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**Directorate of  
Intelligence**

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# **Nicaraguan Petroleum Facilities (s)**

**An Imagery Analysis Report**

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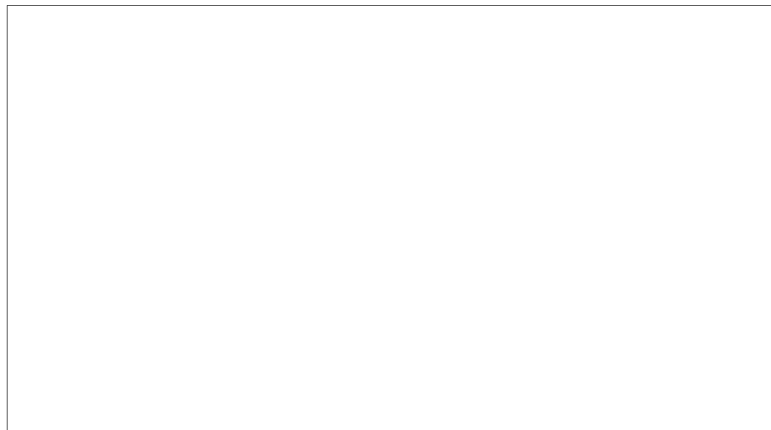
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# **Nicaraguan Petroleum Facilities (s)**

**An Imagery Analysis Report**



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## **Nicaraguan Petroleum Facilities (s)**

### Summary

Nicaragua depends on imports for 100 percent of its oil needs for both military and civilian uses. Crude oil shipments are offloaded at Puerto Sandino on the Pacific coast and transported by pipeline to Managua where Nicaragua's only refinery is located. Imported petroleum products such as diesel fuel, petrochemicals, and lubricating oils are offloaded at the Pacific port of Corinto. Tank trucks transport refined products from Corinto and the Managua refinery to civilian and military POL storage facilities throughout western and central Nicaragua, and to the river port of Rama in the eastern part of the country. From Rama, the refined products are shipped to the Caribbean ports of El Bluff, Puerto Isabel, and Puerto Cabezas.

Military POL storage facilities that have been identified in Nicaragua fall into two categories--regional depots that probably function as strategic reserves and small depots at military installations and airfields. We have identified two regional depots--at La Union for the northwestern military regions and at Catarina for the southwestern military regions--and a third regional depot may be under construction at an unknown location. Small POL depots have been identified in six of Nicaragua's seven military districts--at the military region headquarters, at battalion garrisons, or at both locations. Small depots have also been identified at Nicaragua's three major military airfields and two smaller ones.

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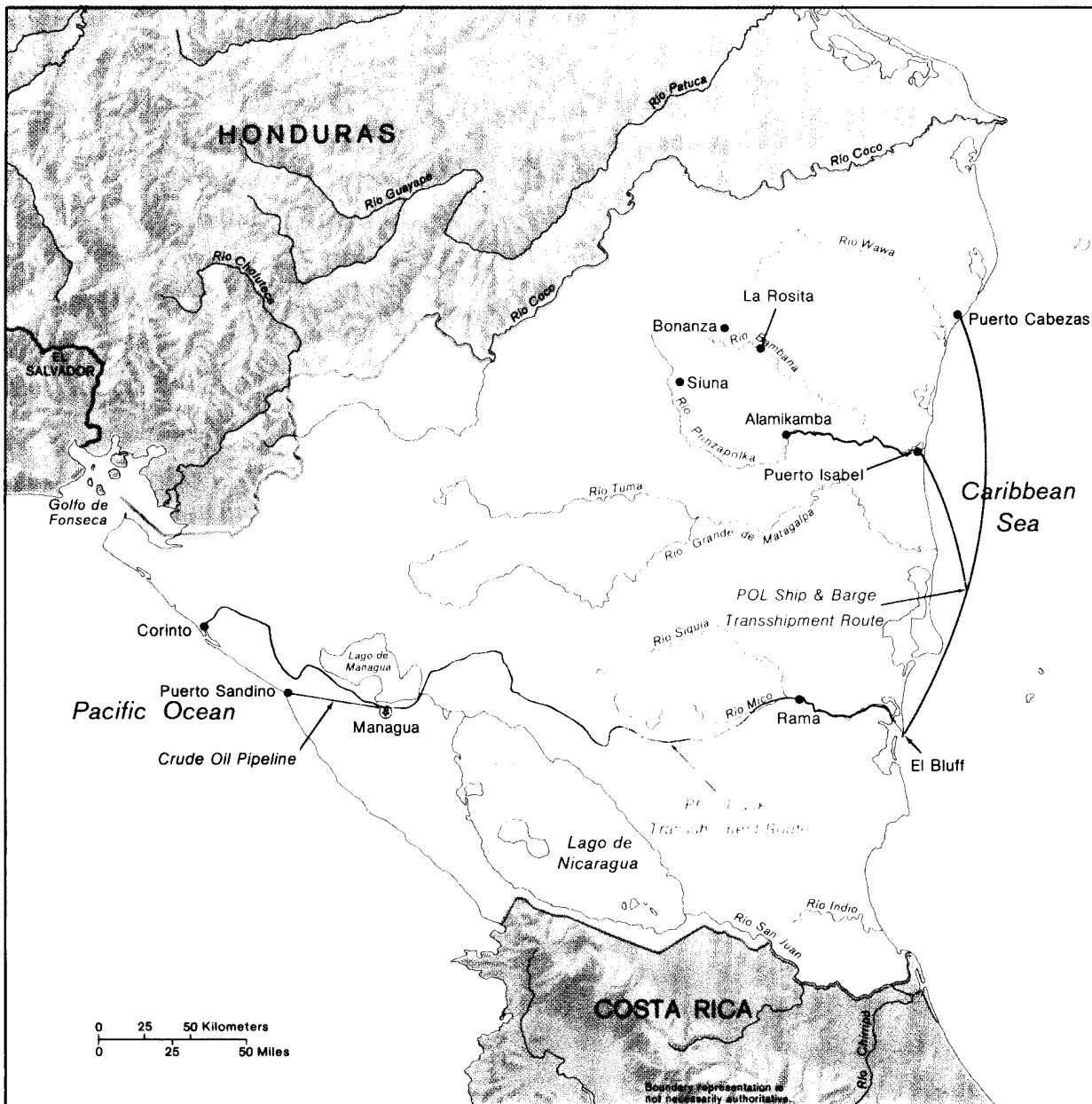
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Figure 1

Nicaraguan POL Entry Ports and Transshipment Routes



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## Transport Facilities

Nicaragua has no crude oil production and has only one small oil refinery at Managua. As a result, it imports all of its crude oil and most of its petroleum products. Nicaraguan forecasts for 1984 estimate the importation of 3,290,000 barrels (bbl) of crude oil from Mexico, with an additional 823,000 bbl supplied by the Soviet Union. Refined petroleum products imports from both countries are estimated at 469,000 bbl during 1984. All crude oil enters Nicaragua at Puerto Sandino, which is 52 kilometers (km) west of Managua on the Pacific coast (figure 1). The crude oil is offloaded from deep draft tankers, through a single-point mooring buoy located 3,600 meters offshore, to two 150,000-bbl storage tanks onshore. Bunker C fuel oil is also offloaded here for use at the nearby Point Tiscuco thermal power plant. (S [ ] 25X1  
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From Puerto Sandino, crude oil is transported to the Managua Refinery through a 56-kilometer-long pipeline that is 15 centimeters in diameter. This pipeline is mostly above ground and passes through open terrain south of the cities of La Paz Centro, Nagarote, and Mateare. [ ] there are two 25X1  
pumping stations on this pipeline--one at Puerto Sandino and one at the refinery--which can reportedly pump 17,000 to 19,000 bbl a day through the pipeline, depending on temperature and crude oil characteristics. (S [ ] 25X1

The Managua Refinery is located 1 kilometer west of Managua and occupies 6.4 hectares of land (figure 2). Although built and maintained by Esso, this refinery is now operated by Petronic, the Nicaraguan state oil company. The main products of this refinery are gasoline, diesel oil, kerosene, jet fuel, fuel oil, propane, lubricating oils, butane, and asphalt. The refinery has a designed production capacity of 15,000 bbl a day. Between January and July 1983 production was reported [ ] 25X1  
be 13,050 bbl a day, and by December 1983 had fallen to 11,866 bbl a day. Continued insurgent attacks on the Puerto Sandino POL terminal and the uncertain quantity and availability of crude oil imports could cause a further decline in production. (S [ ] 25X1

Petroleum products are imported through the port of Corinto, which is 110 km northwest of Managua on the Pacific coast (figure 3). Although the predominant import is diesel fuel, lesser amounts of gasoline, kerosene, lubricating oils, and petrochemicals are also imported. Imagery shows that the Esso and Shell oil companies currently maintain about 401,400 bbl of total storage capacity at Corinto. (S [ ] 25X1

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The Masachapa POL terminal is located about 60 km southwest of Managua and has not been used since about 1974. The offshore transloading facilities are similar to those at Puerto Sandino. The Sandinistas had reportedly discussed with US oil company officials reactivating the terminal to supplement the petroleum facilities at Puerto Sandino and Corinto, but as of January 1984 the Sandinistas were no longer actively pursuing the idea. The tanks at the facility, damaged in a 7 January insurgent attack, as well as all seals, support equipment, and the underwater pipeline, would have to be tested and repaired. Because of the number of unknown factors involved, it is not possible to estimate how long it would take for the facility to be refurbished, should the Sandinistas reconsider reactivation. (S [25X1] [25X1])

A fleet of more than 30 tank trucks transports oil products from Corinto and the Managua Refinery to storage facilities in western and central Nicaragua (figure 4 and table 1). For distribution along the east coast, refined products are trucked overland to the river port of Rama, in eastern Nicaragua. Rama is on the Rio Escondido about 60 km from the Caribbean. At Rama, the petroleum products are transloaded onto barges or one of two shallow-draft tankers, the Rama and the Laureano Mairena which are owned by the Nicaraguan government (figure 5). The vessels move downriver to the Caribbean where they offload cargo at coastal POL terminals at El Bluff, Puerto Cabezas, and Puerto Isabel. (TS [25X1])

The terminals at El Bluff and Puerto Cabezas serve as regional distribution points for fuel for coastal freighters and fishing boats, as well as for diesel and cooking fuels used by the local population (figures 6 and 7). Puerto Cabezas is also a transloading point for petroleum products destined for the Puerto Cabezas military units and airfield. The El Bluff facilities have about 55,500 bbl of storage capacity and those at Puerto Cabezas have about 41,500 bbl of storage. (S [25X1])

Despite its small size, the town of Puerto Isabel is economically important as the gateway to Nicaragua's gold mining industry. Diesel fuel offloaded at Puerto Isabel is shipped 72 km up the Rio Prinzapolka to Alamikamba. From Alamikamba the fuel is transported by truck to the gold mines at Siuna, La Rosita, and Bonanza in northeastern Nicaragua. (S [25X1])

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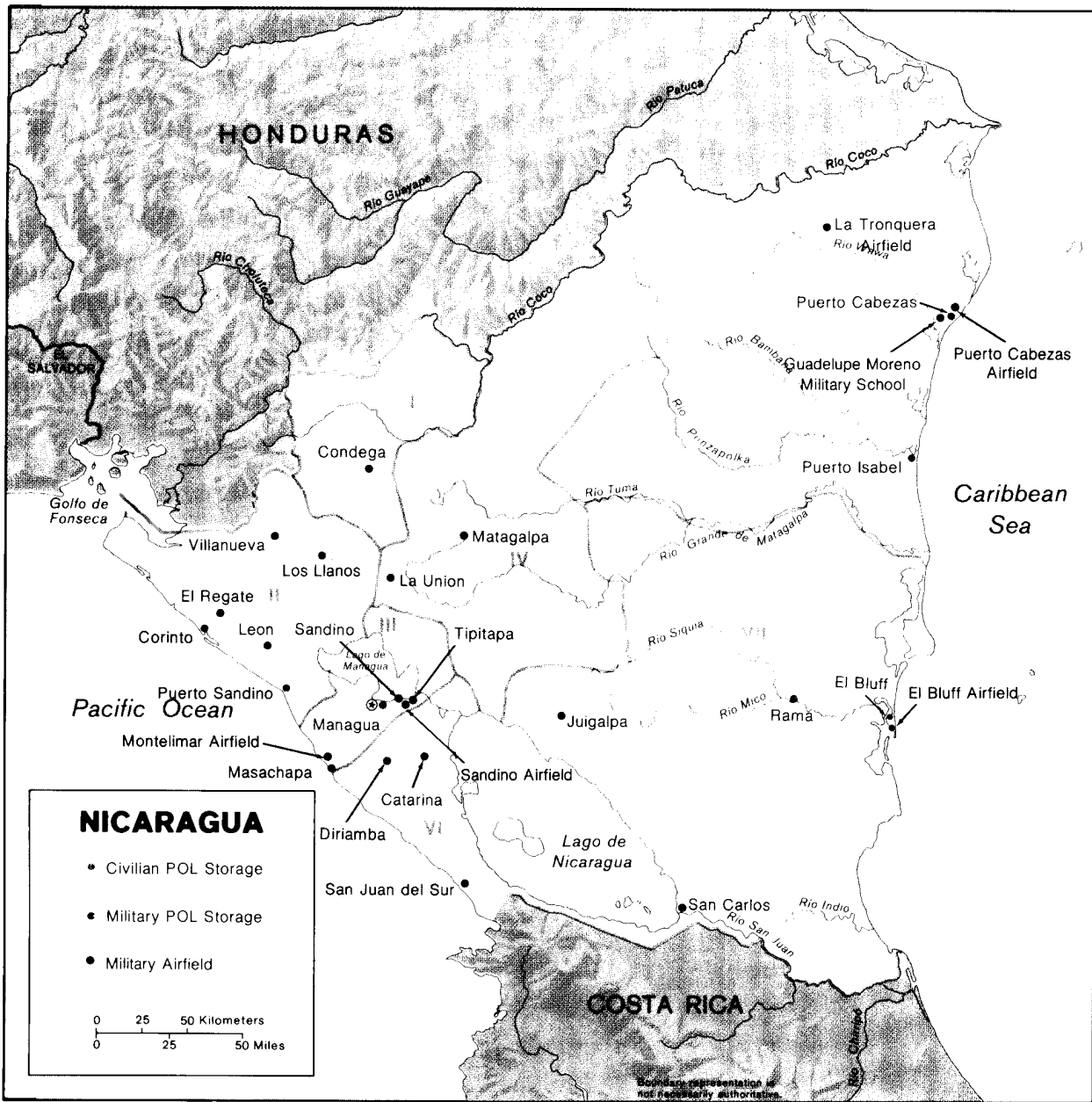


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Figure 4

Nicaraguan Military Regions, Civilian and Military POL Facilities



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**Table 1**  
**Civilian POL Facilities in Nicaragua**

Name	Number of Tanks	Total Storage Capacity (barrels)	Remarks
Puerto Sandino Port Facilities 12-11-59N 86-45-53W [redacted]	2 2	295,473 100,000	Crude oil and Bunker C fuel oil for Point Tiscuco power plant.
Managua Refinery 12-08-40N 86-19-29W [redacted]	56	821,428	Combined crude and refined oil storage.
Corinto Port Facilities 12-18-50N 87-10-07W [redacted]	49	401,428	An insurgent attack on 10 October 1983 destroyed or damaged 7 tanks, reducing capacity by 70,000 barrels.
Rama POL Terminal 12-11-00N 84-14-45W	19	4,644	
El Bluff Port Facilities 11-59-30N 83-41-17W [redacted]	14	55,339	
Puerto Cabezas Port Facilities 14-01-01N 83-22-59W [redacted]	4	41,428	
Puerto Isabel (Puerto Benjamin Zeladon) 13-21-55N 83-34-15	3	2,467	An insurgent attack on 2 October 1983 destroyed or damaged 3 tanks, reducing capacity by 7,739 barrels.
San Juan Del Sur 11-14-58N 85-52-34W [redacted]	9	3,808	
Sandino Civil POL Storage 12-08-30N 86-10-07W [redacted]	6	4,151	
Masachapa POL Terminal 11-48-15N 86-30-40W	7	96,663	This terminal, inactive since 1974, was once the primary port of entry for refined oil products.

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### Military Storage Facilities

Military POL storage in Nicaragua consists of two large regional storage depots and smaller depots that are located at military region headquarters, battalion garrisons, and military airfields. The two regional storage depots, which are probably used for strategic fuel reserves, have a combined capacity of about 65,000 bbl, [redacted] The La Union POL depot is 69 25X1 north of Managua and serves the northwestern military regions (figure 8). It was constructed in late 1981 and has 100 earth-covered, cylindrical POL tanks with a total capacity of about 34,500 bbl. The other depot is 32 km south of Managua near the town of Catarina and was still under construction when last observed [redacted] At that time we saw 89 cylindrical 25X1 POL tanks with a total capacity of about 31,000 bbl. The tanks 25X1 were in revetments but were not earth covered. (S [redacted])



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Military POL storage facilities have been identified in six of Nicaragua's seven military regions at either the military region headquarters, at battalion garrisons, or at both locations (table 2). We have not identified any POL storage facilities in Military Region 3, which includes the city of Managua. There probably is POL storage at the military region headquarters and at other garrisons near Managua, but the POL tanks could not be seen on imagery. The military POL storage areas in the other six military regions each consist of two to five cylindrical POL tanks with a combined capacity of 55 to 1,714 bbl. (S [redacted])

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Similar POL facilities have been identified at the three major airfields used by the military--Sandino near Managua, Montelimar, and Puerto Cabezas--and at two smaller ones. The airfield storage areas contain from three to 20 cylindrical tanks with a total capacity of between 108 and 6,900 bbls. The POL storage capacities at Puerto Cabezas and Montelimar Airfields are considerably more than is needed by the aircraft currently using them. This excess capacity would be essential for any expanded use of the airfields that the Sandinistas may contemplate, such as acquiring and operating jet fighters in Nicaragua, or simply increasing the number of aircraft operating out of each airfield. The facility at Puerto Cabezas may also serve as the regional storage depot for northeastern Nicaragua. (S [redacted])

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Most of the military POL storage areas that have been identified contain 345-bbl, cylindrical tanks that are produced at a plant in Tipitapa, which is 16 km east of Managua. [redacted] 25X1  
109 of these tanks were seen at the fabrication plant. [redacted] 25X1  
[redacted] only 19 were still present, indicating that at least 90 tanks had been shipped from the plant. We have not subsequently identified any new tanks at any known Nicaraguan POL facility. The large number of tanks that have not been accounted for suggests that a third regional storage depot is being constructed at an unknown location. (S [redacted])

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### Insurgent Attacks

Anti-Sandinista insurgents have made five successful attacks against POL targets in Nicaragua. The Puerto Sandino terminal facilities have been attacked twice and the storage tanks at Corinto, Masachapa, and Puerto Isabel have each been raided once. (S [redacted])

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**Table 2**  
**Military POL Storage Facilities in Nicaragua**

Name	Number of Tanks	Total Storage Capacity (barrels)	
<b>Regional Military POL Storage Depots</b>			
La Union POL Storage 12-46-30N 86-14-30W [redacted]	100	34,466	25X1
Catarina POL Storage 11-55-18N 86-04-18W [redacted]	89	30,676	25X1
<b>1st Military Region</b>			
Condega Military Camp 13-20-30N 86-24-30W [redacted]	3	1,023	25X1
<b>2nd Military Region</b>			
Los Llanos Military Camp 12-54-30N 86-35-43W [redacted]	2	55	25X1
Villanueva Barracks Area 12-56-03N 86-49-50W [redacted]	5	1,714	25X1
Leon Army Barracks 12-25-06N 86-53-31W [redacted]	4	1,428	25X1
El Regate Military Camp 12-35-45N 87-08-15W [redacted]	2	55	25X1
<b>4th Military Region</b>			
Matagalpa Battalion Headquarters 12-54-10N 85-59-00W [redacted]	5	1,714	25X1

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**Table 2**  
**Military POL Storage Facilities in Nicaragua (continued)**

Name	Number of Tanks	Total Storage Capacity (barrels)
<b>5th Military Region</b>		
Guadalupe Moreno Military School 14-03-40N 83-23-50W [redacted]	5	1,714
<b>6th Military Region</b>		
Diriamba Military Region Headquarters 11-51-20N 86-14-25W [redacted]	5	1,714
<b>7th Military Region</b>		
San Carlos Military Headquarters 11-22-15N 85-45-16W [redacted]	3	1,024
Juigalpa Military Barracks 12-07-00N 85-22-25W [redacted]	3	1,024
<b>Military Airfields</b>		
Sandino Airfield 12-08-28N 86-10-07W [redacted]	20	6,904
Puerto Cabezas Airfield 14-02-43N 83-23-01W [redacted]	17	5,833

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Table 2 (continued)

Name	Number of Tanks	Total Storage Capacity (barrels)
Montelimar Airfield 11-48-15N 86-30-40W [redacted]	15	5,595
La Tronquera Airfield 14-33-49N 84-00-38W [redacted]	3	1,023
El Bluff Airfield 11-59-30N 83-41-17W [redacted]	4	107

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This table is Secret [redacted]

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The offshore POL transfer facilities at Puerto Sandino were attacked on 6 September and again on 14 October 1983. The first attack was against the mooring buoys and the floating portion of the pipeline and the second attack was against the underwater portion of the pipeline. The damage from both attacks apparently was easily repaired. (S [redacted])

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On 10 October 1983, anti-Sandinista insurgents attacked Corinto, and [redacted] that three of the 56 storage tanks were destroyed and four others were damaged (figure 2). This resulted in the loss of about 70,000 bbl of storage or 17 percent of the port's total capacity. The diesel storage capacity of Corinto was restored within two weeks, however, by using tanks which had been used for other products. (S [redacted])

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The Masachapa POL terminal was attacked by insurgents on 7 January 1984. [redacted] oil storage tanks as well as a beach club belonging to the West German Embassy were damaged in the attack. The damage, which could not be confirmed from imagery, will have little effect on Nicaragua's oil storage capacity because the facility is not in use. (S [redacted])

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Analysis [redacted] revealed that a 24 August insurgent attack on Puerto Isabel destroyed or severely damaged three of the six POL tanks and the pier which carried the trans-loading pipeline offshore (figure 9). The three destroyed tanks had a combined capacity of 7,739 bbl. The other three tanks with a combined capacity of 2,467 bbl received superficial damage but appeared to be usable. Imagery of early January 1984 shows that no repairs have been made to Puerto Isabel. Operation of the gold mines depends on the use of diesel generators, and such a loss of storage capacity could seriously affect Nicaraguan gold production. [redacted] gold production netted Nicaragua about 15 million dollars in foreign exchange in 1982.

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