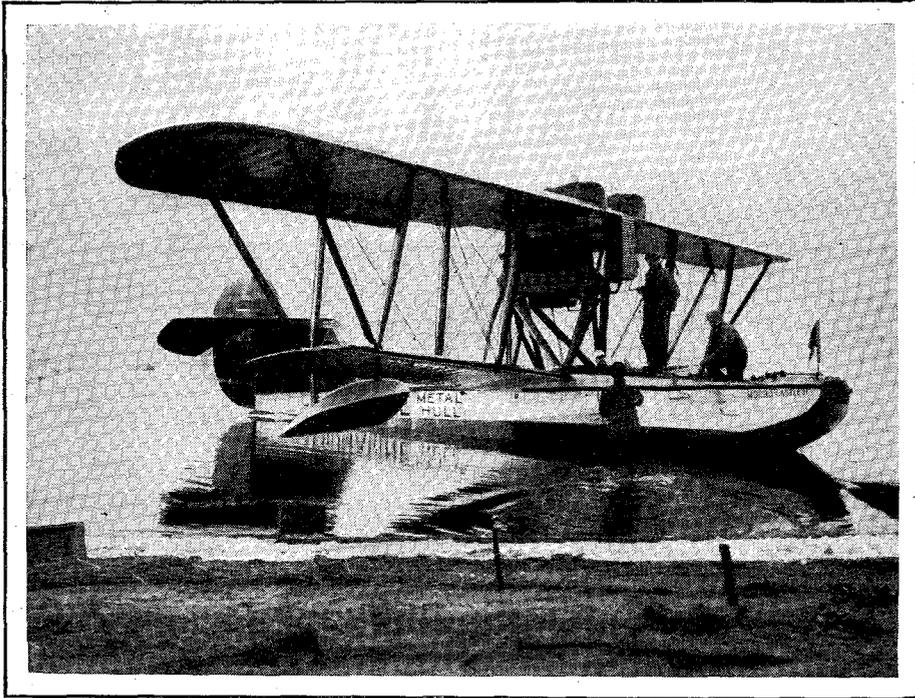


Nosing Into a Gale

Special Correspondence from the Flying-Boat Morro Castle II

By FREDERICK ALAN THOMPSON



The Morro Castle II just before going out to the anchorage for the night; the start took place the following morning. The pilot is in the seat, the mechanic at the crank

ABOVE the open sea off the coast of New Jersey we soared at a level of a little more than a thousand feet, nosing straight into a gale, with squalls of rain, that is reported to have varied in velocity between sixty and seventy-five miles an hour.

Our ship, the Morro Castle II, was the first metal flying-boat built in America. We were starting on a twelve-thousand-mile experimental trip from New York down the eastern seaboard to the southernmost tip of the United States, Key West, and from there over to the islands of the Caribbean Sea, where the Atlantic Fleet would be conducting its winter maneuvers, and return.

On our first day out we ran plumb into the storm that may be remembered to have torn the giant airship Shenandoah from her mooring mast, nearly wrecking the ship and for many hours imperiling the lives of the men aboard her. This gale was the direct cause of the death of three people on the streets of New York City, and in the downtown sections near the sea it literally lifted pedestrians from their feet and hurled them through the air. We flew one hundred and twenty miles deliberately through that gale, straining ahead at times barely a few miles an hour in relation to the ground, while our single Liberty motor, roaring

wide open, was sending our dizzily lurching plane through the air at a speed of almost a hundred miles an hour.

When I was invited by the Aeronautical Chamber of Commerce to make the long trip, the particular safety of this new metal flying-boat was stressed for me at length. There were six water-tight bulkheads in the hull, I was told, any two of which would be sufficient to keep her afloat should an accident force a landing in the sea. Emergency rations of ship's biscuit and fresh water were carried aboard, and Very lights and sky-rockets for the purpose of signaling for help.

When I had been reassured on these

FREDERICK ALAN THOMPSON was commissioned by The Outlook to go with the Morro Castle II in its flight to the Caribbean and the maneuvers of the Atlantic Fleet. He started in the gale that nearly wrecked the Shenandoah—but we will let him tell what happened.

points, it was further explained that the metal construction of the hull marked a most important, though not spectacular, advance in the conquest of that element into which American inventive genius first successfully ventured. The hull was a hundred pounds lighter than a similar one of wood, and it was said to be more than twice as strong. The new metal of which it was constructed, duraluminum, which is the same metal used in the frame of the Shenandoah, corrodes very slowly, I was told, and has such tensile strength that the boat will stove-in without opening up, in the event of a crash, where a wooden boat would be smashed into splinters. Its particular advantage over the wooden boat, so it was explained to me, was that the latter, if left in the water a month or two, absorbs so much water that it is rendered practically useless, whereas the metal boat can be in the water continuously without taking in a drop. Our twelve-thousand-mile trip would require the boat's being in the water four or five months.

As a final, non-technical proof of the safety of the boat, I was told that its pilot, Cyrus Zimmermann, was the brother of the designer and constructing engineer, Paul Zimmermann, and that it was contrary to reason that the former should take too much for granted in regard to his brother's theory and attention to factors of safety, or that the latter should jeopardize the life of a member of his immediate family.

On the morning of our departure, in the middle of the cold and stormy month of January, when the six of us who were to make the trip foregathered on the end of a little pier projecting into the ice-rimmed bay of Keyport, I forced myself to think of these assurances of safety as I gazed aloft, with quite unforced misgivings, at the gray storm clouds streaming across the sky. A stiff breeze from the southeast was already blowing.

Our party comprised Colonel Streeter, Vice-President of the Aluminum Company of America; Elon Jessup, author of a number of books dealing with outdoor sports; W. L. Hamilton, aerial photographer; Cyrus Zimmermann, the pilot; S. F. Walton, mechanic; and myself.

Zimmermann and Walton rowed out to the Morro Castle II, where she was anchored in the middle of the bay. A short while later those of us on shore

heard the characteristic roar of an airplane motor.

The winged boat skimmed over the waves towards us, two banks of foaming green water streaming back from its bow. The white metal hull presented the appearance of a long racing motor boat. From its center projected the biplane wings, the top wing considerably larger and longer than the lower. On the extreme stern of the boat were the vertical rudder, which controls the turning of the ship in the air or the water, and the tail planes, which control the soaring or diving of the ship in the air. Between the two main wings was a four-hundred-horse-power Liberty motor, and swinging behind the wings a large two-bladed, "pusher" propeller. Zimmermann and Walton were sitting in a cockpit immediately in front of the engine. The deck and the sides came up to the level of their chins, and in front of their faces were individual windshields of heavy plate glass canted at an angle to throw the wind over their heads. In front of them were two other oval holes in the deck of the boat, which were the cockpits for the passengers. Colonel Streeter, muffled to the ears like an Eskimo as a protection against the cold, climbed into the foremost cockpit, and Hamilton, Jessup, and myself climbed into the middle cockpit. All of the passengers, in this type of boat, ride in front of the wings of the plane, with no visible means of support beneath them when in the air.

The small crowd of friends who were at the wharf to see us off stood hopping from one foot to another, clapping their hands together, and otherwise stirring restlessly about to keep themselves warm. The waves of the bay were white-capped. Broken ice slushed at the edge of the pier and along the shore with a sound like the sighing of reed grass in a breeze.

The nose of our boat was shoved off from the pier, and we drifted around, heading up into the wind, towards the lower bay of New York Harbor. The roaring of the motor increased to a deafening pitch. Solid green waves as our bow cut the water were flying up on both sides of us higher than the sides of the boat itself. The shore was rapidly disappearing astern. The boat and all the flying wires used to brace the framework of the planes were vibrating intensely. The motor roared louder and louder. The boat began gently to rock as we sped over the top of the whitecaps at a speed which made the water appear flat. The nose of the boat was rocked gently up again, the planes lifted, the bottom of the boat was off the water; we were flying.

Steadily we mounted a thousand feet

into the air, until the country lay below us like a map. Beyond Sandy Hook we could see a whitecapped stormy ocean, with the ground-swells piling up on the shore in a white line that, even from our height, looked very ominous.

"If we had ever gone down in the sea, we'd have been done for," Zimmermann told us later. "Water-tight bulkheads or no water-tight bulkheads, the ship would have been swamped and awash in no time, and whether we would have been able to hang on or been washed out wouldn't have made much difference, as with that offshore wind we would have been driven into the ground-swell and smashed up in the 'boil' on the beach."

The first vessel we flew over, in the open seas by Ambrose Light, was a five-masted square-rigger, reefed down to only a few shreds of sail, and showing, from our bird's-eye view of her, a rim of white foam around her hull as she wallowed through the waves.

High above the spacious-lawned summer cottages facing on the sea along New Jersey's coast we flew. At times, when the wind blew against us with all its fury, we seemed to be standing still. At other times, when these gusts would suddenly relent, we would dip sickeningly for a moment, and at others, when a gust would strike us, we would suddenly soar.

In such weather the pilot has to be flying every minute; things won't take care of themselves, not even a little bit. The air, like the sea, or, for that matter the land too, can be rough or smooth. When it is smooth, which was certainly not its condition to-day, to fly through it is like sailing over a smooth sea or riding on a boulevard. When it is rough, it is more full of sudden ups and downs and side slats and jars than choppy water. There were sudden drops and rises, with the accompanying peculiar sensation in the pit of the stomach that one has on dropping suddenly in a fast elevator. The boat rocked from side to side, one wing lifting suddenly high in the air, then the other. There was a feel of humming tension in the ship, and of sudden strains and lifts. Steadily, however, we were working our way down the shore.

Overhead, not so very far away, the grayish-brown storm wrack was streaming down the wind towards us and past us to our rear. Out at sea—a dark sea flecked with whitecaps—ships could be seen laboring along, burying their noses deep in a smother of foam, then wallowing up for a moment on the crest of the waves. Off Asbury Park we sighted a vessel, low in the water, burning distress signals. Other ships were near her, so we did not take it upon ourselves to go to

her rescue. At Long Branch, over which we were now flying, we learned by the papers next day a barge came ashore that night and her crew had to be rescued by the Coast Guard with a breeches buoy. Two barges were sunk that afternoon, one going to the bottom of New York Harbor near Ellis Island and another going down in the high seas off West Bank, New Jersey. That night the little amateur radio set at the hotel where we stopped picked up three S. O. S. calls from ships off the New Jersey shore. The episode of the Shenandoah is too much a matter of history to need repeating. The exact velocity of the gale we were flying through is not a matter of record in New York, as the wind blew off the cups of the Weather Bureau recording instrument.

Squalls of rain struck us. Our windshields, behind which we crouched, threw the water straight over our heads to the rear, so that we hardly felt any of it. Peering out from behind the windshield once, I was stung in the face by the rain blown by the wind into which we were racing at eighty miles an hour as though I had received a charge of rock salt from a shotgun in the face. The two men sitting beside me were blue in the face with cold.

The wind veered more to the east for a while, and, having to quarter into it to avoid being blown inshore, we went "crabbing" down the coast, moving in our intended direction sidewise, rather than directly forward.

The velocity of the wind at the height of a thousand feet in the air is naturally brisker than near the earth; but our pilot preferred the greater elevation because, in the event of something happening to stop the motor, in the time that he would have before the plane from such a height would be brought down on the sea he might have a chance of getting his motor started again. Had we flown low and had the motor stopped, we should have had to drop immediately into the combers, which were running many times higher than our ship, with the probable gloomy eventualities that I have already mentioned.

Barnegat Bay, that long strip of water that parallels the Jersey coast, protected from the open sea by a narrow reef of sand, appeared ahead of us, and our plane dipped in a long chute down to barely ten feet above the choppy inland waters. Here we could come down without mishap.

Barely ten minutes after we had reached it our pilot let the ship be blown to the western shore of the bay; then, heading directly into the wind, skimming over the waves at a velocity of sixty miles



Departure of Morro Castle II from the icy waters of Keyport Harbor. Left to right: W. L. Hamilton, aerial photographer; Frederick A. Thompson; Cyrus Zimmermann, pilot

an hour, he slowed her up, and we came down on the crests of the whitecaps. The drag of the water caused the bow to lurch up a few feet; then, with a forward-and-aft rocking motion, while the waves flew up on either side of us, we settled down into the water, and the roar of our engine stopped. One of our flying wires, technically known as the left drag wire, reaching from the hull of the ship to the top wing to sustain some of the pressure of the wind on this member, had snapped.

Our mechanic scrambled out of his cockpit onto the lower wing while our ship, kept headed up into the wind, drifted backwards. With the waves licking about his feet, he worked with desperate haste, removing the broken strands of the wire. Then he tightened up the turnbuckles on the remaining wires, which would now have to carry an

additional strain. Several times he had to interrupt his work and start the engine, so that we might taxi over the water away from the shore, towards which we were being blown by the wind. Finally he hopped back into his place, the motor roared up again, we skimmed faster and faster over the water, rising until we just touched the high spots of the waves, and, after rocking once or twice, zoomed into the air. We continued our furious pace southward only a few feet above the bay.

Out of the gray mist ahead of us we startled great flocks of ducks which had settled for protection from the storm on the bay. They would rise in clouds before us, their long necks stretched out and their wings beating the air frantically, as, whistling and clamoring, they fled from us. When we tore down upon them, they divided into phalanxes, and

as we went charging through them they wheeled off to either side.

At one time, when we were flying two or three hundred feet above the water, a pair of the ducks commonly known as hell divers flew ahead of us. When we were almost upon them and it seemed that we should have to soar or dip to avoid hitting them, which would probably have been disastrous for us both, as they would have been killed and in turn would have broken whatever of our struts or flying wires they struck, they dived straight down the hundred feet or so, screaming, into the bay and out of sight under the water—the highest, straightest dive I've ever seen! Poor fowls of the air, there was something either ludicrous or ominous, depending on one's mood, in our invasion of their element with our great roaring metal man-made flying-machine in such ugly weather.

Over the combers that rolled up on the beach at Atlantic City we flew, again a thousand feet or more in the air. The thought of that missing wire persisted in occupying my attention. On the famous boardwalk of the resort, we could see people swarming out from the houses to the edge of the walk to look up at us.

Two hours and a half after leaving Keyport the rain hit us in a downpour. We landed in an inlet behind Ocean City, New Jersey, and taxied up to a wharf. All but our pilot and his mechanic scrambled out. *Terra firma* was beneath our feet again. I stamped on it to make sure it was real.

The first all-metal flying-boat made in America, flown by an American aviator with an all-American crew, had in the teeth of a sixty to seventy mile gale covered 120 miles in two and a half hours, counting in the half-hour stop; or in two hours flying time. Twice her three tons of bulk had been landed in rough water without taking a drop inside.

She drifted back from us where we stood on the little dock ashore. In the middle of the bay the mechanic threw the anchor overboard, and he and the pilot made the ship snug for the night. A rowboat was sent out and brought them ashore.

And, as further evidence that our flight was not, as one might say, a fluke, on the day following we continued on our way south, flying 320 miles in four hours from Ocean City to the little island of Roanoke, off the coast of North Carolina, after our flying-boat had ridden at anchor in the open all night in the storm that killed people in the streets of New York, sank sea-going ships, and nearly wrecked the largest air machine in the world.

So This Is the Steerage!

By FULLERTON WALDO

Here is the story of a journey in the steerage to the promised land. It is the third article by Fullerton Waldo on the ebb and flow of America's alien born

THE first sight of the 854 third-class passengers on the Mauretania, bound from Southampton and Cherbourg to New York, was almost overwhelming. It was Babel afloat, with colonies from Czechoslovakia and Jugoslavia, Russia, Italy, Belgium, and nearly every other nation one might name, except China and Japan. Japan was well represented in the first cabin, and many of the wealthier immigrants traveled in the first cabin and the second. But the human interest to a sociologist was incomparably among the third-class passengers.

A Third-Class Escape from Class

ACROSS the table from me was a British family of three—father, mother, daughter. Their names were Jewel, and their favorite joke was to say that they ought to travel in the purser's safe. They were leaving England and going to "service" in America because of what they deemed the intolerable condition of the English servant to-day. Father had been in the mercantile marine a dozen years and was in the trenches in war time. He had been a butler in great houses.

"They told us in the trenches," he said, "that war meant an end of the old class distinctions. It was not so. They never let you forget that you are a servant, and that you are not supposed to rise above your class. In America, we understand, people are free and equal."

The daughter, aged sixteen, chimed in: "You can't get a girl in England to be a domestic. They'd rather be typists or work in a factory or do anything else."

"A pound a week," said the mother, "is the best pay in London. And that you can only get in the best houses. I'm a cook. My husband and I hope to get positions together. Daughter will go out to service, if she likes it. My man wouldn't accept the dole," she added, proudly.

"That I wouldn't," he agreed. "It has made some men soft and lazy. It has done great harm."

At my right were two Welsh boys from Swansea, bound to be mechanical engineers. Their visible, audible deity was our fellow-voyager Lloyd George. Supreme was the satisfaction of one when the great man in the midst of a swinging constitutional above the decks stopped

him to ask in Welsh who he was and where he was going. "I shall remember that all my life," said the young man.

Two little English boys, inseparable playmates, hailed from Bristol and Bedford. The Bedford lad knew all about John Bunyan and "Pilgrim's Progress." They were mannerly and said, "Thank you, sir," in sweet, clear, fresh voices when you asked them how they were or if they enjoyed the voyage. The Bedford boy told me he was going to "Connecticut, New York," and I found he meant Thomaston, Connecticut, where his father would make clocks and watches.

The Czechoslovaks were among the first of the colonies to foregather and establish their tribal unit aft on the main deck. They did it by means of song and dance to the mouth-organ, and one of the most active spirits carried a zither into the smoking-room and played homesick arrangements of folk-songs to a spell-bound audience. The Jugoslavs were another large contingent—among the largest—and one of their number succinctly said: "In Jugoslavia no work. If work, no pay." A Russian had taken a five years' course in mining engineering at Petrograd, and now, evicted by Bolshevism, he was going to Philadelphia to work in his uncle's pharmacy and—on the side—study political economy at "a university," which one he was not sure. He listened absorbedly and gratefully to a description of the courses at the University of Pennsylvania, and the alternative curriculum of Temple University. The Russian was very pitiful for the clerks of France.

"They get 400 francs a month," he said. "I spent 300 in one week in Paris, yet I saved, and went but once to the opera and once to the theater. A workman gets 20 francs a day, 600 a month. Even with that, how can he support a family? But it is much better than Constantinople, where I have just been. There I got 18 piasters a day, working ten hours. In seven and a half months I had work for but half a month. The tramway to Bebek alone was 12 piasters, and 3 for the tunnel. It is a town of parasites, and they are town parasites. There are no factories. They do not produce. While the Allies were there the restaurants were running full blast. Now they have little or no patronage. Hence there is no work for the Russian nobility,

who were glad to wait on the table. All is for the Turks."

There were half a hundred Italians, mostly of one mind as to Mussolini and his usefulness for Italy. One of them said: "I am American citizen. I not for politics. I don't care so long as the country she goes all right. I am in the fruit business in Iowa. In Italy I like the olives and the vines. Plenty of fruit, and life is happy. But I do not care to stay in Italy. America good enough for me. I only go back to Italy to visit a year. Sit around, and talk to people, and drink a little chianti, and hear the music. Mussolini a fine man for the people. Great and strong, like Napoleon. But not proud. Talk to everybody, like you and me. Of course he was all right about Greece."

A Finnish family had a book of songs—the words without the tunes—and one of the girls sang lustily while the rest listened. The key to their confidence was to talk about Helsingfors and the railway station and the good things to eat. They had never heard of Sibelius, but they knew about their great architect Saarinen, who designed the railway station. The man knew Saastemoinen, the former Minister to America, and H. J. Procope, a member of Parliament. He laughed when I described his Finnish words as long and hard on the jaw.

A Recruit for Harvard

A HINDU was one of the most interesting passengers. His command of English was idiomatically complete. But he was at home not only in Hindustani but in the Bengali of his own province, and in Urdu. He could also do something in a reading way with Sanskrit and the Pali of the sacred writings. He was on his way to Meadville Theological Seminary, and then to Harvard, and had stopped in England to see schools and colleges, and was received with particular courtesy and sympathy by the head master of Harrow. He told me of the efforts of the Gaekwar of Baroda to educate his people, and said that Ranj (Ranjitsinji), the old cricketer, was making a success of his job as Maharajah, if only he did not have to go to England so often to sit in Labor councils or to play cricket. Bhotan, he said, was farther beyond the civilized pale than Nepal, and in some of the na-