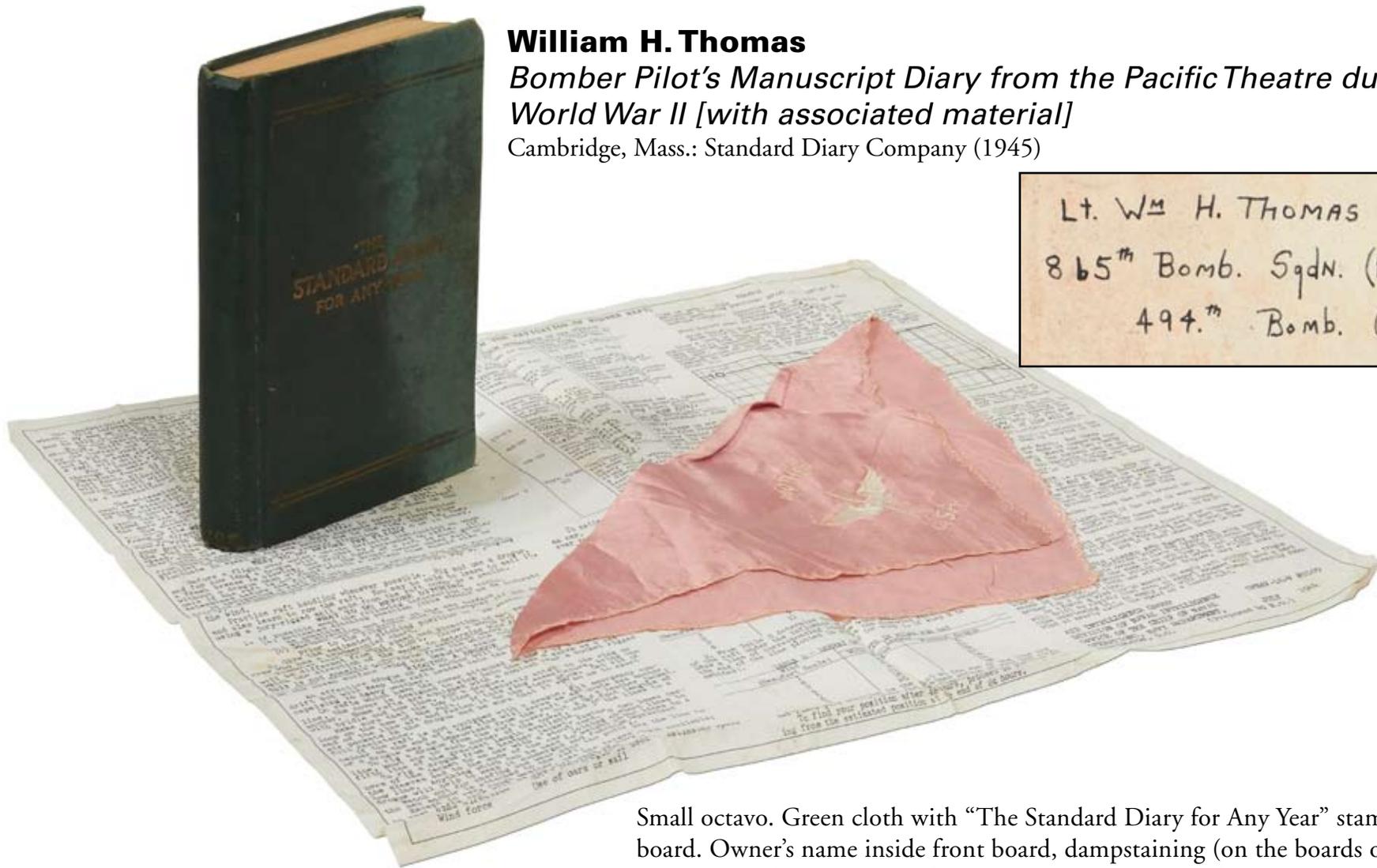


# BETWEEN THE COVERS RARE BOOKS

112 Nicholson Rd, Gloucester City, NJ 08030 (856) 456-8008 [betweenthecovers.com](http://betweenthecovers.com)



## **William H. Thomas**

*Bomber Pilot's Manuscript Diary from the Pacific Theatre during World War II [with associated material]*

Cambridge, Mass.: Standard Diary Company (1945)

\$2500

Lt. W<sup>m</sup> H. THOMAS 0-831848  
865<sup>th</sup> Bomb. Sqdn. (H)  
494<sup>th</sup> Bomb. Group. (H)

Small octavo. Green cloth with "The Standard Diary for Any Year" stamped in gilt on front board. Owner's name inside front board, dampstaining (on the boards only), internally very good or better. Diary of Lt. William H. Thomas, of the 865th Bomber Squadron (H), 494th Bomber Group (H) between January 10 and June 10, 1945, while stationed both stateside, and in the Pacific in the closing days of WWII. approximately 150 pages are used, with some 22,000 words in a neat and readable hand on lined diary leaves.

Accompanied by two additional pieces: 1. a pink silk scarf (9" x 9") embroidered with a bomber insignia (wings with a propeller through the center) and the words "Mother / U.S.A." and 2. a large printed directive (12½" x 15") from the Air Intelligence Group, Division of Naval Intelligence, Office of the Chief of Naval Operations entitled \*The Use of Cloth Survival Charts in the Navigation of Rubber Rafts" printed on silk, detailing instructions for ditching, how to rig a drogue, and how to calculate for drift given wind velocity and sea currents, with three tables and a sample map.

From context, it seems Thomas was from Massachusetts (probably Cambridge), was Catholic and attended B.C. High School. Lt. Thomas's diary tells a compelling story. Thomas begins recording his army air force life on January 10, 1945, commencing with his departure from Muroc Air Force Base (now Edwards) in Southern California where he had trained for nearly two years, to Hamilton Field near San Francisco to await overseas orders. He reports that the war news is good: "Russians are storming forward to the gates of Germany, we are marching practically unopposed to the liberation of Manila and our land and sea power is ranging at will over all the Pacific." He mentions that when he joined the service in 1942, that he thought it would be all over by 1945. He next heads to Seattle where he is issued a steel combat helmet and gas mask, to go with a .45 caliber automatic pistol which flying officers were issued. He mentions the funds he is having his sister save for him, and looks forward to attending college at the Army's expense. Thomas and his crew arrive in Hawaii in February, where he celebrates his 21st birthday stationed on the island of Kauai, where he spends his leisure time swimming, horseback riding and sliding down the dunes known as the "Barking Sands." On February 26th, he receives orders to join the aerial search for the missing General Millard Fillmore Harmon: "We were to circle the field once, get into line of ships 10 abreast of each other and five miles apart and head southwest, flying at a 500 foot altitude and carefully watching the ocean for any signed of a life raft or signals." With no luck, and after 14 miles of flying they return to base - Harmon's plane and all aboard were never found.

Thomas' next assignment was to the small island of Anguarr in the Palau Islands, home of the 494th. He notes that he will probably be targeting Japanese-held islands in the Philippines, then move up to Okinawa for the final push into China and Japan. "they are trying to make us the first B-24 Group to bomb the mainland of Japan (doubtful distinction)." On Anguarr he receives his first combat mission to count towards the 40 he will need in order to go home. He records several more missions over Koror and Arakabesan, all of which wear him and his crew to exhaustion. These missions are punctuated by drowsy inaction in the stultifying heat of the island where he practices his swimming and poker-playing while awaiting the next mission. He gives an excellent picture of the boredom and inactivity giving way to intense moments of terror: "As a rule the squadron only averages about seven missions per month due to weather or enemy action and as we have nothing to do between flights, it's a bit hard to keep happy and contented." He further comments on the beauty of being a combat pilot: "They want you to have plenty of rest, not to worry about a thing and do what you feel like. I'm ideally suited for the life!"

On his third mission, however, he watches another of the B-24s in his group explode in m id-air. He records the loss of a friend and fellow pilot and the damage to another friend's plane. He flies some reconnaissance and mapping missions over some of the more remote islands, and records the death of FDR. He begins to display the pressures of the War. Finally on June 9, 1945, just before his group is about to depart for Okinawa, he stops recording his activities. He says that he flew a mission on a B-24 on June 9th, and all was fine. The next day he watches the same plane with a different crew taxi down the runway - it never got airborne and crashed into some trees at 120 mph, leaving dead and dying all over the field. Other than a final entry at the end of the book noting one friend wounded, and another missing in action, the diary ends here.

A compelling record of a bomber pilot in the Pacific in the waning days of the War. [BTC#400339]



THE USE OF CLOTH SURVIVAL CHARTS IN THE NAVIGATION OF RUBBER RAFTS

The handkerchief charts give information on average currents and winds. This information can be used in two ways:  
 1. By men on rafts to estimate their drift from a known position and to help in choosing a course of action.  
 2. By officers directing air-sea rescue operations to help in choosing the starting area and the method of search.  
 Rafts drift with both wind and current. They are carried along by the current and they are pushed by the wind. When there is a current, but no wind, a raft will drift in the direction of the current and at the same speed. If there is no current but a wind is blowing, a raft will drift approximately downwind.  
 For a loaded raft without a sea anchor or drogue, the drift speed through the water will vary from about one knot with a 20 knot wind (Beaufort force 4) to about half a knot with a 4 knot breeze (Beaufort force 2). If a drogue is used, the speed of drift of the raft will be considerably lower - less than 1/3 of the wind speed. The current drift will, of course, not be changed by using a drogue.  
 Ordinarily both wind and current are present, and the raft drift is a combination of wind drift and current drift.

WHAT THE CHARTS SHOW

The streamlines on the handkerchief charts show the average current near the surface. The arrows on the streamlines indicate the average direction of flow, and the numbers indicate the average speed of the current in nautical miles per day.  
 The heaviness of the streamlines shows the steadiness of the current, that is, the percentage of the time that the current actually flows in the average direction. The heavier and more solid the line, the more you can rely on the current which it shows.  
 The shaded arrows on the charts give the average wind direction for each area. The numbers on the arrows show the average Beaufort force of the wind.

The direction and speed of the current will vary somewhat with wind force and direction. When the wind has been blowing for several hours, with the direction and force indicated by the arrow nearest your position, the current will flow about as shown on the chart. If the wind has been blowing in a different direction or at a different speed, the actual current will be a combination of that shown on the chart with the current set up by the wind.  
 Currents near shore will usually differ in speed and direction from those prevailing offshore. Such currents nearly always flow parallel to the beach and are mainly due to the tide, that is, they fluctuate in speed and often reverse direction every 6 or 12 hours.

WHAT TO DO BEFORE THE FLIGHT

Before a flight over water, obtain definite instruction on when and how long a drogue will be used by personnel on rafts. (If a fresh breeze is blowing, the drift speed of a raft is much greater without a drogue than with one.) The proper course under sail or oars if the raft is not found within a certain time should also be determined before the flight.  
 In investigating a raft you will need to estimate the wind force. Practice estimating wind force whenever you are near the ocean, using the Beaufort scale (see Table 1). Do not try to guess the wind speed in miles per hour. The appearance and size of the small waves, chop, and white caps on the sea surface is the best way of judging the wind.  
 Practice raft handling whenever possible. Rig and use a drogue, and also learn to row the raft. You may be able to learn to sail it, using a jury-rigged sail made from the raft cover or a pailin.

WHAT TO DO BEFORE DITCHING

1. If possible send the following information by radio:
  - (a) Estimated ditching position (this should be as accurate as possible)
  - (b) Wind direction and force at the sea surface
  - (c) Whether use of a drogue will be attempted (if not decided prior to the flight)
2. Give the estimated ditching position to each member of the crew who has a handkerchief chart.  
 Remember that the wind speed and direction at the sea surface will be different from that aloft. Throw a smoke pot overboard and watch the direction of the smoke to determine wind direction. If this is not possible, observe the smallest waves, which will go with the wind. Estimate wind force from the white cap and wind streaks on the ocean surface using the Beaufort scale (see Table 1).

RIGGING A DROGUE

An effective drogue or sea anchor will not only reduce drift but will keep the raft headed into the sea to help in preventing capsizing in heavy weather.  
 On rafts which have the cover attached to the bow by a bridle and line, the cover is designed to sink into the sea to serve as a sea anchor. Some rafts are equipped with a conical spar a bucket rigged with bridle and tow line, for a drogue.  
 Make sure that the tow line is securely attached to the ring or loop on the bow of the raft. If this ring is unsecured, bring the end of the line aft and fasten it to the stern track. Get rid of air pockets in the drogue and be sure that it is so as to exert full resistance.  
 If the raft is not equipped with a drogue, fill emergency container on the end of a tow line will serve as adequate sea anchor, or a drogue may be improvised from the raft cover, a leather jacket.  
 To rig a drogue from the raft cover, cut a four-foot length of line, knot one to each corner of the cover, and to the lines to a fifth line of the greatest length available.  
 To rig a drogue from a leather jacket, fasten a two lower corners of the jacket to an oar with a stout cord. Attach lines to the sleeves and to the ends of the oar, joining the four lines to a tow line. Anything which can be used to weight the improvised drogue will help to keep it submerged and functioning.  
 Watch out for chafing and wear near the point where the line to the sea anchor is attached to the raft.  
 Except in very rough weather, use the largest drogue available; in most rafts this will be the raft cover.

RAFT NAVIGATION

In determining the course of a raft by dead reckoning, regular wind observations every 6 hours are necessary. Keep a record of the following:  
 Wind direction      Whether a drogue is used      Estimated speed  
 Wind force          Use of oars or sail

TABLE 1  
PREDICTION OF SURFACE WIND FORCE FROM APPEARANCE OF SEA SURFACE

Wind (Beaufort Scale)	Wind Speed (knots)	Surface Condition as Seen from the Air*	Surface Condition as seen from the Sea Surface**
0	Less than 1	Smooth, slick sea.	Sea like a mirror.
1	1-3	Small ripples with few calm areas.	Ripples - no foam crests.
2	4-6	Ripples everywhere, or well defined waves which are smooth and do not break.	Small wavelets; crests have a glassy appearance and do not break.
3	7-10	Occasional whitecaps.	Large wavelets; crests begin to break; scattered whitecaps.
4	11-16	Pronounced waves, frequent whitecaps; slight to clearly defined wind streaks whose lengths may be equal to about 10 wave lengths.	Small waves becoming longer; frequent whitecaps.
5	17-21	Long, well defined wind streaks with waves and streaks coming from same direction.	Moderate waves, taking a more pronounced long form; many whitecaps, some spray.
6	22-27	Large seas with waves forming on them; wind picks up and carries occasional wave crests.	Large waves begin to form; extensive whitecaps everywhere; some spray.
7	28-33	Heavy seas; pronounced streaks; wind picks up and carries most wave crests; breaking, rolling waves are forming.	Sea heaves up and white foam from breaking waves begins to be blown in streaks along the direction of the wind.
Over 7	More than 33	Continual rolling waves; well defined wave form breaks into spray; the heavy seas; will carries along all wavecrests for a distance equal to at least one-half wave length; and a foam streaks.	Moderately high to high waves of greater length; crests of waves break into spindrift and spray may affect visibility; well marked or dense streaks of foam along the direction of the wind.

\* From "Aleutian Seas", Training Div., Bu. Aer., U.S.N.  
 \*\* From U. S. Navy Deck Log Book (revised 1 January 1945).

To estimate wind direction hold a light streamer on a mast or an oar. Repeat at intervals to get a fair average. (No wind is ever really steady and a single test may be misleading.)  
 To estimate the wind force, study the sea surface and use the Beaufort scale given in Table 1.

To plot your position at the end of 24 hours, proceed as follows:  
 1. If the current steadiness is greater than 25%, lay off a line from the estimated ditching position in the direction of the nearest current streamline shown on the chart. Make the length of the line equal to the current velocity, estimated from the numbers given on the chart.

Do not draw this line if the current steadiness is less than 25%.  
 2. If the observed wind direction is more than 45 degrees from the average wind direction shown by the nearest shaded arrow on the chart plot a line downwind from the end of the current line plotted in step 1. Find the length of the line from Table 2, using the observed wind force over the past 24 hours. This line represents the current caused by the wind which is known as the wind current; this is combined with the average current shown on the chart. In determining the wind force and direction, average the four wind estimates made over the 24 hour period.  
 If the current steadiness is less than 25%, draw a line in the downwind direction from the estimated ditching position even when the observed wind is the same as the average wind shown on the chart.

TABLE 2 - VELOCITY OF THE WIND CURRENT IN MILES PER DAY

Wind (Beaufort Scale)	Wind Current (miles per day)	Wind (Beaufort Scale)	Wind Current (miles per day)
1	2	5	16
2	4	6	21
3	7	7	26
4	11		

3. From Table 3 determine the amount of drift due to the leeway of the raft under the influence of the wind over the past 24 hours. Draw a line of corresponding length in the downwind direction from the end of the line plotted in step 2 (or step 1, if step 2 is omitted).

TABLE 3 - LEEWAY OF RAFTS IN MILES PER DAY

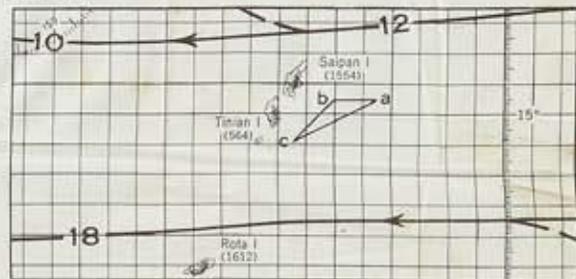
Wind (Beaufort Scale)	Leeaway	
	With drogue	Without drogue
1	2	6
2	4	12
3	6	18
4	8	24
5	11	34
6	16	48
7	20	64

Your probable position is the point at the end of the line drawn in step 3. Your course using the estimated action of wind and current is given by the line connecting the estimated ditching position with the final position.  
 To find your position after 48 hours, proceed as before, starting from the estimated position at the end of 24 hours.

EXAMPLE

Time of year: July  
 Estimated ditching position: 15°05' N., 156°15' E.  
 Drogue used.  
 Average current: Direction 270°  
 Velocity about 15 miles per day  
 Steadiness 50-75%  
 Wind during past 24 hours: Direction from 045°  
 Force: Beaufort 4  
 From Table 2: Wind current 11 miles per day  
 From Table 3: Leeway 8 miles per day

Draw a line 15 miles long, due west from the estimated ditching position (a). From the end of this line (b), draw a line 11 miles long directed toward 225°. Continue this line another 8 miles toward 225°. The point at the end of this second line (c) is the probable position at the end of 24 hours. The raft has drifted approximately 31 nautical miles in a direction of 245° from point (a) to point (c).



Considerable error (probably about 20-30%) in judging wind force is likely. Also the currents shown on the charts may vary. Both of these errors will tend to cancel out after a few days, but at best your dead reckoning fix will only be approximate and should be checked in as many ways as possible.

If using oars or sail or if a fresh breeze is blowing, you can obtain a good estimate of your speed of movement through the water in the following way. Tie a small piece of wood or other floating object to the end of a fish line, throw it overboard, and measure the time required for a certain length of line to pay out. If you are going one mile an hour through the water, 100 feet of line will be pulled out in a minute. To your speed through the water obtained in this fashion, there must of course be added the estimated current drift.

When in sight of the beach, estimate your drift by watching the changing position of points on shore, rather than by relying on the charts.

The charts do not apply during October and March. For these months estimates of the currents can often be made by comparing the winter and summer charts for the same region. Where the two charts agree moderately well, a reliable estimate of the current can be obtained. In other regions, conditions are too variable during these months to allow accurate current predictions. In such areas use only the wind force (assume a current steadiness of less than 25%) in dead reckoning navigation.

SHAPING A COURSE

After about 48 hours, or whatever time is specified in your instructions, the drogue should be hauled in and a course should be shaped toward a friendly coast. Every advantage should be taken of wind and current. Do not paddle or row the raft more than a few minutes at a time; remember that strength must be conserved at all costs.

When drifting without a drogue, turn the raft end for end with the oars every few hours; this will prevent "sailing" on one tack longer than on another.

Put out the drogue in rough weather to keep the raft headed into the sea and to avoid capsizing.  
 Do not attempt to use a jury-rigged sail if the wind is more than force 4, because of the danger of capsizing.

When near a friendly coast, paddle or row toward shore. Unless the wind is blowing onshore the current will cause the raft to drift parallel to the beach.

In sailing or rowing toward an island shore, direct your course to the windward end. This will prevent your being swept past the island and will enable you to drift along shore to find the best place for a landing - a cove, beach, or gap in a reef where there is the least surf.

DRIFT OF PARTLY LOADED AND EMPTY RAFTS

Two or three rafts of different sizes and types, all with normal loading, will soon separate owing to their slightly different drift rates. Two rafts even of the same size and type, if not joined by a sheet in loading. If both use efficient drogues, they will stay together for a longer time.

In a force 4 wind (11-16 knots) an empty raft without a drogue will drift so rapidly that even an expert swimmer will have a hard time overtaking it. An empty raft will travel almost directly downwind at nearly twice the speed of a loaded raft.

AIR INTELLIGENCE GROUP

DIVISION OF NAVAL INTELLIGENCE      OPNAV-16-V #S109

OFFICE OF THE CHIEF OF NAVAL

OPERATIONS, NAVY DEPARTMENT,      JULY 1944

WASHINGTON, D.C.      (Prepared by H.O.)