But it was Labor Day, and most railway workers were off for the holiday. Calls were put out, but it took time for yard workers and train crews to



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Damage to the Caribee Colony in the Florida Keys after The Labor Day Hurricane of 1935.

report and assemble the train. It wasn't until 4:25 p.m. that the train pulled out of the station. Considering the circumstances, this was quick work. But it was already too late.

Soon the train was battling the outer rainbands of the hurricane and had to stop frequently to clear the tracks of debris and downed telegraph lines. Word had gone out that an evacuation train was taking people to safety, and many folks in the Upper Keys pleaded to board it when it was stopped by obstructions. So, the train crew dutifully took on evacuees and transported them directly toward the oncoming storm. The train pulled into Islamorada station just as the storm surge did. The mound of seawater pushed all the cars but the engines off the tracks and over on their sides. The evacuees had to scramble onto the sides of the benches in the cars to keep their heads above water. Luckily, none of the train's passengers or crew died in the storm.

The same could not be said for the vets in the camps. There were few solid structures around to provide shelter from the wind. Some men lay next to the railroad track berm for shelter from the winds that were driving sand and blasting clean anything in its path. But the berm provided no shelter from the surge and the men were swept away, drowning, over the flat island and into Florida Bay. Some of their dead bodies were found entangled in the mangroves on the further shore, but many were never found.

In spots, the storm swept all vegetation and structures away, including telephone and telegraph lines. The railway track and roadbed were compromised in many places. No information of the disaster that had just occurred was received. At first, outsiders assumed that things weren't bad because they received no damage reports. Soon they realized that NO information was being received. Relief and rescue workers were slow to respond.

Word got around Key West that things were bad in the Middle Keys. Earnest Hemingway loaded supplies and friends aboard his boat, the *Pilar*, and motored north to see if he could help. He was devastated by what he found, a blasted, alien landscape with no reference points and dead bodies everywhere, even floating in the water. He felt a growing sense of outrage at what had become of his war buddies. The official count was that 299 veterans and 164 Conchs had perished in the storm.

No sooner had help begun to arrive than fingers began to point. Who was to blame? The likely scapegoats were FERA, its federal version, and the USWB. Harry Hopkins, leader of the Federal Economic Recovery Administration (which

oversaw FERA) quickly organized a damage-control effort to deflect blame, but his quickly cobbled together report satisfied nobody. Willis Gregg began a Weather Bureau effort to gather information on what had transpired within his agency to defend against accusations. Hemingway penned an article entitled "Who Murdered the Vets?" blaming the Roosevelt Administration. Eventually, Congressional hearings were held. No one came out unscathed.

During the hearings, Administration witnesses were asked about the effectiveness of Coast Guard marine patrols to track hurricanes. Again, it was pointed out the danger to the ships and crews. Despite that advice, the Texas Congressional delegation promoted a bill requiring that the cutters be deployed on storm patrols, but in June of 1936, Roosevelt vetoed the legislation.

Meanwhile, Povey and Cuban officials visited Washington to promote using CAEC planes to track storms near Cuba. Of course, they were asking for American funds to start the project. Willis Gregg had a notion of his own. When a storm threatened any American coast, USWB would hire private pilots to reconnoiter the hurricane. These pilots could fly from anywhere, not just Cuba.

By the start of the 1936 hurricane season, Gregg initiated a tour of the Gulf coast weather stations to promote his aerial 'storm patrol' idea. In a bit of the world's worst luck, that same day he spoke to the press in Galveston about flying



Florida East Coast Railway Overseas Railroad relief train derailed near Islamorada, Florida, during the 1935 Labor Day hurricane.

aerial patrols, a Coast Guard airplane crashed in the Gulf off Tampa killing all three crewmen. Although it was on a search and rescue mission after a passing tropical storm, the newspapers called it a “storm patrol.” This made Gregg’s proposed patrols sound like suicide missions.

The Texans were back again promoting using Coast Guard cutters to track storms. Finally, to resolve the matter, a conference was scheduled for August of 1937 to be held at the White House. The Texas Congressional delegation and Farnsworth with members of his committee could meet with officials from the Coast Guard, Army, Navy, and Weather Bureau to hash out an agreement on storm patrols. It was to be chaired by the President’s personal secretary (and son) James Roosevelt.

Willis Gregg drew up a detailed “Hurricane Patrol” proposal. Expanding on the idea of hiring private pilots to reconnoiter threatening hurricanes, it also specified scientific instruments that could be mounted on the aircraft and gather valuable temperature and humidity data from the storm environment. He hoped this information would improve the understanding of the structure of these largely unknown tempests.

The Administration had just appointed a new Commandant for the Coast Guard, Admiral



WIKIMEDIA COMMONS/ U.S. COAST GUARD

Admiral Russell R. Waesche, Sr., USCG.

Russell Waesche. He arrived early for the conference and hadn’t been briefed by Administration personnel on the White House’s position against cutters being used. The Texas delegation immediately buttonholed him and pleaded their case. When the conference began, Waesche delivered

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The USCGC Saranac.



The National Hurricane Center in Miami, Florida.

his opening remarks praising the Texas proposal. The legs were cut out from under the Administration at the starting gate. It was agreed that Coast Guard cutters would be deployed into any threatening storm and, at the discretion of the ship's captain, the cutter would attempt to track the center. Willis Gregg's aerial patrol proposal was lost in the shuffle.

Several Gulf cutter sorties were attempted in 1938, including one by the USCGC *Saranac*. Battling dangerous seas, the cutters radioed back their observations before having to turn back. But the Weather Bureau's view of the utility of these reports was indifferent at best. They didn't deliver the invaluable information of where the storm's center was.

In early September, the San Juan hurricane center began tracking a strong storm coming out of the deep tropics. After a few days, responsibility for tracking the storm was handed off to Jacksonville as the hurricane recurved just to the east of the Bahamas. On Sept 14, word came down from HQ. Willis Gregg had died of a heart attack while at an aviation conference in Chicago. With him died the idea of aerial hurricane reconnaissance.

By the 21, the storm was heading on a northerly course and passed to the east of Cape Hatteras. Forecast responsibility was passed to the Washington hurricane center. The exact location

of the storm was lost as ships hurried to port all along the eastern seaboard. But Mitchell and the senior forecasting team were convinced from experience that the storm would recurve harmlessly out to sea. As a precaution they posted storm (not hurricane) warnings along the coast north of New Jersey.

What they had no way of knowing was the storm was interacting with an upper-level trough moving in from the west and accelerating it rapidly forward. The more the storm accelerated the more asymmetric it became. On the west side of the center (closer to the shore) the rapid northward motion was contrary to the southward-headed wind, tending to diminish the wind speed. On the eastern side, it was the reverse. As the storm approached Long Island at nearly 50 mph forward speed, the eastern surface wind speeds exceeded 100 mph.

The track did not swerve northeastward as forecast, but the hurricane barreled due north toward Long Island. The rapid acceleration caught many ships at sea unawares, and also meant the hurricane arrived onshore long before the gale winds were forecast. It came ashore on Long Island just before 3 p.m. The center moved over the island, across the Sound, and then crossed the Connecticut shore. The high winds to the east of the center blew the waters of Narragansett Bay up into the streets of Providence.

The storm moved rapidly over Massachusetts, eastern New York, Vermont, and New Hampshire raining destruction along the way; 682 people were recorded killed by the storm with damage estimated at over US\$300 million in 1938 dollars. That is equivalent to US\$6.3 billion in 2022. Because of its forward speed it was dubbed “The Long Island Express.”

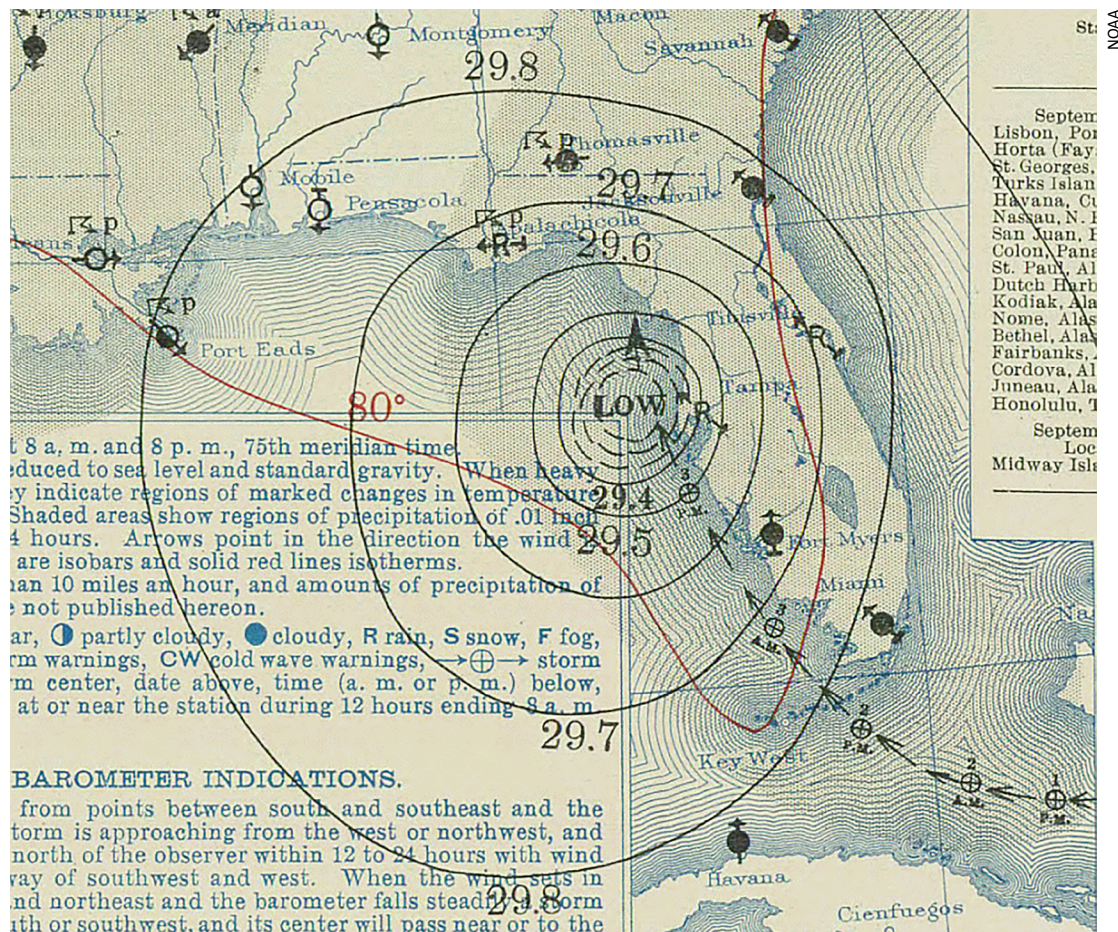
No Coast Guard storm patrols were launched into this storm, which was for the best since nearly 3000 ships were sunk. In 1944, during the Great Atlantic Hurricane, two Coast Guard cutters, USCGC *Jackson* and USCGC *Bedloe*, were attempting to aid a Liberty ship having trouble at sea when they both capsized and sank. Forty-seven men between the two crews were drowned with only 33 rescued. One would conclude a similar fate would have befallen any cutter attempting a storm patrol into the “Long Island Express.”

In March 1939, Farnsworth was pressing to expand marine patrols to the Eastern Seaboard, but nothing came of it. The Coast Guard was soon engaged in other matters, such as searching for Nazi submarines hunting merchant ships along our shores, and the idea of marine patrols died a deserving death from neglect.

World War II presented the Weather Bureau with new problems. Many valuable ship reports were no longer available. The location of ships and their weather observations were now considered wartime secret information. Without ready access to the data, the Bureau was “blinded” and had trouble forecasting hurricanes. The 1942 hurricane season was particularly brutal. Numerous tropical systems disrupted shipping and military operations across the Caribbean, Gulf of Mexico, and western Atlantic. Notwithstanding the wartime restrictions, the military harshly criticized the Bureau’s performance.

So, the new Chief of the Weather Bureau, Dr. Francis Reichelderfer, revived Willis Gregg’s 1937 proposal of hiring private pilots to reconnoiter hurricanes. But the Bureau of the Budget objected to funding such a project. They suggested using military aircraft and personnel instead. Reichelderfer approached the U. S. Navy (USN) and USAAF, but they claimed that they had few patrol aircraft to spare. Plus, they expressed doubt about an aircraft being able to successfully penetrate a tropical storm.

But as the war went on, the ranks of the Armed Forces swelled and America’s industrial might



Surface weather analysis of the 1935 Labor Day hurricane on September 4, 1936.



A U.S. Air Force Lockheed WC-130H-LM Hercules (s/n 64-14861) from the 54th Weather Reconnaissance Squadron on a mission over the Pacific near Guam to monitor and relay information on typhoons to the Joint Typhoon Warning Center (JTWC) on July 1, 1977.

cranked out more tanks, ships, and planes, so additional resources could be committed to weather reconnaissance. The USN and USAAF established forward forecast centers in their areas of operation including hurricane warning centers in Miami in 1943. Reichelderfer moved the USWB's Jacksonville Hurricane Warning Center to Miami to better coordinate their warning efforts. In July of 1943, these centers were designated the Joint Hurricane Warning Center (the predecessor to NHC). The Center began tasking military aircraft to monitor tropical disturbances.

It was in the midst of this effort that Lt. Colonel Duckworth's flight took place. Few people knew about it until a Texas newspaper printed an account. It's doubtful that anyone in Miami heard about it until much later. It played no role in the reconnaissance efforts already underway. A month after Duckworth's flight, the first tasked hurricane reconnaissance missions took place east of the Bahamas. Both Royal Air Force and USAAF planes provided fixes of the storm center. Several more flights took place in hurricanes threatening operations during 1943.

Early in 1944, Reichelderfer convened a conference between the Weather Bureau, USN, and USAAF to make plans on how to coordinate hurricane reconnaissance. The Air Force even designated a squadron to carry out regular hurricane missions. Hurricane reconnaissance became a regular feature of weather monitoring. Two years

later, such conferences became an annual part of the Federal Government's hurricane planning. It also spurred the Navy to follow the Air Force example and designate specific air squadrons to handle hurricane reconnaissance duties.

Povey left Cuba in 1938 and joined the Embury-Riddle School of Aviation in Miami. His gallant flight in 1935, which no doubt saved lives, remained largely forgotten. Even in the several newspaper articles about his life and exploits, the flight is mentioned only once and in passing. It wasn't until Willie Drye included it in his book 'Storm of the Century: The Labor Day Hurricane of 1935' (originally published in 2002) that it became more widely known. We can only speculate as to how many people might have been saved had aerial reconnaissance been in regular practice since 1937 instead of 1943.

Duckworth retired from the Air Force in 1955, a full-bird Colonel. For his IFR efforts and his legendary flight, he was awarded the Army Air Medal. The Air Force created the *Col. Joseph B. Duckworth Instrument Award* in his honor, given out annually to those making the biggest contribution to instrument flight.

His story of that July day in 1943 was often repeated. Ivan Tannehill featured it prominently in his 1955 book *The Hurricane Hunters* that emphasized this was the "first" hurricane flight. Tannehill dramatized the story to fill out the chapter making it seem that it had spurred the idea of hurricane reconnaissance rather than it

being just a side note. Sometime later, some reporter tacked on the bit about the RAF pilots and the bar bet for color. This is now the elaborated account that is repeated anytime a news article is written about the history of hurricane reconnaissance or whenever old Hurricane Hunters gather for a few pints, dramatized and exaggerated in importance.

After the war, the Air Force and Navy formed their Hurricane Hunter squadrons in the Atlantic and the Air Force Typhoon Chasers and Navy Typhoon Trackers in the western Pacific. Those squadrons provided timely information on the location, strength, and size of tropical cyclones for generations leading to better warnings and saving lives.

But it has come with a price. A Navy plane went down in a typhoon over the South China Sea in 1945. Only one of the crew of seven survived. An Air Force plane was lost with all 10 crewmen in Super Typhoon Wilma in 1952. In 1953, an Air Force Hurricane Hunter returning to Kindley Base in Bermuda suffered a runaway prop. The plane went down with only 3 of the 10-man crew able to bail out. That same year, a Navy plane went down with all nine men in Super

Typhoon Doris. A Navy Hurricane Hunter was lost in Hurricane Janet in the Caribbean in 1955 with all onboard, including a pair of Canadian journalists. Super Typhoon Ophelia in 1958 claimed an Air Force plane with nine men aboard. And finally, an Air Force Typhoon Chaser went down in Typhoon Bess in 1974 with a six-man crew.

We remember and thank those men for their sacrifice and pray that no more are claimed.

Note

1. Williams, Jack (2015) "Into the Eye: Tracing the History of the Hurricane Hunters" *Weatherwise*, Volume 68, Issue 5.

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