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To Build a Link—The Seabees at Diego Garcia

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On 9 March 1971, the Navy's Seabees waded ashore at the remote island of Diego Garcia in the middle of the Indian Ocean to begin a quietly-noted, but highly-significant undertaking—the building of a U. S. Navy Communications Station at this strategic location. Up to this point, Diego Garcia was a relatively unknown tropical island paradise whose copra plantations still quietly flourished, as they had for over 200 years. But times change, and so did Diego Garcia in 1971.

Diego Garcia, the largest of 52 islands in the Chagos Archipelago, lies 7°15' south of the equator, some 400 miles south of the British installation at Gan, Maldives Republic, and 1,240 miles from the commercial port of Port Louis, Mauritius.

The island is a classic coral atoll stretching in a distorted horseshoe configuration 38 miles from one end to the other. Diego Garcia is especially noteworthy because it has one of the most continuous land rims of all coral atolls in the world. This long, narrow land-mass encloses a coral studded lagoon seven miles wide by 13 miles long, and

with depths varying to 100 feet; the lagoon is open to the north with natural navigable channels guarded by three islets. Live coral reefs and foaming surf encompass the island. The 5,700 acres of land is low lying, with most of the surface only three to five feet above sea level, but an occasional overgrown dune line rises to 25 feet. The width of land varies from somewhat over a mile at its northwestern point to only 100 to 150 feet at the southern end of the island. The island is covered with lush green vegetation, varying from herbaceous grasses to coconut trees over 100 feet high. Much of the vegetation, as well as the wildlife now on the island has been introduced since its discovery over 400 years ago. The greatest ecological impact, however, has occurred during the last 200 years of copra plantation development.

Lying in the belt of the southeast tradewinds much of the year, the island has historically been a favorite mid-ocean stopover for sailing vessels. The climate is wet, with an average of 102 inches of rainfall a year, but pleasantly tropical. Except in confined areas, out

of reach of cooling ocean breezes, the temperature is usually in the 80s during the day, and the nights are relatively cool and comfortable. A warm but agreeable climate, as well as a thin, fertile soil have provided visitors and islanders alike with more than adequate food and water through the centuries.

Initial discovery is credited to the Portuguese mariners searching the routes to India, who gave the island its name as early as 1532. It remained, however, for the French, inspired by a rising British interest in the area some 250 years later, to lay sovereign claim to the island and colonize its flat jungle-covered land mass. French families were given grants and, with the help of slaves brought over from Africa, copra production became the island's mainstay. With the political-territorial changes brought by the Napoleonic Wars in the early 1800s, the island of Mauritius (then called Ile de France) became British and with it, its distant dependent, lonely Diego Garcia. The change appears to have had little impact on the island because, other than the flag, little has changed. British administration was



U. S. and British flags fly above the construction site of the joint communications station, with the builder's flag—NMCB-40—just below.

established, but the language, customs, and names remained French.

With the advent of steamships in the late 1800s, Diego Garcia became a valuable coaling station—remnants of imported coal are still found scattered on the island. But, well into the 20th century, the sailing ship was the lifeblood of Diego, and many left their bones and ballast on the reefs, brought to grief by an unpredictable wind or an unexpected current. Appropriately enough, when the last of the plantation cargoes departed the island in October 1971, it was carried under full sail on the picturesque 70-year-old sailing ship, *Isle of Farquabar*.

The year 1914 and the outbreak of World War I brought a dash of excitement to the island as the German raider-cruiser *Emden* used the island's sheltered lagoon as a haven. It was her last port of call before she was finally brought to bay by HMS *Sydney* and sunk on the reefs around Cocos Island. In 1971, there were still plantation men who recalled vividly being pressed into service by the Germans to cut wood for fuel during their unwelcome stay.

In World War II, the island was used as a British seaplane base, which was fortified with two naval guns guarding the lagoon entrance. The guns, tended for years after the war by visiting British ships, finally rusted into rigidity, but still keep watch faithfully as the tidal waters surge in and out of the lagoon; and a seaplane wrecked in a 1944 storm still sits forlornly on the beach by the old plantation where the British military had its headquarters.

By the early 1960s the British government had made the determination to create the British Indian Ocean Territory (BIOT) an island political entity, thus wisely preserving an assurance of sovereign control in the Indian Ocean. In November 1965, the British Indian Ocean Territory, including islands in the Chagos Group, was officially formed. Mutual defense discussions between the United Kingdom and the United States recognized the military potential of Diego Garcia in the BIOT, and in December 1966 a 50-year joint development use agreement was consummated. The first practical use of the agreement was authorized by Congress in the 1971 Military Construction Appropriation Act, which provided for the construction of a joint U. S./British Naval Communications Station on Diego Garcia. Upon completion, the facility will close a gap in the communications link between Harold E. Holt Station in Australia and Asmara in Ethiopia.

In an amphibious operation, strikingly similar to the Seabee construction during the Pacific island-hopping days of World War II, Naval Mobile Construction Battalion 40 went ashore in March 1971, supported by USS *Charleston* (LKA-113), the USS *Monticello* (LSD-35), and the USS *Vernon County* (LST-1161), for the first step of a major construction effort. Moving with dozers and scrapers into the jungle, the Seabees rapidly carved the first traces of roads and airfield. By 25 March, only five days after arrival, the island's communicators were in a position to send out their first message to the world:

In six little vans nestled under coconut trees,

With six little gennys buzzing like bees,

Twenty-two men in Seabee greens,

Worked three days eating but pork and beans,

Gave to NavCom its life-long dream,

Round world communications as smooth as cream.

By July 1971, less than four months after the first Seabee came ashore, a bustling naval complex had been established. The island then boasted a coral-soil cement runway 3,500 feet long with 1,000-foot overruns capable of taking C-130 aircraft, a construction camp complete with church and saloon (the longest, wettest bar in the Indian

Ocean), a fuel farm, a beachhead port facility, a coral aggregate processing facility, a concrete batch plant, and, in a circus tent, "the best chow hall in the world."

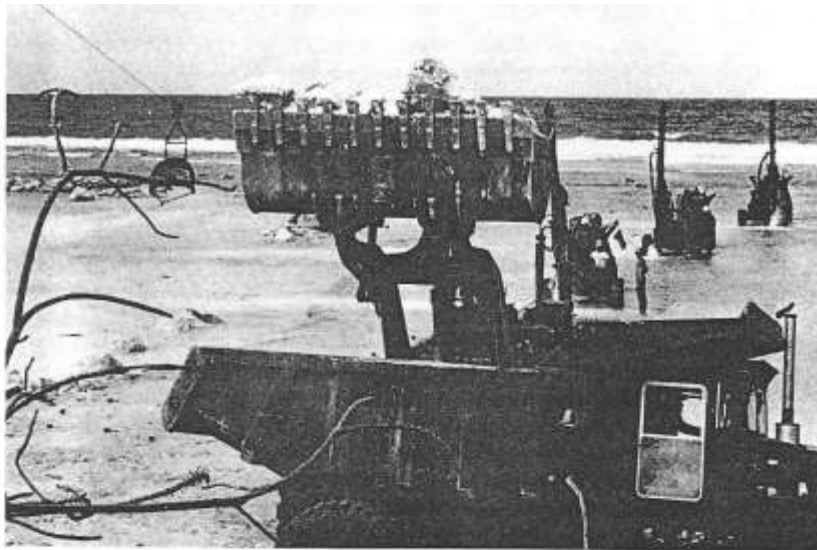
On 19 July 1971, the first C-130 aircraft appeared in the dawn of a cloud-covered sky, circled the island, and made a perfect landing. The arrival of this U. S. Air Force plane marked the attainment of the first important milestone. Until this point of time, all personnel, material, equipment, and mail made a five-or-six-day sea transit from ports on the periphery of the Indian Ocean to Diego Garcia. Now, the air link was established and the incorporation of the U. S. Air Force into the logistics program made the project a joint Service effort. Rapidly following this, agreements were developed with both U. S. Air Force and U. S. Army activities, and invaluable support was obtained for living, as well as for construction commodities. Excellent quality fresh fruits and vegetables were an immediate morale boost.

Upon the operational completion of the interim runway, the station ship, USS *Graham County* (LST-1176), was released. This ship, like her predecessor, the *Vernon County*, two months earlier, had provided shuttle support service in continuous runs across the Indian Ocean. The varied assistance provided by these workhorses of the amphibians was indispensable to the project. Hauling everything and anything, including a 50-ton crane from the United States, sacked mail, bags of cement, assorted "groceries," and seasick, green-garbed Seabees, the arrival of the Station "T" was always a welcome sight at the island.

The accomplishment of the highly successful "pioneer phase" of the Diego Garcia construction, attests the effectiveness of an extraordinary planning and logistics effort involving all factions of the U. S. Navy. Under the direction of a CNO special project group, units were assigned and tasked to a common team effort. The team included units from both the Pacific and Atlantic Fleets—the *Vernon County*, *Graham County*, *Monticello*, *Charleston*, and the USS *Anchorage* (LSD-36); detachments of Cargo Handling and Port Group personnel; a detachment from Amphibious

Construction Battalion Two; a Medical Unit Surgical Team (MUST); Air Transportable Communications Unit (ATCU) 4; and many offices throughout the Navy establishment. In addition, a special unit termed the Logistics Support Component was formed and attached to the Island Command to provide those functions not normally inherent in a Mobile Construction Battalion, such as fuel farm and air field operations. This component has a supply corps officer as officer in charge and ratings ranging from fuel technicians to boatswain's mates. The effectiveness and responsiveness of this total team effort was highly impressive.

The operational organization which was established to construct the Diego Garcia complex is probably without precedent. Composed of a broad range of Fleet talent as well as Seabees, it is geared for an independent island organization to support a primary construction mission. For continuity, the chain of command and support during the construction stage will remain with the Atlantic Fleet, even though the line of Fleet responsibility for actual operations on the island is assigned to the Commander of the Atlantic Naval Construction Force. On the island, the overall U.S. naval authority is the island commander, a hat worn by the senior Seabee battalion commander deployed to the island. All other units on the



The hard coral of the outer reef was "mined" to supply the aggregate for concrete, concrete block, and compacted fill for the construction job, the author notes. Seabee drillers bore into the surface of this coral and fragment the coral, then hauled it away for crushing and processing.

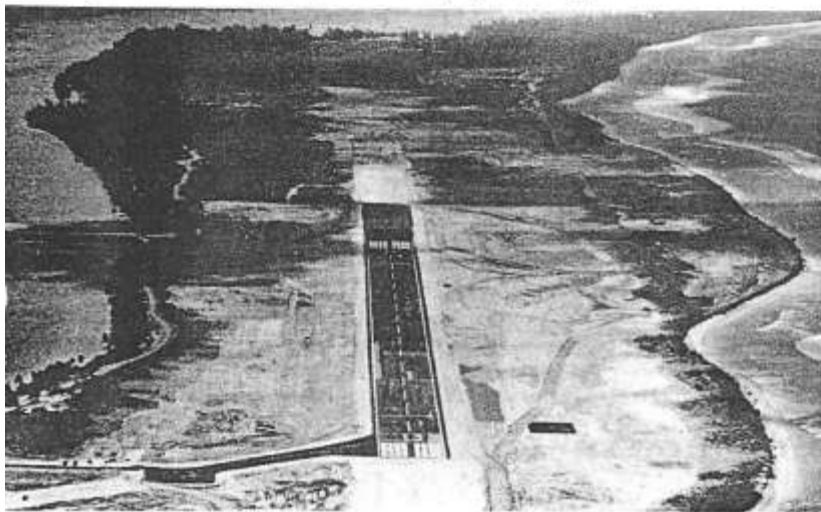
island, with few exceptions, are subordinate to him militarily and operationally. These units include the logistics support component, which operates the airfield, harbor operations, fuel farm, ship stores facilities, clubs, and recreation activities; the Air Transportable Communications Unit, which provides both local and external communications service; and Cargo Handling and Port Control Group detachments, which handle ship and aircraft cargo. These are in addition to the Seabee units for the actual construction. Exceptions are a resident officer in charge of construction, reporting directly to the Atlantic Division of

Naval Facilities Engineering Command for engineering matters and the United Kingdom Representative for matters pertaining to British sovereignty on the island.

In July 1971, with the first priority requirements of interim airfield and construction camp essentially accomplished, emphasis shifted to the permanent facilities that would be the future Communications Station. Ground was broken at the transmitter site in July and at the receiver site in August. A warehouse and cold storage building and the power and desalinization facility were started in September. Large-scale earth-moving operations pushed a compacted coral port-of-loading causeway a half-mile into the lagoon, and moved ahead on the clearing and construction of the runway to permanent 8,000-foot length. The arrival of an additional detachment of Seabees from NMCB-71 in October expanded the scope of construction to begin work on additional support buildings in the permanent industrial area. All construction is of high quality masonry and reinforced concrete, employing many innovative methods of construction.

The logistics pipeline to the island is some 11,000 miles and requires a month's transit time. During the construction phase in the next few years, essentially all construction support material and supplies must come the long route from continental United States. For personnel and priority items, such as mail and equipment repair parts, the

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time was greatly shortened by the completion of the C-130-capable airfield. Also, for fresh fruits and vegetables, and ship's store items, the opening of an air link was a great morale booster. Much material, however, must still come the long route by ship.

The island does provide two essential construction ingredients—water and aggregate. The primary potable water supply comes from three 100,000-gallon-per-day, barge-mounted distillation units drawing water from the lagoon. At present, two of the units float in the lagoon, and one has been set up on the beach for greater stability; although the lagoon is naturally sheltered by the island, storms from the northeast to southeast are sufficient to inundate the barges, break moorings, and drive them up on the beaches. Supplementing this manufactured water was the development of fresh ground water for industrial use and as a backup reserve domestic supply in the event of distillation unit failure.

As important as fresh water, to a major modern construction effort, is a ready supply of good aggregate. Through an unusual operation the hard coral of the outer reef supplies the aggregate for concrete, concrete block, and compacted fill for the construction job. Working at low tide around the clock, with stingrays and sharks for company, Seabee drillers bore into the surface of this coral shelf and fragment the coral into manageable-size rock. This rock is then pulled ashore through the surf by

a long dragline and hauled away to a crushing and processing plant. The outer reef coral, tempered by the vigorous surf, has more than met requirements of strength and quality.

There was a brief five-month overlap as the copra plantation phased out and the Seabee construction phase got underway. On 6 October 1971, the plantation operation was officially closed by the BIOT government.

Private yachts made frequent appearances and brought interesting visitors during the months from May through September as the dependable southeast tradewinds carried them westward. The people in these vessels were an intriguing assortment of adventurers, ranging from a Spaniard sailing around the world alone in a 26-foot boat to a fantastic Chinese junk with a five-man crew, and sporting red sails, carved teak woodwork, and gilded dragons. The island is, however, officially closed to private persons, a fact not yet well known to the private yachtsman. General island command policy is to permit a minimum rest period and provide emergency assistance and supplies as necessary to permit a safe voyage to the next port of call, usually in the Seychelles or the coast of South Africa.

The recreational pursuits on the island, especially in the earlier days, tended to concentrate on the natural opportunities of an unspoiled tropical island; shell collecting on virgin reef, fishing in plentiful waters, beachcombing on miles of unpolluted beach, scuba

and skin diving among the fascinating fish and corals of the reefs, and sailing in the blue waters of the lagoon. As the camp developed, so have the recreational facilities. Softball, volleyball, basketball, and horseshoes afford welcome off-time diversion. For those of more poetic instinct, the tropical beauty of the island is unmatched. The sunsets are among the most beautiful in the world; the stars, ruled by the Southern cross, are innumerable and reach to the horizon in the clear air.

The growing presence of the Soviet Navy in the Indian Ocean was readily apparent to the men on the island, as Russian ships frequently appeared on the horizon. On the island, we frequently wondered if their progress reports on construction compared with our own. Certainly our unexpected activities must have caused more than a little confusion to them from time to time, as when two Soviet ships were unexpected, but not unwelcomed, sightseers at Seabee Fourth of July celebrations, which featured dynamite explosions with much spray and smoke on the outer reef.

When completed, Diego Garcia island will have an austere, but high-quality communications station built to last the 50 years of the agreement. This joint U. S.-U. K. facility, scheduled for completion in the next two years, will be manned by some 250 American and about 30 British personnel, quietly serving in one of the U. S. Navy's remote but important outposts.