

A 9,000-mile 'shakedown cruise'
without instruments sets in motion a navigator's dream

Incredible Journey

by Marvin Creamer



Marvin Creamer, 68, a retired geography professor from Pitman, New Jersey, had a dream: To circumnavigate the world on a mid-size cruising boat without the use of navigation instruments of any kind — not even a compass or a wristwatch. It was Creamer's intent to navigate by the stars, using the ancient method of parallel sailing — following courses along meridians and parallels only — a method used universally before the invention of the chronometer.

On the chilly afternoon of December 21, 1982, aboard his recently delivered Goderich 35 cutter *Globe Star*, Creamer and two crewmembers, Jeff Herdelin, 23, and George Baldwin, 67, sailed from Greenwich, New Jersey, toward Cape May, their jumping off point for the Atlantic Ocean. Their ultimate destination: Cape Town, South Africa, 9,000 non-stop miles away.

All navigation instruments except an Argos satellite transmitter, which would allow those ashore to track *Globe Star's*

progress, had been sealed. Creamer had set his dream in motion.

After a safe arrival in Cape Town, *Globe Star* sailed for Hobart, Tasmania; from there to Sydney, Australia; on to Whangaroa Harbor, New Zealand, and from Whangaroa to Port Stanley in the Falkland Islands. On February 9, with the most difficult part of his journey behind him, Creamer sailed from Port Stanley bound once again for New Jersey and the completion of his record-setting journey. At press time, it was anticipated that *Globe Star* would arrive in New Jersey in early May, 18 months after setting out on her unusual voyage around the world. *Cruising World* has kept readers informed of Creamer's progress through items in the "Shoreline" column and a feature article by Tony Muldoon entitled, "Marvin Creamer's Daring Voyage Begins," which ran in the June, 1983 issue. Now *Cruising World* is pleased to present the first account of *Globe Star's* journey written by Marvin Creamer.

After watching Orion strike majestically across the wintry, northern skies for more than half a century, seeing the mighty hunter of mythology plummeting head-first into the warm, moonlit waters of the South Atlantic came as one more shock in *Globe Star's* topsy-turvy world. By early March on a trip that began December 21, 1982, out of the Delaware River, we had experienced an odd assortment of conditions; shirt-sleeve weather on Christmas Day; a four-day belter during which we lay ahull two days waiting for a clue to direc-

tion; a magnificent display of both streak and sheet lightning accompanying an all night frontal passage; St. Elmo's Fire; an almost complete absence of the northeast trades; red Sahara sand and dust; the absence of ships for more than six weeks; desertion by birds, porpoises, flotsam and oil slicks; and a "star wheel" in the southern sky that, to our northern eyes, rotated the "wrong" way — clockwise.

Heads of thoughtful sailors and well meaning relatives and friends were shaking when we pulled out of the mud on that December day. We were embarking

on a world circumnavigation with a boat delivered only 19 days earlier (without spars, rigging, pulpit, stern rail or lifelines) that had had all navigational instruments — compass, sextant, timepiece, radio, depth-sounder and all electronic gear — sealed for the duration of the voyage.

It was the first day of winter.

To avoid the perils of an early winter storm, we sailed *Globe Star* from Greenwich, our work and loading base, to Cape May, where we would top off water and fuel tanks and wait for a suitable

weather forecast. Since we had no heat, one major concern was a possible early freeze that could damage water tanks and ruin canned goods before we got the weather we needed to get under way. Without navigation instruments we had to have a reasonably clear day and no adverse winds for a minimum of 24 days so we could gain a safe margin of sea room, 100 miles or so, as a hedge against cloudy skies or strong offshore winds.

The sun was setting as we drew up to the fuel dock at Cape May's Cape Island Marina. A chill wind brought turbulent

frontal clouds from the northwest. The forecast, however, was excellent. Heavy winds would moderate and swing to the southwest and south. We knew the blustery anticyclone would carry with it the clear sky we needed to make a fast getaway from the coast. The forecast made the departure decision for us! We would leave immediately. We threaded our way back out among the lighted and unlighted buoys of Cape May Harbor and felt *Globe Star* lift under North Atlantic swells as she passed through the rock jetties of the inlet.

In the first gale of the voyage, *Globe Star* runs before a breaking North Atlantic sea. The overcast sky prevents us from checking our heading with our guide stars.

As sails were hoisted I was not thinking of the circumnavigation or even of the long sail to Cape Town. Instead, I was concerned with getting safely through the first night and beating foul weather to the Gulf Stream. I could only speculate on what might be going through the minds of my crew — Jeff Herdelin, 23, and George Baldwin, 67. Both were knowledgeable



Photos by Jeff Herdelin

sailors, but neither had any experience sailing without instruments. Would the winter departure and the added uncertainty of non-instrument navigation increase the likelihood of cruising depression that sometimes besets crews and turns cabins into battlefields, or even worse, into silent, hostile cubicles? Health problems had forced two potential crewmembers to withdraw at the last minute. Would any of us succumb to an as yet undiscovered malady? And at what moment would some major flaw unnoticed in a decidedly foreshortened shakedown cruise, burst into view?

But practicality reigned and three sailors, each ridiculously overtired from attending to the endless list of items to be checked getting a brand-new boat ready and provisioned for a year-and-a-half cruise, turned to the matter of a watch schedule for the first night. We decided to rotate, each taking two turns of the hourglass that had been especially blown for the voyage. Each of us had adequate time to reflect on what he was doing and how he had come to be involved. And I'm sure that each wondered whether the stars that burned into his memory that night would indeed guide *Globe Star* all the way around the world and see her home unharmed.

As predicted, the wind backed from northwest to south and lightened. In order to gain the sea room we wanted, we motored. The smooth drone of engine and shaft told us that *Globe Star's* power plant—a three-cylinder, Volvo MD17d—had been properly installed and aligned.

It was midmorning on December 23 when we entered the Gulf Stream, our first goal. Storms would buffet us, but all danger of freezing food and water was past. This made us breathe easier, but there were many items to be taken care of before we could concentrate solely on sailing. Solar panels provided by the Solar Power Corporation had to be secured to brackets mounted on the cabin top, and wired into the separate solar voltage regulator. Small items that had been lumped together and stowed tentatively now had to be sorted and given a permanent place. A ton of provisions that had been loaded quickly in gathering darkness had to be itemized on shelf lists. Electrical connections had to be waterproofed; tools needed oiling. An eating schedule had to be worked out, watches and other routines had to be established, and so on.

When shelf lists were completed, we were pretty well caught up with the leftover, non-sailing jobs. There was time to relax—a welcome relief from the tension that had built during the final months of preparation. The pressure to depart before the onset of freezing weather was not due just to the danger of damage, but to the need to reach Cape Horn at the optimum time of the year, the southern summer. Because overcast skies prevail at

'St. Elmo's Fire and a spectacular display of sheet and bolt lightning ushered us into the vicinity of the Cape Verdes'



Cape Horn, we could not depend on seeing the stars to get our latitude. By timing our arrival to occur during the December solstice, we could verify our latitude by noting the lack of total darkness at midnight. Even the earliest possible spring start would not have assured us of making Cape Horn by December, hence the strong push to leave when we did. A three-month delay would have deferred departure for a year.

The only full-blown storm that we encountered on the 100-day leg to Cape Town came during our fourth week at sea. The onset of the four-day blow came just before daybreak on the heels of a cloudy night, making it impossible to note the direction of the wind in the accompanying squall. Without a direction reference, we chose to wait for a look at the sky rather than set storm sails and make use of the air being lavished on us. It was probable that the wind was from the northwest but we did not want to risk upsetting our dead reckoning. So, two days passed before we were able to get our bearings and get moving again. It proved to be the longest period without sun or stars on the first leg.

St. Elmo's Fire and a spectacular display of both sheet and bolt lightning ushered us into the vicinity of the Cape Verdes. Then, fog was followed by the fine dust and red sand from the Sahara some 500 miles away. The maroon grit not only stained our new white sails, but found its way into the cabin and even got

inside our circuit breaker panel box! For two weeks, visibility was rarely more than a mile and more often a half-mile or less. Even though our estimated longitude did not show us to be as far east as the Cape Verdes, the dust told us we had to maintain a sharp lookout for big, black rocks looming up ahead. It was a tense period, especially at night when our ears strained for the sound of breaking surf. We rehearsed getting the preventer off the main boom and *Globe Star* nosed away from danger. After we arrived in Cape Town and studied daily positions plotted by our ARGOS tracking system, we learned that we had sailed within 60 miles of Santo Antao in the Cape Verdes.

It became a familiar sight in late afternoon to see the sun slowly dissolve in the blue-gray haze 10 degrees or so from the horizon. In the morning the sun gradually took shape from a fuzzy bright spot not unlike a photograph developing in the darkroom. We had looked forward to a few days of romping through the northeast trades, but found them to be weak and variable. During the entire Cape May to Cape Town leg we were never able to put as many as three good sailing days back to back. The going was slow and by the end of the leg we had averaged only 70 nautical miles per day—a disappointing record.

North of the equator we cut across numerous bands of riffled water that looked like gentle tide rips. These were equatorial countercurrents flowing against the main east to west equatorial current—the supplier of tropical water to the Gulf Stream. We had charts showing the speed of the west-flowing current but it gave no hints on how the countercurrents might affect our longitude. In the end the current probably compensated for previous underestimation of our speed in moving east.

As Polaris approached the northern horizon, we began acquainting ourselves with the stars of the Southern Hemisphere—our home for the next year. Because our latitude-finding method requires drawing an imaginary north-south line in the night sky, we had to devise a way of establishing the polar point. The southern sky does not have a pole star corresponding to Polaris, but a line drawn through Gacrux and Acrux, the two pointers of the Southern Cross, to a point 27 degrees beyond them, closely approximates the polar point. (Later in Hobart, Australia, when I was explaining our navigation methods to a Boy Scout troop, they suggested crossing the Gacrux-Acrux line with a line perpendicular to a one connecting Hadar and Rigil Kent and starting at the midpoint between the two stars. This would fix the polar point. The "Cross" soon became our new direction finder.)

But knowing direction didn't help us move a rather heavily laden boat through the doldrums. We were pleased to have a

drifter and a multipurpose spinnaker as we inched our way southward under Orion's Bellatrix, Alnitak and Anilam. Cloud cover was unusually dense for several days and on one occasion when the self-steering vane followed a 180-degree wind shift we were able to correct the heading after noting that a particularly long and heavy bar cloud appeared to shift from the port to the starboard side. At another point, a wall of heavy rain approaching from the starboard side signaled a wind shift; as the rain drenched us we let the boom blow across to port and changed the jib sheets without so much as moving the tiller or altering the heading. Such were the doldrums.

The South Atlantic was a watery desert. From January 25 to March 19 we did not see a single ship in the sea, jet in the sky, nor, after crossing the equator in mid-February did we see birds, porpoises, or flotsam of any kind—not even an oil slick. Our last contact with visible life for a long period was a lone brown shark that inspected *Globe Star's* bottom minutes after George had spent two hours scraping away gooseneck barnacles. Whether "Jaws" homed in on the trail left by George or the barnacles is a matter of conjecture.

Gradually, we worked our way eastward and southward, measuring our longitude by estimating our speed from the wake and our latitude by looking upward to our zenith at night and watching specific stars, at the time of their meridian transits, approach from the south and recede northward. During the day we determined what stars we would look for at night and alerted each crewmember to be on the lookout for those that would make meridian transit during his tour of watch—three turns of the hourglass. Rigel, Spica, Sirius, the planet Jupiter, Antares, Alpha Pyris, theta Centaurii and epsilon Scorpii logged our progress to the latitude of Cape Town. Our method of navigation was parallel sailing, which was universally used before the invention of the chronometer. To find Cape Town, we had to reach its latitude and then sail east until we ran it down.

Before we reached the desired latitude two failures occurred. The first was the ARGOS system transmitter that we carried. We punched in digital weather data daily, which was automatically beamed upward once every minute to be received by a polar-orbiting satellite as it passed overhead. The weather data and location information recorded by the satellite were received and decoded at Toulouse, France, as the satellite passed the ARGOS system's headquarters there. Decoded information was then forwarded to the United States for use by the Weather Bureau. The locational information, although not available to use without a receiver, was offered to anyone interested—families, friends or news media.

Green water and a friendly greeting from a pod of pilot whales signaled our approach to land . . . Africa couldn't elude us much longer

The telltale light stopped blinking on March 1, indicating the transmitter was no longer sending out a signal. We were sure the press would report us missing (it did) but our biggest concern was how our families and supporters would interpret the lack of a signal. Fortunately, we were in an area free of known hazards and had been making good progress. There was no reason for them to suspect disaster, although it certainly had to be considered a possibility. There was nothing we could do to relieve this home-base anxiety, which of course caused some on-board concern. We gritted our teeth and tried to concentrate on getting *Globe Star* to Cape Town.

Much to my surprise, when I called my wife, Blanche (a notorious fretter), upon our subsequent arrival, she said she had not been overly concerned and was expecting a call that very day—March 31! Flabbergasted, I asked why. It seems she had calculated from reported positions the distance we had sailed and then computed the average daily speed up to the time of the transmitter failure. She then divided the remaining distance by the average daily run and came up with an estimated date of arrival!

The second failure was of more immediate concern. One night, as we lay ahull in a glassy but heaving sea, the independent rudder of our vane steerer detached and began banging against the transom. It was held only by a badly twisted aluminum strap that normally connects the end of the vane shaft to the trim tab.

It had to be salvaged at once. This required sitting on the bottom support bracket with safety harness attached to the stern rail. Under the glare of a flashlight I worked with a wrench in each hand, making sure that no parts were let slip, while heaving water drove, externally at least, from my keel to my armpits.

Luckily, the water was warm and, miraculously, all nuts, bolts; washers, parts, wayward rudder and wrenches were secured aboard. In the morning light it was obvious that temporary repairs would be impossible. We would have to hand-steer to Cape Town—an added incentive to find it. The side of the opening in the rudder's cast aluminum end cap had been battered through, releasing the rudder from its solid nylon supporting shaft.

The calm that did in our self-steering rudder was part of the so-called "horse

latitudes" of the South Atlantic. With instruments, we would have dropped several degrees farther south to avoid the high pressure, calm area and then sailed northward as we approached the longitude of Cape Town.

But we could not use this tactic for fear of overshooting our target, so we were doomed to days of worrying a heavily laden boat through very light airs. The period was not without some compensation. There was quiet serenity by day and incredible beauty after sunset, when a ring of pink- and gold-fringed clouds mirrored themselves in the glassy calm that surrounded us. The double image dissolved the horizon, which for three months we had strived so hard to reach and wafted us into a soft, fluid, fantasy where time and space seemed not to exist. Momentarily *Globe Star* and crew had achieved sailing nirvana.

Greenish water in contrast to the normal blue and a friendly, sustained greeting from a pod of pilot whales signaled our approach to shallow, life-filled waters. Africa couldn't elude us much longer. We would get a respite from the long, powerful, southwesterly swells, which for days had made a 40-degree angle with our centerline, given us direction in cloudy weather and rhythmically dumped air from our sails; a respite from peering into the night sky asking ourselves, "Are we under that star?"; a respite from the worry of adequate freshwater and a respite from our consciences, concerned over the anguish we might have caused our supporters.

It was about 2 a.m. on March 30, when George, on night watch, spotted a flashing light on the port bow. Tentatively, we identified it as the light at Cape Agulhas, the southernmost tip of Africa, but we waited about four hours to make positive identification in daylight before starting the 100-mile trip to Cape Town. There was sea and bird life galore as we passed the coastal landmarks. It was a long night paralleling the steep, rocky coast in near gales without the benefit of boat or hand-bearing compass, depth-sounder, radar or radio direction finder. It was without doubt the most dangerous night of the 100-day voyage. We doubled the watch and exercised extreme caution. We had our objective in sight and were not going to let it slip from our grasp!

Winds lightened as we turned to starboard to enter the harbor just after daybreak. Jeff and I relaxed as the sheets eased. George, cautious to the end, clung to his faithful flashlight, even as the sky brightened before the cloudless sunrise. He aimed it in the direction of the Royal Cape Yacht Club, where we planned to ready *Globe Star* for the next leg—Cape Town to Australia.

We had made it. One leg down, three to go.

