SECTION VII

BRIEFS OF WAR DAMAGE

(A)	U.S.S. FANSHAW BAY (CVE70)	BOMB DAMAGE	17 JUN.1944
(B)	U.S.S. FANSHAW BAY (CVE70)	GUNFIRE DAMAGE	25 OCT.1944
(C)	U.S.S. KITKUN BAY (CVE71)	KAMIKAZE DAMAGE	25 OCT.1944
(D)	U.S.S. SANGAMON (CVE26)	BOMB DAMAGE	25 OCT.1944
(E)	U.S.S. WHITE PLAINS (CVE66)	GUNFIRE AND KAMIKAZE DAMAGE	25 OCT.1944
(F)	U.S.S. MARCUS ISLAND (CVE77)	KAMIKAZE DAMAGE	15 DEC.1944
(G)	U.S.S. SAVO ISLAND (CVE78)	KAMIKAZE DAMAGE	5 JAN.1945
(H)	U.S.S. KADASHAN BAY (CVE76)	KAMIKAZE DAMAGE	8 JAN.1945
(I)	U.S.S. KITKUN BAY (CVE71)	KAMIKAZE DAMAGE	8 JAN.1945
(J)	U.S.S. SALAMAUA (CVE96)	KAMIKAZE DAMAGE	13 JAN.1945
(K)	U.S.S. LUNGA POINT (CVE94)	KAMIKAZE DAMAGE	21 FEB.1945
(L)	U.S.S. WAKE ISLAND (CVE65)	KAMIKAZE DAMAGE	3 APR.1945
(M)	U.S.S. NATOMA BAY (CVE62)	KAMIKAZE DAMAGE	7 JUN.1945

Note: In each case the narrative is covered in the first paragraphs and is followed by paragraphs on Fires, Flooding, Ammunition Behavior and Conclusion.

SECTION VII (A)

FANSHAW BAY (CVE70)

BOMB DAMAGE

7A-1. During the period 15 to 17 June 1944 inclusive, FANSHAW BAY was operating as an element of Task Group 52.14, furnishing aircraft in support of the landings on Saipan.

7A-2. Prior to 1851 on 17 June, the ship had launched 14 VF planes to assist in the defense of the task group against enemy planes. Nine VTB planes were located on the hangar deck and, although not so stated in available damage reports, it is believed they were unarmed and degassed. Nine torpex-loaded torpedoes were stowed in racks on the hangar bulkheads to port and starboard of the after elevator pit.

7A-3. At 1852, the ship began firing on an enemy plane which had penetrated the screen. Shortly thereafter a bomb, estimated to have been 63 Kg*, penetrated the forward port corner of the after elevator and detonated in the hangar about 5 feet below the flight deck. As a result, a hole approximately 5 feet by 10 feet was opened in the corner of the elevator and six small fires were started in the after end of the hangar deck and adjacent compartments. The fires were extinguished within a few minutes. The fire main cross-connection at frame 167 under the hangar deck was ruptured by a fragment so that considerable flooding of compartments aft resulted. Fragment damage to valves, ventilation systems, electrical systems and structure was extensive and there were a number of personnel casualties, including nearly all of Repair III, stationed in C-202L just forward of the elevator pit. The nine torpedoes were attacked by fragments, but fortunately none detonated. There were no fires among the parked planes.

7A-4. Steering control from the bridge was lost as a result of fragment damage to telemotor tubing under the flight deck. Control was shifted successively to after steering and Batt. II, and then was lost completely by 1958. For the next 3-1/2 hours the ship was maneuvered by the engines. Enemy attacks had ceased by 1958.

7A-5. Steering controls from the bridge were repaired within 8 hours. A patch plate was quickly installed over the hole in the corner of the elevator, but a 2-3 degree list made it advisable to send returning planes to other carriers in the task group. The ship apparently had considerable difficulty in isolating the ruptured fire main and finally shut down the after pumps. It is not clear from the Commanding Officer's report when the pumps were shut down, but the amount of flooding

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* Probably a 63 Kg GP Bomb

indicates this was accomplished about an hour after the damage. Great difficulty was also experienced in de-watering flooded compartments. Handy-billys, submersible pumps, bucket brigades and eductors were used. For two days it was thought that the flood water was due to leakage through the shell. All compartments were not dry until the fourth day after the damage.

7A-6. Fires. Three small electrical fires, started by short-circuited electrical cables in compartments C-202L, C-203-2L and C-303L, were quickly extinguished. A fire in the after elevator pit, ignited by the detonation of the bomb, was brought under control and extinguished by fog spray. A fire under the torpedo stowage among clothing blown from casualties was extinguished by the use of CO2 and fog spray. A fire in the hangar deck overhead among damaged steering gear telemotor tubing and electrical cables was controlled with CO2. It was considered inadvisable to interrupt the damaged electrical circuits as long as they were at all serviceable, so the fire in the hangar deck overhead continued to reignite until the cables burned through. The fire was then readily extinguished. Parked planes in the hangar apparently were not gassed, consequently no aircraft gasoline fires occurred.

7A-7. Flooding. The principal cause of flooding in compartments aft was the ruptured fire main cross-connection under the hangar deck at frame 167, although for some unexplained reason the ship believed until the morning of the 19th that ruptured shell plating was also responsible. Fire fighting water and water from magazine sprinklers contributed to the flooding. Attempts were first made to plug the rupture in the main without success. Two cut-out valves, 2-135-1 and 2-135-2, proved to be inoperable and four valves, 2-165-7, 2-168-2, 2-186-1 and 2-187-2, were reported to have been closed but were not effective (unfortunately these valves were aft of the break). Orders were given to shut down the fire pumps in the after engineroom about an hour after the damage occurred.*

7A-8. Water from the ruptured fire main and fire fighting water drained into C-202L and thence into C-302A (Aviation Stores) to a depth of 5 feet; drainage through fragment holes from the after elevator pit filled C-303L to a depth of 36 inches. Sprinkling water flooded magazines C-402M, C-402-1M, C-402-2M and C-402-3M to depths of 24 inches. All watertight doors and bulkheads remained intact and prevented flooding of adjacent spaces.

7A-9. Difficulty in de-watering flooded compartments was reported. Gasoline handy-billys were considered to be inadequate because of their limited lift (12 feet) and because carbon monoxide fumes precluded their use below decks. Submersible pumps proved to be rugged, but

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* Ralph Talbot (DD390), Bureau of Ships War Damage Report No.51, and ENTERPRISE (CV6), Bureau of Ships War Damage Report No. 59, also experienced extensive flooding from ruptures in fire mains.

continual clogging of suctions greatly lowered their efficiency. A gasoline system eductor finally rigged after three days proved very effective. It de-watered C-302A and C-402M in about 8 hours.

7A-10. Ammunition Behavior. Nine torpex-loaded torpedoes in their customary stowage in the after end of the hangar were sprayed by fragments from the bomb detonation. One warhead was dented, and three warheads and two air flasks were penetrated, but there were no detonations and only one small fire in spilled torpex resulted. The performance of the torpedoes was as follows:

Torpedo	Air Flask	War Head
#1	No penetration.	Penetrated, but not in way of explosive charge. No fire or detonation.
#2	Penetrated. 2800 lb. air escaped, but no explosion.	Penetrated; 6" x 10"x 5" piece of torpex gouged out and burned on deck. No fire in warhead and no detonation. Torpedo jettisoned for safety.
#3-7	No penetration.	No penetration.
#8	No penetration.	Fragment penetrated, leaving deep hole. No fire or detonation. Torpedo jettisoned for safety.
#9	Penetrated. 2800 lb. air escaped, but no explosion.	No penetration.

7A-11. Conclusion. Conditions after damage were not serious. Aside from the nine torpedoes in their stowage racks, the hangar was in excellent condition to resist damage, with all planes degassed and unarmed and bombs stowed in the magazine. The six small fires were quickly extinguished. It is difficult to account for the long delay in isolating the break in the after fire main, but the consequent extensive flooding, though inconvenient, placed the ship in no great jeopardy. The performance of the torpex-loaded torpedoes under fragment attack was consistent with other war experience.

SECTION VII (B)

FANSHAW BAY (CVE70)

GUNFIRE DAMAGE

7B-1. On 25 October 1944, FANSHAW BAY was one of the six CVE's in Seventh Fleet Task Unit 77.4.3 which came under gunfire attack from the central Japanese force during the Battle for Leyte Gulf.

7B-2. FANSHAW BAY was on a southwesterly course and at General Quarters when she was struck by four, 8-inch AP projectiles at a range of 9,000 to 10,000 yards. These four projectiles all hit the flight deck forward and then penetrated into lower deck spaces. Three passed completely through the ship without detonating. One is believed to have detonated low order, but a large fragment continued through the ship. Two shorts detonated in the water just off the starboard bow. Peak tank A-1W was holed about 7 feet below the waterline and the side above the waterline was pierced in one place by fragments from the shorts.

7B-3. Hit No. 1 penetrated the flight deck between frames 32 and 33, about 28 feet inboard of the starboard gallery walkway. Then it successively pierced the top of bulkhead 32; the joiner door of A-0201 3/4E; the gallery deck in A-0201 3/4E, frame 31; the lower joiner bulkhead at frame 26, 6 feet above the upper deck; the outboard bulkhead of stateroom 0101; the forecastle deck at frame 22; bulkhead 20, 6 feet above the hangar deck and 5 feet inboard of the shell plating; and passed out through the shell plating between frames 17 and 19, 2 feet above the hangar deck. Holes in main structure averaged 24 inches by 30 inches and holes in joiner structure averaged 48 inches by 60 inches. Power, lighting and communication cables under the flight deck in way of bulkhead 32 were cut by the shell; furniture in stateroom 0101 was wrecked; and the intake ventilator at frame 30, starboard side of the forecastle, was demolished.

7B-4. Hit No. 2 struck the top forward edge of the shield of 40mm mount 4, frame 28 port, where it is believed to have been broken in two parts. The main portion of the shell is believed to have ricocheted over the flight deck and clear of the ship. The cap fragment penetrated the outboard bulkhead of radar room No. 2, A-0201 1/2-2C, at frame 21, about 6 feet above the deck; pierced bulkhead 20, 18 inches inboard of the port bulkhead and was stopped by the door of No. 2-40mm ready service ammunition room, A-0201-2M. Holes in the bulkheads were approximately 18 inches by 18 inches and the door to A-0201-2M was torn from its upper hinge. No other damage was reported.

7B-5. Hit No. 3 struck the flight deck 8 inches aft of frame 34, 13 feet - 6 inches from the port edge of the flight deck. The cap and windshield broke off as a unit on impact and took its own course through the ship. The main portion of the shell smashed the port catapult track, passed through catapult machinery room A-0202E, bulkhead 32 and the light, sheet-metal bulkhead at frame 30 and entered flag office A-0201 3/4L where it is believed to have detonated low order. A large fragment then continued through the light, sheet-metal bulkhead at frame 26, smashed into 6 boxes of 50 caliber ammunition stowed in the space above A-0101L where it caused the low-order detonation of about 100 rounds of 50 caliber ammunition, penetrated the flight deck bent at frame 20, smashed into the port side of the anchor windlass, then ricocheted through the forward apron of the flight deck 12 feet from the starboard edge, and cleared the ship.

7B-6. The cap and windshield of Hit No. 3 penetrated the light sheet-metal bulkhead at frame 30, penetrated the deck at A-0201 3/4L at frame 27 into A-0101L, ruptured the forward bulkhead of A-0101L and fell back into a bunk in that space.

7B-7. Holes opened by the main portion of Hit No. 3 in main structure and in joiner structure were approximately the same size as those caused by the first hit. Nearly all furniture in A-0201 3/4L was wrecked by the low order detonation of the main portion of the shell, and a large fragment of bulkhead 26, which penetrated the overhead of A-0101L, demolished a wardrobe locker in stateroom 0102. A portion of the port brake shoe and drum of the anchor windlass was gouged out, the port wildcat was smashed, the port anchor chain was cut through and a 36-inch section of the bull gear was broken out by the large fragment from the low-order detonation of Hit No. 3. Lighting and interior communication cables under the flight deck along bulkhead 32 were also cut by this hit.

7B-8. Hit No. 4 struck the flight deck at frame 13 about 13 feet from the port deck edge, smashed the catapult track and pierced the deck. It then successively penetrated No. 5 longitudinal flight deck stringer, Nos. 5, 4, 3 and 2 transverse flight deck beams, the deep longitudinal stringer 16 feet inboard of the port edge of the flight deck, the lower half of transverse flight deck beam No. 6 and cleared the ship without detonating. Sections 12 inches to 24 inches long were torn from stringers and holes averaging 24 inches by 36 inches were torn in deep longitudinal and transverse girders. Little additional damage was reported.

7B-9. A large fragment from Hit No. 5, a near-miss projectile, penetrated the hull about 7 feet below the waterline on the starboard side between frames 9 and 10. The entrance hole was 18 inches by 18 inches. The projectile passed through A-1W and exited about 5 feet below the waterline between frames 10 and 11. The exit hole in the port shell was 12 inches by 12 inches. A-1W which was empty before damage, flooded to the waterline.

7B-10. A fragment from Hit No. 6, the second near-miss projectile, penetrated the hull at the second deck level, port side, frame 15. It tore a 10-inch by 10-inch hole in the shell plating, and expended itself in A-202L without causing further damage.

7B-11. Fires. Two electrical fires were started in the electrical circuits cut by Hits 1 and 3 at bulkhead 32; a fire was started in the flag office, A-0201 3/4L, by the low order detonation of the main portion of Hit 3; and fire from exploding 50 caliber ammunition, detonated by Hit 3, spread down into clothing from the smashed wardrobe in A-0101L. The electric fires were quickly extinguished with CO2. The other two fires were fought with water fog and quickly extinguished.

7B-12. Flooding. Little water was needed to extinguish the fires and the only flooding due to penetration of the shell was in A-1W. No list or change in trim was reported. C-402 1/2F was being ballasted at the time which accounts for the absence of a change in trim.

7B-13. Conclusion. Hits were confined to the relatively nonvital forward end of the ship so that no essential communication, control or power systems, except the catapult were affected. The shells were 8-inch AP which contained only 16 pounds of explosive; accordingly they did very little damage to FANSHAW BAY. Damage control was prompt and effective. Flight operations were not impaired and fires were quickly extinguished.

SECTION VII (C)

KITKUN BAY (CVE71)

KAMIKAZE DAMAGE

7C-1. On 25 October 1944, KITKUN BAY was one of the six CVE's in Seventh Fleet Task Unit 77.4.3 which came under gunfire attack from the central Japanese force during the Battle for Leyte Gulf. She escaped without being hit.

7C-2. The Japanese surface force retired about 0930 and at 1049 the first of two groups of enemy planes to attack the carriers was sighted. One ZEKE crossed ahead of the ship from port to starboard, was brought under fire, climbed rapidly, rolled and made a suicide dive directly at the bridge, strafing as it came down. The plane passed over the island, crashed into the port catwalk at frame 53 and fell into the sea about 25 yards off the port bow. As the plane crashed, the fragmentation bomb carried by the plane detonated. The bomb detonation ignited fires and inflicted other damage to the ship.

7C-3. Details of the damage are meager. Apparently it was not severe. The fires were of minor proportions and were quickly brought under control. Impact of the plane wiped off the port catwalk between frames 47 and 59.

7C-4. At 1110, fifteen JUDYS were sighted approaching the formation from astern, distance about five miles. At 1117, KITKUN BAY launched two FM-2's by catapult for combat air patrol over the formation. The remaining carriers of the Task Unit, FANSHAW BAY, WHITE PLAINS, KALININ BAY and KITKUN BAY, without a screen, came to course 210 degrees at a speed of 17 knots at 1123. At this time one JUDY commenced a suicide dive on KITKUN BAY from astern. The plane was brought under concentrated fire as it made its dive and its wings were shot off as it neared the ship. Part of the plane struck the water about 50 yards off the port bow; its bomb struck the water about 25 yards off the starboard bow, and parts of the plane struck the forecastle. Only minor damage was sustained by the ship.

7C-5. The ship's damage report did not differentiate between damage caused by the first and second attacks. In addition to the damage to the port catwalk, there were approximately 50 fragment holes on the port side of the ship. Exterior gasoline risers at frames 60-66 and at frame 136 port side were ruptured by fragments, water and drain lines in the vicinity of the damaged catwalk were broken, and the port gallery deck bulkhead and doors in the bulkhead were sprung.

7C-6. There was no report of fragment holes below the waterline or of flooding.

7C-7. Conclusion. Damage was superficial.

SECTION VII (D)

SANGAMON (CVE26)

BOMB DAMAGE

7D-1. On 25 October 1944, SANGAMON was operating in support of the landings on Leyte. At approximately 0825, three Japanese single-engine fighters passed low over the ship, continued on course 270° T. and disappeared. They apparently circled and returned, for three similar planes soon approached from 270° T. low over the water. One plane broke off the attack early; one broke off the attack about 500 yards from the ship; and the third pressed home his attack, dropped an estimated 250 Kg GP bomb about 50 yards from the ship, and pulled out over the bow.

7D-2. The bomb skipped into the ship's port side, frame 83, at the main deck level. Upon impact with the shell plating the bomb did not detonate, but ruptured. Bolts, a felt pad approximately 12 inches in diameter, pieces of the explosive charge, and pieces of paper were thrown up on a sponson about 50 yards away. Ten to fifteen seconds later, an explosion was felt underwater about 300 feet aft of the point of impact. This was probably the low order detonation of part of the bomb which had not been crumpled on impact.

7D-3. The plate struck by the bomb was torn loose and warped over an area 2 feet by 6 feet. The damaged portion of the plate was removed and replaced immediately.

7D-4. Shock from the underwater explosion opened the main generator circuit breakers. The consequent loss of electric power for the auxiliaries resulted in the stoppage of both main condensate pumps, which in turn caused a temporary loss of propulsion. Shock also broke the support wire for the sensitive element of the forward gyro, which incapacitated all instruments controlled by the gyro.

7D-5. No underwater damage was incurred. There were no fires.

7D-6. Conclusion. This is a case of total loss of propulsion following minor damage and in the complete absence of machinery damage. It is considered an unacceptable situation. The case of GAMBIER BAY amply demonstrates the danger of loss of propulsion. The question is raised as to the wisdom of too great dependence on electrical auxiliaries. The need for electrical units and power systems of high shock resistance is again* emphasized.

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* See BuShips War Damage Report No. 57 South Dakota.

SECTION VII (E)

WHITE PLAINS (CVE 66)

GUNFIRE AND KAMIKAZE DAMAGE

7E-1. On 25 October 1944, WHITE PLAINS was another of the six CVE's in Seventh Fleet Task Unit 77.4.3 which came under gunfire attack from the central Japanese force during the Battle for Leyte Gulf.

7E-2. At 0700, one of the first salvos, 14-inch AP or greater caliber shells, straddled the ship. Two projectiles fell close aboard off the starboard bow and two close aboard off the port quarter. One of the latter two detonated beneath the surface close under the port quarter, at the turn of the bilge, at about frame 142. The vessel was shaken and twisted violently by the underwater mining effect of the detonation. Personnel in some parts of the ship were thrown from their feet and much gear was thrown to the deck from horizontal stowages. All electric power was lost for several minutes until it was discovered that the generator circuit breakers had been opened by the shock. Although many more salvos fell around the ship during the remainder of the 2-1/2 hour battle, none were sufficiently close to cause damage.

7E-3. At 0150, one of the ZEKES in a group of attacking planes commenced a dive on WHITE PLAINS. The pilot maneuvered to strike the flight deck aft. The ship was successfully maneuvered by hard left rudder to avoid the attack, however, and the plane missed the port catwalk, just aft of the after stack, by inches. Tracers from the ship's guns had hit the plane which exploded between the catwalk level and the water. The catwalk and flight deck were showered with debris and metal fragments.

7E-4. As stated above, the near-miss under the port quarter shook and twisted the ship violently. Damage was as follows:

(a) Shock opened both generator circuit breakers. Electrical power was lost. Partial power was restored in about 2 minutes with complete restoration in 8 minutes. No permanent damage was evident.

(b) Expansion joints at frames 101 and 146 were crushed and torn. The cover plate of the expansion joint at frame 47 in passage A-0204 1/2 T buckled at both ends. Buckles appeared in the column web of bent 136 near the hangar deck level; in the inboard longitudinal bulkhead of the 1st lieutenant's office, B-201-6L, at frame 95; in the after bulkhead of the after elevator machinery room, C-0101E; in the three after web knees of bent 20; and in bulkhead 10 on the second deck.

(c) Bottom shell plating between frames 136 and 152 in way of C-902V was dished in about 6 inches; frames (angle and web) were buckled; and numerous welds to the shell and to the tank top were torn loose. Bottom shell plating between frames 148 and 149 in way of C-903V was dished in about 2 inches. The tank top buckled moderately in C-401-2A and bulkhead 136, at the forward end of the compartment, buckled slightly.

(d) Two oil weeps were reported in ordnance stores C-401-4A through bulkhead 152 in way of suction lines from C-402 1/2F. One oil weep through the same bulkhead was reported in ship's service stores, C-401-5A, from C-402 3/4F, in way of a welded blank over an unused piping hole. One fragment, which hit the shell plating below the waterline in way of C-401-2A, made a deep dent about 8 inches in diameter at frame 141 port. The frame backed up the plating and prevented its rupture.

(e) The weld between the sheer strake and hangar deck stringer plate, port side, failed from 1 foot forward of frame 146 to 4 feet aft of frame 146. Forty-eight hours after the action, a crack 1/32 inch wide developed in the hangar deck stringer plate in the vicinity of frame 100, which extended from the sheer strake inboard 4 feet.

(f) All holding-down bolts of the starboard main engine were stretched and one sheared off completely. The engine developed considerable vibration which was partially eliminated by tightening holding-down bolts and replacing the sheared bolt. Inspection at Manus indicated the engine was raised, leaving excessive crankshaft clearance aft. Canvas expansion joints of the air duct to Nos. 3 and 4 boilers were badly torn. Jury joints were promptly rigged, using blankets, canvas and wire.

(g) The after guy wire on the main truck carried away, the ABK antenna support rod was broken, and minor shock damage occurred to the SK, VHF and YE antennas.

7E-5. Fragments from the exploding plane and bomb pierced the hangar and gallery deck bulkheads, the forward port stack, five life rafts, the gig and two fuel oil hoses in eighty places, leaving holes ranging in diameter from 1/2 inch to 12 inches. One section of the main gasoline fueling line, 14 inches long, was carried away by bomb fragments, two risers were fractured and one 3-inch valve was broken. As a result, the port gasoline fueling stations aft of frame 60 were inoperative. Gasoline had been drained back and lines purged previously; consequently, no fires resulted.

7E-6. Flooding. A small leak of an undetermined nature occurred into gasoline void A-406V. Water rose to a depth of 36 inches during the action, but was pumped out, and the compartment remained dry until

2 days later when a distant depth charge attack caused a total of 4 inches of water to enter in a half hour. No other leaks or flooding were reported.

7E-7. Conclusion. The effect of the shell near-miss on the fighting efficiency of the ship was temporary. Within eight minutes, steering control was restored, the gyro was back in commission and all lights were on. With the restoration of full electric power, the ship was able to maintain station at the prescribed formation flank speed. It is significant that WHITE PLAINS did not lose main propulsion power when all electrical power was lost through the opening of generator circuit breakers by shock, as occurred in SANGAMON (see Section VII(D)). This may be attributed to the fact that vital main machinery auxiliaries were steam-driven rather than electric-driven as on SANGAMON.

SECTION VII (F)

MARCUS ISLAND (CVE77)

KAMIKAZE DAMAGE

7F-1. On 15 December 1944, MARCUS ISLAND was providing aerial escort and air cover for the Mindoro Attack Group in the approach to, and initial seizure of, the Mindoro Beachhead, Mindoro Island.

7F-2. At 0825, three planes were observed on the port quarter at an altitude of about 15,000 feet. One of the planes disappeared into a cloud. Of the remaining two planes, one crossed over the stern of the ship to the starboard quarter and the other made a steep turn and dived straight at the ship, passing from the port quarter to the starboard bow. This plane was hit by 20mm anti-aircraft fire which caused it to smoke slightly in the last 1,000 feet of its dive, but it persisted on its course. The left wing tip hit the starboard forward end of the starboard lookout platform and was torn off. The plane crashed about 20 feet off the starboard bow. Two lookouts were casualties. No material damage to the ship was reported.

7F-3. The plane which had crossed to the starboard quarter also entered a dive directly at the ship. The line of flight was from starboard quarter to port bow. This plane was heavily hit by anti-aircraft fire from 20mm guns. It crashed into the water some 30 feet off the port bow about 10 seconds after the first plane crashed. A bomb carried by the plane detonated upon impact with the water. The ship suffered only minor damage from fragments, which made many small indentations in the shell plating in way of the forecastle and opened one small hole in the shell above the waterline. The port door in the superstructure, opening to the forecastle, was blown in. Water thrown up by the two plane crashes drenched the ship, except the last 60 feet of the flight deck.

SECTION VII (G)

SAVO ISLAND (CVE'78)

KAMIKAZE DAMAGE

7G-1. On 5 January 1945, SAVO ISLAND was operating with Task Unit 77.4.2 in support of the Lingayen landings. About 1748, one of a group of five attacking Japanese planes banked toward SAVO ISLAND and was taken under fire by the forward port battery of the ship as it broke off in a direct dive toward the bridge structure. At about 800 yards and an altitude of 300 feet the plane,which was believed to be an OSCAR 2, began trailing smoke and gasoline. The plane continued in toward the bridge as the ship commenced to swing in response to full right rudder which had been ordered by the Commanding Officer. The left wing tip struck the base of the SK radar antenna and was sheared off as the wing continued into the mast, 3 feet above the step. The SK antenna base received no damage beyond denting. The mast was heavily scored and a bracket support was ruptured. Two TBS, the YE and the SG antennas were severed and 10 feet of the SG radar wave guide were demolished. Several halyards were severed and the middle set of the port vertical fighting lights was sheared off.

7G-2. The Kamikaze crashed into the sea close aboard to starboard, amidships, with a large explosion. From observation of the plane during its approach, and as a result of the explosion, the plane was believed to have carried an instantaneously fused, 1000-pound bomb. The type of bomb was not reported*. Fragments pierced the hangar deck enclosure in several places and holed the gasoline line to riser station No. 7. The hangar deck gasoline drain line was also punctured. Although not reported, it is probable that the gasoline lines were drained and purged, since there were no fires and no gasoline leakage. No mining effect or blast damage as a result of the bomb detonation were reported.

7G-3. Other damage incident to this attack was slight. Small caliber punctures in smoke tanks on No. 6 sponson on the port side, holes in the wing of a TBM parked on the flight deck, and slugs recovered in the hangar indicate that the plane was strafing during its approach. A TBM parked on the starboard side of the flight deck forward was set on fire, presumably by a strafing bullet. The fire was extinguished with no material damage. There were no personnel injuries and repairs to the damaged communication and control instruments were quickly effected.

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* This may have been a 500 Kg SAP bomb

SECTION VII (H)

KADASHAN BAY (CVE76)

KAMIKAZE DAMAGE

7H-1. On 8 January 1945, KADASHAN BAY, which with MARCUS ISLAND (CVE77) and escorts constituted Task Unit 77.4.4, was engaged in escorting three convoys enroute to Lingayen Gulf for the attack on Luzon.

7H-2. At 0716, a group of enemy planes was detected by radar apparently rendezvousing over the coast of Luzon about fifty miles to the east. These soon broke up into three separate attack groups. Shortly after VF's were launched at 0748, a dogfight was observed about 10 miles to the east from which a single plane broke away and headed toward the ship. The rudder was put hard left and the ship turned rapidly during the plane's approach.

7H-3. KADASHAN BAY was at General Quarters, Material Condition "ABLE" had been set, and the gasoline system had been drained and purged.

7H-4. The approaching plane (identified as an OSCAR) came in on the starboard side at a 20 degree dive at high speed. Two small bombs (estimated to have been 250 -pound GP*) were observed, one under each wing. They were not released prior to the plane's striking the ship. All starboard automatic weapons and the 5-inch battery opened fire at about 5,000 yards. Small puffs of smoke and flame indicated that the plane was hit, but it was not stopped.

7H-5. The pilot apparently headed for the bridge during his approach, but when very close to the ship, the plane's nose dropped and it struck the ship at the waterline, about 4 feet aft of frame 66.

7H-6. Shock was noted, but shock damage was not serious. Five planes on the flight deck were thrown together and slightly damaged, and a few radar tubes and other fragile equipment were damaged.

7H-7. Distribution of bomb fragments indicates that the bomb on the right wing detonated on impact with the shell plating and the bomb on the left wing penetrated into the hull before detonating. Both bombs contained incendiary pellets, some of which were found with the bomb fragments. The sound and damage effects indicate that the detonations were low order.

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* Probably 70 Kg incendiary bombs.

7H-8. Structural damage was as follows:

(a) Two holes were opened in the shell plating on the starboard side; one, 17 feet - 6 inches by 9 feet, extended from the second deck to the first platform deck between frames 64 and 71; the other, 15 inches in diameter, was one inch below the first platform deck between frames 70 and 71. These holes permitted A-303L, A-305L, A-407A, A-304E and A-305 Gas to flood.

(b) Two holes were torn in the first platform in A-305L, one 8 feet by 2-1/2 inches and the other 20 inches by 8 inches, 10 feet inboard of the starboard side in the vicinity of frame 67.

(c) Bulkhead 66 was ruptured in two places. One opening, 5 feet by 4 feet, extended inboard from the starboard side 4 feet above the first platform. The other opening, a tear 6 feet long, started at the first platform deck 10 feet inboard of the starboard side. The bulkhead was badly bulged above the inner rupture, and in an area 66 inches by 33 inches below the first platform deck.

(d) A total of seven overhead beams in A-303L, A-305L and A-407A were bent and twisted.

(e) The starboard bulkhead of A-304E was ruptured near the deck and broken loose from bulkhead 66. This permitted the gasoline pump room to flood.

(f) Approximately 200 square feet of divisional bulkheads in A-205L were badly bent and several areas of the second deck plating were bulged and broken away from partition bulkhead stiffeners as a result of the plane crash and the ensuing fire.

7H-9. Division bulkheads, furniture, electric cable, lights, fans and fixtures, fiber-glass bulkhead insulation, piping insulation, 45% of all ventilation ducting, and 10% of all water, vent and drain piping were damaged beyond repair in compartments A-303L and A-305L. The gasoline system was out of commission for 44 hours due to flooding of the pump room, damaged piping and bending of the pump shafts. The inert gas system became inoperative due to damage caused by submergence of electric motors and appurtenances. Damaged electrical circuits included the "M" loop degaussing circuit and I.C. circuits 2JZ, CO, F, Y, and XL.

7H-10. Fires. Gasoline from the Kamikaze, thrown over the starboard shell plating in the vicinity of the impact, ignited but was quickly extinguished. Fires of considerably greater intensity were started in A-303L and A-305L, and the forward part of the ship was soon filled with smoke. Immediate steps were taken to control the fires. Sprinklers in A-303L and A-305L were turned on and fire parties entered the compartments with hoses and fog nozzles. Flood water soon drove them out, but the fires had been effectively contained within their original boundaries and were quickly extinguished by the combined effects of the sprinklers and the flood water. All fires were out by 0802, some twenty minutes after they were ignited, but there were considerable gasoline fumes in the forward part of the ship. It was believed at the time that

the gasoline tanks had been ruptured. Most of the fumes were dissipated by 0915, however, and no further evidence of leaking gasoline, other than a slight film on the surface of the flood water in A-304E, was found.

7H-11. Flooding. Although the large hole in the side of the ship extended only 1 foot below the water level, the swell, heeling due to rudder action, and the progressive increase in trim forward caused rapid flooding of compartments A-303L, A-304L, A-304E, A-305Gas and A-407A. Draft prior to the damage was 19 feet forward and 21 feet aft; draft after damage was 26 feet forward and 19 feet-1 inch aft. There was no list. In an effort to decrease the trim, ballast was pumped out of A-903F and A-904F. This reduced trim by the bow by 1 foot. It was recognized, however, that removal of the low ballast weight had an adverse effect on stability and it was intended to reflood these two tanks if heavy weather were encountered. Bulkheads 48 and 84 were examined and found to be tight and holding, but were shored as a precautionary measure. The size of the hole in the shell precluded any effort to dewater the flooded compartments with the ship's equipment, except A-304E. In order to place the gasoline system back in operation, this compartment was entered from the elevator pit, holes in the starboard bulkhead were plugged, and, despite the presence of some gasoline on the surface of the water, the compartment was pumped down. Work was slow, but was successfully completed. Repairs to the gasoline system were sufficient to place it in operation effectively by the evening of 9 January.

7H-12. Conclusion. Although damage was severe and flooding extensive, the areas affected, except for the gasoline pump room, A-304E, were relatively nonvital. Damage to the gasoline system, however, left KADASHAN BAY inoperative as a carrier until the system was repaired and placed in operation on the day following the attack. Loss of the living quarters was not serious, but would have greatly reduced her fighting efficiency in a long campaign. The loss of stability, due to the flooding which presented a large area of free surface, left little margin for further damage.

SECTION VII (I)

KITKUN BAY (CVE71)

KAMIKAZE DAMAGE

7I-1. On the evening of 8 January 1945, KITKUN BAY was a member of a task unit providing air coverage for transports enroute to the Lingayen Gulf landings.

7I-2. At 1810, enemy planes were reported closing the formation; so KITKUN BAY went to General Quarters and increased speed to 16 knots. The attack was broken up and at sunset, 1847, speed was reduced to 10 knots.

7I-3. Two enemy aircraft circled the formation at 1855, and in the face of intense AA fire from all ships within range, one plane made a suicide dive on KITKUN BAY. The plane made a steep dive from a relative bearing of 330°, leveled off about 300 yards from the ship and crashed into the port side at the water line amidships. Two bombs carried by the plane were recovered unexploded. An explosion, which was reported to have followed the crash of the plane, probably involved the plane's gasoline tanks.

7I-4. A hole about 7 feet wide by 15 feet long, extending from under the second deck to several feet below the waterline, was opened in the side of the ship between frames 113 and 119. The plane's engine passed through generator room B-301-8E where it demolished the switchboard, then penetrated bulkhead 118 into the after machinery room, and lodged in the forward end of No. 3 boiler. One bomb carried by the plane lodged in No. 3 boiler and the other was imbedded in a sea connection line in the machine shop, B-407E. The rupture in bulkhead 118 extended 11 feet in from the shell.

7I-5. At the instant the plane crashed into the ship, a stray projectile, identified from fragments as a 5-inch AA projectile, struck and detonated against the rail of the starboard catwalk at frame 136. This hit caused fragment damage in the area and killed 13 men stationed in the vicinity. No fires were reported as a result of the hit.

7I-6. All electrical power was lost immediately following the Kamikaze hit. Flames from the explosion which followed the crash enveloped the port side of the after machinery compartment and the order to abandon the space was given. The boiler crew made their exit via escape trunk B-2T located near the after bulkhead on the port side. These men were all burned, several seriously. The engine crew went up ladders on the after starboard side. The last to leave reported the com-

partment to be full of smoke and suffocating fumes. At 1904, the order to stand by to abandon ship was passed and the forward machinery space was evacuted; consequently, all power was lost.

7I-7. At 1923, the order was given for all but the ship-salvage party to evacuate to destroyers and destroyer escort vessels standing by. Wounded were shifted first, and in all, about two-thirds of the crew were transferred. The ship-salvage party included damage control and engineering personnel and part of the air department.

7I-8. Subsequent investigation revealed the forward engineroom to be free of smoke and fumes. There was no water in the bilges and there were only a few weeps around piping running through bulkhead 100. Preparations were commenced to light off the boilers. Steam pressure was zero and no water was visible in the sight glasses. Personnel gambled that there was still water in the boiler. A Diesel oil hand pump supplied sufficient Diesel oil initially to light off the boilers and raise 60 pounds pressure which was adequate to operate a fuel oil service pump. By 2000, enough steam was available to operate the entire forward machinery plant, including No. 1 turbo-generator. Salinity of the feed water was high. This was corrected when it was discovered that a drain line leading to the after machinery space was open.

7I-9. At 2010, a tow line was secured from CHOWANOC (ATF100), and at 2045, KITKUN BAY was under tow at 5 knots. Steering, the evaporators, both elevators, the after capstan, the anchor windlass, and much of the radar and radio equipment were in operation soon after power was restored. By 0730 on 9 January, salinity of the boiler feed water was reduced to a normal value and the forward main engine was turned over. The tow was dropped and KITKUN BAY proceeded under her own power at 8 knots, with 5-10 degrees left rudder. Survivors were returned to the ship and KITKUN BAY resumed operations in the objective area until the evening of 10 January. Weather conditions then made it advisable for her to proceed to Leyte Gulf where a patch was installed over the hole in the shell plating. She then proceeded to Manus for temporary repairs.

7I-10. Messing was difficult at first and several cold meals were served before steam, light and power were restored to all the galleys. Although refrigeration machinery was out of commission, meat temperatures remained safe for eight days, after which the remaining supply was transferred to other activities. Drinking water was carried to a topside distribution station in buckets and chlorinated for protection. Salt water was connected to shower and washroom facilities.

7I-11. Fires. Information on measures taken to fight the fire in the after engineroom is very incomplete. It was stated that one escort

vessel came alongside and placed three hoses in operation within three minutes of the crash. Fires were reported out at 1910, although the ship still was filled with smoke. It is probable that flooding in the after engineroom was primarily responsible for extinguishing the major conflagration.

7I-12. Flooding. Damage water poured through the hole in the port side into the port half of compartment B-301, through the transverse passage at frame 110 into the starboard half of B-301, through the non-tight first platform deck into B-407 and through the hole in the port side of bulkhead 118 into the after machinery space. By 1904 the ship had assumed a maximum port list of 13 degrees with a trim of 4 feet by the stern. As flooding equalized athwartship through the narrow passages at frame 110 on the 1st platform and tank top, the list gradually decreased until it was only 4 degrees at 1950. Bulkheads 100 and 136 were shored by damage control personnel. After steam was raised, fuel oil was transferred to empty starboard tanks for additional list correction. No information is available as to the draft before and after damage and the amount of fuel oil transferred; however, it was indicated that the list was removed by the morning of 9 January. Although no fire was reported above the second deck, hangar sprinkling apparently was turned on for an unreported period of time, so that there was a free surface effect on the hangar deck. The ship's rolling characteristics indicated low stability, which was somewhat improved by the removal of the water from the second deck. She still exhibited the characteristic tenderness of low stability, however, heeling considerably in response to small shifts of weight and to changes in the wind direction. In Leyte Gulf a cofferdam was constructed over the large hole in the side, the flooded spaces were pumped out and a steel plate patch was welded over the hole. This enabled the ship to proceed to Manus where more extensive temporary repairs were effected.

7I-13. Conclusion. Had not night been setting in with consequent cessation of enemy air attacks, loss of all power in KITKUN BAY might have had serious consequences. Damage fortunately was not as great as estimated subsequent to the plane crash. The forward machinery plant was undamaged. The ship salvage party was able to place the forward engineroom back in operation without undue difficulty. The fire which followed the crash did not reach serious proportions and was rapidly extinguished by flood water which, though extensive, did not seriously jeopardize the ship.

SECTION VII (J)

SALAMAUA (CVE96)

KAMIKAZE DAMAGE

7J-1. On 13 January 1945, while operating in the South China Sea, SALAMAUA was unexpectedly attacked by a single-engine Japanese bomber which approached the ship undetected. The enemy plane, carrying two bombs estimated by the ship to have been 200 Kg with delayed action fuzes*, dived almost vertically into the carrier and struck the flight deck at frame 133 slightly to starboard of the centerline.

7J-2. Parts of the plane and the two bombs penetrated the ship deeply in a direction aft and to starboard. The plane and bombs left a hole 16 feet by 32 feet in the flight deck, a hole 16 feet by 48 feet in the gallery deck and three smaller holes in the hangar deck. The engine and ports of the fuselage penetrated to the tank top where they lodged against frame 141. One bomb penetrated the second deck and passed out through the starboard shell just above the waterline, frame 137, without detonating. The other bomb penetrated to within 4 or 5 feet of the tank top, frame 140, about 18 feet to starboard of the centerline, and detonated. A total of 3 inches of wood and 1.6 inches of medium steel decks and bulkheads was pierced by the second bomb before it detonated.

7J-3. At 0845, the time of the attack, SALAMAUA was in Material Condition ABLE EASY and the Air Department was preparing to launch a strike at 0900. An unspecified number of bombs, depth charges and other ammunition were in the hangar, where arming of the planes was underway. Planes were fueled and, although not reported, it is probable the gasoline system was secured. Four torpedoes were in stowage racks at frame 147 on the starboard side of the hangar deck.

7J-4. Penetration of the plane and its bombs into the ship resulted in distortion of flight deck transverse bents 130 and 136, compressive failure of metal joiner bulkheads on the gallery deck from severe deflection of the flight deck, local distortion of the hangar deck and bulkhead 136 on the second deck, and perforation of decks all the way down to the tank top. The arresting gear at frame 131 and electric cables in the overhead of the second deck were cut.

7J-5. Detonation of the bomb in clothing and small stores stowage C-401-3A blew a 10-foot hole in bulkhead 136 between the after machinery space, B-2, and C-401-3A; demolished the bulkheads between C-401-3A and small stores issue room C-401-1A, passage C-401-1T, the starboard shaft alley, C-903V, and aircraft ammunition stowage C-401 1/2M; blew a hole in the tank top (inner bottom) between frames 137 and 140, starboard side; twisted frames 137 to 141 in the inner bottom, star-

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* Probably 250 Kg GP bombs.

board side; blew a hole in the first platform deck between frames 137 and 141, starboard side; damaged bulkheads between dry provision storeroom C-301-3A and butcher shop C-301-6A, and the starboard bulkhead of refrigerator meat box C-301-10A; blew a 10-foot diameter hole in the second deck between frames 137 and 140, starboard side; demolished all non-watertight bulkheads in the galley-bakery area, C-201L; warped bomb hatch 1-156 in the hangar deck over C-202L; and warped the after port uptake casing at the gallery deck level. Fragments penetrated the starboard shell plating below the waterline but above the tank top in ten places between frames 137 and 140. The tank top (inner bottom) and small stores stowed in C-401-3A protected the bottom shell plating against rupture by blast or fragments from this bomb.

7J-6. All piping on the starboard side of the ship below the second deck between frames 136 and 152 was damaged by blast. The fire main cross-connection in the after machinery space was ruptured at valve 4-135-1. Telemotor lines were damaged, temporarily impairing the ship's maneuverability, but emergency steering aft functioned. All machinery and electrical equipment and cables in the after machinery space, refrigerator area, stores area and both shaft alleys were submerged in salt water and oil for a period of over 48 hours. Machinery required overhaul, and in some cases replacement, and all electric cable required replacement. The bearings in the port shaft alley ran in salt water for 72 hours without servicing. They were relined at Leyte.

7J-7. Fires. Fires were ignited on the flight deck, on the hangar deck and in the immediate area of the bomb detonation. The fire on the flight deck was rapidly extinguished by the use of CO2 and the fires ignited by the bomb detonation were quickly smothered by steam from ruptured steam lines and CO2 from lines to the aviation storeroom, C-302A, which were ruptured in C-301A. The valves of the CO2 bottles were opened by unknown causes. The influx of flood water into the hold also helped to extinguish the fires ignited by the bomb detonation. The fire on the hangar deck was of more serious proportions. This fire was fed by mattresses and bedding carried down from gallery deck spaces by the plane crash, by gasoline from the Japanese plane and by oil from servicing drums. The bombs and depth charges in the hangar were in the immediate vicinity of the fire. Three hydrostatic fuzes, which were ready for installation in depth charges, exploded and showered the fire fighting parties with fragments. Fortunately, other detonations were not initiated and all bombs, depth charges and other ammunition in the hangar, except the torpedoes stowed aft, were jettisoned. Water pressure failed aft in the hangar as a result of the damage to the fire main cross-connection in the after machinery space. Pressure remained available to forward sprinklers, water curtains and fireplugs, however, and the hangar deck fire was rapidly isolated. All fires were under control within thirty minutes of the plane crash. Aircraft ammunition in C-401-1/2M apparently was not affected by the bomb detonation which demolished the starboard bulkhead of the magazine.

7J-8. Flooding. Flooding occurred first into C-401-3A through the bomb-fragment holes in the starboard shell between frames 137 and 140 about 8 feet above the tank top. As the ship settled from this initial flooding, water poured into C-301-1A through the 20-inch exit hole in the shell plating created by the dud bomb. The after machinery space, B-2, flooded through the hole in bulkhead 136. The starboard shaft alley, C-903V, flooded through the ruptured bulkhead and the port shaft alley, C-902V, apparently flooded through an open or distorted access door in bulkhead 136 from the after machinery space. The after machinery space, frames 120-136, and refrigerator and stowage spaces, frames 136-152, flooded to within a foot of the second deck. Draft before damage was 19 feet-6 inches forward, 21 feet-6 inches aft, and after damage 22 feet-0 inches forward, 25 feet-6 inches aft. The flooding caused an 8 degree list to starboard.

7J-9. The forward machinery space remained operative and the ship was ordered to proceed independently to the south to rendezvous with a salvage tug and eventually with a slow convoy bound for Leyte.

7J-10. On the 14th, a 6-inch gasoline-driven salvage pump from APACHE was rigged on the hangar deck. Pumping was started and continued successfully until the level of the flooded compartments had been reduced about 4 feet, when the suction limit of the pump was reached. Then pumping was secured while the pump was relocated to the second deck. Holes were plugged underwater, and by the 16th, the water level was lowered below the tank tops and no more flooding was taking place.

7J-11. Conclusion. Detonation of the bomb in the midst of small stores, which absorbed many fragments, limited the extent of fragment damage, particularly to bulkhead 152, the after bulkhead of the small stores stowage. This bulkhead was not penetrated. The deep penetration of the bomb even with low striking velocity should be noted. Had the bomb detonated a few frame spaces farther aft where hot fragments could have attacked light-cased munitions in bomb stowage C-402M, frames 152 to 168, a magazine explosion would probably have followed.

SECTION VII (K)

LUNGA POINT (CVE94)

KAMIKAZE DAMAGE

7K-1. On 21 February 1945, while operating off Iwo Jima as part of the support group, LUNGA POINT was attacked just after sunset by four Japanese torpedo planes, later identified as JILLS. The first two planes each launched a torpedo which passed 50 to 100 yards ahead of the ship. The first plane was then hit by 5-inch, 40mm and 20mm bursts from the ship, exploded and fell into the sea about 200 yards from LUNGA POINT on the starboard quarter. The second plane was so close to the first that it was not fired upon. The third plane, close behind the second and low on the water, was taken under fire at about 1000 yards. At about 600 yards it launched a third torpedo, which passed 10 to 15 yards astern of the ship. This plane, after being set afire by 40mm bursts, headed for the island. Just before it hit, the plane's gasoline tanks exploded and it started to burn furiously. The fourth plane apparently was hit at point blank range by the 5-inch battery before its torpedo was launched.

7K-2. The third plane, afire from anti-aircraft bursts, struck the island structure just above the flight deck at about frame 68 starboard. The starboard wing was sheared off by the island and fell on the flag bags; the right landing gear, which had extended during the final approach, was torn off and lodged in the starboard catwalk, frame 69, against the bulkhead of compartment A-0208-3C; and the major portion of the plane skidded across the flight deck, over the catwalk and off the port side. Burning gasoline was scattered over the lower, after end of the island, the starboard catwalk aft of the island, the lower signal platform, the flight deck and the port catwalk.

7K-3. Damage received was light and may be briefly summarized as follows:

(a) Radio transmitter antennae inverted "L" was carried away and TBK, TBL, and TBF rendered inoperative by broken insulators.

(b) Island structure aft and outboard was burned from the signal platform to the navigation bridge. The starboard bulkhead of the Captain's sea cabin received a 3-inch dent about 12 inches in diameter at frame 65.

(c) Voice tube from bridge to signal platform was collapsed.

(d) RDF antenna truck was deformed and loop aerial was severed.

(e) All flag halyards, except the two outer ones, were carried away.

(f) The ladder from the signal platform to the flight deck was demolished.
(g) The power exhaust vent for the radar transmitter room, A-0208-3D, was carried away, leaving an 18-inch hole in the bulkhead.
(h) The flight deck was scorched and scarred by propeller marks.
(i) Port barrier support No. B2 was carried over the side and starboard barrier support No. B3 was distorted beyond repair; the barrier cables were carried away.
(j) Abandon ship manropes and other cordage in both port and starboard catwalks were burned and scorched.

7K-4. Fires. The disposition of planes on board the carrier at the time of the crash is not known, but none were involved in the conflagration on the flight deck. Burning gasoline on the deck was attacked with low velocity fog from fireplug 02-53-6 and high velocity fog from fireplug 02-107-1. As the fire on the flight deck was brought under control, these hoses, together with chemical foam from fireplug 02-53-8A, were brought into play against the fire on the signal platform and after part of the island structure. Fog, foam, and solid streams were used. Personnel in the radar transmitter room used three 15-pound CO2 bottles against fire entering through the opening where the exhaust vent had been carried away. Hose was led from fireplug 02-53-3 in passage A-0207-1T through the radar transmitter room to combat the fire on the signal platform and adjacent catwalk. The fire on the flight deck was extinguished in approximately 3 minutes and the fire on the signal platform, catwalk, and after bulkheads of the island was extinguished in about 5 minutes.

7K-5. Conclusion. Fire fighting was prompt and effective. Damage was light and the ship was fully operative by 0600 the following day.

SECTION VII (L)

WAKE ISLAND (CVE65)

KAMIKAZE DAMAGE

7L-1. On 3 April 1945, WAKE ISLAND was carrying out air operations in support of the forces on Okinawa. The weather was partly cloudy, visibility about 10 miles and a high swell was running. At 1741, enemy planes were sighted and General Quarters was sounded. At 1744, an unidentified Japanese suicide plane crashed into the water 100 yards off the starboard bow. At 1744 1/2, a second Japanese suicide plane, believed to have been an OSCAR carrying an estimated 250 Kg GP bomb, crashed into the water close aboard the starboard bow abreast frame 24.

7L-2. The bomb detonated high order and an extreme flexure was felt throughout the ship which caused structural damage in areas remote from the bow. Condition ABLE had not been completely set throughout the ship, but subsequent inspection showed all Condition ABLE damage control settings were made in the area of direct damage with the exception of watertight door 3-33-4. Twelve compartments forward were opened to the sea by the bomb detonation and immediately thereafter, the ship trimmed by the head. Within a period of 5 minutes, a 4 degree starboard list occurred. There were strong fuel oil fumes throughout the forward compartments. Fire hoses were led out in all accessible spaces surrounding the damage, but no fires developed.

7L-3. Propulsion was not immediately affected, but within an hour salting-up of the feedwater system forced a shutdown of the forward machinery plant for 3 hours while the cause was determined and isolated. At 1924, WAKE ISLAND left the formation and proceeded to Kerama Retto for temporary repairs.

7L-4. The shell plating was holed on the starboard side with an inverted triangular opening between frames 14 and 38, which extended from the keel to the first platform. The base of the triangle was just below the first platform and the apex was located at frame 24 near the keel. Shell plating was folded inward along all three sides of the opening. Athwartship bulkheads at frames 26, 32, and 35 between the tank top and first platform were ruptured or carried away. The first platform was ruptured along a longitudinal seam in the deck plating from the forward starboard corner of the starboard ammunition hoist at bulkhead 32, aft to about frame 38. Bulkhead 32 was wrinkled on the starboard side immediately above the first platform deck. Shell plating was dished in to a depth of 6 or 8 inches between frames 25 and 39, from just above the rupture to immediately below the second deck.

7L-5. Flexural vibration of the hull cracked the shell plating between frames 100 and 101 on the starboard side from a point 10 inches above the second deck upwards through the main deck to the top of the sheer strake. The main deck was cracked inboard from the sheer strake along a welded butt in the deck stringer plate about 15 inches. The two cracks in the shell plating and in the deck plating were open a maximum of 3/8 inch. Shell plating was buckled and wrinkled between frames 146 and 149 from the tank top to the keel on the starboard side and from the keel to a point 3 feet below the tank top on the port side. The wrinkles were in the form of smooth arcs between frames to a depth of 3-1/2 inches. The longitudinal outboard bulkheads of the port and starboard shaft alleys were buckled between frames 148 and 149. Vertical and horizontal expansion joints at frames 101 and 146 were deformed and ruptured. Sheathing on the overhead of upper deck spaces on the starboard side between frames 20 and 42 was torn and deformed.

7L-6. The bomb detonation produced little shock damage. Cooling water piping to the main thrust bearing in the forward engineroom, to the port shaft steady bearing in the shaft alley, and to the port stern tube was fractured; 18 toilet bowls and 2 lavatories in A-202L and scuttle butts in A-202T and A-203L were broken; joiner bulkheads in A-202T and A-0201-3/4T were torn or pulled from their bases; and a holding-down strap from the catapult high pressure air flask was broken.

7L-7. All lighting in compartments A-301L, A-302L, A-202L, A-202T, A-203L, A-205L, and A-103L went out as a result of the destruction of general and battle lighting circuits in the area forward of bulkhead 46 directly affected by the bomb detonation. Power circuit feeders, the general announcing system and sound powered telephone circuits in the area were also damaged. The degaussing M coil, although submerged and dislodged from its supports, was still aperative.

7L-8. The forward and after feed water systems salted up from the port and starboard steam heating return drain piping from the flooded compartments. This was at first attributed to serious leaks in the condenser. No. 1 boiler and the forward main engine were secured. Further investigation disclosed the correct source of the salt and the drainage was directed to the bilges since there were no isolation valves in the drain lines. After several hours, normal operation was resumed. The boilers were blown down for a five-minute interval each hour until a safe operating chlorine content was reached after 24 hours. The after machinery space feed water system indicated only a minor trace of salt.

7L-9. Flooding and Damage Control. Compartments A-901F, A-903F, A-401A, A-402M, A-403M, A-404M, and A-405M were flooded completely. A-404-1MT, A-404-2MT, A-404-4MT, A-301L, and A-302L

were flooded to within 18 inches of the second deck. The ship's draft, which was approximately 19 feet-9 inches forward and 21 feet-10 inches aft prior to the damage, increased to 22 feet-2 inches forward and 20 feet-3 inches aft subsequent to the damage, and the ship assumed a 4 degree list to starboard.

7L-10. Flooding boundaries were established at the second deck and at bulkhead 46, the forward bulkhead of A-303L. Wrestling mats, backed by timbers heavily shored to the overhead, were placed over companionway hatches in the second deck and bulkhead 46 was shored. Fuel tanks C-907F and C-908F were ballasted in order to reduce the trim and the surging effect of the water against bulkhead 46.

7L-11. While at Kerama Retto the wrestling mats and timber backings over hatches in the second deck were replaced with 20-pound steel plates placed on rubber gaskets and additional shoring was installed against bulkhead 46. The crack in the sheer strake at frame 101 was temporarily repaired by welding it from top to bottom both inside and outside, by welding a 35-pound lap plate, 16 inches wide by 42 inches high, on the outside, and by welding short lengths of flat bar across the weld on the inside of the hull. The crack in the main deck stringer plate was welded and the deck was reinforced by a 4-inch welded angle which was welded across the crack. Upon leaving Kerama Retto for the rear areas, tanks C-907F and C-908F were emptied to reduce hogging stresses as much as possible.

7L-12. Conclusion. WAKE ISLAND is the only CVE reported to have experienced buckling of the bottom shell as a result of severe flexural vibrations caused by explosive loading. The strength of the bottom in compression was so reduced by this deformation that only replacement of all damaged structure would have restored the longitudinal strength. Therefore the Bureau of Ships recommended that the vessel be not retained even in an inactive status without complete repairs. WAKE ISLAND was stricken from the Navy list April 1947.

SECTION VII (M)

NATOMA BAY (CVE62)

KAMIKAZE DAMAGE

7M-1. On 7 June 1945, during a strike on Miyako Shima, during the Okinawa Campaign, NATOMA BAY sustained a hit by a Japanese suicide plane.

7M-2. At 0635, while on course 145°T., a ZEKE was observed broad on the port quarter about 700 to 800 yards distant and at an altitude of about 500 feet headed toward the ship. The plane made a sharp left turn and came in over the stern in about a 20 degree glide along the centerline. As it approached, the plane strafed the SK radar antenna and the flight deck with incendiary ammunition. When about abreast of the bridge, and at the bridge level, the plane turned sharply and crashed into the forward end of the flight deck, just abaft the ramp, between the centerline and the catapult track. The plane disintegrated upon impact. The wings and fuselage went over the bow, and the propeller, engine and a bomb, identified from fragments as a type 99, 63 Kg SAP, penetrated the flight deck. The bomb detonated in the open space between the flight and forecastle decks.

7M-3. The impact of the plane opened a hole in the flight deck approximately 13 feet wide by 28 feet long. The main supports of the flight deck and catapult track forward of frame 26 were distorted and weakened. The port longidudinal flight deck girder was bowed between frames 20 and 26, undistorted between frames 14 and 20, and severely distorted and pierced by fragments forward of frame 14. Similar damage was sustained by the starboard and centerline longitudinal flight deck girders. The transverse bent at frame 14 was severely distorted and pierced by fragments between the port and starboard girders. All flight deck stringers between the centerline and port girders forward of frame 20 were either partially carried away or badly distorted and stringers between the centerline and starboard girders were distorted. The ramp beam was bulged between the centerline and port girders. The forward, port end of the flight deck, including the catapult track, sagged from 3 to 6 inches as a result of the damage to the supporting structure.

7M-4. A great part of the blast effect and fragments from the bomb detonation was absorbed by the anchor windlass. Extensive damage was sustained by the gears, brake assemblies, wildcats, base and housing. Many of the fragments pierced the upper deck, leaving holes from 2 inches to 18 inches in diameter, and carried into the chain locker, A-201E. The overhead of the boatswain's stores, A-101A, was penetrated and

stiffeners between the chain locker and the port shell were warped. Although there were several deep gouges on the inside of the shell plates in this area, the plates were not penetrated. Fragments also entered officers' staterooms 0101 and 0102, where they did little damage, and penetrated the overhead of the sail locker and the brig. Electric cables of the degausing system, the anchor windlass power circuits, lighting circuits to the sail locker, brig, forward officers' country, anchor windlass resister room, bow anchor light, starboard running light and forward flight deck lights, and the 1 JV sound-powered phone circuit to the forecastle were cut or damaged by fragments.

7M-5. Fires and Damage Control. The blast and debris from the impact of the suicide plane on the flight deck punctured the starboard gas tanks of an FM-2 which was spotted on the catapult and started a gasoline fire on the flight deck. Burning gasoline from the ruptured tanks spread to the forecastle. The fire on the forecastle deck was quickly brought under control. Smoldering debris was shoveled over the side. The flight deck fire was also extinguished promptly by applications of foam, fog and CO_2, although leaking gasoline reflashed several times. All fires were out by 0643. The fighter, damaged beyond repair, was jettisoned. It was reported that rockets in the wing racks of the plane did not burn or detonate although paint on them peeled.

7M-6. Immediately after the fires were extinguished, repair of the flight and forecastle decks was commenced. The hole in the flight deck was spanned with 6-inch by 6-inch by 14-foot timbers, and covered by 16-foot lengths of flight deck repair planking, sheets of plywood and sheets of steel. Three-inch and four-inch pipe stanchions were installed between the upper deck and the forward overhang of the flight deck to support the weakened flight deck structure. Sheet metal plates were spot-welded over fragment holes in the forecastle deck and caulked with pitch.

7M-7. The catapult was operative continously after the crash and flights were launched before completion of repairs to the flight deck. By 1500, repairs were adequate to permit plane launching by fly-away as well as by catapult. All lighting circuits except the flight deck lights were restored.

7M-8. Conclusion. NATOMA BAY is only one of a number of cases* where the ship's force was called upon to make temporary flight deck repairs. Damage control measures were expeditiously accomplished by NATOMA BAY.

*CABOT (CVL28)	Kamikaze Damage	25 November	1944
ENTERPRISE (CV6)	Bomb Damage	24 August	1942
FANSHAW BAY (CVE70) (1)	Bomb Damage	17 June	1945
HANCOCK (CV19)	Kamikaze Damage	7 April	1945
INTREPID (CV11)	Kamikaze Damage	16 April	1945
LANGLEY (CVL27)	Bomb Damage	21 January	1945
MANILA BAY (CVE61) (2)	Kamikaze Damage	4-5 January	1945
NATOMA BAY (CVE62) (3)	Kamikaze Damage	7 June	1945
SANTEE (CVE29) (4)	Kamikaze Damage	25 October	1944
SUWANEE (CVE27) (5)	Kamikaze Damage	25 October	1944
YORKTOWN (CV5)	Bomb Damage	4 June	1942

(1) See Section VII (A)
(2) See Section IV
(3) See Section VII (M)
(4) See Section V
(5) See Section V