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CLASSIC PASSAGES

SOUTHERN INDIAN OCEAN AND SOUTH AFRICA:
Part I. Fast sailing to far-flung islands

by

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For tradewind circumnavigators, the Indian Ocean represents the great divide. Whether one goes up the Red Sea or around South Africa becomes a defining element of the voyage. I say, “We went westabout via the Cape of Good Hope”; George Day might say, “We went westabout via the Red Sea.” The two call to mind different images and sailing conditions, and indeed they translate into two quite different experiences. For at least 12,000 nautical miles, some one-third or more of a tradewind circumnavigation, we saw different countries and experienced different oceans than the Days did aboard *Clover*.

The route around the Cape of Good Hope divides cleanly into three pieces—the southern Indian Ocean portion from the top of Australia to the Mascerene Islands off Madagascar, the South African portion from Réunion island to the South Atlantic high pressure system roughly centered over Saint Helena and the Atlantic portion from the South Atlantic high to the Caribbean. Sailing conditions in the first are dominated by the southern Indian Ocean’s reinforced trades, in the second by the succession of low pressure systems crossing the subcontinent and in the third by the South Atlantic high and the doldrums near the equator. Part I will discuss the southern Indian Ocean transit; Part II will consider crossing the Agulhas current and rounding the Cape of Good Hope, and a sidebar to Part II will describe the much less challenging South Atlantic.

Evans and I, like many sailors before us, found the southern Indian Ocean route to be rugged, demanding, windy and wet, but fast. The isolated but prosperous islands we visited along the way combined a surprisingly diverse and harmonious array of eastern cultures with innovative economic activities. Once the decision is made to transit the southern Indian Ocean, the voyage itself can be considered in two parts: Australia to Cocos Keeling and Cocos Keeling to the Mascerne group.

Wind, waves and weather

Routes and timing across the southern Indian Ocean are defined by the planetary wind circulation which governs every ocean, the seasonal monsoons and the cyclone season. Cyclone season runs from November to May, with the highest frequency of cyclones reported between December and April. A November cyclone cannot be discounted, however, and as there are no hurricane holes on the southern Indian Ocean islands, most cruisers plan to arrive in South Africa safely outside of the cyclone belt no later than the end of October. Boats leaving from southern Australia or New Zealand in late April after the South Pacific cyclone season has ended will be hard pressed to reach the Torres Straits much before June. In the five months from June to October, then, the almost 6,000 nautical miles from the Torres Straits to the east coast of South Africa must be transited. Unless boats choose to winter over in South Africa, they will want to be well away into the South Atlantic before the following March when the first of the winter gales begin. Thus, storm seasons require boats leaving from New Zealand or Australia along the southern route to sail some 14,000 nautical miles in just about a year.

The major monsoon seasons in conjunction with the normal planetary air circulation governs the weather in the Indian Ocean. From May to September, when boats transit the southern Indian Ocean, the Intertropical Convergence Zone (ITCZ) that defines the doldrums moves northward and becomes a large, low pressure, almost stationary air mass over Central Asia. There it produces southwest winds, frequent rain squalls, and occasionally violent thunderstorms in the northern Indian Ocean, but leaves the southern Indian Ocean free of doldrums-like conditions up to and beyond the equator. During these months, a wide belt of southeast trades extending from Western Australia to Madagascar and the coast of Africa forms on the north side of very strong high pressure around 30°S produced by a succession of east moving anticyclonic systems. Between July and September, this belt becomes continuous with the southeast trades of the South Pacific, creating an uninterrupted band of moderate southeast winds in the months when cruisers are moving from Pacific to Indian Ocean waters.

In the central part of the southern Indian Ocean, the high pressure systems to the south and the low pressure of the southwest monsoons to the north both reinforce the normal tradewind circulation to create strong to gale-force southeast winds for days and weeks on end. These strong winds over the stern may well be the reason the Indian Ocean was termed “the Sailor’s Reward” back in the square-rigger days. Unfortunately, in the eastern half of the southern Indian Ocean they are most often coupled with a large cross sea—a sizable south or southwest swell originating in distant Southern Ocean gales. These create uncomfortable conditions on most modern boats as the wind-driven waves on the stern reinforce or conflict with this large swell on the beam. The seas tend to be roughest in the vicinity of Cocos Keeling and to moderate somewhere around 90°E.

In the western part of the ocean, south of Madagascar, the weather becomes dominated by the succession of low pressure systems moving off the coast of South Africa. These systems dictate weather for the entire southern part of the African continent and affect cruisers from fifteen degrees east of Durban to ten degrees west of Cape Town. These weather patterns will be considered in detail in Part II.

The primary circulation of the southern Indian Ocean, as in the South Atlantic and South Pacific, flows counterclockwise. Unlike the other oceans, where an equatorial current exists both north and south of the equator, only one equatorial current exists in the Indian Ocean due to the effects of the seasonal monsoons. This westward flowing current is generally located between 6 and 10°S and can be quite strong—we experienced up to 3 knots between Australia and Cocos Keeling. A westward flowing current over the top of Australia has been documented by many boats, though it seems to vary in strength and location from year to year.

The infamous Agulhas current acts to circulate tropical water into the higher latitudes on the western side of the ocean. It exactly mirrors the Gulf Stream by acting as a tropical river cutting through the colder waters of the temperate latitudes, in this case southward past Madagascar and along the east and then south coast of South Africa at least as far as Port Elizabeth. It also produces the same extreme weather and wave conditions characteristic of the Gulf Stream and has been responsible for many shipwrecks and lost vessels. Again, the Agulhas current will be covered in Part II as a major element in the timing and route around South Africa itself.

The reinforced trades make for fast sailing, with most boats crossing the same time we did averaging close to hull speed from north of Australia to Réunion Island under Madagascar. The heavy and confused seas, particularly east of 90°E, can make life aboard quite uncomfortable. Every ocean has a personality and small boat voyagers have always found these waters a challenge. There was no love lost between any of the dozen boats we crossed with and this ocean. Kim, our friend on the 37-foot steel ketch, *Skerryvore*, summed it up succinctly. “She’s a right bitch of an ocean,” she said, “but boy did we sail fast.”

Australia/Indonesia to Cocos Keeling

Most boats planning to do the southern Indian Ocean route leave from Darwin or Bali in June or July with their first stop at Christmas Island, a territory of Australia located less than 300 miles due south of Jakarta and 1,475 nautical miles west of Darwin. After a few days on this small island, they continue on to Cocos Keeling, an island atoll and also Australian territory, another 500 nautical miles to the west. Australian visas are required to stop at either island. These visas must be multiple entry not single entry—a French singlehander who arrived in Christmas Island the same time we did with a single entry visa was allowed to take on water, then sent on his way to Rodrigues Island, 2,500 nautical miles away.

The continuous band of southeast trades from the Indian Ocean to the Pacific in these months makes for generally pleasant downwind sailing, though the winds often tend to diminish at night. We experienced a knot or so of favorable current from Darwin west which helped us to make excellent daily runs—an average of 141 nautical miles of just about 6 knots on our 30-foot waterline.

Through the Arafura Sea over the top of Australia and the Timor Sea south of Indonesia, water depths average several hundred feet, waves run short and steep, and the water color tends toward a milky blue. Like many people we have since talked to, we experienced several nights of strange fog-like conditions where the phosphorescence in the sea turned it an iridescent white, and a milky white, cloud-like incandescence blocked the horizon and seemed to envelope us. Yet we could see across the water, until the bright, white water merged with the equally bright sky at a distance impossible to judge. We've never heard an explanation of this phenomenon, but we've met enough people and read enough accounts of it to be certain it is far from uncommon in these waters.

If sailing from Darwin, several hazards lie along the rhumb line path. Ashmore Reef, little more than half a coral atoll in the middle of the ocean, lies near several large oil platforms around 12°S and 125°E. The platforms are now supposed to be shown on the charts of the area, though they were not when we made the trip. Nothing can be more disconcerting at sea than to see what appears to be a city where the chart shows only open ocean.

Around 128°E, the bottom falls away, the sea turns cobalt blue, the chop becomes a real swell and open ocean tradewind conditions prevail. We started experiencing an uncomfortable beam sea around 114°E, just after clearing the western edge of the Australian continent. The reinforced tradewinds began around the same place, and with the strong equatorial current we managed 172 nautical miles in one lovely day. Over the 500 miles between Christmas Island and Cocos Keeling, still in the equatorial current, we averaged 177 nautical miles a day or 7.4 knots—our best passage average ever.

Christmas Island has one anchorage at Flying Fish Cove, an open roadstead subject to swell. Until recently, the island's economy depended on the rich phosphate deposits left by nesting shorebirds over many millennia. The major feature of the anchorage is the long docks where the phosphate is loaded onto bright orange tenders which carry the material out to the waiting freighters. These tenders are stored out of the water along a high pier when not in use, a testament to the ferocity of the swell in the anchorage in the winter months. The officials come out in one of these tenders to clear each newly anchored yacht and welcome their crew to the island.

On all of the Indian Ocean islands, Europeans claimed the land then populated it first with slaves and then with indentured servants who supplied the backbreaking labor required to build an economy. The British annexed Christmas Island in 1888 for its rich phosphate deposits, then imported Malay slaves followed by indentured Chinese servants to excavate and process the mineral. To this day, blaring loudspeakers calling faithful Muslims to prayer at 4:30 each morning in Kampong, the Malay community just off the anchorage. Above Kampong, literally, the Chinese community, Poon Sang, with its noodle shops and Asian grocery stores, perches on a plateau surrounded by steep cliffs full of nesting sea birds. Throughout the island, tiny Buddhist temples made of concrete blocks lie tucked away in clearings in the rain forest almost overgrown by the lush vegetation.

Christmas Island now belongs to Australia. The "Grade A" phosphorous has all been mined, and the rest is not commercially viable. However, the government stockpiled six years' worth of unprocessed mineral, and the processing and shipping of that has kept the island's economy relatively robust. In preparation for the future, a massive resort/casino complex has been built on a formerly remote part of the island to serve the Indonesian upper classes. The investors, a group of Australians and Indonesians, recouped their entire investment in the casino's first year of operation.

Cocos Keeling existed as a virtual fiefdom for the Clunies-Ross family who were ceded the island by Queen Victoria in 1814. John Clunies-Ross brought with him his family and a group of Malay slaves whose four hundred descendants now comprise the permanent population. Cocos Keeling actually consists of two atolls separated by thirty miles. North Keeling lacks a pass through its reef, so it remains uninhabited and has been designated a marine park. On Cocos or South Keeling, the three largest islands create a rough horseshoe open to the north and contain most of the atoll's 5.5 square miles of land. They enclose an oval lagoon some eight miles long and up to six miles wide. Boats anchor off Direction Island in the northeast corner of the lagoon. Site of one of the telegraph stations which girdled the globe and connected Britain's far-flung empire until the second half of this century, Direction Island now stands vacant except for Sunday and holiday outings from the other islands and visits from yachts crossing the Indian Ocean. Across the lagoon, West Island serves as an Australian air base of considerable strategic importance in the politically unstable region of Indonesia and Southeast Asia. The atoll's Malay population lives on Home Island, a little over two miles south of Direction Island.

Boats arriving at Cocos Keeling are asked to anchor near a buoy just inside the well-marked entrance to the lagoon. The officials come over from West Island to clear visiting yachts, and it may take an hour or more for them to arrive. Once aboard, they are courteous, friendly and efficient. After the formalities have been completed, boats are allowed to anchor off Direction Island, but are asked not to wander around the lagoon in order to respect the privacy of the Malays on Home Island.

Many boats find it difficult to move on from this delightful atoll. While we were there, we shared the lagoon with a dozen other boats and a real community developed. At night, cruisers gather on Direction Island for bonfires and barbecues. Visits to Home Island offer glimpses into a small, self-contained Moslem community, and insights into the family that held these people as slaves into the 1970s. A twice weekly ferry to the civilization of West Island allows cruisers to handle provisioning, mail and phone calls before returning to their idyllic island paradise. But as the season moves on, boats start to leave. A few head for the Chagos archipelago, another atoll in the center of the Indian Ocean, or for Sri Lanka and the Red Sea, but most are leaving for Rodrigues and Mauritius, 2,000 bouncy, wet miles to the southwest.

Cocos Keeling to the Mascerene Group

Eric Hiscock in *Around the World in Wanderer III* offers the following description of this passage between Cocos Keeling and Rodrigues Island across the middle of the southern Indian Ocean:

> "On 18 August we left Cocos with many regrets… Scarcely had we dropped the atoll out of sight astern than the wind, which had been only fresh during the past two days, piped up to a hearty force 8, a fresh gale, and the sky clouded over. We close-reefed the mainsail, handed the staysail and hove-to. After four days had passed, and the weather still showed no sign of improvement, we realized that we might have to wait several weeks for better weather. So we took in the mainsail, a difficult and sometimes dangerous job which we do not like undertaking when the sea is as rough as it was by then; in its place we set the trysail and then gingerly bore away on course.
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> To our relief we found that under her very small sail the yacht showed no sign of dangerously disturbing the overtaking seas, but the next fifteen days seemed like a nightmare of continuously bad weather... At no time did there seem to be any serious danger of being pooped, but because the wind and sea were always well out on the quarter the helmsman was never dry day or night, for again and again crests broke aboard over the canvas dodgers to flood the cockpit…
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> We were surprised at such continuous strong winds, for the pilot chart indicated that force 4 was the average strength to be expected at that time of year. But on reading such accounts as we had on board with us of the few other small-boat voyagers who had been that way before us, Slocum, Voss, Pidgeon, Macpherson, Bernicot and the Holmdals, we learnt that they also had experienced similar conditions. Slocum, who was never one to exaggerate, described the weather as 'rugged'; Pidgeon on his second crossing said that he was frequently up to his waist in water at the helm; MacPherson made almost as much use of his trysail as we did, and the Holmdahls reckoned the wind averaged force 7 the whole way across the Indian Ocean." *–Around the World in Wanderer III*, pp. 208-210

We made the almost 2,000 nautical mile passage in thirteen and a half days; a 24-foot sloop took sixteen and a 40-foot BOC-style cutter did it in eleven. All of us were sailing close to hull speed under shortened sails for the majority of the trip. We spent a third of the passage under yankee alone. We were glad the passage was fast because it was also uncomfortable with the boat corkscrewing around in the confused swell and beam seas sweeping into the cockpit every hour or so. Halfway across I told Evans I was tired of living in a front loading washing machine. We were very happy to arrive in Rodrigues, the first of the three Mascerene islands located under the shoulder of Madagascar.

Rodrigues, Mauritius and Réunion share a common French colonial heritage. Réunion, the furthest west of the three, remains French territory, while Mauritius and Rodrigues share an independent government. None of the islands require visas for Americans or Europeans. Their colonial history bequeathed all three islands a cultural melange made up of black Africans, the descendants of slaves; Indians, the descendants of indentured servants brought when the slaves were freed; and Malays and Chinese, who flocked here to escape the poverty of their home countries and make their fortunes. In addition, small populations of Europeans still live on each island, the descendants of the old colonial administrators.

Mauritius and Rodrigues, gained their independence in 1968. On these islands, Hindus, Muslims, Roman Catholics, Protestants, Buddhists and animists live side by side peacefully under an informal policy of "harmonious separatism." Most inhabitants speak Creole, but French predominates in the media and English in school instruction. Ten years ago, the islands faced an economic crisis when the market collapsed for their major export, sugar cane. The resulting 42% unemployment forced the Marxist government to re-examine their policies. They opted for the capitalistic solution of opening up the country to tourism and to offshore investment in the form of piecework factories for brand name clothing—Nike, LaCoste, Esprit, etc. Both islands now enjoy unemployment of less than 2% and a booming economy with capital continuing to flood the country.

Rodrigues, the furthest east of the Mascerene group and the island where we made landfall after our boisterous passage, has one tenable anchorage at Port Mathurin. Little more than a small boat harbor a decade ago, it has now been improved with a breakwall and a quay into a well-protected, easily entered but small freighter port. Boats anchor off until cleared by Customs, then tie stern to the quay. When the weekly freighter arrives, it requires most of the small harbor to maneuver. Visiting yachts are forced to pick up their anchors and stay out of the freighter's way until it is securely docked.

Mauritius is the only one of the southern Indian Ocean islands where visiting yachts can actually do some cruising. Boats clear in at Port Luis on the west side of the island. Officials come to the boat once it's tied up to the wall on the port side at the head of the harbor. This large freighter port is easy to enter but unattractive—dirty and unsafe. Once cleared, most boats immediately sail around to Grand Baie on the north side of the island. `Two dozen fancy hotels and at least fifty restaurants surround this magnificent emerald-green bay studded with black volcanic boulders. Most boats anchor off the Grand Baie Yacht Club which welcomes the crews of visiting yachts and offers them the run of their facilities. Other anchorages exist on the south and west coasts of the island, and a few yachts will venture out of Grand Baie to go exploring before continuing onwards to Réunion, the last island before the passage to South Africa.

On Réunion, Port des Galets located on the northwest corner of the island offers the only real protection for yachts. This completely manmade harbor boasts the only marina in the Indian Ocean. Customs is located on the quay, though they seemed completely uninterested in clearing us in or out.

While Rodrigues and Mauritius are high volcanic islands surrounded by a fringing reef, Réunion lacks the coral reef but has a much more rugged interior. Within two or three miles of the water, the land leaps from sea level to 10,000 feet in a series of dramatic volcanic peaks. While in Réunion, we hiked inland to the Cirque de Mafate, a remote mountainous area accessible only by foot. For several hours we traversed a knife-edged ridge with drops of a mile or more to either side of us. On one side, the blue of sea and sky merged beyond green, fertile plateaus dotted with white houses. On the other, row after row of jagged red ridges almost devoid of vegetation rose straight up from the valley floor.

From Réunion, the next step across the Indian Ocean takes most boats to South Africa. This passage will be discussed in detail in Part II.

We found the southern Indian Ocean the most challenging of the oceans we crossed during our circumnavigation. Over the course of three months sailing from Australia to South Africa, we spent two days at sea for every day ashore. But the islands we visited offered us a tantalizing glimpse of diverse cultures ranging from African through Indian and Malaysian to

Chinese. Their breathtaking beauty more than made up for the paucity of anchorages. And our fast passages made the many ocean miles sailed rewarding if not always pleasurable.