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**OPERATIONS**  
**OF THE**  
**BLUE AIR FORCE**  
**IN**  
**Grand Joint Exercise No. 4.**

**1-12 February 1932**

DECLASSIFIED IAW DOD MEMO OF 3 MAY 1972, SUBJ:  
DECLASSIFICATION OF WWII RECORDS



UNITED STATES FLEET  
AIRCRAFT, BATTLE FORCE  
U. S. S. SARATOGA, FLAGSHIP

Lahaina Roads, T. H.,  
27 February, 1932.

**CONFIDENTIAL**

From: Commander Aircraft, Battle Force.  
To : Commander Battle Force.

Subject: Operations of the BLUE Air Force in Grand Joint Exercise No. 4.

- Reference:
- (a) Grand Joint Exercise No. 4, Estimates, Plans and Orders, Commander BLUE Force, 21 December 1931.
  - (b) Brief of Estimate of the Situation, Commander BLUE Air Force, 25 January, 1932.
  - (c) Campaign Plan No. 1, BLUE Force, 21 Dec., 1931.
  - (d) Comairbatfor Movement Order No. 1—32, of 20 January, 1932.
  - (e) Commander BLUE Air Force Operation Order No. 1, of 25 January, 1932.
  - (f) ComdesdivSix file A-16-3/CDD6, of 28 January, 1932.
  - (g) Commander BLUE Air Force Operation Order No. 2, of 5 February, 1932.
  - (h) Commander BLUE Air Force Raid Plan No. 1.
  - (i) Commander BLUE Air Force Raid Plan No. 2A.
  - (j) Commander BLUE Air Force Raid Plan No. 4.
  - (k) Commander BLUE Air Force Support Plan No. 1.

- Enclosures:
- (A) Track Chart 0045, 1 February to 2400, 6 Feb.
  - (B) Track Chart 0000, 7 February to 2400, 7 Feb.
  - (C) Track Chart 0000, 8 February to 2400, 8 Feb.
  - (D) Track Chart 0000, 9 February to 2400, 9 Feb.
  - (E) Track Chart 0000, 10 February to 1630, 12 Feb.

**PART I**

**CHRONOLOGICAL RECORD OF OPERATIONS**

1. The general object of Grand Joint Exercise No. 4 was to develop coordination and cooperation between the Army and Navy and to train the two Services in the joint operations involved in the attack of a defended area and in the joint operations involved in the defenses of such an area. More specifically it was to determine the effectiveness of an air surface and land attack against OAHU and the adequacy of the air, surface, subsurface and land defenses of OAHU to repel such an attack. The Commander, Battle Force, was designated as the Commander-in-Chief of the BLUE Fleet and the Commander of the Ninth Corps Area was designated as the Commander of the Blue Army Expeditionary Force.

2. The initial situation is summarized from reference (b) as follows:

**"Summary of the Situation.**

"A powerful BLACK Atlantic Fleet, concentrated to cover the movement of large BLACK Army forces overseas for invasion of the BLUE Atlantic Coast, has been decisively defeated. BLACK naval power in the Atlantic has been reduced to a definite inferiority. The remnants of the BLACK Fleet and the BLACK overseas expedition have retired to Eastern Atlantic bases.

"The BLACK naval forces which participated in the capture of OAHU withdrew from that vicinity, leaving a garrison of approximately eighteen thousand troops of all arms, coast defenses in good condition, some fifteen submarines, a small mine squadron and a military air force component.



"No information exists as to the location or strength of any remaining BLACK naval forces in the Pacific. BLUE'S naval superiority is such as to make reasonably certain no naval interference, outside of local units, with the operations against OAHU.

"The BLUE Commander is ordered to recapture and hold OAHU and occupy such other islands as may be necessary to reestablish our control of the HAWAIIAN AREA. To accomplish this task he has available the BLUE Battle Force plus an Expeditionary Force, approximately two divisions, one of Army and one of Marine Corps troops."

3. The BLUE plan, reference (c) was to conduct the campaign in four successive phases, which, in chronological order were:

PHASE A — The preparation of all forces for departure from bases on 1 February, 1932, including the embarkation of the Expeditionary Force in proper order.

PHASE B — The safe conduct of the Expeditionary Force to the places for beginning the landing and attack, including the advance operations.

PHASE C — The attack on OAHU, including the actual landing and establishing of beach heads.

PHASE D — The subsequent operations for the reestablishment of our control of the HAWAIIAN Area.

4. Commander BLUE Air Force, having estimated the situation, reference (b), arrived at the following decision and auxiliary decisions:

DECISION — To deliver a surprise attack on OAHU with all carrier aircraft at daybreak seven February, followed by continued raiding operations in order to reduce BLACK air strength.

AUXILIARY DECISIONS — To sail at 0000 one February.

To attack WHEELER and LUKE FIELDS with massed high speed aircraft and SCHOFIELD BARRACKS with bombers simultaneously during early daylight seven February in order to reduce BLACK air and troop strength and to force him to exhaust his air forces by commencing defensive patrols well in advance of the main landing.

To sweep the outlying fields with high speed aircraft during a later raid and attacked dispersed units.

To prepare type plans for varying hour and methods for subsequent attacks.

To deliver attacks on ground objectives as requested by the Army, using incendiary bombs where most effective.

To plan support operations which involve assigning air units to work under responsible senior officers of other forces where necessary, and to operate the Carrier Division by carrier task groups.

To refuel destroyers on five February.

To confine raiding operations after the first to high speed aircraft until the enemy pursuit strength has been reduced.

5. The requirements of the Commander BLUE Force with reference to Phase A were accomplished by:

- (a) Dispatching GANNET, reference (d), to proceed with MEDUSA in time to arrive HILO not later than sixteen hundred five February, and
- (b) Completing special training and embarking all units prior to midnight 31 January/1February.

6. Phase B began by sortie, reference (e), at 0030, 1 February from Coronado Roads, BLUE Air Force being known during the movement overseas as Advance Raiding Force and consisting of:

- (a) CARRIER DIVISION TWO

SARATOGA (F) (Personnel 2275)

VF One, VF Two, VF Five, VF Six, VS Two, VS Fourteen, Utility Unit.

LEXINGTON

VT One, VT Two, VS Three, VS Fifteen, Utility Unit.



**AIRCRAFT STRENGTH**

Organization	Allowed Strength	Spares on Hand	Liaison	Total
Staff	3	0	0	3
VF One-B	18	2	1	21
VF Two-B	18	1	1	20
VF Five-B	18	0	1	19
VF Six-B	18	1	1	20
VS Two-B	12	2	0	14
VS Fourteen-M	6	0	0	6
LEXINGTON	4	2	0	6
VS Three-B	12	1	0	13
VS Fifteen-M	6	1	0	7
VT One-B	18	0	0	18
VT Two-B	18	0	0	18
<b>Total</b>	<b>152</b>	<b>12</b>	<b>4</b>	<b>171</b>

(b) DESTROYER DIVISION SIX

AARON WARD (F)  
BUCHANAN  
CROWNSHIELD

(c) DESTROYER DIVISION TWELVE

SOUTHARD  
CHANDLER  
LONG  
HOVEY

The remaining unit of BLUE Air Force was Pearl Harbor Fleet Air Base Aircraft, already in HAWAIIAN Waters.

7. During the sortie, Point Affirm was passed at 0045, Point X-Ray at 0112, Point Option at 0139. From Point Option the initial course was 250 degrees True, speed seventeen knots, the Force being disposed as follows: SARATOGA and LEXINGTON in column open order, Destroyer Division Twelve in inner anti-submarine screen, Destroyer Division Six in outer anti-submarine screen (reference (f)).

8. Following an approximate great circle course the force advanced as indicated below, without event:

DAY	TIME	LATITUDE	LONGITUDE
1. Feb.	1200	31-58 N	120-25 W
†2 Feb.	1200	30-27 N	128-09 W
3 Feb.	1200	28-36 N	135-27 W
§4 Feb.	1200	25-43 N	142-17 W
5 Feb.	0600	23-30 N	147-30 W

†Set clocks to Zone plus nine at 1000.

§Set clocks to Zone plus ten at 1400.

This course lies somewhat to the southward of the course originally planned, the change being made to avoid undesirable weather conditions to the northward. Enclosure (A) is a chart showing the track during the overseas movement.



9. At 0600, 5 February, in accordance with paragraph 3 (x) of reference (e) fueling of destroyers was begun, speed being reduced to six knots, course general northerly, moderate swell, no wind. Fuel data is given below:

<u>SARATOGA</u>	
CROWINSHIELD	— 45,743 gals.
BUCHANAN	— 38,597 gals.
AARON WARD	— 38,698 gals.
<u>LEXINGTON</u>	
SOUTHARD	— 35,600 gals.
HOVEY	— 39,250 gals.
CHANDLER	— 31,650 gals.
LONG	— 33,800 gals.

The Commanding Officer, U. S. S. SARATOGA, was of the opinion that 5 February was the only day during the passage to Honolulu when the destroyers could have been refueled without damage. SARATOGA'S noon position 5 February was Latitude 23-50 N, Longitude 147-24 W. SARATOGA completed fueling at 1331. LEXINGTON completed fueling at 1535. During fueling a reduced anti-submarine screen was maintained to such extent as the availability of destroyers permitted. At 1600, course was changed to 237 degrees, speed eleven knots. Disposition during the night 5-6 February was as before, SARATOGA and LEXINGTON in column open order, with inner and outer anti-submarine screens.

10. During 5 February information was received indicating that a BLACK aircraft squadron was based at HANAPEPE FIELD, PORT ALLEN, KAUAI. Commander BLUE Air Force proposed that this field be bombarded by a cruiser after sunset 7 February which plan was approved with the exception of the substitution of one or more destroyers from the Advanced Raiding Force in lieu of a cruiser. Reference (g) was issued to cover this operation, being subsequently modified to omit CROWINSHIELD, reducing the KAUAI Force to two destroyers.

11. At daylight 6 February BUCHANAN and CROWNINSHIELD were disposed as a distant screen twenty miles ahead of the SARATOGA, interval ten miles, BUCHANAN to the southward. AARON WARD was posted as a linking vessel ten miles ahead of SARATOGA. Darken ship was executed at 0000 hours, 6 February, speed being increased to twenty-two knots at 0530. The Force was also placed in Condition Two at this time with the exception that boiler power was limited to that necessary to make twenty-two knots. Clocks were set to Zone plus ten and one half time at 0530, this time being used throughout the remainder of the problem. During the forenoon of 6 February intercepted radio traffic indicated considerable activity on the part of BLACK aircraft and submarines. Radio bearings on submarines indicated their presence almost dead ahead on the course being steered at that time, 261 degrees True. Noon position on 6 February was, Latitude 22-06 N, Longitude 151-55 W. During the afternoon of 6 February Commander BLUE Air Force announced that his intention was to approach OAHU and MOLOKAI until he could fix his position by MOLOKAI POINT Light and MAKAPUU POINT Light. From this fix he planned to turn to the northwestward and reach a point twenty miles to the northwest of KAHUKU POINT at 0500, when another turn would be made to the northeast after which the carriers would proceed to the position previously designated to launch aircraft in accordance with Raid Plan No. One (Reference (h)). After aircraft were launched SARATOGA would proceed about twenty miles to the northeast, other vessels guiding on SARATOGA as previously prescribed. To avoid interference, aircraft from each carrier would be directed to turn away from the other carrier. At sunset 6 February the Force was disposed in cruising formation, SARATOGA and LEXINGTON in column open order, Destroyer Division Twelve in plane guard stations, Destroyer Division Six in column astern of LEXINGTON. Course 263, speed twenty. Planes available for operations on the following day were spotted as follows: SARATOGA, nineteen VF Two, one OL, one Staff, nineteen VF Five, nineteen VF One, nineteen VF Six, twelve VS Two, six VS Fourteen, total ninety-seven; LEXINGTON, eighteen VT Two, eighteen VT One, thirteen VS Three, seven VS Fifteen, two OL's, total fifty-eight.

12. Following the plan indicated above Commander BLUE Air Force approached the northern entrance to KAIWI Channel during the night 6-7 February. About 0100, 7 February (Latitude 21-29 N, Longitude



156-54 W) a small vessel believed to have been a BLACK submarine was passed to port distant about two miles. At 0200, having obtained a fix (Latitude 21-26 N, Longitude 157-14-30 W) by cross bearing of MOL-OKAI POINT Light and MAKAPUU POINT Light course was changed to 313 degrees. At 0318 course was changed to 000 degrees. At 0500 changed course into wind (72 degrees) and reduced speed to six knots. LEXINGTON and plane guard destroyers at this time proceeded to launching position, bearing 351 degrees, ten miles from SARATOGA. The weather was overcast and squally with patches of rain, wind thirty-five knots, sea rough. At 0530 (Latitude 22-06, Longitude 157-29-30 W) sighted submarine on port bow of SARATOGA. SARATOGA launched planes as follows:

Squadron	No. of Planes	Mission	Time of Completion of Launching
VF Two-B	19	attack	0545
Staff Plane	1	observation	0546
VF Five-B	19	attack	0554
VF One-B	19	attack	0601
VF Six-B	19	attack	0608
VS Two-B	12	attack	0613
VS Fourteen-M	6	reconnaissance	0614

Amphibians were not launched, due to the state of the sea. Having completed launching, SARATOGA stood out to seaward. At 0713 sighted submarine on port quarter of SARATOGA, distance 2800 yards. At 0725 this submarine, S-42, signalled that he had launched two torpedoes at SARATOGA, range 2500 yards. Umpire assessed nineteen percent damage to SARATOGA. At 0720 SARATOGA turned into wind and commenced landing planes, receiving last plane at 0849, after which SARATOGA took base course 000, speed fifteen knots. LEXINGTON was ordered to form on SARATOGA with Destroyer Division Twelve in inner anti-submarine screen.

13. During the period just described LEXINGTON carried out launching and recovery of planes as follows:

- (a) Completed launching of Bombing Group at 0600. Launched VS Fifteen-M plus two OL's at 0625. At 0820, while the last planes were landing, submarine S-42 signalled he had launched four torpedoes at LEXINGTON from a position broad on the starboard beam, range 1800 yards. Umpire ruled no damage to LEXINGTON.

14. Operations of SARATOGA and LEXINGTON squadrons in carrying out Raid Plan No. One (reference (H)) were reported as follows:

#### SARATOGA

VF Squadron One-B upon take-off proceeded to KAHUKU POINT. Search lights east of point picked up formation at 0600. Attacked anti-aircraft batteries at WHEELER FIELD and hangars at 0622. Thence proceeded to FORD ISLAND attacked planes and hangars with machine guns, all bombs having been dropped at WHEELER FIELD. Planes were parked, at LUKE FIELD, along the side of the hangars, wings representing planes on the ground in the center of the field. Returning made attack on four attack and ten observation planes in PUENA POINT FIELD at 0650. At 0710 attacked two enemy pursuit planes off KAHUKU. The first plane wanted to turn and engage the formation, but the second plane kept straight ahead on its course. Could not see any distinguishing marks. Bombs expended as follows:

One-half on anti-aircraft battery, WHEELER FIELD.

One-half on Hangars, WHEELER FIELD.

VF Squadron Two-B — Flight consisted of fourteen planes and liaison planes; other four planes joined up with VF Squadron Five-B. Proceeded to KAHUKU POINT. At this time searchlight beams were sweeping just above the water. Passed "Beach G" about 0600. About 0615, after passing PUENA POINT where no planes were seen, attacked hangars and one plane on the ground at WHEELER FIELD with machine guns. First division attacked anti-aircraft battery at South of Field. Proceeded to LUKE FIELD arriving about 0625. Attacked FORD ISLAND and planes on the field (did not realize at this time that the



planes on the field were dummy), also one plane by the hangars. Dropped all bombs on hangars at LUKE FIELD. After attack the searchlights were turned on from anti-aircraft batteries; altitude at end of attack was about one thousand feet. Circled and passed over WAIPO FIELD — no planes sighted on field. Met formation of VT Squadron Two-B planes — climbed to guard this formation during their attack on WHEELER FIELD. Thence proceeded to SARATOGA. All bombs were dropped on LUKE FIELD Hangars. On the way in sighted two planes without lights, headed for them but they headed away.

VF Squadron Five-B rendezvoused as soon as possible and headed for KAHUKU POINT. Four planes of VF Squadron Two-B joined the formation on the way in. Headed over KAHUKU POINT thence to PUENA POINT, thence to WHEELER FIELD, arriving at about 0625. Made attack on hangars from 8000 feet — only sighted one or two planes at this field. After attack proceeded direct to LUKE FIELD, made attack with machine guns on eleven enemy bombers parked on the field (these proved to be decoys) at 0645, altitude 6000 feet. Proceeded back via WAIPO and PUENA POINT Fields, but sighted no aircraft. Proceeded to KAHUKU POINT and returned to SARATOGA — saw one enemy plane without lights. Sighted LEXINGTON about twenty minutes from the beach, which was at least five minutes before first destroyer was picked up, altitude 2000 feet.

VF Squadron Six-B took off at 0601, rendezvous effected at 0601. Followed VF Squadron One-B to KAHUKU POINT arriving about 0625. Proceeded to PUENA POINT at 2000 feet altitude, no planes sighted in this field. Proceeded to WHEELER FIELD attacking hangars with machine guns at 0635. Proceeded to LUKE FIELD and attacked hangars with thirty-six bombs, thirty of which were used on hangars and six of which were used on one plane parked alongside of hangar. Attack completed at 4000 feet at 0655 — noted decoy planes parked in field. Returned via WAIPO POINT, no planes noted in this field or PUENA POINT, altitude 2,500 feet. Saw nine planes at intervals in vicinity of WHEELER FIELD (later discovered to be VS Squadron Two-B). Proceeded to KAHUKU POINT arriving about 0700 and returned to SARATOGA, landing at 0730.

VS Squadron Two-B took off and proceeded to KAHUKU POINT, stood off shore about four miles and crossed beach half-way to PUENA POINT. Skirted mountains — was going to fly over the clouds but decided to fly under them to the eastward of mountains, passed WAIPO FIELD and saw VF Squadron Six-B leaving this vicinity, proceeded to LUKE FIELD, altitude 6,000 feet, and saw dummy planes on field. Proceeded to a point inland from "Beach N" and at 0647 attacked with bombs and machine guns eight bombardment planes; with nine O3U-2's. This small field lies between NANAKULI and PAHKIA PEAK. Planes were on the ground and widely separated. Three planes of VS Squadron Two-B photographed WHEELER FIELD. At 0702 attacked ten planes on field at PUENA POINT with machine gun fire (all bombs having been expended). Three planes of VS Squadron Two-B attacked eight bombardment planes on the ground at RODGERS AIRPORT with bombs and machine guns — were in direct line of fire from anti-aircraft battery. Saw two Army pursuit planes from eastward on return trip. Returning saw LEXINGTON first from about 1000 feet altitude. Photographs were made of all points attacked. Photographs showed airplanes in PUENA POINT Field and RODGERS AIRPORT. Photographs of WAIANAE Field unsuccessful due to low visibility.

VS Squadron Fourteen-M was divided into two sections — mission to photograph landing beaches:—

First Section Beaches A—B.

Second Section Beaches C—D—E.

Proceeded to KAHUKU POINT and at 0634 split up in sections to perform assigned mission. One Army observation plane flew within five hundred yards of first section at about 0645 in the vicinity of KAHUKU POINT. Two sections of Army pursuit planes attacked Nos. 4 and 5 planes of second section about 0715 opposite beach "D." Observed no planes on the ground in the vicinity of KAHUKU POINT. Landing conditions were impossible this morning at Beaches A and B.



### BOMBS EXPENDED AS FOLLOWS

VF One-B	36	Eighteen on Hangars. Eighteen on anti-aircraft batteries at WHEELER FIELD.
VF Two-B	28	Hangars at LUKE FIELD.
VF Five-B	44	Hangar at WHEELER FIELD.
VF Six-B	30	Twenty-four on hangars at LUKE FIELD. Six on one plane near hangars.
VS Two-B	18	On eight bombardment planes.
	6	At RODGERS AIRPORT.

The operation was completed with three minor casualties as follows: One plane damaged landing gear, one plane damaged landing gear and right wing, and one plane blew tire.

### LEXINGTON

VT Squadron One-B having completed launching at 0600 proceeded with fifteen planes armed with a total of forty-five 500 pound bombs to OAHU and attacked the Ammunition Depot at SCHOFIELD BARRACKS at 0637 from an altitude of seven thousand feet. Neither anti-aircraft searchlights nor BLACK planes were encountered. Of the forty-five bombs, eight dropped within one hundred feet, six within two hundred feet and two within three hundred feet of their target — a total of sixteen hits.

VT Squadron Two-B likewise composed of fifteen planes dropped a total of forty-five 500 pound bombs on the Chemical Depot at SCHOFIELD BARRACKS at 0630 from an altitude of 1500 feet without contact with enemy planes and without sighting any searchlights.

VS Squadron Three-B reached its objective, SCHOFIELD BARRACKS, at 0630 and with its twelve planes dropped twelve 116 pound demolition bombs and an equal number of 116 pound incendiary bombs, commencing from an altitude of four thousand feet. A total of six hits were made in four targets. A considerable amount of free gun and fixed gun ammunition was also fired. No opposition from BLACK planes or from anti-aircraft guns was encountered.

During the above operation two BLACK patrol planes were seen on WHEELER FIELD, eight BLACK bombers on ground six miles west of WHEELER and twelve BLACK attack planes in field near Beach "F."

The actual casualties resulting from LEXINGTON operations were as follows: 2-T-7 damaged to the extent of being unavailable for the rest of the cruise, 2-T-4 unavailable before Tuesday, 9 February.

15. In summary, Raid Plan No. One, initiated at 0540, 7 February, from a point forty miles off KAHUKU, was executed with 150 airplanes. All aircraft returned to carriers, the operations being carried out in the face of overcast and squally weather, rough sea and high wind. The constructive opposition was slight. Carriers were notably vulnerable to submarine attack during launching and recovery phases due to high surface wind requiring slow speed (six to ten knots) on part of carriers. Observation of the beaches showed a heavy surf on East and North Coast beaches. Landings there were not practicable. Surf was observed breaking clear across LAIE Bay.

16. Submarines were located as follows: One in LAHAINA ROADS, one fifteen miles North of MOLOKAI, three or more thirty to forty miles Northeast of OAHU, having been established apparently on a circle of about sixty miles radius from OAHU. Search-lights were observed at the following points: HALEIWA, WAIANAE, LAIE, MOKAPUU and KAHANA.

17. Upon completion of Raid Plan No. One, SARATOGA, LEXINGTON, and Destroyer Division Twelve retired to the Northward. At 1035, after having rejoined the formation, LEXINGTON sighted a submarine bearing about 290 degrees True, distant 2,000 yards, at which LEXINGTON fired fifty-two rounds. At 1145 a submarine was sighted on the surface bearing 230 degrees, distance five miles. SARATOGA's Noon position 7 February was Latitude 22-50 N, Longitude 157-39 W. In the meantime, CROWNINSHIELD while returning to her station with the carriers reported contact and engagement with BLACK destroyer at 0902. The latter withdrew upon arrival of AARON WARD and BUCHANAN who had been ordered to proceed in accordance with reference (g) as the KAUAI BOMBARDMENT Force. During the afternoon of 7 Febru-



ary, BLUE Advanced Raiding Force retired successively to the north, northwest, and west, and at 1715 turned to course 180 degrees, speed being increased to seventeen knots at 1800. These movements were in accordance with the decision of Commander, ADVANCED RAIDING FORCE to proceed South through KAUAI Channel and to refuel destroyers Monday, 8 February, somewhere to the southward of OAHU. The BLUE ADVANCED RAIDING FORCE during this period was disposed in column open order, SARATOGA leading, Destroyer Division Twelve in plane guard stations. CROWNINSHIELD previously involved in action with the BLACK destroyer as mentioned above was assigned a rendezvous with BLUE ADVANCED RAIDING FORCE for the following morning.

18. During the afternoon of 7 February, the KAUAI BOMBARDMENT FORCE while proceeding in accordance with reference (g) engaged about noon in a running fight with two BLACK mine layers and also about 1630 sunk BLACK Tanager (Latitude 21-51, Longitude 158-40) and BLACK Army mine planter (Latitude 21-54, Longitude 158-29). After dark on the 7th, the KAUAI BOMBARDMENT FORCE arrived off HANAPEPE FIELD and bombarded the hangars, encampment, fuel oil tanks and four Army observation planes for twenty minutes at 1500 to 2500 yards range.

19. BLUE ADVANCED RAIDING FORCE made the passage south through KAUAI Channel during the night of 7-8 February. At about 2250 a BLACK submarine was passed which appeared to turn and trail the Force. Enclosure (B) shows the track of the carriers on 7 February. The Pearl Harbor patrol squadrons having been released for active operations at 1300 February seventh were ordered to commence bombing of BLACK air bases on all islands south of OAHU at daylight February eight.

20. At 0005, 8 February, CROWNINSHIELD reported contact with submarine in Latitude 21-12, Longitude 159-00. At 0020 BLUE ADVANCED RAIDING FORCE passed a submarine abeam to starboard close aboard. At 0108 course was altered to 210 degrees to avoid lights sighted ahead and at 0127 the base course of 180 degrees was resumed. During the turn at 0127, while following the SARATOGA, HOVEY and SOUTHARD side-swiped slightly, this contact resulting in HOVEY being holed and dished in above the main deck near the forward edge of the gally deckhouse. HOVEY'S propeller guard was also broken, the above damage being located on the port side. SOUTHARD received no damage other than a long scar on the hull just above the waterline between the bridge and the galley deckhouse. Noon position 8 February, Latitude 19-05, Longitude 58-23. At 1300 all units of the Force effected rendezvous in latitude 19-05 N, Longitude 158-12 W, and proceeded on course 000, speed ten knots.

21. The availability of BLUE ADVANCED RAIDING FORCE Units at 0800, 8 February is given below:

Organization	No. Airplanes Participating In Raid	Losses By Enemy Action	Limit Due Ships Damage 19 %	Replaced	Available For Service
Staff	1	0			
SARATOGA	0	0			
VF One	18	4	15	2	16
VF Two	18	3	15	1	16
VF Five	18	3	15	0	15
VF Six	18	3	15	1	16
VS Two	12	7	10	7	12
VS Fourteen-M	6	1	5	0	5
LEXINGTON	0	0			0
VS Three	12	3	12	4	13
VS Fifteen-M	6	1	6	1	6
VT One	15	0	18	0	18
VT Two	15	1	18	0	17
<b>Total</b>	<b>139</b>	<b>26</b>	<b>129</b>	<b>16</b>	<b>134</b>

#### SHIPS

SARATOGA damaged 19 percent (0725, 7 February), this damage imposing limits on her capacity to operate planes as indicated in the foregoing table.



AARON WARD damaged eight percent (1200, 7 February).

BUCHANAN damaged eight percent (1200, 7 February). Other units undamaged.

22. In the later afternoon, weather having moderated, SARATOGA commenced fueling CROWNINSHIELD at 1601 and completed at 1736, 35,665 gallons. LEXINGTON commenced fueling BUCHANAN at 1555 and finished at 1649, 27,545 gallons. Commander ADVANCED RAIDING FORCE having estimated the situation prepared Raid Plan No. 2(a) (reference (i)) and issued his instructions for the night as follows:

MY PRESENT INTENTION AFTER FUELING TO PROCEED WITH SARATOGA AND DESTROYERS LESS AARON WARD ON COURSE FOR BARBERS POINT ARRIVING ON TWENTYONE MILE CIRCLE ABOUT ZERO THREE HUNDRED THENCE TO LAUNCHING POSITION BEARING TWO FIVE ZERO DISTANCE FORTY MILES FROM BARBERS POINT LIGHT PERIOD CROWNINSHIELD AND BUCHANAN ON SIGNAL WILL TAKE POSITION AS LINKING VESSELS PERIOD FORMATION DURING NIGHT WILL BE COLUMN IN FOLLOWING ORDER COMMA DESDIV TWELVE COMMA CROWNINSHIELD COMMA BUCHANAN PERIOD SPEED UNTIL ZERO THREE HUNDRED TEN KNOTS COMMA THEN TWENTYTWO KNOTS ON SIGNAL PERIOD DESPATCH OPERATION ORDER FOLLOWS...

The above was subsequently modified to provide for an increase in speed to fourteen knots at 2300. Track of carriers of 8 February is shown on enclosure (C).

23. LEXINGTON was directed to proceed with AARON WARD to southward of Latitude 19-30, avoiding contact with enemy forces and fueling AARON WARD during daylight of 9 February after which she was to remain in the vicinity of Latitude 19-30, Longitude 158-00 until directed to rejoin at a rendezvous to be announced later. At 1620 twelve BLACK attack planes strafed the BLUE patrol squadrons at HILO as they lay at their moorings. The BLACK attack squadron was met by the anti-aircraft fire of the cruisers and train vessels present, and by the machine guns of the patrol planes.

24. 9 February — following the foregoing plan, SARATOGA and Destroyer Divisions Twelve and Six less AARON WARD proceeded to their station forty miles Southeast of BARBERS POINT. From 0515 to 0611 SARATOGA launched aircraft to execute Raid Plan No. 2A. Sea moderate, weather cloudy, wind 25-30 knots from 0750. Air Forces launched were constituted as follows:

FAST ATTACK GROUP—

- VF-1B— 15 F4B-3  
- VF-1B— 1 O3U-2  
- VF-5B— 15 F4B's  
- VF-5B— 1 O3U-2  
- VF Six— 15 F4B-2  
- VF Six— 1 O3U-2  
One Section VS-2B— 3 O3U-2

PROTECTIVE FIGHTERS—

- VF-2B— 15 F3B-1  
- VF-2B— 1 O3U-2

ANTI-SUBMARINE PATROL—

- VS-2B— 7 O3U-2

25. Missions assigned by Raid Plan 2A were carried out as outlined below:

VF Squadron One-B proceeded in company with VF Squadron Five-B and VF Squadron Six-B toward OAHU. At 0614 attacked submarine about fifteen miles from BARBERS POINT with twelve 116 pound bombs. At 0640 attacked submarines off DIAMOND HEAD with six 116 pound bombs. At 0713 attacked enemy mine layer destroyer with twelve 116 pound bombs. No loss Rule 37(b). At 0714 attacked twin engine bomber Number Twenty-two taking off near MAUNA KUWALE with machine guns, nine planes participating. At 0716 same group attacked one enemy pursuit plane same field. 0900 landed. At 0645 1-F-2 became separated from formation near DIAMOND HEAD. He proceeded to WHEELER FIELD and attacked two planes taking off singly from WHEELER FIELD about 0700.



Later in company with 2-S-2 and 2-S-3 he attacked a BLACK attack plane at 0710.

VF Squadron Five-B followed VF Squadron Six-B in looking over fields on OAHU along Eastern, Northern, and Western Coast Line. Only planes located were two bombers which looked as though wrecked. Dropped six bombs. Dropped nine incendiary bombs on encampment at WAIMANAILO. Made an attack on observation plane over WAIANAE pocket with three planes. Do not believe the squadron suffered any enemy casualties. Sighted two submarines which were attacked by VF Squadron One-B.

VF Squadron Six-B passed over anti-aircraft batteries at KUHUKU POINT at 0716. No searchlights turned on. Altitude 600 feet, speed 150 knots. BLUE losses — zero. Dropped eighteen bombs on encampment at WAIMANAILO from 1000 feet at 0657 and later at 0746 dropped twelve bombs from 100 feet on enemy submarine bearing 250 degrees from BARBERS POINT, distant fifteen miles.

Photographic Section (VS Two-B) photographed Beaches L, M, N, O, P, and Q, then bombed railroad at BROWN'S CAMP. At 0705 one plane was attacked by a Falcon observation plane. Four bombardment planes located East of WAIANAE, two of which appeared to have been damaged. One wing of one was drooping. Tail surfaces of one were off and laying on ground. Protective Patrol and Anti-Submarine Patrol carried out their missions in vicinity of SARATOGA without incident.

26. At 0922 landing of all planes was completed. Departure of the Force was delayed, however, until 1040 when Plane 5-F-6 which had had a forced landing in the water near the carrier was recovered from HOVEY. In addition to the forced landing of 5-F-6, 2-F-12 suffered a broken landing gear, and 2-S-7 suffered damaged landing gear and right wing. Noon position 9 February, Latitude 20-38, Longitude 159-12. At about 1600 rendezvous was effected with LEXINGTON and ARRON WARD in Latitude 19-57, Longitude 158-57. Enclosure (D) shows carrier track on 9 February. During this day BLUE patrol squadrons from HILO bombed BLACK air bases on MOLOKAI, MAUI, LANAI and HAWAII, destroying installations and ground personnel.

27. Upon consideration of past and probable future losses it became apparent that only one more raid could be executed prior to the actual landing without jeopardizing air supremacy. This final raid should be executed at dawn of the day before the landing. Estimating all factors involved, Commander ADVANCED RAIDING FORCE decided to execute Raid Plan No. 4 (reference (j)) modified as indicated below:

0009 MODIFY MY RAID PLAN NUMBER FOUR AS FOLLOWS COLON DELETE MARINES AND AMPHIBIAN FROM TASK ORGANIZATION USING THEM IN VICINITY OF CARRIERS AT DISCRETION COMMA CORRECT PARAGRAPH FOUR BOMB ARMAMENT FIGHTERS AND SCOUTS TWO ONE SIXTEEN POUND DEMOLITION BOMBS HEAVY BOMBERS THREE FIVE HUNDRED POUND DEMOLITION BOMBS COMMA CHANGE SUBPARAGRAPH THREE AFFIRM TO QUOTE CARRIER GROUP LAUNCH AIRCRAFT AT ZERO SIX HUNDRED IN POSITION FORTY MILES BEARING TWO FIVE ZERO FROM BARBERS POINT AND RECOVER AIRCRAFT ON SAME BEARING DISTANCE DEPENDING ON WEATHER COMMA ON SIGNAL CROWNINSHIELD AND BUCHANAN TAKE STATION DISTANT TWENTY AND THIRTY MILES RESPECTIVELY BEARING TWO FIVE ZERO FROM BARBERS POINT COMMA LEXINGTON BE IN FLYING POSITION SOUTH OF SARATOGA AND LAUNCH WHEN SARATOGA LAUNCHES COMMA AFTER LAUNCHING AARON WARD TAKE STATION FORTY MILES BEARING TWO TWO FIVE ZERO FROM BARBERS POINT 2000

28. During the night 9-10 February the Force proceeded to the launching point in column open order, SARATOGA, LEXINGTON, Destroyer Division Six, Destroyer Division Twelve, condition of readiness for carriers 23.

29. Air Strength on 10 February prior to the execution of Raid Plan No. 4 (modified) was as follows:



Organization	No. Airplanes participating in Raid	Losses by Enemy Action	Limit due Ships Damage	Replacements Available	Available for Service
SARATOGA	0	0			0
VF One	15	3	15	0	13
VF Two	0	0	15	1	16
VF Five	15	2	15	0	13
VF Six	15	2	15	1	14
VS Two	3	3	10	0	9
VS Fourteen	0	0	5	0	5
LEXINGTON					
VS Three	0	0	12	1	13
VS Fifteen	0	0	6	0	6
VT One	0	0	18	0	18
VT Two	0	0	18	0	17
Total	48	10	129	3	126

30. At 0605, 10 February, SARATOGA and LEXINGTON were at Latitude 21-06, Longitude 158-55 and began launching planes for the execution of Raid Plan 4 (modified). SARATOGA launched the following planes: VF Two—11, VF Five—16, VF One—16, VF Six—16, VS Two—11, VS Fourteen—6, total 81, launching completed at 0623. VF One, VF Five, and VF Six took part in attack on OAHU. VF Two and VS Two formed protective patrol overhead. VS Fourteen-M formed anti-submarine patrol. In the meantime LEXINGTON had launched the following planes: VS Three—12, VS Fifteen—6, VT One—15, and VT Two—15, launching completed at 0618.

31. Proceeding in accordance with the plan the Fast Attack Group encountered and sank a submarine fifteen miles southwest of BARBERS POINT at 0640. The group then encountered and attacked flight of fifteen unescorted BLACK bombers. After this engagement the BLACK bombers proceeded to the carriers where they were further attacked by one fighting and two scouting squadrons as well as anti-aircraft batteries astern of LEXINGTON. One BLACK bomber landed in the water about 0735 and shortly sank, the crew being taken aboard the SARATOGA. After the Fast Attack Group completed their attack on the BLACK bombers they proceeded further inland and a general air combat took place between three BLUE fighting squadrons and a concentration of BLACK attack and pursuit planes resulting in considerable losses to both sides. While returning to the carriers the flight at 0700 bombed Submarine S-19 ten miles off BARBERS POINT. LEXINGTON bombers bombed FORTS WEAVER, KAMEHAMEHA and SHAFTER. Plane 2-T-12 had a forced landing at PEARL HARBOR. Planes 2-T-10 and 2-T-8 landed as standby planes and were subsequently directed to remain there. No damage resulted from their landing.

31. Recovery of airplanes by the carriers was completed about 0900, the Force then proceeding in a generally southerly direction to a rendezvous at Latitude 21-00, Longitude 160-00. Noon position on 10 February was Latitude 20-38, Longitude 158-71. Destroyer Division Six was released to join Commander Battle Force for operations of Phase C.

33. Destroyer Division Twelve was fueled during the afternoon of 10 February.

Fueling Ship	Destroyer	Start	Finish	Gallons
LEXINGTON	SOUTHARD	1427	1523	21,945
LEXINGTON	HOVEY	1610	1655	23,523
SARATOGA	CHANDLER	1500	1540	19,600
SARATOGA	LONG	1558	1628	20,600

34. As a result of the air operations during the morning of 10 February the Umpire assessed the following damage on the BLUE Air Force; ten fighters lost in aerial attack on bombers near BARBERS POINT, six fighters lost in subsequent air engagements. Damage to carriers, LEXINGTON zero, SARATOGA one 2000 pound bomb hit, entailing twenty-six percent damage and placing SARATOGA'S flight deck permanently out of commission. However, on the assumption that SARATOGA'S deck was damaged while her aircraft



were absent, SARATOGA was authorized to fly her remaining planes to the LEXINGTON with the requirement that all such planes must land on LEXINGTON before further hostilities.

35. During the late afternoon and evening of ten February the Chief Umpire issued decisions that the total remaining strength of the BLUE Air Force was three fighters, twenty-four scouts, and twenty-five bombers, all of which were constructively on board LEXINGTON. The unit umpire allocated this strength as follows:

SCOUTS		BOMBERS		FIGHTERS	
VS Three	— 12	VT One	— 16	VF Two	— 3
VS Fourteen	— 6	VT Two	— 9		
VS Fifteen	— 6				

36. During ten February the BLUE patrol squadrons shifted base to LAHAINA and covered the surface operations incident to the shift of base. Two sections of VP Four operated off BARBERS POINT and bombed submarines S-28, S-?, S-18, S-23, S-19, and S-1 with two 500 pound bombs each.

37. Additional information was received from the Chief Umpire to the effect that the carriers had left in commission at 2000, 10 February, the following aircraft: Three—VF; twenty-four—VS; twenty-five—VT, all of which were assumed to be on LEXINGTON, but could fly off SARATOGA on next mission and return to LEXINGTON. Authorization was also given for the use of all utility and liaison planes.

38. About 0400, 11 February, orders were received from Commander-in-Chief, BLUE FLEET, to abandon Operation Plan No. 1-C, and withdraw. Commander BLUE AIR FORCE, issued instructions for transfer of aircraft between the carriers. During the night of 10-11 February, BLUE AIR FORCE had moved through KAUAI CHANNEL and thence around to the northward of OAHU (enclosure (e)). At 1015, 11 February, the transfer of aircraft was begun and was completed shortly before noon. SARATOGA transferred to LEXINGTON six VS Fourteen-M, and three VF Two-B. LEXINGTON transferred to SARATOGA two VT One-B and five VT Two-B. Noon position 11 February Latitude 23-00 N, Longitude 158-20 W. Shortly after noon the LEFT FLANK ATTACK FORCE was sighted. During the forenoon of 11 February orders were received from Commander BLUE FORCE that upon transfer of planes SARATOGA was to proceed to LAHAINA and effect repairs required. The damage to SARATOGA'S flight deck consisted of destruction of the deck over a radius of twenty feet forward of frame No. 20. The construction of a temporary deck to permit flying off was estimated as being capable of completion by 14 February. At 1400 Commander BLUE AIR FORCE shifted his Flag to LEXINGTON at sea and directed SARATOGA proceed to LAHAINA. During the afternoon and evening of 11 February, LEXINGTON proceeded southerly towards the entrance to KAIWI CHANNEL. Information was received placing Operation Plan 3-C in effect, designating the zero hour as 0630, 12 February and requiring the BLUE FORCE to be in designated position for beginning the attack at minus two hours and thirty minutes.

39. After leaving LEXINGTON and while proceeding to LAHAINA ROADS at about ten knots, SARATOGA at 1817 was attacked by sixteen BLACK pursuit planes accompanied by two rescue seaplanes (amphibians). Anti-aircraft fire was ineffective due to poor visibility and rapidity of attack. Umpire assessed twenty-five percent additional damage, total to date seventy percent, speed reduced fifty percent. During 11 February BLUE patrol squadrons operated to support the landing which had been planned for that date. They destroyed the railroad at the HAIRPIN TURN south of HALEIWA, and sank submarine S-42, DM-121, AM-15, and AM-21.

40. Shortly after midnight, 12 February LEXINGTON having fixed her position by bearing on MOKAI and MAKAPUU turned to the north and northwest to reach launching position about twenty-six miles northeast of KAHUKU. HOVEY was directed to patrol a station on bearing 065 distant fifteen miles from KAHUKU. SOUTHARD, CHANDLER, and LONG remained with LEXINGTON during launching after which SOUTHARD was directed to patrol a station on the same bearing from KAHUKU as HOVEY'S station but thirty miles distant from the point. SOUTHARD subsequently attacked a submarine in Latitude 31-33 N, Longitude 157-45.

41. Air operations of LEXINGTON during the morning of 12 February are given in the subparagraphs following:



- (a) At 0545 LEXINGTON in position, Latitude 21-54 N, Longitude 157-36 W, began launching the following aircraft for participation in Phase C of Grand Joint Exercise No. 4, in accordance with Commander BLUE AIR FORCE Operation Order No. 1-32, Annex VI, Support Plan No. 1.

Three	—	VF Two
Two	—	VS Fourteen
Six	—	VS Fifteen
Twelve	—	VS Three
Sixteen	—	VT One
Nine	—	VT Two

Completed launching above aircraft at 0602.

- (b) Three VF Two airplanes constituted the only remaining aircraft in FIGHTING CARRIER GROUP whose mission it was to support the landing of troops and to repel attacks by anti-aircraft. This group took assigned stations in landing area as described in Support Plan 1. At 0628 this group attacked Douglas Amphibian firing 300 rounds of machine gun ammunition. At 0630 strafed Beach "L." At 0635 attacked single enemy attack plane No. 125, firing 300 rounds machine gun ammunition. No further organized enemy aircraft were engaged. A total of approximately eight enemy pursuit planes, acting singly were attacked, and at no time was enemy aircraft fire returned. All enemy aircraft retreated when attacked. This group returned to the carrier and commenced landing at 0846; and at 0848 completed landing.
- (c) Two VS Fourteen planes proceeded to Third Division landing beach, and beginning at daylight, performed battle reconnaissance for the Third Division for landing of LEFT FLANK ATTACK FORCE. Progress of landing was reported to Commander LEFT FLANK ATTACK FORCE using radio message dropping. At 0739 launched four VS Fourteen planes which proceeded to the area of operations and landed in a field one mile North of Mahaha with instructions to stand-by and operate as directed. Incident to landing in this field two planes in this group, 14-S-3, and 14-S-4, became bogged in the mud, 14-S-4 sustaining some damage making impossible the carrying out of further operations. 14-S-3 was directed to remain in company with 14-S-4 and later proceeded to Naval Air station, Pearl Harbor and landed. Upon completion of Battle reconnaissance for landing of LEFT FLANK ATTACK FORCE, four VS Fourteen-M planes observed for the Thirtieth Infantry in accordance with plan and so continued until released by Commander Third Division.
- (d) VS Fifteen-M was assigned the mission of photographing and making visual reconnaissance of the First Marine Division sector. Likely hostile positions in the vicinity of WAIMEA, PUU UHULA and mountain pass were photographed. Also photographs were made of the progress of landing of the Third Army Division and of smoke screens which had been laid by BLUE Aircraft. Information obtained by visual reconnaissance was not made available to Marine Landing Force due to necessity for returning to carriers prior to the arrival of this landing force upon the beach. While making photographs of assigned areas this group was engaged by nine BLACK attack and fifteen BLACK pursuit planes. Two planes of the second section of VS Fifteen-M returned to carrier and landed at 0810. These two planes were refueled and at 0836 were again launched for return to assigned operating area where they relieved the first section which returned to the carrier and landed at 0931.
- (e) Six VS Three planes equipped with smoke tanks and nine VT One planes also equipped with smoke tanks constituted the LEFT FLANK SMOKERS. Smoke was laid back of both left and right landing beaches. Upon completion of smoking the six VS Three planes operated outside of division reconnaissance limits from KAENA POINT to BARBERS POINT reporting troop concentrations and enemy movements. These six VS Three planes were attacked by enemy pursuit aircraft while operating on station as scouts. Nine VT One heavy smokers laid smoke screens at intervals for fifty minutes over back country at Beach "L." They encountered no interference from enemy aircraft guns or from attacking aircraft. Ten minutes after mission had been accomplished and while returning to carrier enemy pursuit plane No. 122 flew alongside within range of all guns of this formation and was considered destroyed by gunfire.



- (f) Seven heavy bombers from VT One attacked road and rail communications at GILBERT. Assigned mission was accomplished without interference. Twenty-one five-hundred pound demolition bombs were dropped on these positions. This group then returned to the carrier and at 0816 commenced landing aboard and completed landing at 0820. After refueling and simulating rearming this group again took off at 0853, having been assigned the mission to destroy Railroad Center at EWA. While proceeding to EWA observed nine heavy bombers and twenty-one attack or pursuit planes on the line at Ford Island. These planes were bombed by three of the VT One group, each plane dropping three five-hundred pound bombs. This seven plane group then proceeded to EWA where twelve 500 pound bombs were dropped on the Railway. On neither mission was this group engaged by attacking aircraft or was it under fire by anti-aircraft battery. This group returned to the carrier and at 1043 commenced landing. The landing was completed at 1047.
- (g) Nine VT Two and six VS Three planes constituted the RIGHT FLANK SMOKERS. Smoke screens were laid to afford protection for the RIGHT FLANK ATTACK FORCE, to the southward of WAIANAE. Enemy anti-aircraft fire was received off KAHUKU POINT while returning to carrier, also an attack by twelve enemy attack planes was launched against this group while laying smoke screens. Anti-aircraft fire from BLUE battleships was also directed at this group. 2-T-9, landed at KAHUKU FIELD due to shortage of fuel supply and presumably was captured by enemy forces. The remaining eight VT Two planes returned to the carrier.
- (h) No major material casualties incident to carrier operations were experienced during the conduct of the above operation. Airplanes absent from the carriers at the completion of the exercise were 2-T-8, 2-T-10, 2-T-12 at Pearl Harbor; 2-T-9 at KAHUKU; 14-S-3 and 14-S-4 stuck in mud at WAINAE.

42. After completion of Support Plan No. One, and recovery of airplanes, the undamaged LEXINGTON stood out to seaward. The umpire's estimate of planes undamaged is given below:

AIRPLANES AVAILABLE AFTER OPERATIONS

12 FEBRUARY, 1932

<u>Organization</u>	<u>Number Planes Available</u>
VF One-B	None
VF Two-B	None
VF Five-B	None
VF Six-B	None
VS Two-B	None
VS Fourteen-M	Three
VS Three-B	Three
VS Fifteen-M	One
VT One-B	Sixteen
VT Two-B	None

43. In the meantime during the early morning and forenoon of 12 February SARATOGA had entered the swept channel and anchored in LAHAINA ROADS and fueled a number of seaplanes and seaplane fueling boats from SARATOGA'S boat booms, delivering 10,095 gallons of gasoline in this manner. During 12 February BLUE patrol squadrons operated in accordance with Support Plan One (Plan III) as follows:

- (a) Conducted anti-aircraft submarine patrol of landing area sinking S-42, S-43, S-23, DM-124, S-29.
- (b) Bombed railroad junctions at EWA and KAWAIHAPAI.



## PART II — EFFECT OF OPERATIONS

44. Any attempt to derive lessons from a peacetime maneuver must be based on estimate and opinion of the effect of weapons used. Time, movement, material, and personnel endurance factors are actually demonstrated. Damage to targets is not demonstrated. In the case of weapons which have been used in actual warfare, past performance is the best guide as to probable future performance. In the case of newly developed weapons peacetime target practices and tests are our only guide.

45. The following estimates of the effect of the operations recorded in Part I are based on the result of similar operations in the World War, on target practice results and tests of weapons, and on the opinion and beliefs developed by daily use and study of aircraft as an offensive arm of the fleet. In many cases they differ radically from the umpire rulings which were made at the time. It should be borne in mind that umpire rulings are, in the interest of expediting the maneuver, often made as a result of inaccurate and incomplete information and are based on rules which often react in artificial, misleading, or unforeseen ways.

46. The raid of seven February would have produced approximately the following results:

- (a) Hangars, aircraft, fuel tanks, bomb dumps, and personnel at FORD ISLAND having received fifty-eight 116-pound bombs of which half were incendiary, plus the machine gun fire of four VF Squadrons, would have been rendered useless. The ground itself would have been capable of being smoothed out rapidly, but irreparable damage would have been done to the usefulness of FORD ISLAND as a base for servicing aircraft.
- (b) The anti-aircraft batteries at WHEELER FIELD having received eighteen 116-pound bombs and the machine gun fire of nine fighters would have received little permanent damage but would have been rendered ineffective for the few minutes involved in the attack on WHEELER FIELD.
- (c) The hangars, fuel, bombs, and accessory installations at WHEELER FIELD having received sixty-two 116-pound bombs, plus the machine gun fire of four VF Squadrons, would have been seriously damaged. Spare parts, tools, and equipment of all sorts would have been destroyed. Every officer in a carrier squadron should be able to realize fully the situation in which his squadron would be placed if the hangars, shops, fuel supplies, and magazines at North Island were destroyed.
- (d) The poorly camouflaged groups of airplanes at PUENA POINT were sighted and machine gunned by VF One-B and VS Two-B with no opposition. The well known effect of bullets on gas tanks would have undoubtedly caused these airplanes to be burned.
- (e) At the field in the WAIANAE pocket VS Two-B (less one section) dropped eighteen 116-pound bombs on and machine gunned eight heavy bombers. A fair estimate is at least two-thirds of these bombers destroyed.
- (f) At RODGERS AIRPORT a section of VS Two-B found seven bombers dispersed around the edges of the field. A minimum estimate is three bombers destroyed.
- (g) During the raid the north and east coasts were reconnoitered and photographed. Photographs were taken of the SCHOFIELD BARRACKS and PEARL HARBOR AREA, of PUENA POINT, WHEELER, LUKE, and RODGERS AIRPORT. Definite information of enemy dispositions for ground and air defense was obtained.
- (h) The bombing of SCHOFIELD BARRACKS with incendiary bombs would have caused destruction of many buildings, diverted enemy personnel to fire fighting, forced evacuation of barracks, and generally demoralized troops concerned.
- (i) The bombing of the enemy chemical depot would have filled the area with smoke and toxic gas.



- (j) The bombing of the supposed location of the enemy main reserve of ammunition was unproductive because the ammunition had been moved.
47. During the operations on nine February the following would have been accomplished:
- (a) Enemy air base and bomb dump at WAJMANALO would have been destroyed and a large percentage of the ground personnel at that point made casualties.
  - (b) Two submarines and one light mine layer destroyed.
  - (c) Two bombers destroyed near WAIANAE.
  - (d) Photographic reconnaissance of shore line completed.
48. During the operations on ten February BLUE air attacks would, in actual warfare, have accomplished the following:
- (a) Destroyed such BLACK bombers as had survived the bombing and machine gunning on the ground at WAIANAE and RODGERS.
  - (b) Definitely broken the enemy pursuit and attack strength by reason of sheer numerical superiority, coupled with the actual superior air combat strength of BLUE fighters over BLACK attack planes.
  - (c) Sunk submarine S-19.
  - (d) Destroyed BLACK headquarters and communication center at FORT SHAFTER.
  - (e) Reduced effectiveness of batteries at WEAVER and KAMEHAMEHA.
  - (f) Left BLUE definitely superior in air and completed destruction of BLACK bombardment and attack aircraft.
  - (g) Left BLUE with two carriers.
49. In summary, under actual war conditions it is believed that the operations executed by the BLUE Advance Raiding Force prior to the main landing would have placed BLUE in undisputed control of the air, would have seriously damaged the ground defense, have gained valuable information, and would have completely accomplished the missions assigned by the Commander BLUE Force.

### PART III — CONCLUSIONS

50. This exercise gave valuable training to the carriers and squadrons in operating under as nearly war conditions as it is possible to create with peace restrictions. All squadrons performed their assigned tasks in an excellent manner. Only two planes were permanently out of commission as a result of the exercises. The early dawn take offs were made under adverse weather conditions. Owing to safety requirements, take offs were made much nearer the island than would have been done in time of war. The exercise demonstrated forcefully the extreme difficulty which always attends attack on a shore based air force which resorts to evasive tactics. The shore based air force has the advantage of many more bases than does a carrier based air force. It also has superior endurance in the vicinity of the land since carrier aircraft must use much of their endurance enroute to and from the shore line and in waiting their turn to land aboard. On the other hand the exercise demonstrated the advantage of the initiative conferred on the naval air force through the mobility of its floating base.

51. The most logical method to reduce the defending aircraft, and the one most likely to be employed by an enemy, is to utilize the outlying islands as air bases, and to keep the carriers out of range. The primary mission of carriers is for naval operations, and it is hardly likely that this or any other nation will ever have sufficient carriers to justify the risk of their serious damage or destruction in operations against shore defenses when other means are available.

52. This exercise demonstrated, as does every exercise for that matter, the serious lack of carriers with the fleet. This shortage immediately becomes apparent when continuous operations from carrier based aircraft are required. Our tactical exercises which are usually over after one flight, are apt to be most misleading. A carrier to supply the planes for battle ship service is believed to be an urgent necessity. Battleships cannot stop to pick up seaplanes when their fuel is exhausted. The LANGLEY would be an excellent stop gap for this purpose until a more suitable carrier is provided.

53. The damage done by anti-aircraft batteries, though unduly severe, served to emphasize in the minds of the squadron personnel the necessity of maximum avoidance of anti-aircraft fire.

54. The bombardment of the HANAPEPE airdrome by destroyers served to demonstrate the desirability of locating airdromes out of gun range from sea.



55. The flexibility of flight deck operation when all fighters were concentrated in one carrier and all bombers in another was outstanding by comparison with the heretofore standard method of operating all types from one carrier. The problem of operating observation and reconnaissance aircraft for supporting a landing from a carrier will be solved only when a battle-line carrier, light scouting carriers and flight deck cruisers are available in the fleet to still further reduce the number of types operated from a single deck.

56. The operations conducted from the seventh to the tenth of February showed the need of attaching a greater strength in light surface forces to an advance raiding force.

57. One of the most outstanding lessons of the exercises is the necessity for limiting any raiding force to units not essential for later operations. Air forces necessary for the support of the fleet in effecting a landing, particularly observation, scouting and smoking aircraft, should be held in reserve in one or more battle-line carriers not to be brought into action in preliminary operations. Furthermore, an overseas expedition should have with it one or more ships carrying aircraft units available to be transferred to carriers to replace losses.

H. E. YARNELL,  
Rear Admiral, U. S. Navy.

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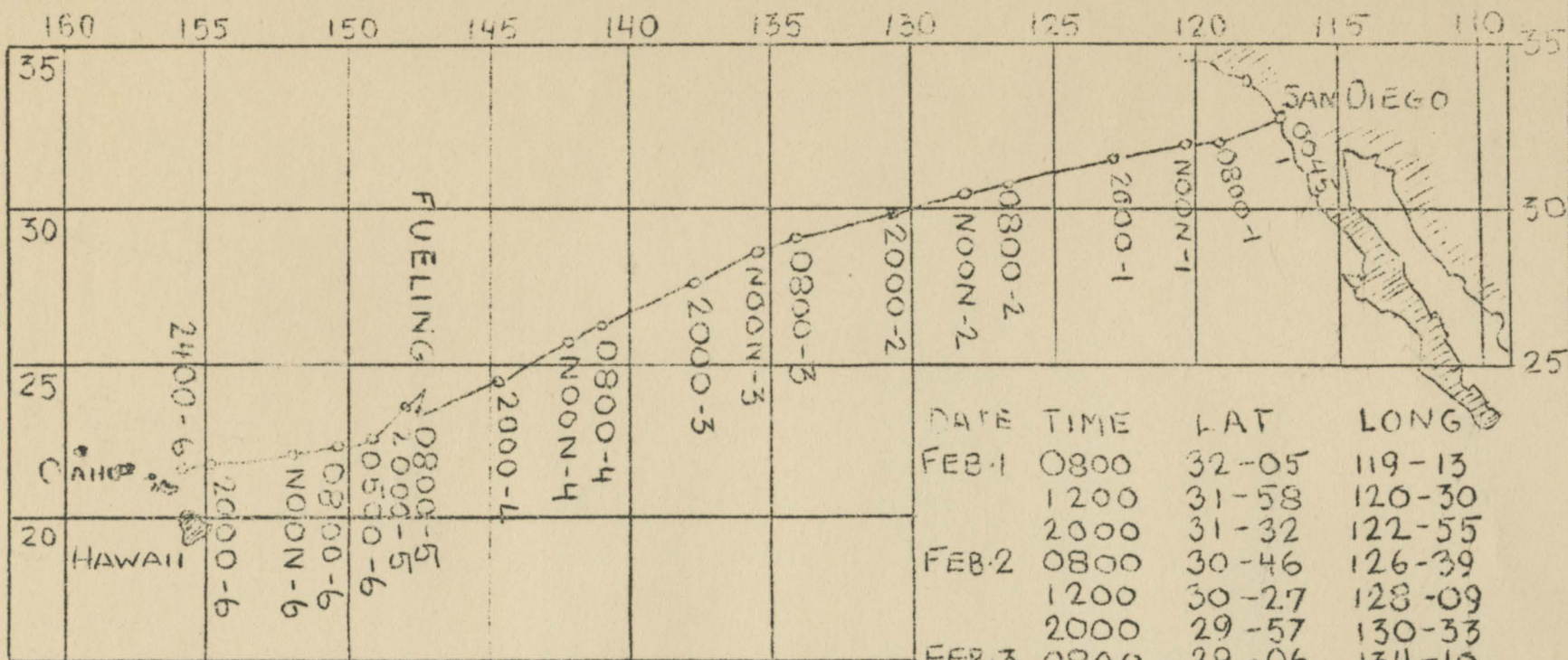
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ComBatFor	(10)
ComBatships	(5)
ComBatDivThree	(5)
ComScoFor	(5)
ComAirScoFor	(5)
SARATOGA	(5)
LEXINGTON	(5)
Comdt. 14th	(2)
ComMinBatFor	(2)
FAB Pearl Harbor	(5)
Each carrier squadron	(2)
Naval War College	(10)
Buaero	(10)
NAS Pensacola	(5)
ComDesDivTwelve	(2)
ComDesDivSix	(2)

USS SARATOGA—3-7-32—125

A. W. RADFORD,  
Flag Secretary.





ADVANCE RAIDING FORCE  
 TRACK CHART  
 0045-FEB 1ST TO 2400-FEB 6TH  
 FROM H.C. CHART No 527

DATE	TIME	LAT	LONG
FEB-1	0800	32-05	119-13
	1200	31-58	120-30
	2000	31-32	122-55
FEB-2	0800	30-46	126-39
	1200	30-27	128-09
	2000	29-57	130-33
FEB-3	0800	29-06	134-10
	1200	28-46	135-27
	2000	27-40	137-42
FEB-4	0800	26-18	141-02
	1200	25-43	142-17
	2000	24-31	144-40
FEB-5	0800	23-33	147-31
	1200	23-50	147-24
	2000	23-43	147-53
FEB-6	0800	22-40	149-15
	1200	22-21	150-22
	1200	22-06	151-55
	2000	21-43	154-57
	2400	21-34	156-23



159

158

157

156

# ADVANCE RAIDING FORCE

## TRACK CHART

0000 TO 2400 FEB-7TH

FROM U.S.C.&G.S. CHART No 4102

DOTTED LINE  
AARON WARD & BUCHANAN  
TO BOMBARD  
HANAPEPE FIELD  
FROM 2000 TO 2200 -7TH

23

22-30

← WIND  
25 KN

22

FLIGHT OPERATIONS

21-30

21

1711

1400

1600

1300

1200

1100

2000

2116

1200

0719

0800

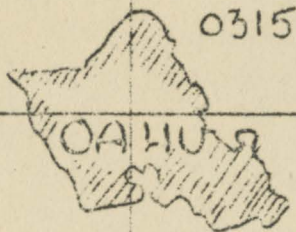
0500

0400

0315

121925

2400

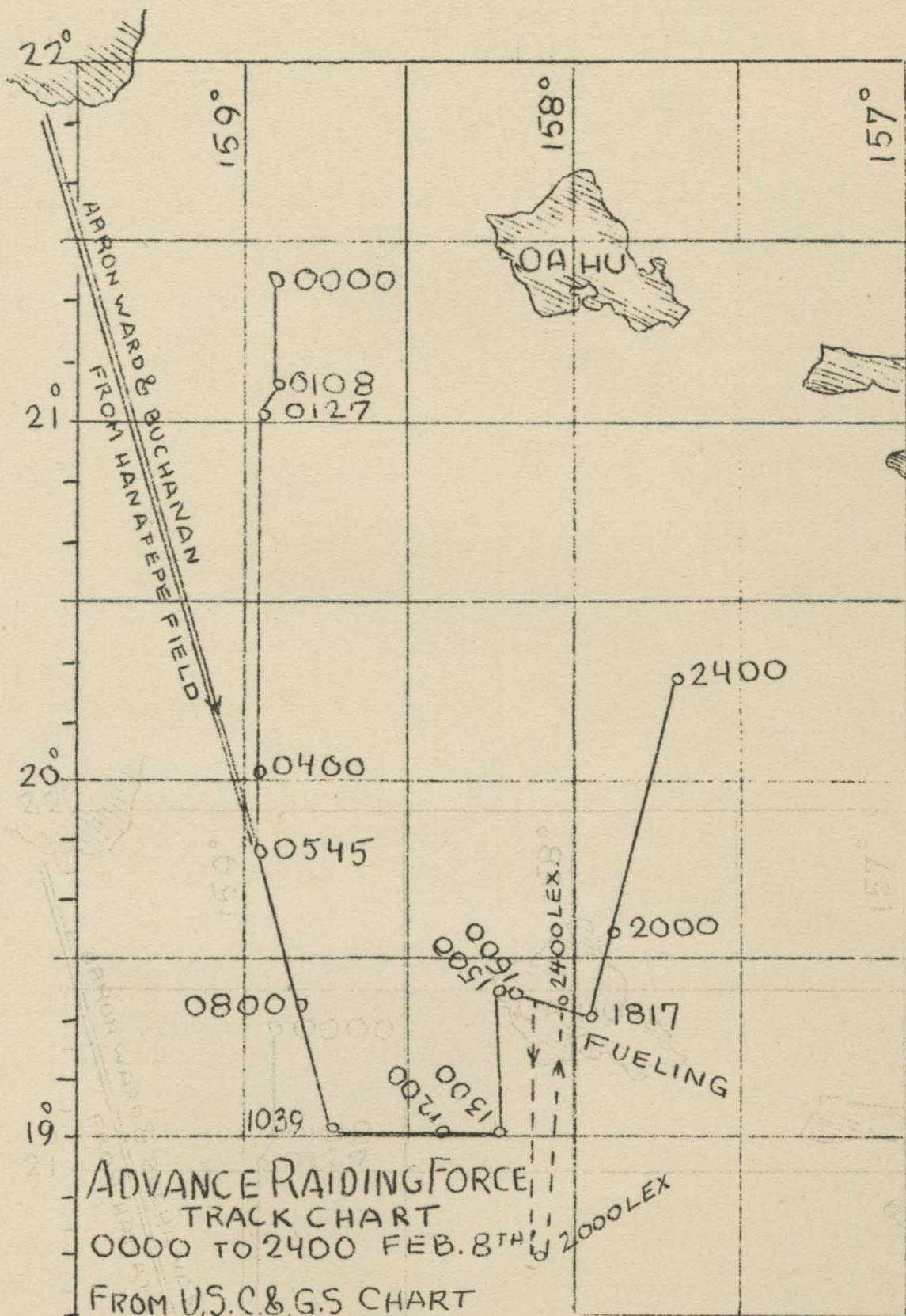


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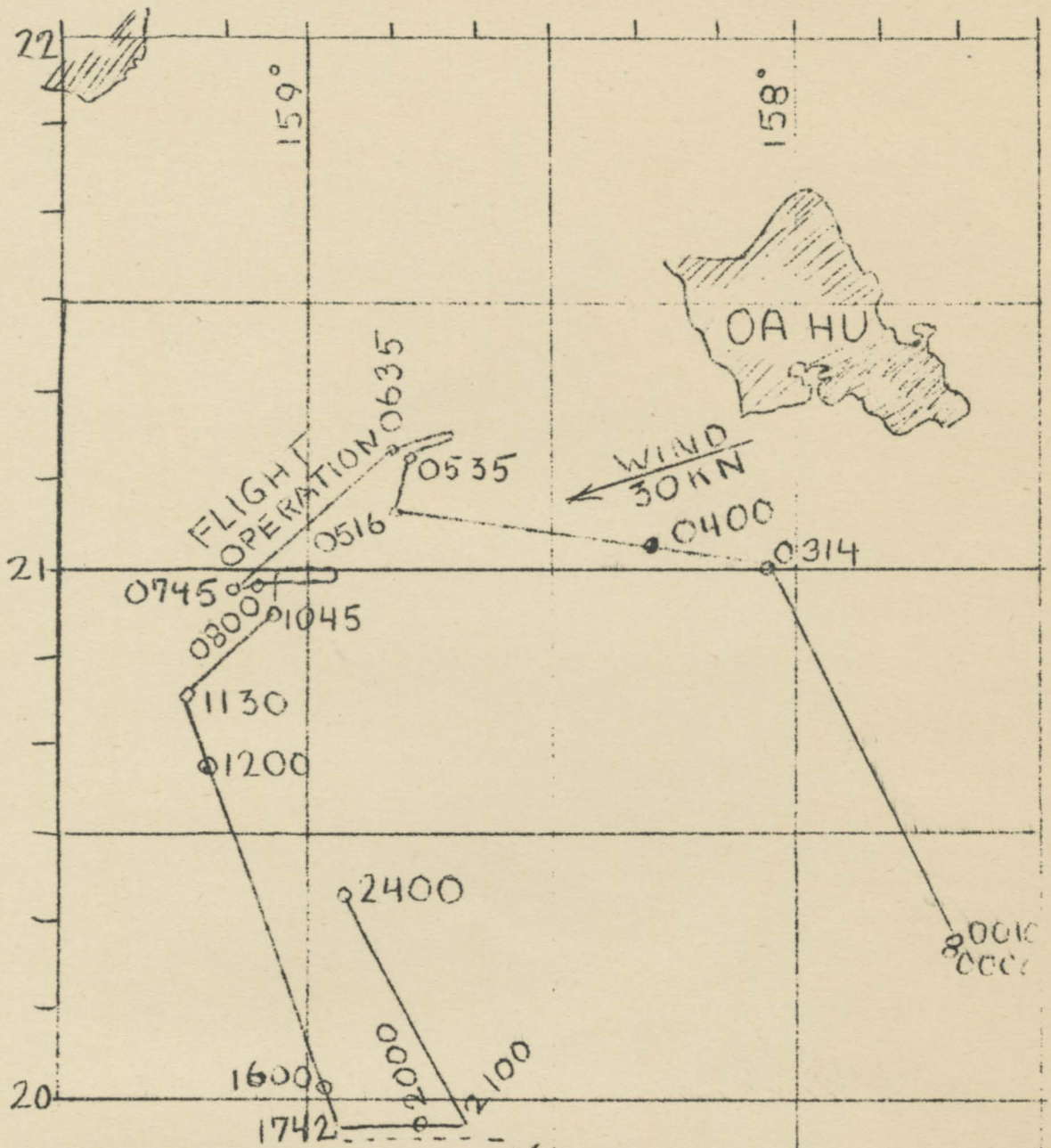
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ADVANCE RAIDING FORCE  
 TRACK CHART  
 0000 TO 2400 FEB. 8<sup>TH</sup>  
 FROM U.S. C & G.S. CHART  
 No 4102

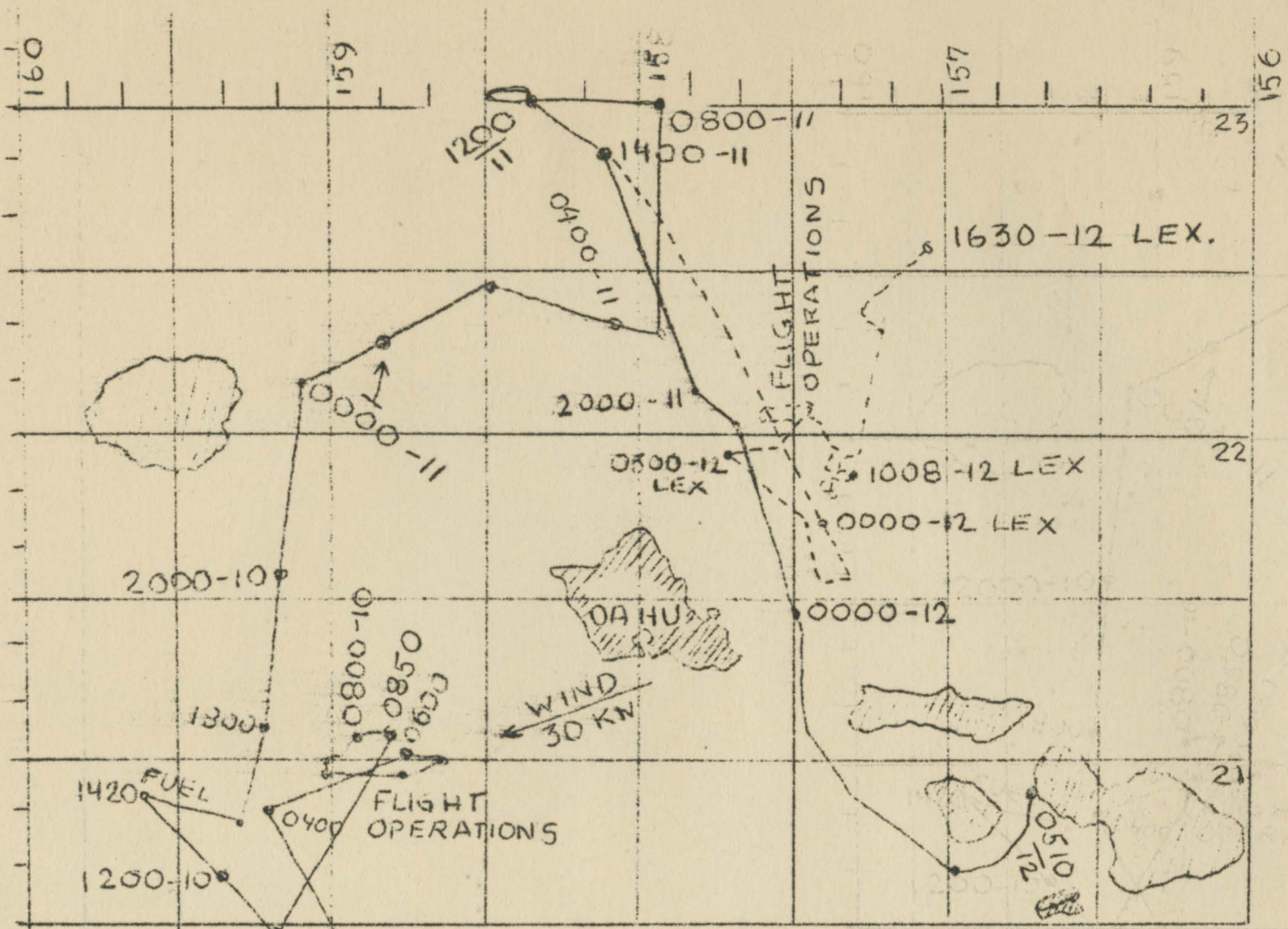




ADVANCE RAIDING FORCE  
 TRACK CHART  
 0000 TO 2400 FEB. 9TH  
 FROM USC & GS CHART  
 NO 4102

LEX. FROM FUELING  
 50 MI. TO SOUTH  
 0000 1200





ADVANCE RAIDING FORCE - TRACK CHART  
 FROM 0000-FEB. 10 TO 1630 FEB. 12  
 FROM U.S.C & G.S. CHART No 4102

DOTTED LINE = USS LEX ACTING FLAGSHIP



