In the Tinian operation this vessel once again was assigned to the naval components conducting the diversionary demonstration by means of simulated landing on Blue Beach, Tinian Island in order to decrive the enemy regarding the primary point of attack and to immoblize his reserves. These vessels composed TransDiv 30, TF 52.8 and were part of Task Force 52, Northern Attack Force.

The demonstration group's landing craft drew fire from enemy coastal defense batteries. The boats, operating in a choppy sea and a strong current, were under mortar fire from their initial approach of 2000 yards from the beach until they were approximately 3500 yards away. None of the boats was damaged or person injured although several pieces of shrapnel entered some of the boats. At about 0800, D-Day, three shell splashes were seen about 2000 yards off the starboard quarter of the CALVERT. This vessel was not damaged and nothing occurred to hinder its part in the operation.

Twelve officers and 806 men of the First Battalion, 8th Marines were embarked on the CALVERT for the TINIAN operation. No members of ships company suffered casualties.

On 25 July 1944, the CALVERT and the ships with which she had been in company returned to Saipan anchorages. On 28 July the CALVERT departed from Saipan for Pearl Harbor via Eniwetok, sailing in company with TU 57.18.3. Upon arrival off Eniwetok Atoll at 0630, 1 August TU 51.18.3 was dissolved and this vessel became part of TU57.19.14 had embarked 420 Japanese and Korean prisoners of war. The POW's were quartered in #3 hold, 2nd and 3rd decks. Frequent period topside were given them, weather and circumstances permitting. The guard unit aboard for the POW's consisted of 3 officers and 50 men of Marine Air Warning Squardron.

The CALVERT arrived at Pearl Harbor on 10 August and remained there until 21 August at which time embarkation of the troops of the 24th Amphibious Corps, Third Battalion, 17th Regiment, 7th Infantry Division, U.S. Army was commenced and was concluded on 25 August. During this period, 21-25 August, 756.5 tons of comba cargo was received. Training exercises for participation in the Yap operation were conducted during the period 29 August 3 September at Maalae Bay, Maui, T.H.

On 5 September 1944, Captain RONALD T. STRONG, DE-V(G), 13171, USNR, relieved Commander EDWARD J. SWEENEY, D-M, 65474, USNR, as Commanding Officer of the U.S.S. CALVERT. This exchange in commands was effected while the vessel was in Pearl Harbor where she remained until 15 September.

This vessel sortied from Pearl Harbor enroute to Eniwetok, the staging point for one of the phases of the assault operation against Yap and Ulithi which were the assigned targets of the Easter Attack Force (TF 33) of which the CALVERT was a part. While underway on 16 September 1944, a dispatch was received from CTF 33 directing cancellation of Phase II (targets for Yap and Ulithi); on 18 September while still underway for Eniwetok, a dispatch was received from CTF 33.1 advising that the new objective probably would be Leyte with the new target date 20 October 1944.

The CALVERT arrived in Eniwetok on 25 September 1944 and departed on 28 September 1944 arriving at Manus (new staging point) on 3 October 1944.