

East Timor: A Case Study in C4I Innovation

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Introduction

U.S. involvement in East Timor is a success story of peacemaking and country-rebuilding. The United States Pacific Command (USPACOM) and U.S. Forces continue to play a critical role in the international effort to assist the people of East Timor. East Timor is more than 5,600 miles from Hawaii and another 3,000 from locations in CONUS where many of the U.S. Forces that provided communications support were based. Timor is the Malay word for Orient; it is part of the Malay Archipelago, as shown in Figure 1, and is the largest of the easternmost of the Lesser Sunda Islands. The population is 90 percent Roman Catholic, 4 percent Muslim and 3 percent Protestant.

East Timor was a Portuguese colony for more than 400 years until 1974, when Portugal sought to establish a provisional government and popular assembly to determine the future of East Timor. Civil war broke out between those who favored independence and those who advocated integration with Indonesia. Portugal withdrew when authorities were unable to maintain stability. Indonesia intervened militarily and integrated East Timor as its 27th province in 1976. The United Nations and the international community did not recognize this integration and both the U.N. Security Council and the General Assembly called for Indonesia's withdrawal, but for nearly 20 years little action was taken. During this time the East Timorese lived under threat of death at the hands of the occupying Indonesian military. In June 1998, Indonesia, prompted by pressure from the U.N. General Assembly, proposed a limited autonomy for East Timor within Indonesia. The two governments entrusted the Secretary-General with organizing and conducting a "popular consultation" to ascertain whether the East Timorese people were in favor of special autonomy within the Republic of Indonesia.

To carry out the consultation, the Security Council, by resolution 1246 (1999) authorized the establishment of the United Nations Mission in East Timor (UNAMET) June 11, 1999. On voting day, August 30, 1999, 98 percent of registered voters went to the polls — 78 percent rejected the proposed autonomy in favor of full independence. Immediately following the announcement pro-Jakarta militia groups aided by Indonesian armed forces began a campaign of violence, looting and destruction. Many East Timorese were killed and as many as 500,000 were displaced from their homes. Indonesian authorities did not respond effectively to end the violence. The Secretary-General and Security Council undertook intense diplomatic efforts to press Indonesia into action. International pressure mounted.

Finally, the U.N. Security Council voted unanimously Sept. 14, 1999, to authorize an Australian-led International Force East Timor (INTERFET) under Chapter 7 of the U.N. Charter. U.S. Forces, in support of OPERATION STABILISE (as the Australians called it), began deploying into Darwin. Brig. Gen. Castellaw, 3rd Marine Expeditionary Force on Okinawa, Commander of the U.S. Forces INTERFET (USFI) arrived Sept. 17, followed by the USCINCPAC MSQ-126 with 18 personnel Sept. 19.



Figure 1.

Communications support provided by U.S. Forces played a pivotal role in the success of the U.N. mission in East Timor. The U.S. military's mission was to provide communications and intelligence planners, as well as ships and helicopters to move troops and equipment. The tyranny of distance, that is a constant factor in planning in the Pacific theater, was a distinct disadvantage to finding a solution to restore peace and a stable independent government to East Timor. The one saving grace of the geographical circumstances was the proximity of Darwin to East Timor and its capital, Dili. Darwin was used as an intermediate staging base and the location of the Commander U.S. Forces INTERFET headquarters. Essential to the success of our mission was the transition from military to a commercial solution for communications support.

The entire international force was comprised of more than 8,000 military members from 15 different countries including approximately 5,000 U.S. military, most of which were stationed offshore on ships. U.S. ground forces numbered about 300. At the height of the crisis, 40 different United Nations and humanitarian agencies were providing support. The timeline, shown below, illustrates significant events in East Timor's quest for independence and coalition assistance.

- 05 May 99 - Indonesia agrees to hold referendum in August
- 11 Jun 99 - UNAMET is established
- 30 Aug 99 - East Timorese reject autonomy via democratic election
- 31 Aug 99 - Violence erupts for the next several days
- 31 Aug 99 - USFI Liaison officers deploy to Brisbane
- 11 Sep 99 - Planners deploy to Brisbane
- 12 Sep 99 - Indonesian President requests international peacekeepers
- 15 Sep 99 - U.N. Security Council authorizes INTERFET
- 15 Sep 99 - Establishment of U.S. Forces INTERFET
- 18 Sep 99 - U.S. Forces Darwin HQ established
- 27 Sep 99 - COMUSF INTERFET Dili HQ established
- Feb 00 - U.N. Transitional Administration East Timor assumes responsibility for peacekeeping operation

C4I Communications

The area of operations presented many challenges for the communications units. Five-hundred miles separated Darwin (ISB) and Dili (FSB). When the first servicemembers arrived, East Timor lay in ruins, there was little infrastructure of any kind remaining in



Figure 2. CINCPAC MSQ-126 Fly Away Command Post. The MSQ-126 can deploy via (1) C17, (1) C5 or (4) C130s. It can support a staff of 30 with the full range of DISN services.

Dili or the outlying areas due to the looting and arson, which had occurred. Almost total destruction of the infrastructure included electrical and sewage disposal systems. Most of the buildings had been burned and/or gutted of fixtures. (Within weeks U.S. Forces began to see the city recover due to massive humanitarian assistance administered by numerous agencies.) Additionally, the mountainous geography of East Timor hampered line-of-sight communications between tactical forces. These factors dictated the deployment of U.S. military communications assets. From September 1999 through February 2000, U.S. Forces INTERFET met the highly dynamic C4 support requirements for peacekeeping and the subsequent humanitarian assistance operations effectively.

This success was the result of effective planning and phasing of C4 forces. The CINCPAC MSQ (shown in Figure 2) is a USPACOM C4 asset designed for rapid deployment to provide DISN services for early entry forces. The MSQ-126 arrived in Darwin Sept. 19, and provided DSN, NIPRNET, SIPRNET, video, GCCS and AUTODIN messaging. The 31st Marine Expeditionary Unit's JTF Enabler arrived in Dili Oct. 9, to support COMINTERFET, Australian Maj. Gen. Peter Cosgrove. Another early entry C4 capability, the Enabler package provided DSN, NIPRNET and SIPRNET. It departed on Oct. 23, after lead elements of Task Force Thunderbird (shown in Figure 3) arrived in Dili Oct. 20, to assume the mission for INTERFET. This task force, comprised of the 86th Signal Battalion, and elements of the 40th and 504th Signal Battalions, all from Fort

Huachuca, Ariz., provided the principle C4 support promised to the U.N. effort. PACOM's J6, Col. Randy Strong, USA, was assigned as the Commander, U.S. Forces East Timor. Five soldiers and one civilian contractor provided continuous support to INTERFET.

Thirty-seven personnel provided Counterintelligence/Human Intelligence (CI/HUMINT) support to INTERFET. This support capability, shown in Figure 4, provided threat information and counterintelligence operations, and ensured commanding officers had the information they needed to carry out operations throughout East Timor. The network configuration that was used is shown in Figure 5. The diagram represents the major pieces of the final architecture to support U.S. Forces. It reflects a robust configuration with redundant paths to the two key entry points within the Pacific theater.

Transition from military to commercial communications moved quickly with the approval of a detailed transition plan on Oct. 30, 1999. By Jan. 1, 2000 the communications commercialization was completed. Of the 300 U.S. personnel employed at the height of the operation, 150 of them were dedicated to the military C4 mission. The commercialization allowed them to return to their home stations with their equipment, which included seven SHF satellite terminals, six telephone switches and three data hubs, as well as numerous line-of-sight multichannel radios.

The impact on operational to strategic resources was also alleviated, as four standard tactical entry point (STEP) missions for



Figure 4. Intelligence support was provided by CINCPAC Unit 205th MI and JICPAC. The Trojan Spirit provided links to all-source intelligence and Intelink-C.

DISN services were terminated. The timeline used to move to a commercial communications solution is shown below.

- 13 Oct 99 - Contract for Telstra let
- 21 Oct 99 - COMUS INTERFET C4 "green"
- 30 Oct 99 - C4 transition plan approved
- 15 Nov 99 - Redeployment of C4 units
- 15 Dec 99 - TF Thunderbird departs Dili
- 1 Jan 00 - Commercialization complete
- 26 Jan 00 - Transition of USFI to USGET
- 1 Feb 00 - USFI disestablished
USGET established

Telstra, jointly owned by the Australian government and private industry, installed the "Big Pipe" pictured in Figure 6. It was used to extend commercial bandwidth into Dili from Australia. Through this means, USGET (United States Support Group East Timor) had access to both the SIPRNET and NIPRNET through Cisco routers and Type 1 encryption devices (NES). Ericson provided commercial satellite telephones, which were later replaced by Iridium.

Using this capability COMUSINTERFET was provisioned with NIPRNET and SIPRNET service. Secure voice service was provided through the use of a public telephone exchange and encrypted using STU IIIs. Redundant secure voice services were added using Inmarsat and Iridium. Cellular telephones and hand-held radios were used for non-secure voice. As the mission transitioned from peacekeeping to humanitarian assistance, the commercial architecture changed as well.

In addition to a substantial savings in resources, equipment and personnel, commercialization resulted in a responsive and scalable C4 solution. COMUSGET has changed locations four times since their establishment, but each time the services



Figure 3. These are the assets of Task Force Thunderbird. Additionally, the 11th Signal Brigade used four satellite terminals, several voice and data switches and numerous line-of-sight multichannel radio systems.

were easily reinstalled to meet mission requirements. Central Command used commercial satellite deployable KU earth terminal (DKET), and encryption devices to provide DISN service in austere environments. The commercialization of communications for East Timor served as a prototype for future DoD commercialization efforts.

The international community's assistance in East Timor has been one of the most successful peace enforcement and country-rebuilding missions in recent years. As the mission in East Timor continues to evolve, U.S. Forces have sent in different assets. U.S. Forces have been instrumental in delivering food and other supplies, engaging in community projects and transporting diplomatic and peacekeeping representatives to East Timor.

Even though East Timor became an independent nation May 29, 2002, the work is certainly not over. The United Nations continues to maintain a presence in East Timor to ensure its security and stability. The successor mission, the United Nations Mission of Support in East Timor (UNMISET) is planning a gradual withdrawal of the territory and supports the East Timorese authorities to maintain democracy and justice, internal security and law enforcement, and border control. Humanitarian agencies continue to provide assistance as well.

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Network Diagram

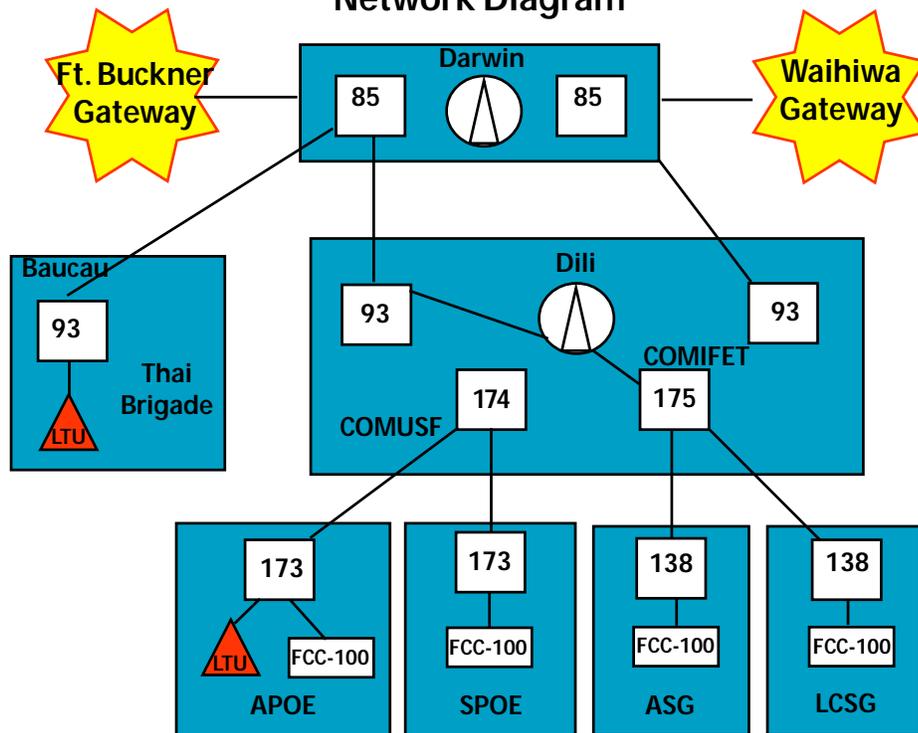


Figure 5.

Figure 6. The "Big Pipe" used to extend the commercial bandwidth into Dili from Australia for USGET access to SIPRNET and NIPRNET using Cisco routers and Type 1 encryption devices (NES). This was the "longest pole" ever used in exit strategy, which combined the talents of the U.S. Joint Staff J6, 11th Signal Brigade Program, Telstra, Cisco and Ericson, and was certainly an example of capitalism working at its best.



Humanitarian and Civic Assistance

The United States has an ongoing commitment to the newly formed East Timor nation. U.S. Navy personnel have completed numerous community service projects including painting of the August School in Feb. 2001. Aug. 2001, the Seabees with Naval Construction Battalion 5, U.S. Pacific Fleet, Calif., worked on the Bemos water treatment plant in the effort to rebuild the nation's infrastructure. During this visit a local orphanage also benefited from structural improvements, and electrical and plumbing repairs. U.S. efforts have focused on assistance to improve basic health and social conditions, and the overall quality of life for the people of East Timor.

Clockwise from top left to right: Dili, East Timor - Feb. 2001, a U.S. Navy corpsman assigned to USS Juneau takes a young girl's temperature; Dec. 2001, U.S. Navy Seabees attached to the U.S. Support Group East Timor check an electrical panel at Bemos water treatment plant; Oct. 2002, a U.S. Navy doctor examines a patient as part of the Amphibious Ready Group's medical support during a three-day rotation in East Timor; Apr. 2002, a service member teaches basic math skills to some children.

