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DOCUMENTARY REPORT

on

JAPANESE INTERNATIONAL GEOPHYSICAL YEAR SHIPS

TAKUYO MARU and SATUMA MARU

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INTRODUCTION

In deciding upon the format for this report, the team felt that in view of the implications other than purely technical involved in our mission, a detailed, narrative type report would best meet the needs of all concerned persons and agencies. By providing both technical information and a description of our relationships with the government representatives and individuals concerned, we feel that much is gained in our attempt to record this entire matter in its proper light.

All members of the team completed this rather sensitive mission with a feeling not only of satisfaction resulting from the technical outcome, but very definitely with a feeling of personal gratification resulting from the extremely cordial relationships with the Japanese and our host officials of the local Australian Territorial Administration.

CHAPTER I

SUMMARY AND CONCLUSIONS

For the purposes of this report, the summary and conclusions are collected here. Detailed calculations and other data utilized in arriving at these conclusions may be found in the individual chapters.

1. The Japanese data showed that their highest dose-rate reading was only fifteen times their background readings as recorded during the early part of their voyage.

2. The relatively low cumulative gamma readings recorded on the SATUMA dosimeter do not necessarily indicate a true dose. It is entirely probable that radiation leakage of the instrument accounted for a large portion of the recorded dose. If accepted as real, it indicates a total dose of 50 milliroentgens between the dates July 8-19.

3. The radiation dose rates on both the TAKUYO and SATUMA at the time of monitoring were found to be substantially identical. The decontamination measures carried out on the TAKUYO were effective in reducing the radiation level to essentially background.

4. Japanese data maximizes the whole body gamma dose inasmuch as the scintillation probe was held almost in contact with the deck. Similarly our radiation monitoring data is maximized since the geiger probe was also held in this same position.

5. The maximum radiation dose possible to TAKUYO personnel is calculated to be less than 5 milliroentgens. This assumes continuous exposure for the 15 hours from start of the rain squall to the end

of the decontamination, at the highest count rate recorded by the Japanese. An additional 2-3 milliroentgen total may have been accepted between this time and our arrival at Rabaul (total 300 hours).

6. The infinite gamma dose, even with no decontamination of the TAKUYO, would have been an insignificant amount. Using Japanese data, the dose calculates to be about 85 milliroentgens.

7. The exposure of the TAKUYO and crew to an insignificant radiation dose resulted from a very local and transitory rain-out of not more than 30 minutes duration.

8. The analysis of the drinking water samples collected from the TAKUYO and the SATUMA show no evidence of radioactive contamination.

9. There is no evidence at this time of any detectible effects resulting from exposure to ionizing radiation.

10. There have been no cases of radiation sickness on either vessel. Any complaints of illness subsequent to 14 July 1958 were due to other causes; i.e., possible infectious hepatitis or other intercurrent illness.

11. There will be no detectible effects, and, in the light of present medical knowledge, no deleterious effects, in fact, resulting from the minimal radiation exposure experienced, as calculated by us.

12. There was no detectible evidence of radioactive contamination of personnel at the time of examination.

13. There is no medicalindication for restriction of the normal activities of any of the personnel of either vessel.

CHAPTER II

NARRATIVE SUMMARY

A. SUMMARY OF EVENTS Prior to Departure of Joint Task Force SEVEN Medical Team and Enroute to Rabaul

To our personal knowledge, the first indication regarding the incident of the TAKUYO MARU and SATUMA MARU (also spelled SATSUMA (old spelling)) was a message seen by Colonel Ralph M. Lechausse, USAF (MC), Staff Surgeon, JTF-7, on 19 July 1958. This was message date-time group 190204Z, routine precedence, from CINCPAC with information to Commander JTF-7, Eniwetok (see Tab A, Appendix I). This message originated in Tokyo at 10 a.m. on 17 July from MacArthur to State 110 and said, "CNO not adee pass by CNO 171905Z 2 Maritime Safety Board ships now engaged in Pacific survey projects in connection IGY have reported high levels of radioactivity in vicinity of Truk. Ships have informed MSB of 19,000 count per minute on scintillation counter, rain radioactivity of up to 100,000 counts per liter and sea water radioactivity of 247 counts per liter per minute. Vernacular press have given fairly extensive back page play to these reports. MSB officials told Naval Attache that crews on both ships are very worried about radioactivity. MSB, though not too concerned about reported levels of radioactivity, has diverted both ships to Rabaul for fresh water decontamination."

In view of the absence in this advisory of certain important technical information (19,000 counts per minute, etc., of what? Efficiency of the counter, calibration, etc.), certain assumptions were

made by the Staff Surgeon and certain rough calculations accomplished on the basis of these assumptions and consultation with JTF-7 scientific and technical personnel. In general, these assumptions were:

1. That the 19,000 count per minute quoted referred to counts per cubic meter of air.

2. That the counter efficiency was:

(a) 50%

(b) 20%

On this basis, it was concluded from the calculations that all results were within permissible limits for emergency and continuous consumption for air and water as recommended by the National Committee for Radiation Protection and Measurement (NCRP) and also by the International Commission on Radiation Protection. Commander JTF-7 and the Deputy for Scientific Matters were advised to this effect by the Staff Surgeon. No further action was taken at this time. Messages 180222Z and 180258Z from CINCPAC were checked.

At 0730 hours local time on the morning of 22 July, the Staff Surgeon found on his desk an Operational Immediate message 210812Z from CINCPACFLT with information to Commander JTF-7, originating from ALUSNA TOKYO 210218Z to CNO and information to CINCPACFLT (see Tab B, Appendix I): "My 162206Z. MSB reports some of crew of TAKUYO MARU losing white blood count as a result of radioactive fallout X MSB informally requested aid in flying minimum of 10 and maximum of 51 of crew from Rabaul to Japan for treatment X MSB further requests aid in decontaminating ships X Wooden deck and canvas awnings reported to be

trouble spots X AMEMB concerned and recommends medical and decontamination assistance X Australian health authorities presently conducting tests on crew at Rabaul."

In view of the content of this message, particularly the references to "MSB reports some of the crew of the TAKUYO MARU losing white blood count as a result of radioactive fallout..." and "...MSB informally requested aid in flying minimum of 10 and maximum of 51 of crew from Rabaul to Japan for treatment..." the Staff Surgeon and Commander Frederick W. Snyder, Joint Task Force SEVEN Operations Officer, were requested by the Commander to draft a message with recommendations to Director of Military Application, U.S. Atomic Energy Commission. Just as this was completed (not sent), Commander JTF-7 received a telecon message from General Alfred D. Starbird, DMA, AEC (see Telecon Item No. 12, Tab C, Appendix I). Message 220030Z from Commander, Joint Task Force SEVEN to DMA/AEC (see Tab F, Appendix I) was dispatched in reply to this query.

At this time, following a conference called by Commander JTF-7, the following were designated as members of the team:

Colonel Ralph M. Lechausse, USAF (MC)
Chief, Nuclear Medicine, Office of Surgeon General, Hq USAF
Staff Surgeon, Joint Task Force SEVEN

Captain Roscoe H. Goeke, U.S. Public Health Service
Health Physicist
Radiological Safety Advisor, Task Group 7.5

Lt Colonel Carl L. Hansen, Jr., USAF (MC)
Nuclear Medicine Officer
Flight Surgeon, Task Group 7.4

The team was alerted for departure to Rabaul pending final advice and clearances from DMA/AEC and State Department. During this period of

several hours, other advisories from DMA/AEC were received, including message 212043Z (see Tab D, Appendix I) and 212245Z from USAEC, Washington, D.C. (see Tab E, Appendix I). Other transmissions which followed before our departure are included as Tab H, Appendix I). Medical and radiation survey instruments, equipment and supplies, including anti-malarial prophylactic and aerosol bombs for aircraft, were collected and made ready.

Final clearance from the Australian Government for our entry to Rabaul was received in Operational Immediate message 240043Z (see Tab I, Appendix I) from AEC, Washington, D.C., to Commander JTF-7 which arrived at the Eniwetok Proving Ground at 241515 hours local time. Aircraft operational considerations made it imperative that take-off on the first leg of the flight to Rabaul (Eniwetok to Truk) be not later than noon. Therefore, take-off was set for 250230 hours local time, and, in fact, the aircraft was rolling at this time. (See message 240435Z from Commander JTF-7, Tab J, Appendix I.) Personnel aboard are listed in Tab G, Appendix I. Aircraft SA-16 #51024 arrived Truk at 250645 hours local time (0745M). After refueling and breakfast, including one each chloroquin anti-malarial tablet for every member of the party (following greeting at the strip by Mr. Gallamore, District Trust Territory Administrator, who offered every convenience and courtesy to our group), we made a JATO-assist take-off for Rabaul at 250905 hours local time (1005M). Arrival at Rabaul was at 251315 hours local time (1515M), a total of 12 hours 45 minutes elapsed time.

B. RABAUL

About two hours out of Rabaul our party had been queried as to whether we desired lunch upon arrival. We proceeded, therefore, to the Cosmopolitan Hotel and luncheon following our greeting at the plane by the following individuals:

Mr. John R. Foldi
Australian Territorial Administrator for New Britain Island
Mailing address: Australian Trust Territory
Papua and New Guinea

Charles Haszler, M.D.
Australian Regional Medical Officer, New Guinea Islands
Mailing address: Same as Mr. Foldi's

And others

Mr. Gus Smiles
Reporter for RABAUL TIMES
South Pacific Post (Port Moresby); Wire Services

The latter was not a member of the official party, but attached himself immediately--with questions. Following a graciously accepted response of "We are in no position to comment so soon after our arrival", Mr. Smiles permitted us to depart for the hotel. Our group noticed that he had taken pictures as we deplaned.

After lunch and a perusal of Dr. Haszler's file of records which included original interviews (questions and answers) by him and Sub-Inspector Stewart, the team boarded the TAKUYO MARU at the dock. We were accompanied by Mr. Foldi, Dr. Haszler, and two interpreters. One was Mr. Jim Wong, a District employee, and the second was a Japanese employed by the Japanese Salvage Company working in the harbor.

Our party was greeted at the head of the gangplank with formality, but smilingly, by the Captain and his officers, all of whom rendered

salutes although we were in civilian clothes (as throughout our entire visit). At least two Japanese took pictures from the deck as we boarded—as well as Mr. Gus Smiles from the dock. After a short exchange of greetings and handshakes proferred by our hosts, we were ushered below decks to the TAKUYO wardroom where we were joined shortly by the Captain of the SATUMA and a few of his officers. (See Tab A, Appendix VII for names of specific Japanese personnel contacted. For entire crew lists, see Tab A, Appendix II.)

There followed a relatively short but pleasant period devoted to the amenities during which our hosts served soft beverages (grape juice and orangeade) and peanuts, and during which our language contact was established and somewhat improved as we went along. Captain Matsubara, who was sitting at Colonel Lechausse's right at the head of his table, led into the purpose of our visit by saying that they were very appreciative of our presence and offer of help and that he was very concerned over the health of his people. He asked whether we felt that they were suffering from radiation illness and whether there was any cause for worry over future developments. As a result of this conversation and its immediate development, the TAKUYO records were promptly made available to us upon our request. There was no hesitation and no apparent restraint on the part of any of the ship's personnel. These are attached as Appendix III. The Captain of the SATUMA later made the same records available to us.

The next two hours were devoted to an examination and interpretation (literal and technical) of these records. A detailed discussion

of the chronological sequence of events ensued and points of question were explained to us by the Japanese using their records (course plots, radiation readings, decontamination procedures and medical examination records. See "Course Plots", Tab A, Appendix III and IV, and section "Japanese Radiation Readings and Decontamination".)

The services of the interpreters and of Dr. Haszler were definitely of value during this session although we were, on succeeding visits, able to communicate quite directly with the Japanese with satisfactory success. An outline of our plans for the following day's activities was discussed and arrangements made to begin at 0800 on the following morning (Saturday). Instructions were given for collecting the 24-hour urine samples, and it was arranged that Captain Goeke and Dr. Hansen would return early that evening with the urine containers. The next half hour was devoted, again, to a very pleasant visit during which more soft beverages, Japanese beer and tidbits were served. Our departure from the ship was accompanied by salutes, smiles, handshakes and waving.

Upon return to the hotel, the team engaged in a short conference, reviewing the day's activities and outlining plans for the next day.

After dinner at the hotel, the team, aircraft crew members, and Mr. and Mrs. Foldi spent a very pleasant evening over coffee at the home of Doctor and Mrs. Haszler.

26 July 1958, Saturday:

Our outlined plan of action was carried out as follows:

0800 All team members boarded the TAKUYO which was now at anchor

in the harbor (with the SATUMA) where they were moved earlier that morning to make room at the pier for an incoming vessel.

0800-0900 Lechausse and Goeke made a preliminary over-all check of radiation levels on the TAKUYO. Lechausse and Hansen selected twelve crew members from each vessel's complement for physical and laboratory examinations and radiation monitoring.

0900-1430 Goeke accomplished detailed and critical radiation survey of both ships assisted by Lt Colonel Frazee, Aircraft Commander, and utilizing the services of an interpreter. Also, an examination and evaluation of the Japanese radiation instrumentation was done. (For detailed survey findings, see sections "Radiation Survey Findings" and "Japanese Instrumentation".)

0900-1500 Japanese personnel to local medical clinic by launch and truck for medical history, medical examination and radiation monitoring by Dr. Hansen. (See section "Medical History and Examination.")

0900-1500 Alternating in two groups, the Japanese personnel were taken to the local pathology and x-ray laboratory for blood examinations. Dr. Lechausse, Mr. Shelton (Laboratory Director), and staff.

Urine: (24-hour samples.) Start of urine collection after first morning void which was retained for chemical (organics) analysis (to be done at Los Alamos Scientific Laboratories).

NOTE: All personnel worked continuously until completion, although week-ends in the islands are to all local personnel, as Dr. Haszler phrased it, "sacrosanct".

1500-1700 Conference at hotel for review of day's activities and findings and with purpose of forwarding message to Commander JTF-7 which was dispatched at 261517 hours local time (see Tab K, Appendix I).

1700-1845 Acceeding to the urgent request (previous day) of Dr. Haszler, Lechausse and Hansen presented unclassified, informal lectures on Nuclear Medicine to a group comprised of Dr. Haszler's medical staff and Rabaul private physicians. An interesting discussion period followed. Captain Goeke was in attendance and available for questions and answers. The meeting was terminated perforce by the approach of our dinner engagement as below.

1930 The team members were guests of Mr. and Mrs. Foldi at dinner (Chinese restaurant) and for coffee at their spacious and attractive mountainside home. Coversation was on a variety of subjects, extremely stimulating, and not related to our mission. The Haszler's were unable to attend due to another engagement.

Reviewing the day's activities, the team members agreed that we had successfully accomplished the programmed fact-finding and technical portion of our mission. We also felt that we could complete the remaining items by noon or shortly thereafter of the following day, Sunday.

27 July 1958, Sunday

0800-0845 Delayed through a minor misunderstanding. Our fault, strictly,

in not having made explicit arrangements with the native skipper of the launch who had been placed at our disposal constantly—as were two cars and drivers—throughout our stay in Rabaul. The skipper was at Mass.

0900 Boarded TAKUYO after being ferried from dock by her launch which was sent in for us when they noticed us waiting on the dock. Greeted warmly again.

0900-1130 Proceeded to Captain's cabin. Joined by medical and scientific personnel of TAKUYO and, shortly, by the Captain of the SATUMA and his corresponding counterparts. After a short period of greetings, soft drinks, and general conversation, the subject of our final visit aboard arose very naturally when we were queried as to our findings regarding the health of the personnel by the Captain of the TAKUYO. He also stated that he was required "by his headquarters" to obtain a "written statement" from us before they (his headquarters) would approve his departure from Rabaul. The Captain of the SATUMA made a similar request at this time. We truthfully had not anticipated this eventuality and had no guidance on this particular point to rely on, although, at our final conference prior to departure for Rabaul, we had discussed every possibility and potential aspect. However, in view of the over-all technical success of our mission thus far and the cordial and cooperative relationship which had prevailed from the moment of our first contact, it

was decided that this was a reasonable and understandable request and the team leader indicated, without verbal discussion, that he was favorably inclined. Dr. Hansen and Captain Goeke indicated agreement. As stated in our original summary dispatch message 290955Z to DMA/AEC (see Tab N, Appendix I), we felt impelled to do everything possible to obviate any possibility of even slight impairment of what we considered a most friendly and mutually beneficial relationship to this point. A denial of this request, for any reason we could think of, we felt would be very impolitic and a serious error. We therefore suggested that we would be happy to draft such a statement following a complete discussion of our findings with them. This was, in fact, done after our discussion and is quoted below.

There followed a detailed discussion of our examination of the ships and of the personnel and our summary impressions. During this period, our radiation dose-rate readings were copied, in toto, by each Captain or one of his people, from our original records. This was also done in the case of the blood counts by the TAKUYO physician (the SATUMA doctor had been permitted to do so the day before at the laboratory, once our results had been recorded). There were questions as to when the results of the urine examinations would be known, and we advised that this would be a matter of 2-3 weeks if there was any evidence of radioactivity, sooner if there was none. The same regarding the blood samples.

The team leader then drafted the statement which follows, and, after concurrence by the other team members, it was typed in several copies by one of the ship's personnel. We requested and received three copies. One copy was signed for each of the Captains as requested by them, and as Captain Matsubara said to the team leader in requesting his signature, "For souvenir, yes?" The statement:

> "As a result of our examinations of the TAKUYO and the SATSUMA and of the personnel, our findings do not indicate evidence of radiation sickness or any contamination of either vessel which should delay your departure or normal use of the vessels or equipment either now or in the future.
>
> "We are very desirous of conveying to you and all your personnel and to your headquarters our most sincere appreciation of everyones' complete cooperation and personal friendliness and help.
>
> "It has been our pleasure to have had this opportunity of meeting you personally and working with you.
>
> "We wish to express our thanks and sincere best wishes to you and all your people and wish you a safe and pleasant voyage home."

(Copy of original is attached as Tab B, Appendix VII.)

At this point, we presented to the Captains, who immediately called their scientific personnel around them, the dosimeters we were requested to deliver. (We also gave them an appropriate battery-operated charger.) We had with us twelve and gave them all, although eight only were mentioned in the original request. (See message 221643Z from USAEC, Tab G, Appendix I.) These were 0-5 roentgens, self-reading, quartz fiber electrometer type, officially designated as Bendix Model #611, Series B. The numbers of these instruments are recorded in Tab C, Appendix VII. Captain Goeke instructed the scientific personnel in their use and gave

them a short written description and instruction sheet, handwritten. It was emphasized that a dosimeter with this comparatively high range is used in the United States for purposes such as civil defense, weapons tests, and not for routine laboratory, industrial or training purposes. During this time the urine samples from both ships were collected and packaged for us by the Japanese.

Throughout this session, our hosts several times reiterated their thanks and appreciation for "your help". As often, we, in return, expressed our pleasure at being able to be of assistance and also for the opportunity of meeting them personally.

Two bottles of "Fine, Old, Rare" Japanese whiskey made their appearance on the table at about this time; a pitcher of water, nuts, rice cakes followed. Drinks were poured neat. The moment seemed propitious for our group to give the first toast. Our sincere feeling of cordiality and appreciation for the friendliness and cooperation shown us throughout our stay made this a spontaneous and natural gesture. This resulted in a short exchange of personal expressions of mutual respect and friendship--and more toasts.

As a particular evidence of the warm and personal atmosphere which existed, we relate the following: Captain Tanaka, Master of the SATUMA, a handsome, well-built and virile-appearing man, obviously well-traveled and sophisticated (who had informed us that he did not drink or smoke because "it is injurious to the health") now announced in response to our previous exchange of good wishes, "I will sing for you the New Zealand good-bye song.....I sing now!" He then sang to us in English, without

accompaniment. It was a touching gesture. While we do not recall the words, the song ends on the theme of "We will be waiting to meet you again, sometime, somewhere."

Shortly thereafter, we said our formal good-byes. The group accompanied us to the ship's ladder where the entire crew appeared to be assembled on deck. At this time they presented to each member of our team a paper-wrapped, oblong package with their personal good wishes. (Our assumption as to the liquid contents was later confirmed to be "Fine, Old, Rare".)

Our actual departure was accompanied by handshakes, formal salutes and repeated good wishes and expressions of personal regard. In response to the continuous waving of all the Japanese, we returned the gesture from the deck of the launch and all continued to wave until we were out of sight of each other. Even from the dock, we exchanged hand-waving.

1200 Wrote and dispatched final message from Rabaul to Commander JTF-7 (see Tab L, Appendix I).

1330 The afternoon was very pleasantly spent with the Haszlers on a motor tour of the Gazelle Peninsula, travelling the high ridge surrounding the harbor of Rabaul. Numerous native villages were pointed out to us and we actually visited one native hut. As explained to us by Dr. and Mrs. Haszler, the family groups sitting at the roadside and the noticeable foot traffic on the roads is the usual Sunday routine for the natives. Wherever we went, children and adults alike waved to us from the roadside. During this tour, we went through a recently

opened, native-operated but Australian supervised sixty-bed hospital on a hilltop overlooking the harbor. Also, at the conclusion of our tour, we were conducted through a 400-bed newly-constructed regional hospital of most modern local design and construction. This remarkable installation, costing one million Australian pounds ($2,400,000) is planned to receive its first patients in October, 1958. The pride of the local Administrator, and particularly of Dr. Haszler, was apparent.

With a view toward returning in small measure the personal attention and many courtesies and kindnesses extended to us by the Foldis and the Haszlers, we had invited these officials and their wives to be our guests at cocktails (at the hotel) and dinner (at a local Chinese restaurant). We were disappointed that the Foldis were unable to accept.

After cocktails at the hotel, while taking care of our hotel bill, Dr. Haszler evidenced apparent surprise that we were taking care of our bills and made a remark to Mrs. Richardson, the Desk Clerk, to the effect that the local authorities were handling this matter. However, we had already taken care of our obligations and would have done so, in any event, except upon insistence to the contrary by Mr. Foldi.

At this time, Mr. Gus Smiles again engaged us in conversation. During the course of this conversation, he advised one of us (Lechausse) about a news story in a Sydney, Australia, paper of the previous day. He offered to obtain a copy for us and did. (See Tab C, Appendix VI.) Also, during the course of this conversation, he asked Colonel Lechausse

if he was aware of the fact that there was a Japanese newspaper reporter travelling aboard one of the vessels. He stated that he did not know this individual's name, but that, some five weeks prior, the local communications people had been advised of this person's impending arrival at Rabaul. They were requested to extend courtesies, including acceptance of collect messages. Mr. Smiles informed us that this Japanese reporter had been filing dispatches. In response to a direct question from Mr. Smiles as to how long we would remain in Rabaul, Colonel Lechausse advised him of our early morning departure time. This resulted in the not unanticipated question as to our findings and opinions. In the presence of Dr. Haszler, Colonel Lechausse advised Mr. Smiles to the following effect, although the words may not be an exact quote, "For obvious reasons, I am not in a position to make a formal statement. However, we feel that our results confirm, in general, those of Doctor Haszler and the local authorities. We have had a very pleasant stay in Rabaul and wish it were possible to stay longer." He then asked whether there was any danger on the ships or their presence in Rabaul. Colonel Lechausse replied, "No". Later that evening, while we were at a Chinese restaurant, Mr. Smiles located us and delivered the clipping from the Sydney newspaper, without conversation.

C. DEPARTURE FROM RABAUL and Return to Eniwetok

28 July 1958, Monday:

0445 Team and aircraft crew members assembled at breakfast at hotel.

0515 Baggage loaded; team and crew proceeded to air-strip. Met by Mr. Foldi and Dr. Haszler and Mr. Gus Smiles.

0600 Boarded aircraft after formal and personal good-byes.

0615 Wheels up

1415 local Arrive Ponape (Refuel)

1515 local Depart Ponape

1800M Arrive Eniwetok

1845M Arrive Parry

1900 Colonel Lechausse, Team Leader, reported verbally to Admiral Tyree, Deputy Commander, Joint Task Force SEVEN.

29 July 1958, Tuesday:

Team met for original conference on this documentary report. Format decided upon. Medical portion of report outlined since Colonel Hansen was scheduled to depart for the Z.I. in the early afternoon. Formal summary report to Division of Military Application, U.S. Atomic Energy Commission; Secretary of Defense, and Headquarters USAF was dispatched (see Tab N, Appendix I). The report was completed, except for final draft and reproduction (three copies only), on the evening of 2 August 1958.

CHAPTER III

RADIOLOGICAL FINDINGS

A. DESCRIPTION OF SHIPS

Both vessels are of the cutter type operated by the Japanese Maritime Safety Board and outfitted with scientific equipment for cartographic survey work in connection with the International Geophysical Year. The complement on the TAKUYO was 50 officers and men and on the SATUMA, 62 men, according to lists given to Dr. Haszler (Australian Health Officer). However, all local newspaper stories quote the TAKUYO complement as 51. The TAKUYO is a one year old, diesel-driven vessel, nicely outfitted, and in a clean condition. The SATUMA is a 14 year old, diesel-driven ship, and, relatively speaking, not quite so ship-shape. Neither ship is fitted with a distillation unit for evaporating sea water for drinking purposes and both ships loaded shore water at Tokyo for the trip. Maximum speed of both ships is 13 knots.

Two spellings of the name SATUMA will be noted. "SATSUMA" is the old spelling; "SATUMA" is the new one, now in use.

B. JAPANESE RADIATION INSTRUMENTATION

The TAKUYO MARU was equipped with a laboratory-type geiger counter and a scintillation counter with a deep water probe. All were of Japanese manufacture, but were very similar in design to equipment manufactured in the United States.

The geiger counter was equipped with a geiger tube with an end window of 1.42 mg/cm^2 thickness for beta measurement. Accessory equipment was an amplifier and scaler unit. Efficiency was said to be 9.6%.

The scintillation counter probe encloses a NaI crystal of 1½ inches diameter and 1½ inches in length, and a Dumont photo multiplier tube in a steel pipe 7.8 centimeters in diameter. The probe was connected to a count rate meter by a very long cable on a reel, and used to take readings at varying depths below the surface. During the voyage from Japan, gamma background for the scintillation counter was reported to us as 2400 cpm. We were advised that 500 cpm was equivalent to 0.7 milliroentgens per week.

During the survey of the TAKUYO on 26 July, a rough check was made to compare the background readings of the Japanese scintillation counter with our MX-5. The following results indicate a reasonable check:

Scintillation counter: 3315 cpm gamma (equivalent to 0.03 mr/hr)

MX-5: 0.045 mr/hr gamma

The equipment on the SATUMA MARU consisted of one laboratory type geiger counter similar to that on the TAKUYO, and one 0-200 milliroentgen self-reading dosimeter and charger. The dosimeter was of Japanese manufacture and similar to our Keleket 0-200 milliroentgen dosimeter.

During the voyage of the SATUMA, the dosimeter hung in a plastic bag filled with a dessicant in a bulkhead doorway to the "Scientific Observation Room". The door remained open at all times and the dosimeter was therefore in an exposed position. Readings taken daily by the scientific personnel aboard are shown in Tab A, Appendix IV. The readings show the doses of 26 milliroentgens from 8 to 15 July, and 24 milliroentgens from 15 July to 19 July.

There was no air sampling equipment aboard either ship. The units for the air data (cpm per cubic meter) listed on the ships course plots

refer to cpm recorded by the scintillation counter while the probe was exposed in air.

C. JAPANESE DECONTAMINATION PROCEDURES and Radiation Readings

A review of the data given to us by the ship's Captain shows that the TAKUYO ran through a rain squall between 2000 and 2300 hours, Japanese Standard Time, 14 July 1958 (position 153°45' E and 12°23' N). Starting at 1200 hours JST, the background (using their figure of 2400 cpm) gradually began to rise. At 2200 hours, following the rain squall, a reading of 37,468 cpm, using the scintillation counter probe, was obtained. However, the probe itself was found to be contaminated, and, after being decontaminated by washing with a detergent (ethylene diamine tetra acetate (E.D.T.A.), their "neutrality cleanser") and rinsing with fresh water, the maximum count was 26,235. 37,468 cpm is equivalent to 0.31 mr/hr (using their figures of 500 cpm = 0.7 mr/week). All Japanese readings were taken with the scintillation probe close to the surface of the deck.

Between 0100 and 0400 hours, JST, 15 July, the radiation level remained at about 23,000 cpm. On advice from Tokyo, decontamination procedures were commenced at about 0530 hours, 15 July. Decks and equipment were washed with "neutrality cleanser" and flushed with either fresh or sea water. Generally, the level was reduced to about 10,000 cpm by this procedure. The bridge and bridge deck remained "high", however, and decontamination of this area was repeated at 1400 hours. This reduced the reading on the bridge to 17,470 cpm.

On the morning of 16 July, cleaning and washing of the inner parts of the ship was accomplished and measurements made daily, thereafter.

These are shown in Tab B, Appendix III.

All parts of the TAKUYO continued to be washed and rinsed each morning until reaching Rabaul at 0900 hours JST, 19 July.

Decontamination of the TAKUYO personnel was also commenced on 15 July on advice from Tokyo. Men were directed to shampoo and shower, and the clothing of the crew was washed and monitored. On arrival at Rabaul, each crew member was given a haircut.

The SATUMA did not encounter rain (position 151° East and approximately West of the TAKUYO) and the officers routinely monitored their radiation level using their geiger counter and dosimeter. By this means they felt assured that the SATUMA had not encountered fallout radiation and was not contaminated. No decontamination measures were instigated. On arrival in Rabaul, the ship was monitored, using the TAKUYO scintillation counter, and the Captain advised us that all readings were at background levels. Monitoring was done on 18, 20, 21 and 25 July. Swipes were also taken on the SATUMA using ordinary chemical filter paper with an area of 4.9 square centimeters and swiping a 100 square centimeter area. The swipes were ashed and counted, using the geiger counter. The monitoring and swipe results are given in Tab B, Appendix IV.

D. RADIOLOGICAL SURVEY OF SHIPS

Two Beckman MX-5 (Serial Nos. 1146 and 65014) geiger counters and one Chatham CDV-700 (Model 3, #6306) geiger counter were used to establish background radiation readings in Rabaul. These instruments were calibrated the day prior to departure for Rabaul by Task Group 7.1 and Task Group 7.5 Rad-Safety organizations. On return to Eniwetok the calibrations were confirmed. A background dose-rate reading, taken at 2200

hours, 25 July, outside our quarters in Rabaul, was established to be 0.06 to 0.07 mr/hr beta and gamma. This figure was confirmed at the Rabaul Public Health Authority Medical Clinic on 26 July.

Both the TAKUYO MARU and the SATUMA MARU were boarded the morning of 26 July for the purpose of making a detailed survey of radiation dose-rates on the ships. The entire exposed superstructure, including the decks, bulkheads, and exposed equipment such as winches, canvas, covers, rope, and awnings, were monitored using an MX-5 instrument. Readings were essentially background on both ships. Similarly, the interior spaces were monitored. This included officers and crews quarters, mess, baths and heads; the galleys, the wheelhouses, the chart rooms, the laboratories, and such spaces as paint, chain and stowage lockers. The readings in these interior spaces on both ships were lower than background. While many of the crew members followed Captain Goeke because of curiosity, Chief Mate Oyama of the TAKUYO MARU and Captain Tanaka of the SATUMA MARU watched the taking of all measurements on their respective ships. One crew member of the SATUMA took still pictures of the monitoring procedures.

It is interesting to note that on the SATUMA MARU, two brass-colored metal parts of a gun, a fuse setting crank and a gunsight showed radioactivity. The readings were 10 mr/hr beta-gamma and 1.2 mr/hr gamma only. The guns were covered during the entire voyage and the rest of the gun and the canvas cover were at background intensity. The Captain was quick to let us know that these parts were from metal of United States origin.

Radiation readings taken aboard the ships follow:

1. Radiation Readings - TAKUYO MARU

Date: 7-26-58

Instrument: MX-5 Beta-Gamma Geiger Counter #1146

Background ashore: 2200 hours 25 July 1958:

0.06-0.07 mr/hr Beta-Gamma

All readings on exposed outer surface unless noted. Probe held almost in contact with the surface. Beta shield open. Only maximum reading recorded over each area examined.

Location	Reading mr/hr	
Forecastle - Exposed		
Top of hatch - steel painted	0.07	
Anchor winches - canvas cover	0.08	
Winch	0.05	
Rope coil on deck	0.07	
Wet bumper coil	0.07	
Canvas cover over steel cable	0.07	
Forepeak Spaces - Enclosed		
Paint locker	0.03	
Stowage locker	0.02	
Chain locker	0.05	
Deck awning (in place on 14th)	0.09	Rolled up at)
Coil fire hose	0.07	time of reading)
Forward Deck - Exposed		
Winch cover - canvas	0.09	
Oily surfaces around winch	0.07	
Deck surfaces - wood - portside	0.05	to 0.09
Windlass cover - canvas	0.09	
Deck surface - wood - starboard	0.08	
Wooden bench	0.11	This had not) been cleaned)
Boat Deck - Exposed		
Life raft cover - painted fabric	0.06	
Reel steel cable - canvas cover	0.05	
Deck surface - wood - aft	0.12	
Winch cover - rubberized material	0.08	
Lifeboat - canvas top - aft - starboard	0.10	
Engine room ventilator area	0.06	
Lifeboat - canvas top - forward - port	0.09	
Vegetable locker - painted canvas	0.08	

Location	Reading mr/hr	
Poop Deck - Enclosed		
Capstan ensign space - deck	0.05	
Rope Coil	0.06	
Steering engine room oily floor	0.06	Hatch only) entrance)
Quarters - Enclosed		
Crew's mess - benches and tables	0.04	
Deck	0.04	
Clerk's room - deck	0.05	
Crew's head	0.05	
Officer's head	0.04	
Officer's bath	0.05	
Officer's mess	0.05	
VIP quarters - rugs and chairs	0.04	
Work spaces - Enclosed		
Laboratory - work tables and floors	0.05	
Wireless room - deck	0.05	
Galley - floors and work areas	0.05	
Observation room (Scientific) - chairs, work space, decks	0.05	
Wheelhouse - deck	0.06	
Flying bridge - portable canvas cover	0.05	
Upper bridge - Exposed		
Deck grating - wood	0.07	
Compass cover - canvas	0.08	
Instrument cover - canvas	0.08	
Miscellaneous		
Engine room - sea suction	0.05	
Air exhausts into room	0.04	

2. Radiation Readings - SATUMA MARU

Date: 7-26-58

Instrument: MX-5 Beta-Gamma Geiger Counter #1146

Background Ashore: 2200 hours, 25 July 1958:

0.06-0.07 mr/hr Beta-Gamma

All readings on exposed outer surface unless noted. Probe held almost in contact with surface. Beta shield open. Only maximum readings recorded over each area examined.

Location	Reading mr/hr	
Forecastle - Exposed		
Deck - painted	0.07	
Chain capstan cover - canvas	0.07	
Rope reel cover - canvas	0.07	
Rope on reel	0.08	
Gun cover - in place during trip	0.07	
Brass fuse setting ring and brass gunsight	1.2	Gamma
	10.0	Beta-Gamma
Life raft - forward - port	0.06	
Sounding machine cover	0.05	
Boat deck - Exposed		
Life boat canvas cover	0.07	
Searchlight cover	0.07	
Machine gun cover - starboard - amidship	0.06	
Life boat canvas cover - starboard - aft	0.05	
Weather balloon hatch - canvas cover	0.07	
Upper deck - Aft - Exposed		
Winch cover - canvas	0.05	
Canvas awning - not up during trip	0.05	
Japanese flag - flew during trip	0.05	
Fantail deck - Exposed		
Vegetable locker	0.05	
Coil rope	0.06	
Deck - steel	0.07	
Quarters - Enclosed		
Crew's head - deck	0.06	
Crew's bath - deck	0.05	
Officer's head - deck	0.04	
Officer's bath - deck	0.04	
Purser's room - deck and work area	0.04	
Wireless room - deck and work area	0.04	
Crew room - deck and desk	0.04	
Captain's quarters - deck and desk area	0.06	
Work space - Enclosed		
Galley - tables and deck	0.04	
Dispensary	0.04	
Weather balloon - deck and gear	0.05	
Observation room - scientific work spaces and deck	0.05	
Miscellaneous		
Sea suction pipes	0.05	
Air exhaust in quarters	0.04	

Location	Reading mr/hr
Bridge - Enclosed	
Observation room - deck	0.06
Steel deck	0.07
Compass cover - canvas	0.06
Upper bridge - Exposed	
Decking - wood	0.06
Deck - steel	0.06
Exposed exterior surface of bridge - steel - forward	0.06

E. DRINKING WATER

Drinking water was loaded by each ship before departure from Tokyo and their supplies replenished following arrival at Rabaul. Half-liter samples of the original drinking water loaded at Tokyo, and, also, mixed Tokyo and Rabaul water samples from different tanks were collected. The analysis for gross beta radioactivity was conducted by Task Unit 6 of Task Group 7.1 at Eniwetok Proving Grounds. The results are as follows (see Tab D, Appendix III and IV):

	Gross Beta Activity dis/ min/ ml
TAKUYO	
Tokyo water	0.7
Tokyo and Rabaul water	1.3
SATUMA	
Tokyo water	5.0
Tokyo and Rabaul water	0.5

These results show no evidence of radioactive contamination. The preferred 30 day limit for beta activity in drinking water is 2,600 d/m/ml, and the acceptable 30 day limit is 70,000 d/m/ml.

Neither ship was equipped with a distillation unit for evaporating sea water for drinking purposes.

F. CALCULATIONS OF DOSE to TAKUYO MARU Personnel

Japanese data:

1. 2000 hours JST 14 July Rainout started
2. 2030 hours JST 14 July Rainout over
3. 2200 hours JST 14 July Highest count of 37470 cpm
4. 0530 hours JST 15 July Start of decontamination
5. Scintillation background = 2400 cpm
6. Contamination of scintillation counterprobe was 11,235 cpm
7. Conversion: 500 cpm = 0.7 mr/wk

Other data:

1. 1230 hours JST 12 July Detonation time
2. $I = I_1 t^{-n}$
3. Dose = $\frac{I_1}{n-1}\left[t_1^{1-n} - t_2^{1-n}\right]$

Where: t_1 = time of entry

t_2 = time of exit

I_1 = intensity at H + 1 hour

Assumptions:

1. The suspected event to have taken place at 1230 hours JST, 12 July.

   NOTE: The only instance where we are able to attempt an estimate of the decay rate from the Japanese data is compatible with the assumed time of detonation of the suspected event.

2. n = 1.2
3. Continuous exposure of personnel to indicated dose rate for the time period used.
4. Use 2030 hours 14 July for time of highest count:
   H + 55 hours = t_1
5. Use 1130 hours 15 July for end of decontamination:
   H + 70 hours = t_2
6. Use 0030 hours 27 July as time of monitoring TAKUYO:
   $12\frac{1}{2}$ days = H + 300 hours = t_2

Calculations:

1. Using highest count with no background or probe contamination deducted:

$$I = \frac{37470(0.7)}{500\ (168)} = 0.31 \text{ mr/hr}$$

$$I_1 = It^{-1.2} = 0.31(122.6) = 38 \text{ mr/hr @ H + 1}$$

$t = 55$

Dose to Infinity: $t_2 = \infty$ (Infinity)

$$D = \frac{38}{1.2-1}\left[55^{0.2} - 0\right] =$$

$$= \frac{38}{0.2}\left[0.449\right] = 85 \text{ mr}$$

Dose to Monitoring: $t_2 = 300$

$$D = \frac{38}{1.2-1}\left[55^{0.2} - 300^{0.2}\right]$$

$$\frac{38}{0.2}\left[0.449 - 0.319\right] = 25 \text{ mr}$$

Dose to End First Decontamination: $t_2 = 70$

$$D = \frac{38}{1.2-1}\left[55^{0.2} - 70^{0.2}\right]$$

$$\frac{38}{0.2}\left[0.449 - 0.427\right] = 4.2 \text{ mr}$$

2. Subtracting background of 2400 cpm and probe contamination of 11,235 cpm:

$$37,470 - 2400 - 11,235 = 23,835 \text{ cpm}$$

$$I = \frac{23,835(0.7)}{500\ (168)} = 0.20 \text{ mr/hr}$$

$$I_1 = 0.20(122.6) = 24.5 \text{ mr/hr @ H + 1}$$

Dose to End First Decontamination: $t_2 = 70$

$$D = \frac{24.5}{0.2}\left[0.449 - 0.427\right] = 2.7 \text{ mr}$$

G. SUMMARY AND CONCLUSIONS

1. The Japanese data showed that their highest dose rate reading was only fifteen times their background readings as recorded during the early part of their voyage.

2. The background radiation level (0.06-0.07 mr/hr beta-gamma) in Rabaul was substantial, comparatively. No explanation for this is offered.

3. The relatively low cumulative gamma readings recorded on the SATUMA dosimeter do not necessarily indicate a true dose. It is entirely probable that radiation leakage of the instrument accounted for a large portion of the recorded dose.

4. The radiation dose rates on both the TAKUYO and SATUMA at the time of monitoring were found to be substantially identical. The decontamination measures carried out on the TAKUYO were effective in reducing the radiation level to essentially background.

5. Japanese data maximizes the whole body gamma dose inasmuch as the scintillation orobe was held almost in contact with the deck. Similarly our radiation monitoring data is maximized since the geiger probe was also held in this same position.

6. The maximum radiation dosepossible to TAKUYO personnel is calculated to be less than 5 milliroentgens. This assumes continuous exposure for the 15 hours from start of the rain squall to the end of the decontamination, at the highest count rate recorded by the Japanese. The dose rate by our own measurements at the time of our arrival was so small as not to permit any tenable calculations on this basis. Therefore, the Japanese data was used in all calculations. It will be noted that there

no significant difference between the white blood counts and white blood cell differential results of the personnel of the TAKUYO and those of the SATUMA, which received no contamination.

7. The infinite gamma dose, even with no decontamination of the TAKUYO, would have been an insignificant amount. Using Japanese data, the dose calculates to be about 85 milliroentgens.

8. The exposure of the TAKUYO and crew to an insignificant radiation dose resulted from a very local and transitory rain-out of not more than 30 minutes duration.

9. The analysis of the drinking water samples collected from the TAKUYO and the SATUMA show no evidence of radioactive contamination.

CHAPTER IV

MEDICAL EXAMINATIONS AND FINDINGS

A. MEDICAL HISTORY

The medical history as obtained from the respective ship's physicians, medical technicians and from the ship's personnel themselves (and confirmed by the history as taken by Charles Haszler, M.D., Australian Regional Health Officer) revealed that no personnel on either ship presented any complaints of illness to the ship's doctors subsequent to 14 July until arrival at Rabaul. Upon arrival there, two people were examined by Doctor Haszler at the request of the TAKUYO MARU'S physician. (See records on Akagi and Masuda; Tab A, Appendix II.) These individuals were not considered to have any symptoms or evidence of radiation sickness by Doctor Haszler or by us following our subsequent examination. At the time of our arrival, all personnel on both ships were reported to us as active in their normal duties with no loss of appetite, malaise or illness of any sort.

B. PHYSICAL EXAMINATION AND RADIATION MONITORING

Twelve persons from each ship were given a physical examination. They were also monitored for any external radioactive contamination using an MX-5 Beta-Gamma Survey Meter with the beta window open, after a background reading was obtained in the examining room.

These twelve people from each ship included the seven individuals who had originally been examined by Doctor Haszler and his staff, plus five others whose white blood counts were the lowest from each ship as determined by the counts performed by the TAKUYO MARU's doctor and by

the Australian health authorities. The SATUMA MARU's physician had not done any counts aboard ship.

The survey for possible radioactive contamination was a whole body survey with particular emphasis placed on the hair, fingernails and feet. It is mentioned that all of the personnel of the TAKUYO had previously showered and been given a shampoo and haircut. The background in the clinic where the examinations were performed was 0.06 milliroentgens per hour, beta and gamma, at the time of examination. None of the people examined had any contamination as determined by this survey. (All individuals were understandably very interested and scrutinized the dial on the survey meter quite closely as they were monitored.)

The physical examination included a careful inspection of the skin for possible beta burns or any early indication thereof. None were detected. In addition, the head and neck were examined carefully, including an ophthalmoscopic examination. No lenticular opacities were noted nor were any enlarged thyroids encountered. There were no abnormal instances of lymphadenopathy.

The chest and abdomen were examined thoroughly (excluding genitalia and rectum) with no abnormalities noted. Although a non-tender liver edge was palpable at the right sub-costal margin in several of these people, this was considered not unusual in individuals of this body build. No cases of splenomegaly were detected nor were any enlarged kidneys palpated.

Blood pressures were obtained on all, and, allowing for mild elevations due to strangeness and possible apprehension, no hypertension

was diagnosed.

Routine neurological examination was done on all and no abnormalities noted.

Copies of physical examinations are attached as Tab A, Appendix V.

In summary, this was a group of twenty-four healthy young males who presented no complaints at the time of examination or on questioning and who exhibited no detectible significant abnormalities.

C. LABORATORY EXAMINATIONS

A red blood cell count, white blood cell count, smear (slide method) for white blood cell differential examination, hemoglobin (Sahli method) were done. Intravenous blood was drawn on six individuals (15 cc each) for examination for radioactivity. These bloods were taken from the antecubital fossa veins directly by separate intravenous needles and allowed to drip directly into a 15 cc vial containing oxylate since we did not have available individual syringes of adequate size. The blood vials were numbered in accordance with the list attached (see Tab C, Appendix V.)

The blood smears were fixed in methyl alcohol for two minutes. They were not stained, but each was marked with a pencil number (no labels available) and placed in order 1-24, in correspondingly numbered slots in a slide box.

All blood counts and hemoglobin determination were done in order of taking and recorded (see Tab C, Appendix V) as soon as done.

Blood vials were refrigerated at the clinic.

Twenty-four hour urine samples were collected on seven people, three from the SATUMA and four from the TAKUYO. (See Tab B, Appendix V, for

names.)

Although explicit directions were given the evening before beginning the collection of urine, we cannot be certain that they were collected as instructed. However, this is not too important technically since we intended to use the first morning void for organics examination and expected probably to pool the urines, ultimately. We were mainly concerned with having specimens from each ship separately and in adequate amounts. These we are fairly certain we have.

Urines, blood vials and blood smears were brought back to home station with us. Specimens were shipped by courier to Travis AFB and from there by commercial air to:

1. 24-hour urines and intravenous bloods to:

   Lt Colonel James Hartgering, USA (MC)
   Walter Reed Army Institute of Research
   Washington, D.C.

   For examination for any possible radioactivity.

2. Urines (first morning void) to:

   Health Division
   Los Alamos Scientific Laboratory
   Los Alamos, New Mexico

   For organic chemical analysis.

3. Blood smear slides for white blood cell differential evaluation to:

   Colonel Frank Townsend, USAF (MC)
   Deputy Director
   Armed Forces Institute of Pathology
   Washington, D.C.

It should be mentioned that it would have been impossible to accomplish these activities in one day without the facilities (laboratory,

clinical and transportation) and cooperation made available to us by Mr. Foldi and Dr. Haszler. Of special note was the cheerful, expert and unselfish, hard work of Mr. Shelton, Laboratory Chief, and his entire staff of five people. All worked on with us through the noon hour (at their desire) until completion. We are extremely grateful and expressed ourselves to this effect.

D. CALCULATED DOSE TO PERSONNEL

1. Using all maximized assumptions and numbers so as to present the worst possible situation, we calculate:

a. Dose from time of reported rain-out to infinity: 85 milliroentgens

b. Dose from time of reported rain-out to our arrival in Rabaul (12.5 days or 300 hours): 25 milliroentgens

c. Dose from time of reported rain-out to completion of first decontamination procedures (15 hours): 4.2 milliroentgens

d. Same as c above, but deducting background and probe contamination: 2.7 milliroentgens

2. For detailed calculations, see paragraph "F", under "Radiological Findings".

E. SUMMARY AND CONCLUSIONS

1. There is no evidence at this time of any detectible effects resulting from exposure to ionizing radiation.

2. There have been no cases of radiation sickness on either vessel.

Any complaints of illness subsequent to 14 July 1958 were due to other causes; i.e., possible infectious hepatitis or other intercurrent illness. It is noted that five total white blood cell counts are below 5,000 and one count is 3320. Hemoglobin is normal and the red blood cell count on these individuals is within normal range or slightly below. One red blood cell count of 3,160,000, with a hemoglobin of 76%, is recorded. It is not felt that these results can be attributed to the radiation exposure experienced as per our calculations of the dose received.

3. There will be no detectible effects and, in the light of present medical knowledge, no deleterious medical effects, in fact, resulting from the minimal radiation exposure experienced, as calculated by us.

4. There was no detectible evidence of radioactive contamination of personnel at the time of examination.

5. There is no medical indication for restriction of the normal activities of any of the personnel of either vessel.

NOTE: Since writing this report we have received (7 August) the results on the blood smears for white blood cell count and evaluation. These were accomplished at the Armed Forces Institute of Pathology and are recorded with the other blood results as Tab C, Appendix V.

Comment: The wide range of results obtained by different technicians and some of the apparent inconsistencies between (1) white blood cell differential and total white blood cell count, (2) platelets and red blood cell count and hemoglobin, is not explained by us. The poor fixation of the blood smears must be taken into account.

While there is no question but that such findings can be related to definite radiation sickness or acute exposures of 50 roentgens or more, the absence of clinical complaints or illness in these individuals (Japanese) prior to our arrival or at the time seen (12 days after reported exposure) and the calculated maximum dose received, makes any relation to radiation insult untenable in this instance. The blood smear results as reported by the Armed Forces Institute of Pathology must then be regarded as incidental findings indicating further medical investigation by Japanese doctors, perhaps, but on the basis of an etiology other than ionizing radiation insult as a result of this present exposure.

CHAPTER V

FINAL SUMMARY AND CONCLUSIONS

Since the dose rate by our own measurements at the time of our arrival was so small as not to permit any tenable calculations on this basis, the Japanese data was used in all calculations utilized in arriving at our conclusions.

1. The Japanese data showed that their highest dose-rate reading was only fifteen times their background readings as recorded during the early part of their voyage.

2. The relatively low cumulative gamma readings recorded on the SATUMA dosimeter do not necessarily indicate a true dose. It is entirely probable that radiation leakage of the instrument accounted for a large portion of the recorded dose. If accepted as real, it indicates a total dose of 50 milliroentgens between the dates July 8-19.

3. The radiation dose rates on both the TAKUYO and SATUMA at the time of monitoring were found to be substantially identical. The decontamination measures carried out on the TAKUYO were effective in reducing the radiation level to essentially background.

4. Japanese data maximizes the whole body gamma dose inasmuch as the scintillation probe was held almost in contact with the deck. Similarly our radiation monitoring data is maximized since the geiger probe was also held in this same position.

5. The maximum radiation dose possible to TAKUYO personnel is calculated to be less than 5 milliroentgens. This assumes continuous exposure for the 15 hours from start of the rain squall to the end

of the decontamination, at the highest count rate recorded by the Japanese. An additional 2-3 milliroentgen total may have been accepted between this time and our arrival at Rabaul (total 300 hours).

6. The infinite gamma dose, even with no decontamination of the TAKUYO, would have been an insignificant amount. Using Japanese data, the dose calculates to be about 85 milliroentgens.

7. The exposure of the TAKUYO and crew to an insignificant radiation dose resulted from a very local and transitory rain-out of not more than 30 minutes duration.

8. The analysis of the drinking water samples collected from the TAKUYO and the SATUMA show no evidence of radioactive contamination.

9. There is no evidence at this time of any detectible effects resulting from exposure to ionizing radiation.

10. There have been no cases of radiation sickness on either vessel. Any complaints of illness subsequent to 14 July 1958 were due to other causes; i.e., possible infectious hepatitis or other intercurrent illness.

11. There will be no detectible effects, and, in the light of present medical knowledge, no deleterious effects, in fact, resulting from the minimal radiation exposure experienced, as calculated by us.

12. There was no detectible evidence of radioactive contamination of personnel at the time of examination.

13. There is no medical indication for restriction of the normal activities of any of the personnel of either vessel.

CHAPTER VI

GENERAL COMMENTS

A. COMMENTS ON AUSTRALIAN RECORDS AND DATA

1. Ref: NED 3/4/1378, dated July 21, 1958. (Tab A, Appendix II)

a. Paragraph 3: The statement "they sailed through the Pacific 500 miles west of the last atom explosion center in the Caroline Islands" is, of course, not consistent with our knowledge of the location of the suspected event which took place at Bikini Atoll. On the other hand, they were about 520 miles from Eniwetok and 720 miles from Bikini according to their position as shown on course plot (Tab A, Appendix III) and as reported to our Government in their official advisories.

b. Paragraph 3: The statement "it was about 70 milliroentgens" is meaningless either as a dose or dose-rate figure in the context in which given. No time unit is indicated. This is further confused by the fact that Captain Matsubara is reported in the local (Rabaul) newspaper as using a figure of 70 to indicate that this represented a number such as "20 counts per minute above the limit of human safety." In actuality, the number 70 really indicates 20 counts per minute above the higher normal background limit of the instrument in question. Reference next paragraph below and page 4 story, RABAUL TIMES, dated 25 July 1958, column 3, paragraph 1, under subhead "above limit." (Tab B, Appendix VI).

c. Paragraph 4: The numbers quoted are well within the normal background range quoted in their second interview with the Australian authorities. Reference NED 3/4/1410 dated July 24, 1958, paragraph 8,

and answer to question #7 in July 22 interview by Sub-Inspector Stewart.

2. Ref: NED 3/4/1410, dated July 24, 1958. (Tab C, Appendix II)

a. Paragraph 10: The "0.7 milliroentgens" should read "0.7 milliroentgens per week" according to information given us by the Japanese. 36,000 cpm represents 50.4 milliroentgens per week, on this basis.

b. Reference is made to paragraphs 4 through 8 on page 2, which refer to the only two cases of any sort of complaints mentioned by the Japanese.

3. Ref: 22 July Interview by Sub-Inspector Stewart (Tab B, Appendix II)

a. Answer 3: (a) The correction in pen and red pencil on the original copy is not initialed and was done by one of the Rabaul officials. (b) We were informed by the Japanese that this number should be 3,600 and the correction istherafore authentic. The units should be cpm (counts per minute) rather than ml (milliliter).

b. Attention is invited to questions 9 through 14 and the respective answers.

c. Attention is invited to the final paragraph.

B. COMMENTS REGARDING NEWSPAPER CLIPPINGS

1. July 24, 1958, Thursday. SOUTH PACIFIC POST, Port Moresby, Papua - New Guinea. (Tab A, Appendix VI)

a. Attention is invited to paragraph one and the fact that this release was made prior to our arrival at Rabaul.

b. Attention is also invited to the paragraphs referring to the absence of any illness or radiation injury.

2. July 25, 1958, Friday. THE RABAUL TIMES, Rabaul, New Britain. (Tab B, Appendix VI)

a. Attention is invited to the page 1 box and the two-page feature story on pages 4 and 5.

b. Note is made of varying statements regarding distances from Eniwetok Proving Grounds. Reference is made to Japanese Course Plots (Tabs A of Appendix III and IV)

c. Particular attention is invited to column three, page 5, sub-head CAUSE.

d. Under sub-head HOSING, those portions relating to activities of personnel of both ships is interesting.

3. 25 or 26 July 1958, from Sydney, Australia (? TELEGRAPH). (Tab C, Appendix VI)

a. This newspaper clipping was supplied to us by Mr. Gus Smiles, local reporter, unsolicited. The red pencil check marks are his, calling our attention to what he termed "mis-statements". They are, in fact, mis-statements, on the basis of our investigation.

C. COMMENTS ON MISSION

1. Recognizing that the Japanese had been instructed to cooperate and offer all possible aid to us, the team members agreed that their information and data was given to us willingly, in good faith, and, without question, graciously.

2. It is believed that lack of specific knowledge regarding radiation measurements, interpretation of readings, and, certainly, of professionally known effects of ionizing radiation on people was responsible

to a great degree for the situation which developed. The apparently sincere and marked apprehension on the part of the Captains of both vessels for their people understandably contributed, also.

3. The team's original reaction to the fact that the ships had not gone to Guam as originally planned was one of concern because of the greater lapse of time on the voyage to Rabaul, and the feeling that facilities for accomplishment of the mission would probably be more adequate at Guam. However, we now believe that the actual developments will prove to be in the best interest of the United States Government. This, by virtue of the fact that a third and neutral Government entered the picture. Aside from one or two press reports which may have misquoted Doctor Haszler in regard to radiation sickness, we feel that the over-all actions of the local Australian authorities were restrained and non-alarmist, especially in view of the fact that this was their first experience with such a potentially troublesome situation.

4. A large credit for the smoothness of our mission must be given to the local Australian authorities for their handling of the situation prior to our arrival. Every facility (medical clinic, laboratory facilities, transportation--both water and land) was placed at our constant disposal and every courtesy extended to us.

5. The mission is considered to have been successful from our standpoint, but potential future Japanese press comments, particularly upon arrival of the ships in Japan, may still present problems. This may be anticipated, especially in view of the reported presence of a Japanese newspaper reporter aboard one of the ships and the coincidental

imminence of the forthcoming conference (12 August, in Japan) on banning hydrogen weapons tests.

CR 5516

HEADQUARTERS, JOINT TASK FORCE SEVEN - INCOMING MESSAGE

TOR 19/1109Z/JP

ROUTINE

'AC--PARAPHRASE NOT REQUIRED EXCEPT PRIOR TO CATEGORY B ENCRYPTION--PHYSICALLY REMOVE ALL INTERNAL REFERENCES BY DATE-TIME GROUP PRIOR TO DECLASSIFICATION-NO UNCLASSIFIED REFERENCE IF THE DATE-TIME GROUP IS QUOTED'

DTG 190204Z

FROM CINCPAC

INFO CJTF 7 ENIWETOK

READDRESSED:

FROM TOKYO DTD 17 JULY 10 AM.

TO STATE 110

INFO CINCPAC 32 (CINCPAC FOR POLAD)

COMUS JAPAN

"CNO NOT ADEE PASS BY CNO 171905Z 2 MARITIME SAFETY BOARD SHIPS NOW ENGAGED IN PACIFIC SURVEY PROJECTS IN CONNECTION IGY HAVE REPORTED HIGH LEVELS OF RADIOACTIVITY IN VICINITY OF TRUK. SHIPS HAVE INFORMED MSB OF 19,000 COUNT PER MINUTE OR SCINTILLATION COUNTER, RAIN RADIOACTIVITY OF UP TO 100,000 COUNTS PER LITER AND SEA WATER RADIOACTIVITY OF 247 COUNTS PER LITER PER MINUTE. VERNACULAR PRESS HAS GIVEN FAIRLY EXTENSIVE BACK PAGE PLAY TO THESE REPORTS. MSB OFFICIALS TOLD NAVAL ATTACHE THAT CREWS ON BOTH SHIPS ARE VERY WORRIED ABOUT RADIOACTIVITY. MSB, THOUGH NOT TOO CONCERNED ABOUT REPORTED LEVELS OF RADIOACTIVITY, HAS DIVERTED BOTH SHIPS TO RABAUL FOR FRESH WATER DECONTAMINATION. SIGNED MACARTHUR" NOTE: REF 171905Z NOT IDENTIFIED.

COG: J-3
INFO: COMD, J_4
LOG NR: 8762 TOR: 20/1930M JUL 58 DTG: 190204Z/rdd

CONFIDENTIAL

HEADQUARTERS, JOINT TASK FORCE SEVEN - INCOMING MESSAGE

CR 5587

TOR 211015Z / CMM

OPERATIONAL IMMEDIATE

210812Z

FM CINCPACFLT

INFO CJTF 7

CTG 7.3

CINCPAC

COMNAVMARIANAS

ALUSNA MELBOURNE

'AC--PARAPHRASE NOT REQUIRED EXCEPT PRIOR CATEGORY B ENCRYPTION--PHYSICALLY REMOVE A INTERNAL REFERENCES BY DATE-TIME GROUP PRI TO DECLASSIFICATION-NO UNCLASSIFIED REFERENCE IF THE DATE-TIME GROUP IS QUOTED'

READDRESSED FROM

FM ALUSNA TOKYO 2.0218Z

TO CNO

INFO CINCPACFLT / COMNAVORJAPAN /

CINCPAC

"MY 162206Z X NSB REPORTS SOME OF CREW OF TAKUYO MARU LOSING WHITE BLOOD COUNT AS A RESULT OF RADIOACTIVE FALLOUT X USS INFORMALLY REQUESTED AID IN FLYING MINIMUM OF 10 AND MAXIMUM OF 51 OF CREW FROM RABAUL TO JAPAN FOR TREATMENT X MSB FURTHER REQUESTS AID IN DECONTAMINATING SHIPS X WOODEN DECK AND CANVAS AWNINGS REPORTED TO BE TROUBLE SPOTS X AMAMB CONCERNED AND RECOMMENDS MEDICAL AND DECONTAMINATION ASSISTANCE X AUSTRALIAN HEALTH AUTHORITIES PRESENTLY CONDUCTING TESTS ON CREW AT RABAUL"

NOTE: REF 162206Z IS LOG NR 8673, J-3.

COG: J-3
INFO: COMD, J-4, SSG

LOG NR: 8844 TOR: 21/2235M JUL 58 DTG: 210812Z
TDTG: 210213Z/rdd

CONFIDENTIAL

C O N F I D E N T I A L

ITEM NBR 12.

CONFIDENTIAL/OFFICIAL

FROM CEN STARBIRD [redacted]

FOR GEN LUEDECKE

HOW SOON COULD YOU HAVE A TEAM READY OF A LIMITED NBR OF MEDICAL PEOPLE TO LOOK AT A SHIP THAT IS REPUTED TO HAVE HAD LIMITED FALLOUT. DISTANCE OF SHIP NOW ABOUT 1200 MILES. YOU WOULD HAVE TO USE YOUR OWN TRANSPORRTATION TO PORT WHERE IT IS. PLEASE REPLY THIS TELECON.

END ITEM NBR 12.

Tab C

162

P 212041

FM DSAEC WASHDC

TO LC UNDER SIF-7 ENVELOPE

INFO GRNC

ET

C O N F I D E N T I A L

FOR LUDECKE FM STARBIRD PD

AMBASSADOR TOKYO HAS TELETYPED STATE THAT SHIP AUTHORITIES REPORT SOME TEN INDIVIDUALS FROM A JAPANESE SHIP REPUTED TO HAVE RECEIVED FALLOUT IN THE TRUK AREA HAVE WHITE BLOOD COUNT OF 2000 TO 4000 AS OF 18 JULY AND THAT THIS IS A FALL OF 30 TO 40 PERCENT SINCE 12 JULY PD HE REQUESTS THAT MEDICAL EXPERTS AND DECONTAMINATION TECHNICIANS PROCEED IMMEDIATELY TO RABAUL WHERE SHIP IS NOW LOCATED PD STATE IS WIRING TO TOKYO AND CANBERRA AS FOLLOWS QUOTE QUOTE EC IS PREPARING TO SEND IMMEDIATELY TEAM FROM BOTH PROVING GROUND AND [illegible] INVESTIGATE STATUS OF CREW MEMBERS AND TAKUYO MARU PD EXPECT TEAM COULD PROBABLY ARRIV RABAUL 24 HOURS AFTER NOTIFICATION FROM [illegible] HEADQUARTERS AND ONE FROM U S COULD BE THERE SHORTLY AFTER PD EMBASSY TOKYO REQUESTED OBTAIN URGENTLY CONCURRENCE MSD OUR FOREIGN OFFICE TO HAVE UNITED STATES MEDICAL PERSONNEL ATTEND JAPANESE CREWMEN AND U S TECHNICIANS TAKE DECONTAMINATION MEASURES ON SHIP IF NEEDED PD INFORM DEPARTMENT AND EMBASSY CANBERRA SOONEST RESULTS SUCH APPROACH PD IN EVENT SUCH CONCURRENCE FORTHCOMING EMBASSY CANBERRA REQUESTED

END OF PAGE ONE

5

PAGE TWO

OBTAIN LANDING PERMIT FOR PLANE AT RABAUL END QUOTE PD PARA REQUEST YOU READY IMMEDIATELY THE TEAM MENTIONED AS COMING FROM THE EPC AND BE PREPARED TO SEND IT IF AND AS SOON AS INSTRUCTIONS ARE GIVEN FROM HERE PD QUERY CLN HAV YOU AIRCRAFT TO TRANSPORT TEAM PD HOW SOON CAN YOUR TEAM BE READY TO DEPART PD REQUEST ALSO ADVICE AS TO COMPOSITION OF YOUR TEAM BY NAME AND QUALIFICATION PD ACTION IS BEING TAKEN TO READY TEAM TO COME FROM THE UNITED STATS PD REQUEST ACKNOWLEDGEMENT THIS TELETYPE PD END REF MA CLN ADS END OF MESSAGE

BT

21/2205Z

DE RUHFJA C-186

O 212245Z

FM USAEC WASHDC

TOHCJTF-7 ENIWETOK MI

INFO ZEN/CINCPAC HDQTRS USAF ATTN AFOAT

AEC GRNC

BT

C O N F I D E N T I A L

PARA 1 FOLLOWING IS TOKYO DTG 211855Z PD

MARITIME SAFETY BOARD HAS RECEIVED INITIAL REPORTS FROM RABAUL ON CREWS OF TWO SHIPS CAUGHT IN FALLOUT NEAR TRUK ABOUT 100 MILES OUTSIDE DANGER ZONE PD ONLY ONE SHIP CMM TAKUYO MARU CMM REPORTS HIGH RADIATION READING AUSTRALIAN HEALTH DEPARTMENT OFFICIALS IN RABAUL TODAY CHECKING BLOOD COUNTS OF BOTH CREWS PD SHIPS HAVE REPORTED WHITE BLOOD COUNTS AS OF JULY 18 OFTTEN CREW MEMBERS ON TAKUYO MARU BETWEEN 2'000 AND 4'000 CMM ALMOST ALL THESE COUNTS FELL 33-40 PERCENT FROM JULY 15 READING TAKEN ON SHIP PD SEVEN OTHER CREW MEMBERS ON TAKUYO MARU BETWEEN 4'000 AND 4'900 PD

AFTER CONFERENCE OF JAPANESE MARITIME AUTHORITIES WITH JAPANESE MEDICAL AND HEALTH AUTHORITIES CMM MARITIME SAFETY BOARD HAS BEEN ADVISED TO FLY AT MINIMUM 10 AND AT MOST 51 TOTAL CREW MEMBERS BACK TO JAPAN FOR TRTATMENT PD MARITIME SAFETY BOARD HAS INFORMALLY REQUESTED OUR ASSISTANCE IN ARRANGING FOR FLIGHTS PD MSB HAS ALSO REQUESTED ADVICE ON METHODS OF DECONTAMINATION FOR TAKUYO MARU PD THEIR EFFORTS DECONTAMINATE SHIP HAVE NOT BEEN SUCCESSFUL PD

END PAGE ONE

TAB E

TAKUYO MARU HAS W[illegible] DECK AND CANVASS AWNINGS [illegible] OF WHICH CREW [illegible]

TO DECONTAMINATE PD TAKUYO MARU REPORTS FOLLOWING ERRATIC SCINTILLATION

COUNTER READINGS ON DECK CLN JULY 15 20'000 SMCLN JULY 18 15'200 PD

MSB MAKING EFFORT TO MINIMIZE PUBLICITY ON WHITE BLOOD COUNT FALL OF

CREW MEMBERS IN ORDER NOT ALARM JAPANESE PUBLIC AND FISHERMEN NOW IN

PACIFIC PD DOUBTFUL THAT THESE EFFORTS WILL CONTINUE BE SUCCESSFUL

SINCE PAPERS THIS MORNING ALREADY CARRYING SOME REPORTS PD

EMBASSY RECOMMENDS EVERY EFFORT BE MADE ASSIST JAPAN IN THIS MATTER

SMCLN SUGGESTAS INILIAL STEP MEDICAL TECHNICIANS AND EXPERTS ON

DECONTAMINATION BE FLOWN FROM ENIWETOK AT ONCE /REPEAT AT ONCE/ TO

RABAUL TO INVESTIGATE

STATUS OF CREW MEMBERS AND SHIPS PD IF FOLLOWING THEIR REPORT AND

FURTHER REPORTS FROM AUSTRALIN AUTHORITIES CMM JAPANESE STILL FEEL

DESIRABLE TO FLY SOME OF CREW BACK TO JAPAN CMM RECOMMEND WE PROVIDE

SPECIAL AIRCRAFT PD

THIS IS MOST UNFORTUNATE WFFAIR THAT COULD NOT HAVE COME AT WORSE

YOHHBDRAELEEAIFEKKKSBJAPANESE RELATIONS

IN TERMS OF JAPANESE OPINION PD I THEREFORE FEEL STRONGLY IT IS

IMPERATIVE THAT WE DO EVERYTHING WE CAN TO COOPERATE TO THE HILT WITH

THE JAPANESE GOVERNMENT /WHICH IS TRYING TO MINIMIZE HOSTILE R

C

THIS IS MOST UNFORTUNATE AFFAIR THAT COULD NOT HAVE COME AT WORSE

TIME PD AT BEST IT COULD VERY ADVERSELY AFFECT US-JAPANESE RELATIONS

IN TERMS OF JAPANESE OPINION PD I THEREFORE FEEL STRONGLY IT IS

IMPERATIVE THAT WE DO EVERYTHING WE CAN TO COOPERATE TO THE HILT WI[illegible]

THE JAPANESE GOVERNMENT /WHICH IS TRYING TO MINIMIZE HOSTILE REACTI[illegible]

[illegible] TO ITS WISHES" *PENNINGTON CONCURS*

PARA 2 STATE IS REPLYING TO TOKYO AND CANBERRA AS FOLLOWS CLN

AS RECOMMENDED CMM AEC IS PREPARED TO SEND MEDICAL PERSONNEL AND DECONTAMINATION EXPERTS FROM ENIWETOK TO INVESTIGATE THE STATUS OF THE CREW MEMBERS AND THE TAKUYO MARU PD THE ENIWETOK TEAM COULD PROBABLY ARRIVE WITHIN 24 HOURS AFTER NOTIFIED BY U S HQ. EMBASSY TOKYO REQUESTED TO OBTAIN URGENTLY CONCURRENCE OF THE MSB OR FOREIGN OFFICE TO HAVE U S MEDICAL PERSONNEL ATTEND THE JAP CREWMEN AND THE US TECHNICIANS TO TAKE DECONTAMINATION MEASURES ON SHIP IF NEEDED PD INFORM DEPARTMENT AND U S EMBASSY CANBERRA SOONEST RESULTS OF SUCH APPROACH PD ALSO STATE DATE FALLOUT TAKUYO MARU COMMENCED PD IN EVENT CINNURRENCE FORTHCOMING EMBASSY CANBERRA REMUXSTED TO OBATAIN LANDING PERMISSION OF PLANE AND OF U S PERSONNELHAT RABAUL PD"

PARA 3 HAVE REQUESTED AFOAT TO TELETYPE AS SOON AS POSSIBLE INFORMATIO AVAILABLE RELATIVE TO SUITABILITY OF RABAUL FOR C-54 LANDING PD REQUES CINCPAC PROVIDE CJTF-7 INFORMATION IT MAY HAVE IN THIS REGARD PD

END OF MSG

BT

22/0025Z

6

OPERATIONAL IMMEDIATE ABC 212043Z
N S DA CONFIDENTIAL

CJTF SEVEN ENIWETOK MI

2200130Z

USAEC GERMANTOWN MD

JTFCO 7 00245

FOR STARBIRD FROM LUEDECKE. REFERENCE YOUR 212043Z. THIS MESSAGE IN TWO PARTS.

PART 1. IN REPLY TO YOUR SPECIFIC QUERY:

A. I DO HAVE AIRCRAFT TO TRANSPORT JTF SEVEN TEAM.

B. TEAM IS READY TO DEPART NOW.

C. TEAM CONSISTS OF COLONEL RALPH LECHAUSSE, JTF SEVEN STAFF SURGEON; LT COLONEL CARL HANSEN, FLIGHT SURGEON, TASK GROUP 7.4 AND CAPTAIN ROSCOE H. COKER, PUBLIC HEALTH SERVICE AND MEMBER RADSAFE UNIT, JTF SEVEN.

PART 2. BEST INFORMATION AVAILABLE HERE INDICATES FIELD RABAUL NOT SUITABLE FOR C54 AND THAT AVIATION FUEL IS NOT AVAILABLE RABAUL. IF THIS IS TRUE, C54 COULD NOT LAND BECAUSE OF CONDITION OF FIELD, AND I WILL BE UNABLE TO USE SA-16 BY REASON OF NON FUEL AVAILABLE. SA-16 HAS SUFFICIENT FUEL TO PROCEED RABAUL, BUT CANNOT RETURN

22 JUL 58

220030Z

JTFCO/Dailey

A.R.LUEDECKE, MAJGEN, USAF, CJTF7

62125 1 2

COMMANDER'S COMEBACK

TAB E

PRIVACY ACT MATERIAL REMOVED

ITEM NBR 8.
OFFICIAL/ CONFIDENTIAL
FOR LEDOUX
FROM LUEDECKE
CONFIDENTIAL//PASS TO STARBIRD:
IN REPLY TO YOUR QUERY THE FOLLOWING TEAM IS STANDING BY:

READ INFO IN FIVE COLUMNS X NAME X BIRTH X US CITIZEN X UNIT ATTACHED/ MILITARY RANK, SER NO. X

LECHAUSSE, RALPH M. / NEWARK(ESSEX) N. J. X YES X HQ JTF-7 X

GOEKE, ROSCOE H. X POST FALLS IDAHO, X YES X CTG 7.5 X CAPT.

HANSEN, CARL L., JR. X SPRINGFIELD (HAMPDEN) MASS. X YES X TG 7.4 X LT COL.

CREW

FRAZEE, MALCOLM C. (PILOT) X SAN DIEGO (SAN DIEGO) CALIF. X YES X TG 7.4 FAR ELEMENT X LT COL

FLEMING, RUSSELL A. CO-PILOT X LOS ANGELES (LOS ANGELES) CALIF. X YES X TG 7.4 FAR ELEMENT X 1ST LT

WILLARD, ERNEST N. III (NAVIGATOR) X KNOXVILLE (KNOXVILLE) TENNE- X YES X TG 7.4 FAR ELEMENT X CAPT USAF

WARD, JAMES F. (RADIO OPERATOR) X HOMES, FLORIDA X YES X TG 7.4 FAR ELEMENT X SSGT USAF

BORING, JOHN O. (FLT ENG) X VINTON, OHIO, X YES X TG 7.4 SSGT,

AIRCRAFT SA-16 NUMBER 51024 FLYING TIME WETOK TO TRUK 5.20 TRUK TO RABAUL 5.40

CORRECTION: ADD DATE OF BIRTH LT COL HANSEN AS '
END ITEM NBR 8.
C O N F I D E N-T I A L

1. G

PRIVACY ACT MATERIAL REMOVED

VFA217

CO RUHLBG

DE RUWFJA C-204R

O 221643Z

AEC GRNC

BT

DOE ARCHIVES

FROM USAEC WASHDC

TO COMMANDER CMM JTF-7 ENIWETOK MI

INFO ZEN/CINCPAC CMM U S AMBASSADOR TOKYO CMM U S AMBASSADOR CANBERRA

NR C-204 DTG JULY 221643Z GRNC

/C O N F I D E N T I A L/

FOR LUEDECKE FROM STARBIRD PD

US AMBASSADOR TOKYO HAS ADVISED STATE THAT HE HAS CONSULTED WITH MSB AND FOREIGN OFFICE WHO ARE HIGHLY APPRECIATIVE AND CONCUR IN THE ACTION RECOMMENDED BY STATE IN THE MESSAGE QUOTED IN PARAGRAPH ONE OF OUR DTG 212245Z PD THE JAPANESE HAVE REQUESTED AT THE EARLIEST POSSIBLE TIME QUOTE COMPETENT U S MEDICAL PERSONNEL TO CHECK THE CREW AS WELL AS DECONTAMINATION EQUIPMENT AND TECHNICIANS TO CHECK THE SHIP END QUOTE PD THEY REQUEST ALSO EIGHT POCKET DOSIMETERS CMM TYPE NOT STATED PD AMBASSADOR TOKYO REQUESTS EARLIEST INFORMATION AS TO ETA OF PARTY AND STATES THAT JAPANESE HAD HOPED TO SAIL THEIR SHIP FOR HOME ON THE 24TH PD PARAGRAPH WE HAVE NOT HEARD FROM CANBERRA RE CLEARANCE OF AIRCRAFT TO LAND PD HOWEVER CMM I HAVE ASKED STATE TO TRY TO TELEPHONE THE AMBASSADOR AND GET IMMEDIATE CLEARANCE PD I SHALL WIRE YOU IMMEDIATELY ON RECEIPT WHICH I EXPECT MOMENTARILY PD COULD YOU INFORM ME OF ESTIMATED TIME ENROUTE AND UPON DEPARTURE INFORM AMBASSADORS CANBERRA AND TOKYO AND ME OF ETA PD BIOLOGY AND MEDICINE SUGGESTS ALSO THAT ALFRED KLEMENT ACCOMPANY GROUP PLEASE ACKNOWLEDGE END REF MA CLN ADS END OF MESSAGE

BT

22/1753Z

65

OO RUHEBG

DE RUWFJA C-204

O 221740Z

FM USAEC WASH DC

TO CJTF SEVEN ENIWETOK MI

CINCPAC

AEC GRNC

BT

C O N F I D E N T I A L

FOR LUEDECKE AND CINCPAC FM STARBIRD PD

HAVE JUST BEEN ADVISED BY STATE DEPARTMENT THAT THEY HAVE JUST RECEIVED A MESSAGE FROM CANBERRA PD THE SUBSTANCE OF THIS MESSAGE IS THAT THE AUSTRALIAN AUTHORITIES IN RABAUL HAVE REPORTED TO CANBERRA THAT THE SITUATION IS NOT AS SERIOUS AS FIRST REPORTED CMM THAT THE SHIP HAS BEEN DECONTAMINATED AND THAT THE CREW IS NOT IN DANGER PD THEY ADVISED THE STATE DEPARTMENT THAT WE MAY REQUEST AUTHORITY FOR ENTRY INTO THE TRUST TERRITORY BY RADIOING THE DIRECTOR OF THE TRUST TERRITORY DIRECTLY PD THIS OFFICIAL IS LOCATED IN PORT MORESBY PD ADVICE IS TO THE EFFECT THAT THE ADVANCE INFORMATION MUST INCLUDE PERTINENT DATA AS TO THE CREW AND PASSENGERS CMM AND REASON FOR ENTRY H AT TWO O"CLOCK EDT CMM STATE DEPARTMENT ADVISES ME THEY HOPE TO HAVE MORE INFORMATION AS TO PROTOCOL OF ENTRY FROM AUSTRALIAN EMBASSY IN WASHINGTON PD IN THE MEANTIME THEY HAVE SUGGESTED THAT GENERAL LUEDECKE MAY BE IN BEST POSITION TO WIRE PORT MORESBY FOR ENTRY AUTHORITY PD THEREFORE QUERY TO GENERAL LUEDECKE CMM DO YOU HAVE FACILITIES TO ACCOMPLISH THIS QUERY FURTHER QUERY TO CINCPAC CMM CAN YOU DO THIS IF GENERAL LUEDECKE CANNOT QUERY ADDITIONAL INFORMATION RECEIVED THROUGH AMBASSADOR IN TOKYO IS TO THE EFFECT THAT QUOTE JAPANESE RADIATION EXPERTS HAVE ESTIMATED THAT CREW

END OF PAGE ONE

TAB B 6

PAGE TWO

MEMBERS OF TAKUYO MARU HAVE RECEIVED AT MAXIMUM 100 MILLIROENTGENS

AND PROBABLY 20 TO 30 MILLIROENTGENS PD END QUOTE PD I HAVE ASKED

STAT TO TRACE THIS REPORT BACK FOR POSSIBLE GARBLE AS IT IS THAT IF

100 MILLIROENTGEN FIGURE IS CORRECT CMM WE INDEED HAVE A TEMPEST IN

A TEAPOT PD END REF MA CLN CGS END OF MSG

BT

22/1844Z

AEC WASHDC

TO RUHEBG/CJTF SEVEN ENIWETOK MI

INFO ZEN/CINCPAC

AEC GRNC

BT

/C O N F I D E N T I A L/

FOR LUEDECKE INFO CINCPAC FROM STARBIRD PD

REFERENCE MY DTG 221643Z AND 221740Z CMM STATE DEPARTMENT ADVISES ME THAT THEY HAVE REVIEWED SITUATION AND THAT IN VIEW OF OUR OFFER TO THE GOVERNMENT OF JAPAN AND THEIR PLEASED ACCEPTANCE THEREOF CMM THAT WE SHOULD GO THROUGH WITH THE SENDING OF THE MEDICAL AND TECHNICAL TEAM TO RABUAL PD THEY ADVISE THAT THE QUICKEST WAY TO GAIN ENTRY AUTHORITY IS FOR GENERAL LUEDECKE TO RADIO THE "ADMINISTRATOR CMM TRUST TERRITORY CMM PORT MORESBY" STATING TYPE OF AIRCRAFT CMM NAMES OF CREW AND MEMBERS OF MEDICAL AND TECHNICAL TEAM CMM AND STATING THAT REASONS FOR ENTRY ARE FOR MEDICAL EXAMINATION OF CREW OF TAKUYO MARU AND POSSIBLE DECONTAMINATION OF SHIP AT REQUEST OF GOVERNMENT OF JAPAN AND CONCURRENE OF AUSTRALIAN GOVERNMENT ACTION CONCURRENTLY BEING TAKEN THRU U S EMBASS CANBERRA FOR CLEARANCE PD

THERE HAS BEEN NO TIME FOR ME TO HAVE RECEIVED ANSWER AS TO MY QUERY GENERAL LUEDECKE'S CAPABILITY TO RADIO PORT MORESBY PD HOWEVER CMM THIS MESSAGE CONSTITUTES AUTHORITY AND DIRECTION TO DISPATCH FLIGHT TO RABUAL PD SUBJECT TO CLEARANCE FROM ADMINISTRATOR PD

IN VIEW OF LESSER URGENCY IN SITUATION REQUEST NO UNNECESSARY RISK BE TAKEN SUCH AS FLYING INTO RABAUL AT NIGHT IF IN GENERAL LUEDECKE'S JUDGEMENT THIS IS INDEED UNNECESSARY RISK PD IN ADDITION TO INFORMATION REQUESTED IN MY 221643Z CMM REQUEST YOU INFORM ME OF TYPE AIRCRAFT AND ROUTE PLANNED PD THAT IS CMM DIRECT OR THROUGH TRUK PD DOD /GENERAL LOPER/ HAS BEEN INFORMED OF THIS MESSAGE AND CONCURS IN DIRECTIVE CONTAINED HEREIN PD END REF MA CLN CBS

VFA002
OO RUHEAB
DE RUWFJA 220C
O 222302Z
FM USAEC WASHDC
TO CJTF-7 ENIWETOK MI
AEC GRNC
BT
C O N F I D E N T I A L

PERSONAL TO LUEDECKE FROM STARBIRD PD

PRUSUANT TO YOUR TELEPHONE CONVERSATION WITH STEWART CMM I AM INVESTIGATING WITH ALL CONCERNED FEASIBILITY AND DESIRABILITY OF COURSE OF ACTION YOU HAVE SUGGESTED PD INITIAL REACTION OF STATE DEPARTMENT WAS CONCERN OVER NAVAL REGULATIONS WITH RESPECT TO ENTRY OF JAPANESE SHIPS INTO PORTS AT BOTH TRUK AND GUAM PD I HAVE PASSED THIS CONCERN ON TO LOPER WHO IS INQUIRING INTO THIS POINT WITHIN DOD PD ACTION TO OBTAIN CLEARANCE FOR RABAUL LANDING IS STILL BEING PRESSED BY STATE THROUGH CANBERRA PD I UNDERSTAND FROM STEWART THAT HIS IMMEDIATE REACTIO TO YOUR PROPOSAL WAS FAVORABLE PD MY OWN FEELINGS ARE THAT IF WE ARE TO DO ANYTHING AT ALL WE SHOULD DO IT AT RABAUL PD WE CAN CMM

END OF PAGE ONE

OF COURSE CMM ONLY ASK THAT JAPANESE HAVE SHIP PUT IN AT ONE OR OTHER OF THESE PLACES PD I CONSIDER THE TIME ELEMENT IMPORTANT IF WE HAVE TO OVERCOME BLOWN UP PUBLIC COMMENT OR PERHAPS PROPAGANDA SPECULATION PD REACTION OF STATE DEPARTMENT IS SIMILAR PD REQUEST HAS GONE THRU EMBASSY TOKYO ASKING THAT SHIP REMAIN AT RABAUL UNTIL ARRIVIAL OF U S TEAM PD I HAVE JUST NOW REITERATED TO STATE MY SENSE OF URGENCY WITH REGARD TO OBTAINING LANDING CLEARANCE PD IF SUCH IS NOT FORTHCOMING WITHIN NEXT TWELVE TO TWENTY FOUR HOURS WILL REEXAMINE SITUATION PD REGRET CONFUSION PD END

END OF MESSAGE

BT

22/2355Z

PRIORITY JTFCO 7-00315

PRIORITY M DA 261105Z CONFIDENTIAL

CJTF SEVEN ANIWETOK MI-

USAFC GERMANTOWN MD

INFO: CJTF SEVEN JOHNSTON ISLAND/CINCPAC/SECDEF WASHDC/HQ USAF WASHDC

JTFCO 7 [illegible] 00351

ADC FOR GENERAL STARBIRD CNM JTF SEVEN FOR GENERAL LUNDGREN CNM SECDEF FOR GENERAL LOPER CNM USAF PASS TO AFOAT FOR COLONEL LYNESWORTH PD FROM ADMIRAL RADFORD JCS THIS MESSAGE IN TWO PARTS PD

PART ONE PD FOLLOWING IS SUMMARY REPORT AS RENDERED BY COLONEL LECHAUSSE WHO ARRIVED HERE WITH HIS TEAM AT TWO EIGHT ZERO SEVEN ZERO ZULU CLR ONE PD SHIPS RECORDS CONFIRM THAT TAKUYO MARU WAS AT POSITION QUOTED IN JAPANESE ADVISORIES PAREN ONE FOUR JULY CNM TWO ZERO ZERO ZERO HOURS TOKYO STANDARD TIME DASH ONE FIVE THREE DEGREES FOUR FIVE MINUTES EAST CLR ONE TWO DEGREES TWO THREE MINUTES NORTH CNM PROCEEDING ON COURSE WEST OF SOUTH PAREN WERE THEY ENCOUNTERED ALFA MAIN SQUALL BEGINNING AT TWO ZERO ZERO ZERO HOURS AND LASTING THREE ZERO MINUTES PD DURING THIS TIME THEIR RADIATION LEVELS INCREASED TO ABOUT ONE FIVE TIMES BACKGROUND READINGS PD THE SATSUMA MARU WAS AT THIS TIME

29
JUL 58

JTFCO/Dalley

2909552

D.M.TYREE, RADM, USN, DCJTF-7

62125 1 7

CONFIDENTIAL

COMMANDER'S COMEBACK

CJTF SEVEN EGINETOK MI

APPROXIMATELY

TIME AT ONE FIVE ONE DEGREES EAST CMM [illegible] WEST OF THE TAKUYO PD

SATUMA DID NOT PASS THROUGH ANY SQUALL PD ACCORDING TO THE ACCOUNT

OF THE TAKUYO CAPTAIN CMM HE CMM ACTING UPON ADVICE FROM TOKYO CMM

INITIATED DECONTAMINATION PROCEDURES ON HIS PERSONNEL AND SHIP THE

FOLLOWING MORNING PD MONITORING OF THE SATUMA WAS FIRST DONE AT

RABAUL USING THE TAKUYO'S INSTRUMENTS PD THE SATUMA HAD ALFA GEIGER

COUNTER BUT WAS NOT CONCERNED OVER ANY READINGS PD PARA TWO PD

COMPLETE EXAMINATION OF BOTH VESSELS PAREN INCLUDING ROPES AND

CANVAS PAREN REVEALED ESSENTIALLY ONLY BACKGROUND RADIATION DOSE

RATE LEVEL ON EXPOSED DECKS AND EQUIPMENT PD READINGS IN ALL

ENCLOSED SPACES ABOVE AND BELOW DECKS WERE LOWER THAN BACKGROUND

LEVEL PD RABAUL BACKGROUND READINGS TAKEN ABOUT WERE ZERO POINT

ZERO SIX DASH ZERO POINT ZERO SEVEN MILLIROENTGENS PER HOUR CMM

BETA AND GAMMA PD PARA THREE PD IN VIEW OF THE ABOVE FINDINGS CMM

NO FURTHER DECONTAMINATION PROCEDURES WERE CONSIDERED NECESSARY

OR ADVISED PD PAREN AS ALFA NOTE OF INTEREST CMM ALFA BRASS COLORED

FUSE SETTING RING AND GUNSIGHT ON THE SAME GUN ON THE SATUMA SHOWED

ALFA ONE ZERO MILLIROENTGEN PER HOUR CMM BETA AND GAMMA CMM AND

ALFA ONE POINT TWO GAMMA ONLY MILLIROENTGEN PER HOUR READING PD

BOTH OF THESE WERE COVERED BY CANVAS DURING THE ENTIRE VOYAGE PD

THE SATUMA CAPTAIN HUMOROUSLY OFFERED THE INFORMATION THAT THIS

METAL WAS OF UNITED STATES ORIGIN PD PAREN PARA FOUR PD THE MEDICAL

HISTORY AS OBTAINED FROM THE RESPECTIVE SHIPS' PHYSICIANS AND

MEDICAL TECHNICIANS AND FROM THE PERSONNEL THEMSELVES PAREN CONFIRMED

BY THE AUSTRALIAN REGIONAL MEDICAL OFFICER, NEW GUINEA ISLANDS CMM

CJTF SEVEN ENIWETOK MI

CHARLES HASZLER, MIKE DELTA PAREN REVEALED THAT NO PERSONNEL ON EITHER SHIP PRESENTED ANY COMPLAINTS OF ILLNESS TO THE SHIPS' DOCTORS PD HOWEVER COM UPON ARRIVAL AT PARADI COM TWO PEOPLE WERE EXAMINED BY DR HASZLER AT THE REQUEST OF THE FAKUYO MARU'S PHYSICIAN PD THESE INDIVIDUALS WERE NOT CONSIDERED TO HAVE ANY SYMPTOMS OF RADIATION SICKNESS BY DOCTOR HASZLER OR BY US FOLLOWING OUR LATER EXAMINATION PD DETAILED REPORTS PART OF WRITTEN REPORT TO FOLLOW PD PAREN FIVE PD ORIGINAL RECORDS AND REPORTS OF DOCTOR HASZLER COM IN OUR POSSESSION COM INCLUDE TOTAL WHITE BLOOD COUNT AND URINALYSIS FOR ALL PERSONNEL ON BOTH SHIPS COM AS WELL AS SPECIAL AND REPEATED EXAMINATIONS OF SEVEN MEN FROM EACH SHIP PD DATES FOR ONE OR MORE OF THESE EXAMINATIONS WERE ONE NINE COM TWO ONE AND TWO THREE JULY PD OUR COMPLETE EXAMINATIONS WERE DONE ON TWO SIX JULY ON ONE TWO PERSONS FROM EACH SHIP INCLUDING THE SEVEN PERSONS DONE REPEATEDLY BY DOCTOR HASZLER AND FIVE OTHERS CHOSEN FOR THE LOWEST WHITE BLOOD CELL COUNTS REPORTED BY THE JAPANESE PHYSICIANS AND SLASH OR DOCTOR HASZLER PD COMPLETE MEDICAL HISTORIES COM WITHIN THE LIMITS OF LANGUAGE DIFFICULTIES COM WERE TAKEN PAREN INTERPRETERS AVAILABLE BUT EFFECTIVENESS NOT ONE ZERO ZERO PERCENT PAREN COM AND COMPLETE PHYSICAL EXAMINATIONS PAREN EXCLUDING GENITALIA AND RECTUM PAREN DONE COM INCLUDING PERSONNEL MONITORING FOR RADIATION CONTAMINATION AND ANY EVIDENCE OF BETA INJURY PD BLOOD EXAMINATIONS INCLUDED RED AND WHITE CELL COUNTS COM SMEARS FOR WHITE CELL DIFFERENTIAL EXAMINATION BEING FORWARDED TO ARMED FORCES INSTITUTE OF PATHOLOGY PAREN COLONEL FRANK TOWNSEND COM DEPUTY DIRECTOR PAREN COM WASHINGTON

JTFCO/Dailey

CUT SEVEN EDITION NI

DELTA CHARLIE PD SAMLI HEMOGLOBIN DONE PD VENOUS BLOOD ON SEVEN FOUR PEOPLE AND TWO FOUR HOUR URINES ON SEVEN BEING FORWARDED TO LTCOL JAMES HARTGERINK CHM WALTER REED ARMY INSTITUTE OF RESEARCH CHM FOR POSSIBLE EVIDENCE OF RADIOACTIVITY PD PARA SIX PD OUR ON THE SPOT BLOOD EXAMINATIONS NOW AS FOLLOWS CHM THE TWO INDIVIDUALS REFERRED TO IN PARAGRAPH FOUR HAD CHM RESPECTIVELY CHM HEMOGLOBIN CHM RED BLOOD COUNT AND WHITE BLOOD COUNT OF ONE ZERO EIGHT PERCENT CHM FIVE POINT TWO MILLION AND FOUR SEVEN ZERO ZERO AND SEVEN SIX PERCENT CHM THREE POINT ONE SIX MILLION AND FIVE SEVEN ZERO ZERO PD PREVIOUS WHITE BLOOD COUNT DIFFERENTIAL SHOWED CHM RESPECTIVELY CHM POLYMORPHS CHM ~~SIX EIGHT~~ FIVE EIGHT PERCENT AND LYMPHOCYTES CHM THREE EIGHT PERCENT ~~S CHM~~ CHM MONOCYTES CHM FOUR PERCENT ~~S CHM~~ CHM POLYMORPHS CHM SIX THREE PERCENT ~~S CHM~~ CHM LYMPHOCYTES CHM TWO NINE PERCENT CHM AND MONOCYTES CHM EIGHT PERCENT PD URINES NEGATIVE EXCEPT FOR FEW PUS CELLS PER HIGH POWER FIELD PD BOTH HAD NO SPECIFIC COMPLAINTS CHM HAD GOOD APPETITE AND WERE ACTIVELY PERFORMING THEIR DUTIES PD ONLY OTHER HEMOGLOBIN READING UNDER NINE TWO PERCENT WAS ONE OF EIGHT SIX PERCENT PD IN ALL CHM FOUR RED BLOOD CELL COUNTS UNDER FOUR POINT FIVE MILLION CHM NINE OVER FIVE MILLION CHM AND REMAINING ONE ONE BETWEEN FOUR POINT FIVE AND FIVE MILLION PD PARA SEVEN PD OUR WHITE BLOOD CELL COUNTS ON TWO SIX JULY SHOW ONLY ONE BELOW FOUR ONE ZERO ZERO PAREN THREE THREE ~~FIVE~~ FIVE ZERO PAREN CHM AND WE HAVE NO EXPLANATION FOR THIS PD HIS HEMOGLOBIN WAS ONE ZERO SIX PERCENT AND RED BLOOD COUNT FOUR POINT SIX THREE MILLION PD NO COMPLAINTS AND PHYSICAL EXAMINATION ESSENTIALLY NEGATIVE PD FOR REMAINDER CHM READ TWO COUNTS AS

JTCO/Dailey

[redacted]

CONFIDENTIAL

CUTF SEVEN EIGHTOK MI

FOLLOWS CLR COLUMN ONE PD FOUR ONE ZERO ZERO CPM FOUR TWO ZERO ZERO CPM FOUR THREE ZERO ZERO CPM FOUR FOUR ZERO ZERO CPM FOUR FIVE ZERO ZERO CPM FOUR SIX ZERO ZERO CPM FOUR SEVEN ZERO ZERO CPM FIVE ZERO ZERO ZERO TO SEVEN FIVE ZERO ZERO CPM SEVEN FIVE ZERO ZERO TO NINE ZERO ZERO ZERO CPM NINE ZERO ZERO ZERO TO ONE ONE EIGHT ZERO ZERO SPACE COLUMN TWO CLR ONE EACH CPM ONE EACH CPM ZERO EACH CPM TWO EACH CPM ONE EACH CPM ONE EACH CPM ONE EACH CPM SIX EACH CPM SEVEN EACH AND THREE EACH PD PARA EIGHT PD MEDICAL SUMMARY AND CONCLUSIONS CLR ALFA PD THERE IS NO EVIDENCE AT THIS TIME OF ANY DETECTIBLE EFFECTS RESULTING FROM EXPOSURE TO IONIZING RADIATION PD BRAVO PD THERE WAS NO DETECTIBLE EVIDENCE OF RADIATION CONTAMINATION OF PERSONNEL AT THE TIME OF EXAMINATION PD CHARLIE PD THERE HAVE BEEN NO CASES OF RADIATION SICKNESS ON EITHER VESSEL PD ANY COMPLAINTS OF ILLNESS SUBSEQUENT TO ONE FOUR JULY WERE DUE TO OTHER CAUSES SPACE FOR EXAMPLE CPM INFECTIOUS HEPATITIS OR OTHER INTERCURRENT ILLNESSES PD DELTA PD THERE WILL BE NO DETECTIBLE EFFECTS RESULTING FROM THE MINIMAL RADIATION EXPOSURE EXPERIENCED PD ECHO PD THERE IS NO MEDICAL INDICATION FOR RESTRICTION OF THE NORMAL ACTIVITIES OF ANY OF THE PERSONNEL OF EITHER VESSEL PD PARA NINE PD GENERAL CLR ALFA PD AT THE INSISTENCE OF BOTH CAPTAINS THAT THEIR HEADQUARTERS REQUIRED THEM TO OBTAIN FROM TEAM IN WRITING A STATEMENT PRIOR TO APPROVAL BY TOKYO OF THEIR DEPARTURE FROM RABAUL AND TO OBVIATE ANY POSSIBILITY OF EVEN SLIGHT IMPAIRMENT OF WHAT WE CONSIDERED ALFA MOST FRIENDLY AND MUTUALLY BENEFICIAL RELATIONSHIP BY ALFA DENIAL OF THIS REQUEST CPM THE FOLLOWING WAS GIVEN TO THEM CLR QUOTE

CTF SEVEN ENIWETOK MI

AS ALFA RESULT OF OUR EXAMINATIONS OF THE TAKUTO AND THE SATSUMA AND OF THE PERSONNEL CXM OUR FINDINGS DO NOT INDICATE EVIDENCE OF RADIATION SICKNESS OR ANY CONTAMINATION OF EITHER VESSEL WHICH SHOULD DELAY YOUR DEPARTURE OR NORMAL USE OF THE VESSELS OR EQUIPMENT EITHER NOW OR IN THE FUTURE PD PARA WE A E VERY DESIROUS OF CONVEYING TO YOU AND ALL YOUR PERSONNEL AND TO YOUR HEADQUARTE S OUR MOST SINCERE APPRECIATION OF EVERYONES COMPLETE COOPERATION AND PERSONAL FRIENDLINESS AND HELP PD PARA IT HAS BEEN OUR PLEASU E TO HAVE HAD THIS OPPORTUNITY OF MEETING YOU PERSONALLY AND WORKING WITH YOU PD PARA WE WISH TO EXPRESS OUR THANKS AND SINCERE BEST WISHES TO YOU AND ALL YOUR PEOPLE AND WISH YOU ALFA SAFE AND PLEASANT VOYAGE HO E PD UNQUOTE BRAVO PD DESPITE SEVERE BUT NOT UNEXPECTED PRESSURE BY LOCAL AND AUSTRALIAN PRESS CXM THE ONLY COMMENT MADE BY THE TEAM PAPEN LECHAUSSE PAPER WAS TO THE EFFECT THAT QUOTE OUR FINDINGS IN GENERAL CONFIRM THOSE OF THE LOCAL AUTHORITIES UNQUOTE PD BOTH THE REGIONAL ADMINISTRATOR CXM MR JULIETT ROMEO FOXTROT DELTA CXM AND DOCTOR RASZLE HAD DAILY CONTACT WITH THE PRESS AND PORT MORESBY RADIO PD COPIES OF RABAUL CXM PORT MORESBY AND SYDNEY NEWS STORIES ARE ALFA PART OF OUR RECORD PD MR FOXTROT DELTA ALSO HAS AT OUR REQUEST RECEIVED ASSURANCE FROM MORESBY RADIO THAT THEY WILL SUPPLY TRANSCRIPTS OF ALL BROADCASTS WHICH HE WILL FORWARD TO COMMANDER JTF SEVEN PD PARA CHARLIE PD UNSOLICITED INFORMATION OFFERED BY MR GUS SMILES CXM LOCAL AND AUSTRALIAN PRESS REPORTER CXM WAS TO THE EFFECT THAT THERE WAS AN UNIDENTIFIED JAPANESE PRESS REPRESENTATIVE ON BOARD ONE OF THE SHIPS AND THAT HE WAS FILING DISPATCHES PD AND FURTHERMORE CXM THAT THE RABAUL COMMUNICATIONS PEOPLE HAD RECEIVED

JTFCO/Dailey 6 7

CJTF SEVEN ENIWETOK [illegible]

ADVICE QUOTE FIVE WEEKS PREVIOUSLY THAT THIS JAPANESE NAVAL WOULD BE IN RABAUL AND THE REQUEST MADE THAT COURTESY BE EXTENDED TO HIM CMM INCLUDING TRANSMISSION OF COLLECT MESSAGES UNQUOTE PD PARA PART TWO PD DOCUMENTED WRITTEN REPORT IS BEING PREPARED BY LOCHAUSSE FOR FORWARDING VIA GENERAL LUEDECKE PD

JTFCO/Dailey

NBD 3/4/1578

Department of Public Health,
RABAUL.

July 21, 1958.

The Director,
Department of Public Health,
PORT MORESBY.

Special attention - The Director

Subject: Radio contaminated Japanese patrol ship

On Saturday, July 19, 1958, at 8 a.m. two Japanese patrol ships of the Japanese Navy on a cartographic survey arrived in Rabaul.

It was reported by the Captain of one of the two ships, the "TAKUYO" that his ship was radio contaminated.

According to his story, they sailed through the Pacific 500 miles west of the last atom explosion centre in the Caroline Islands; they sailed in the route prescribed by the American high command. The other ship "SATSUMO" sailed about 100 miles west of them. A south-east wind stronger than calculated blew over their heads an atomic cloud. On the "TAKUYO", where they have all equipment such as geiger counter and scintillograph, they noticed about a week ago, at midday, that the ship was radio-active. According to their statement, it was about 70 milli Roentgen. They immediately contacted their headquarters and took precautions - hosed the deck of the ship and cleaned the crew's clothes, etc.

When these ships arrived at Rabaul, I immediately contacted you and, after our radio conversation, we took the geiger counter from the ship to the Customs shed corner, where it registered 24 times per minute; on the deck of the ship the same instrument registered 29 times per minute.

The doctor of the ship reported that, according to his opinion, two members of the crew were affected. We took 7 members for blood testing and from the 7, 3 had counts lower than 5000 leucocytes. For control we took 7 members of the other ship's crew, where we found two members had a count lower than 5000 as well.

Today we have tested the crews of both ships and the results are attached. We are also enclosing the scintillograph reports from the ship, which was contaminated.

According to the statements of the Captain, the "SATSUMO" was not contaminated and their instruments did not show radio-activity.

I have to emphasise here that owing to interpreter difficulties, some of their statements may be incorrect. We have only one Japanese interpreter available; unfortunately, he cannot speak any of the ship's crew speech only very poor English. I failed, also, to make contact in other languages.

Unfortunately, when we took the geiger counter to the Customs shed the Press reporter arrived and he saw these activities and, so, therefore spread quite speedily through Rabaul and further afield.

In accordance with your instructions, the ship was put in quarantine and the crew were to move about; but I recommended the people not to go on board the "SATSUMO", in

order to avoid any mishap.

C. Hassler,
A/Regional Medical Officer,
New Guinea Islands.

R E P O R T

TO QUARANTINE OFFICE J.C.G.S. "TAKUYO"

THE VALUES OF SCINTILLATION COUNTER AT THE LEFT SIDE OF BRIDGE FROM 19TH TO 21ST

19TH	7.00 AM	10.500	c.p.m.
	2.00 PM	9.200	c.p.m.
	6.00 PM	7.550	c.p.m.
20TH	7.00 AM	7.902	c.p.m.
	NOON	7.850	c.p.m.
21ST	10.00AM	5,000	c.p.m.

8c

[redacted]

COMPARATIVE [redacted] FROM THE TWO SHIPS

"TAKUYO"

	19.7.58	21.7.58
1.	N.B.C. 9,500	5,650
2.	10,300	4,450
3.	6,000	6,800
4.	9,700	8,150
5.	3,850	4,150
6.	4,350	4,200
7.	3,350	3,550

"SATSUMO"

1.	5,500	10,950
2.	5,500	10,200
3.	5,600	6,800
4.	6,150	8,300
5.	4,600	3,900
6.	3,500	6,650
7.	5,600	6,250

Identical with last page! [redacted]

[redacted]

[redacted] COUNTING DATA SHEET | HOLMES & NARVER, INC. Engineers - Constructors | DATE: 7/30/58

NAME: Fresh Water (Satuma) | P/R OR ID NO.:

ORGANIZATION: Tokyo Water | DATE COLLECTED: 7/26/58

Volume of Specimen: 200 ml.

Collection Time of Specimen: _____ hours.

GROSS BETA ~~Gamma~~ COUNTING DATA: | VOLUME OF SAMPLE: 200 ml.

PRINCIPLE ELEMENTS:

COUNTER AND SCALER: | EFFICIENCY: 6.50

COUNTING DATA	COUNTS	TIME	COUNTS/MINUTE
SAMPLE AND BACKGROUND	2 076 2 112	10 10'	209.4
BACKGROUND	540	10'	54.0
NET COUNTING RATE.			155.4

Dis/Min/ml, ~~(corrected)~~: 7.7 ± _____.

Dis/Min/ml. (corrected): 5.005 ± _____.

ALPHA COUNTING DATA: | VOLUME OF SAMPLE: ml.

PRINCIPLE ELEMENTS:

COUNTER AND SCALER: | EFFICIENCY:

COUNTING DATA	COUNTS	TIME	COUNTS/MINUTE
SAMPLE AND BACKGROUND			
BACKGROUND			
NET COUNTING RATE.			

Dis/Min/_____(corrected): _____ ± _____.

REMARKS:

DOE ARCHIVES

T. V. 6

Use reverse side if more space is needed. | COUNTED BY: [redacted] TV-6

1 A-68

[redacted]

Tab A 1/

[redacted] USE ONLY

U[redacted]S COUNTING DATA SHEET	HOLMES & NARVER, INC. Engineers - Constructors	DATE: 7/30/58

NAME: FResh WATER (SATUMA) | P/R OR ID NO.:

ORGANIZATION: ToKyo + RADAUL MIXED MOSTLY RADAUL | DATE COLLECTED: 7/26

Volume of Specimen: 150 ml.

Collection Time of Specimen: ________ hours.

GROSS BETA-~~GAMMA~~ COUNTING DATA: | VOLUME OF SAMPLE: 150 ml.

PRINCIPLE ELEMENTS:

COUNTER AND SCALER: | EFFICIENCY: 6.5

COUNTING DATA	COUNTS	TIME	COUNTS/MINUTE
SAMPLE AND BACKGROUND	787	10'	78.7
BACKGROUND	622	10'	62.2
NET COUNTING RATE.			16.5

Dis/Min/ ml. (corrected): 0.0824 ± ________.

Dis/Min/ ml. (corrected): 0.535 ± ________.

ALPHA COUNTING DATA: | VOLUME OF SAMPLE: ml.

PRINCIPLE ELEMENTS:

COUNTER AND SCALER: | EFFICIENCY:

COUNTING DATA	COUNTS	TIME	COUNTS/MINUTE
SAMPLE AND BACKGROUND			
BACKGROUND			
NET COUNTING RATE.			

Dis/Min/________(corrected): ________ ± ________.

REMARKS:

DOE ARCHIVES

T.V.L.

Use reverse side if more space is needed. | COUNTED BY: Donald C. Rubert TU-6

1 A-68

C[redacted]AL

Tab D IV

CONFIDENTIAL [redacted] SATUMA

Ship Contamination

(used TAKUDO'S Scintilation Counter) [redacted] head

Fig 2

(CPM)

Date	19th July	20th	21st	25th
Upper Bridge (wooden)	2543	2449	1536	1828
Outside Casing of Bridge (iron)	2775	2334	1752	2136
Captain's Room (wooden)	....	2002	1768	1431
Cover of Gun (cloth)	....	2894	5162	3002
No.2 Officer's Room (wooden)	1200	1042	788	....
Japnese Flag (cloth; used sailing time)	....	....	17864	6037
Portside Casing of Operation Room (iron)	2635	2662	....	1710

(used active filter paper) Fig.3

CPM/4.9cm²

Date	16th 22-00	17th12-00	18th12-00
Outside Casing of Bridge	1155.7	....	35.6
Portside Upper Deck	375.7	....	211.0
After W. C.	....	204.4	3.6
Engine Room (Under the Ventilater)	....	130.0	5.9
Sky light of Engine Room	124.3	4.6	0.6

Swipes 1

Swiped 100 cm²

[redacted] Decon

[redacted]

[redacted]

CONFIDENTIAL

decay curve of Ship Contamination (Scintilation Counter

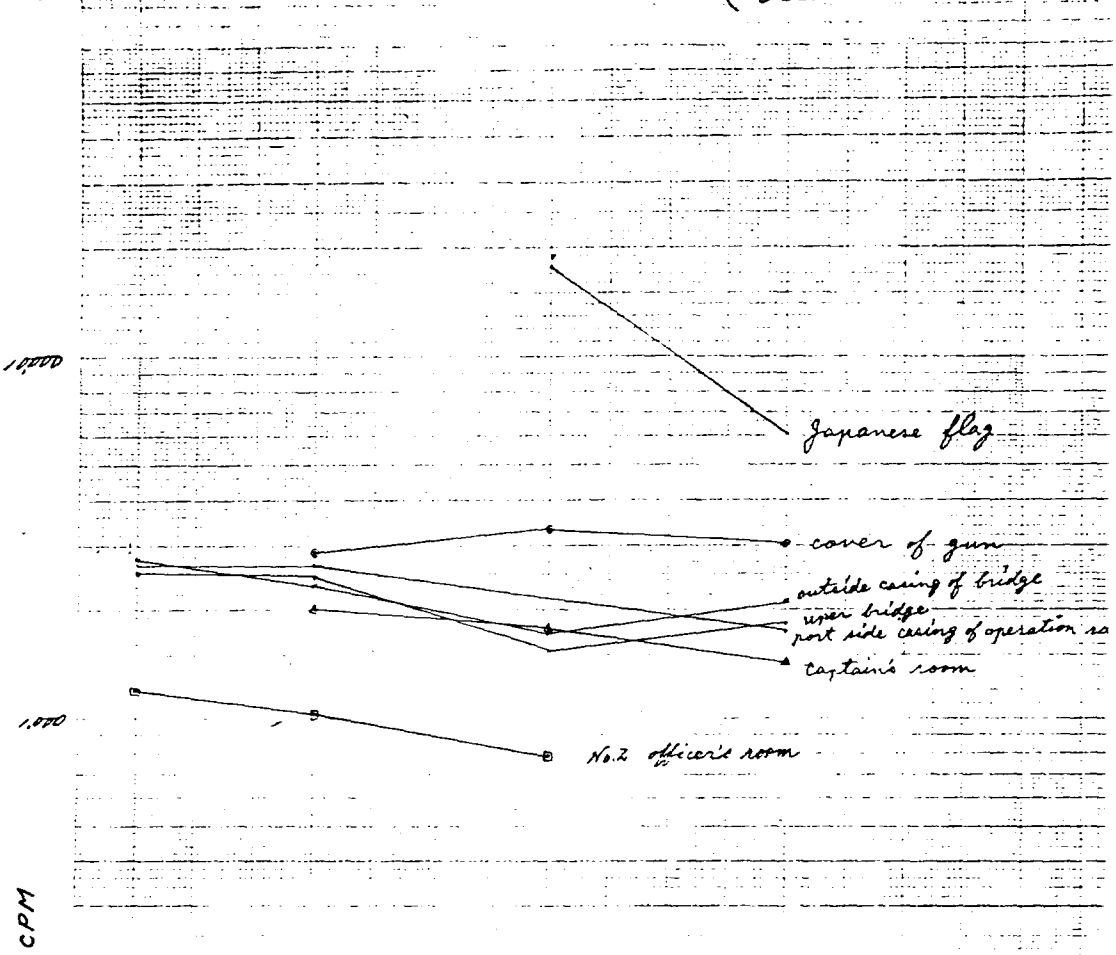
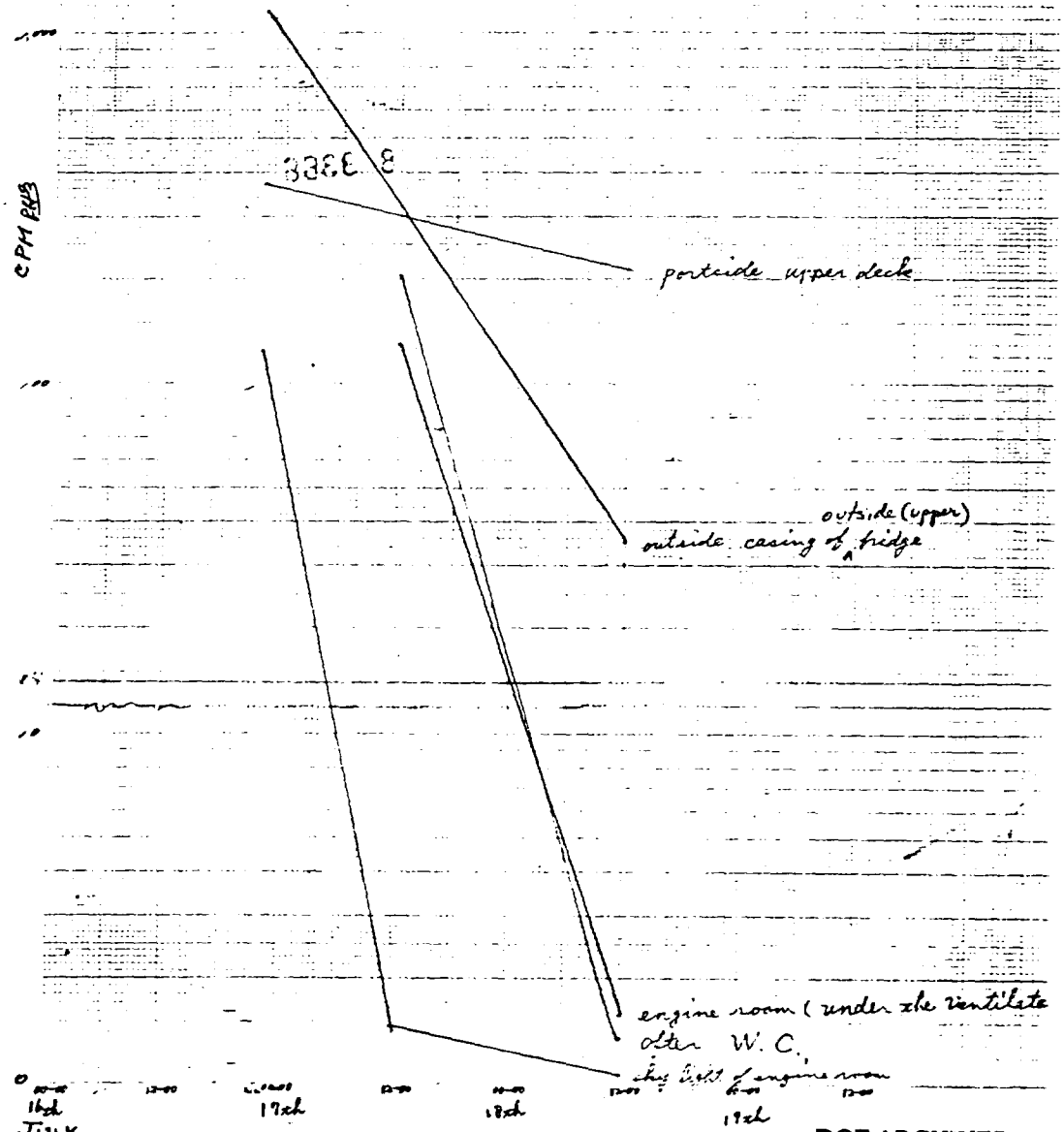


Fig - 5

decay curve of Ship Contamination (active filter paper)



CO[redacted] SATUMA

Sea Water

(Geiger - Muller Counter. Fe - Ba Method)

	Date	Sampling Time	Sampling Position		CPM/L
No.1	14th July	15-30	14-30N	151-00E	247
No.2	14th "	22-30	13-00	151-00	244
No.3	15th "	07-17	11-15	151-00	1946
No.4	15th "	14-00	10-00	151-00	87
No.5	16th "	00-00	08-00	151-00	150
No.6	16th "	12-00	05-55	151-37	28
No.7	16th "	20-30	03-45	151-32	56

* Counting efficiency ; 27 % (used U_3O_8 standard) (standard)

** Maximum range of No.3 sample shows 750 mg/cm² (used Aluminum Absorber Set)

Dosimeter.

(pocket type, made in KAKEN - Japan)

(unit ; mr) 200 mr total

DOE ARCHIVES

See Fig. 1

( ).... Interpolated

Date	Time	mr	Date	Time	mr	Date	Time	mr
July 8	20-00	4	11	14-00	(18)	14	06-00	(24)
	22-00	(4)		16-00	(18)		08-00	(24)
9	00-00	(5)		18-00	(19)		10-00	(24)
	02-00	(5)		20-00	19		~~11-30~~	
	04-00	(5)		22-00	(19)		12-00	24
	06-00	(6)	12	00-00	(19)		14-00	(25)
	08-00	6		02-00	(20)		16-00	(25)
	10-00	(8)		04-00	(20)		18-00	(25) ← Reck[illegible]
	12-00	(9)		06-00	(20)		20-00	4
	14-00	(11)		08-00	20		22-00	(4)
	16-00	(13)		10-00	(20)	15	00-00	(4)
	18-00	(14)		12-00	(20)		02-00	4
	20-00	16		14-00	(20)		04-00	(5)
	22-00	(16)		16-00	(21)		06-00	(6)
10	00-00	(16)		18-00	(21)		08-00	(9)
	02-00	(16)		20-00	21		10-00	(13)
	04-00	(16)	~~13~~	22-00	(21)		12-00	13
	06-00	(16)	13	00-00	(21)		14-00	13
	10-00	(16)		02-00	(21)		16-00	(14)
	12-00	(16)		04-00	(22)		18-00	(15)
	14-00	(16)		06-00	(22)		20-00	(16)
	16-00	(17)		08-00	(22)		22-00	(17)
	18-00	(17)		10-00	(22)	16	00-00	18
	20-00	17		12-00	(22)		02-00	18
	22-00	(17)		14-00	(23)		04-00	18
11	00-00	(17)		16-00	23		06-00	18
	02-00	(18)		18-00	(23)		08-00	19
	04-00	(18)		20-00	(23)		10-00	19
	06-00	(18)		22-00	(23)		12-00	19
	08-00	18	14	00-00	(24)		14-00	19
	10-00	(18)		02-00	(24)		16-00	19
	12-00	18		[redacted]	(24)			

Tab A

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C[redacted]AL

SATOMA (Dosimeter (Con't))

Date	Time	mr	Date	Time	mr	Date	Time	mr
16	18-00	19						
	20-00	19						
	22-00	19						
17	00-00	20						
	02-00	20						
	04-00	20						
	06-00	20						
	08-00	20						
	10-00	20						
	12-00	20						
	14-00	20						
	16-00	21						
	18-00	21						
	20-00	21						
	22-00	21						
18	00-00	21						
	02-00	21						
	04-00	22						
	06-00	22						
	08-00	22						
	10-00	22						
	12-00	23						
	14-00	23						
	16-00	23						
	18-00	23						
	20-00	23						
	22-00	23						
19	00-00	24						
	02-00	24						
	04-00	24						
	06-00	24						

[redacted]AL

air cpm/m³
Sea water cpm/L
Rain cpm/L

REPORT

J.C.G.S. "TAKUYŌ"

JULY 3RD — LEAVING TOKYO

" 14TH — INCREASING COUNTS OF RAD~~I~~IOACTIVITY FROM 11.30 AM COUNTS BY SCHINTILATION ~~APPATU~~ APPARATUS.

NOON(J.S.T)	4.600 C.P.M.
400 P.M.	16.000 "
800 P.M.	SQUALL COMING
830 P.M.	SQUALL PASSED AWAY
600 P.M.	DAMAGED SCHINTILATION COUNTER
800 P.M.	REPAIRED ABOVE
1000P.M.	MAX COUNT RECORDED 37.466C.P.M.
1030 P.M.	AFTER WASHED APPARATUS 26.235 C.p.M.

AIR COUNTS BYGEIGER 100 C.P.M./
RAIN COUNTS BY SCHINTILATION 100.000 C.P.M.

15TH — 100 A.M.--------400 A.M. NO VARIATION 23.000 C.P.M.
400 " --------530 " WASHED ALL WEATHER DECKS BY NEUTRALITY CLEANSER
AFTER WASHED DECKS COUNTS DECREASED ABOUT 10.000 C.P.M.

16TH — FROM MORNING TO NOON WASHED ALL INNER PART OF THE SHIP BY NEUTRALITY CLEANSER (MEASUREMENT COUNTS EVERY DAY SHOWN BY SCIENTIST'S RECORDS)

19TH — 900 A.M. ARRIVED AT RABAUL

REMARKS

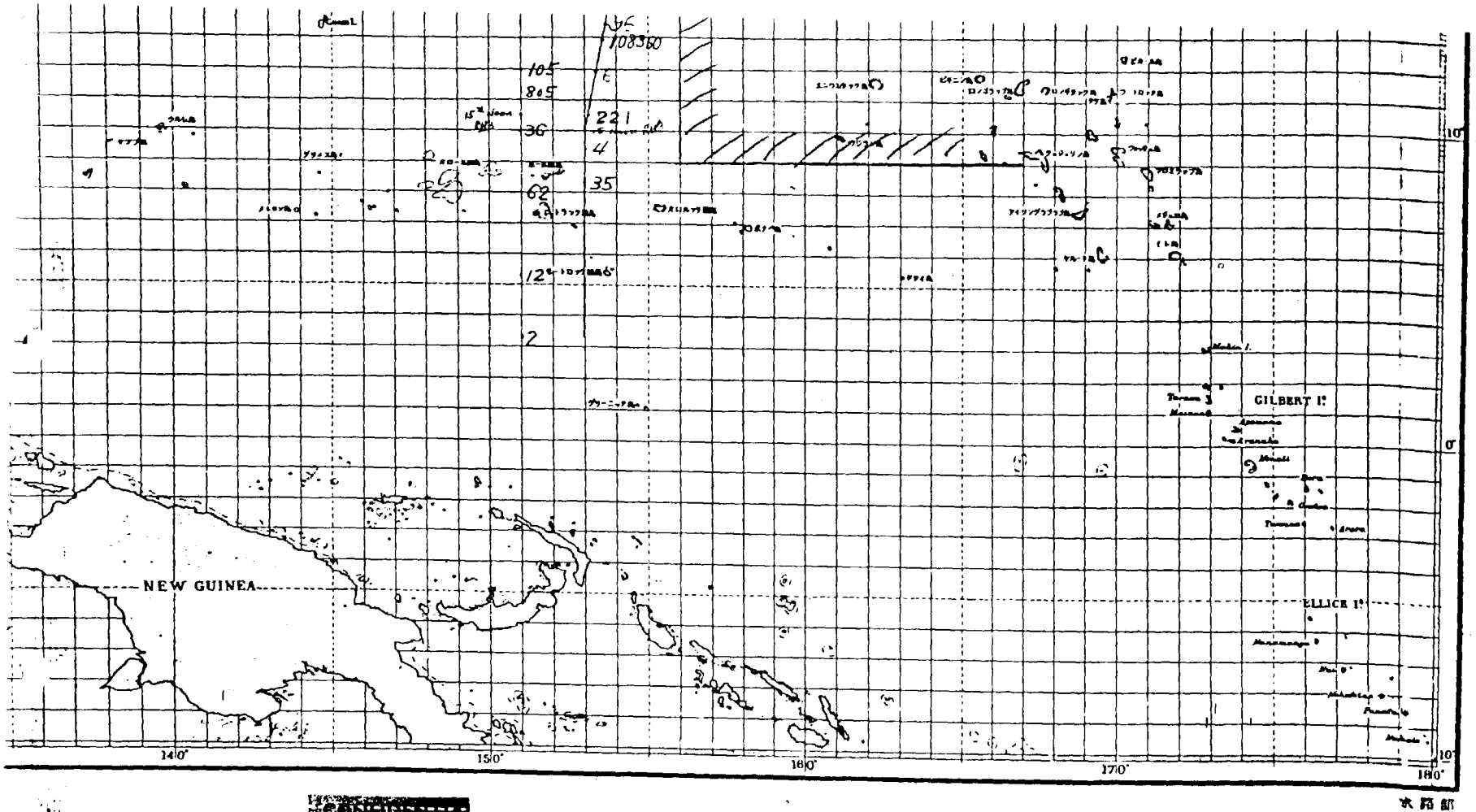
SINCE 15TH WASHING AND CLEANING ALL PART OF THE SHIP BEING CARRIED OUT CO[redacted]LY EVERY DAY.

Radio-activity measured by Scintillation Counter TAKUYŌ

	* 15th 05h-10m	** 15th 14h-00m	16th 12h-00m	17th 10h-00m	18th	19th	20th	21th	22th	23th	24th	25th
Bridge Deck (port side)	33956	17470	19974	14822	11706	9195	7861	5098	4309	4421	3436	4172
Observation Room (Chart room)	---	10771	12218	9577	7213	6133	5949	3842	3884	3828	2970	3423
Bridge (Steering wheel house)	16301	20804	12716	11485	8475	6399	6502	5015	5053	3617	2934	3800
Capt's Cabin	---	7028	---	3440	2636	---	---	1378	---	---	1176	---
Scientist Cabin	---	2654	---	---	---	---	---	994	---	---	938	---
Engine Room	---	9877	---	5941	2775	---	---	1622	---	---	1370	---
Crew's Mess Room	---	3966	---	2242	---	---	---	1174	---	---	1184	---
Gally	---	5302	---	2959	2450	---	---	1528	---	---	1218	---

* Before Washing ** After Washing

Remarks 1. Washed deck at 10h, 15th of July by Soapless Soap.
2. Washed inside room at 10h, 16th of July by Soapless Soap.



[redacted]

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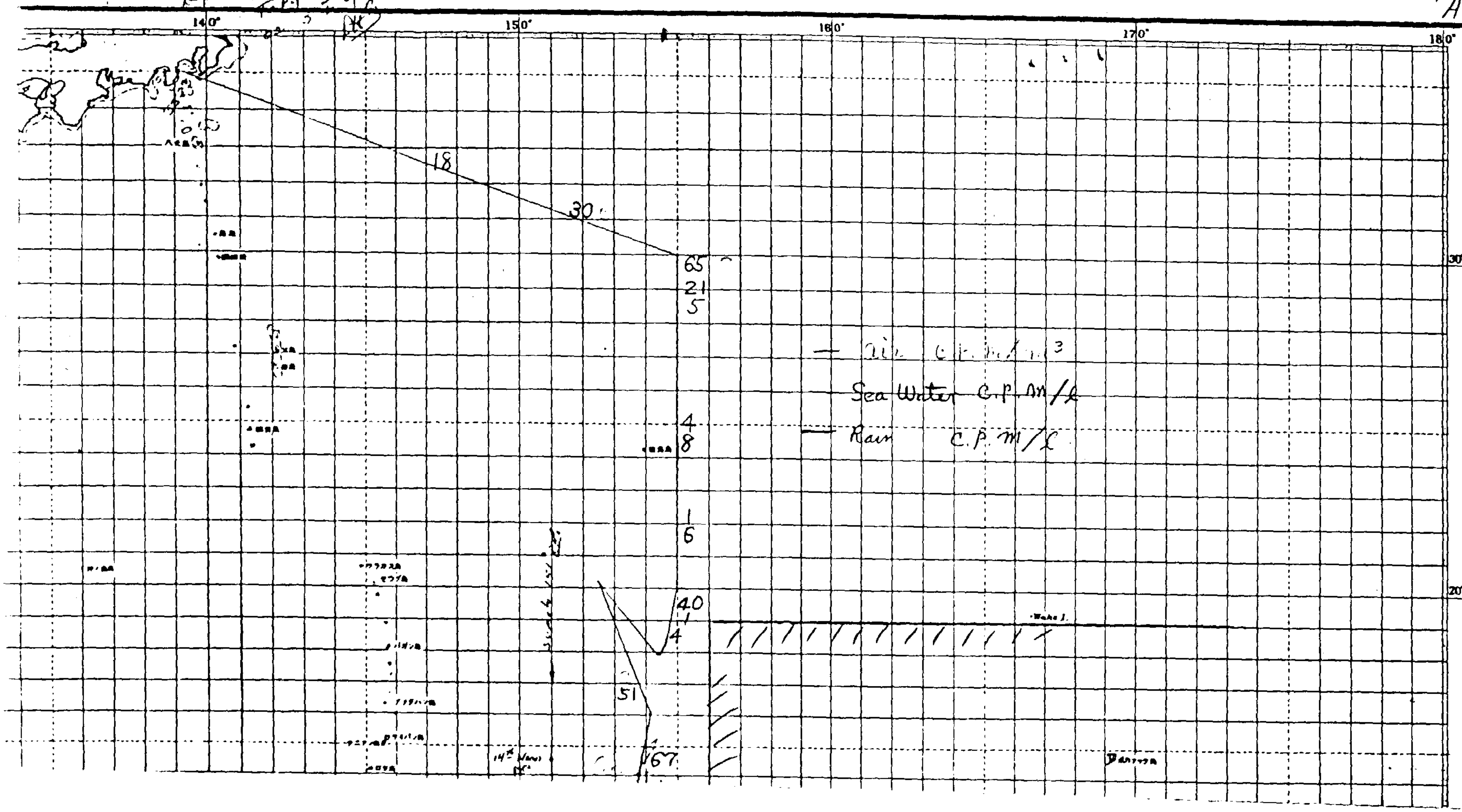
[redacted]

TAKUYO



	6,800	Mil
	8,150	"
	5,650	"
	4,150	"
	4,450	"
	4,200	"
	3,550	"
	3,050	"
	5,050	Brace
	4,500	Mil
	6,350	"
	5,800	"
	3,750	Brace
	12,100	Mil
	3,700	Brace
	[illegible]	Mil
	8,000	"
	7,50[illegible]	"
	[illegible]	[illegible]
	7,400	Mil
	8,000	"
	4,850	"
	7,000	"
	6,350	"
	[illegible]	"
	6,000	"
	[illegible]	"
	8,500	"
	8,000	"
	[illegible]	"
	[illegible]	"
	[illegible]	"
	9,000	"
	7,900	"
	[illegible]	"
	10,000	"
	[illegible]	"
	[illegible]	"
	[illegible]	"
	[illegible]	"
	[illegible]	"
	[illegible]	"
	[illegible]	"
	[illegible]	"
	[illegible]	"
	[illegible]	"
	[illegible]	"

PRIVACY ACT MATERIAL REMOVED

[redacted]

8,100	Nil
8,300	"
8,600	"

PRIVACY ACT MATERIAL REMOVED

NAME	B.C.	URINE FOR ALBUMIN
	10,950	Nil
	6,250	"
	8,300	"
	6,650	"
	3,900	"
	10,200	"
	6,800	"
	5,750	"
	5,100	"
	8,800	"
	8,600	"
	10,400	"
	10,000	"
	7,200	"
	9,400	Trace
	11,000	Nil
	8,400	"
	8,400	"
	8,100	"
	8,300	"
	5,800	"
	8,100	"
	7,700	"
	4,650	"
	4,000	"
	6,200	"
	5,400	"
	11,900	"
	8,000	"
	5,000	"
	4,350	"
	9,000	"
	5,150	"
	7,100	"
	5,600	"
	6,200	Trace
	5,100	Nil
	6,30	"
	9,300	"
	10,300	"
	6,300	"
	6,900	"
	6,100	"
	4,550	"
	4,500	"
	6,000	"
	6,300	"

PRIVACY ACT MATERIAL REMOVED

	7,250	1'11
	6,600	"
	6,250	"
	9,400	"
	9,800	"
	6,300	"
	8,500	"
	5,650	"
	8,200	"
	7,900	"
	8,000	"
	8,200	"
	8,000	"
	8,300	"
	9,100	"

PRIVACY ACT MATERIAL REMOVED

[redacted]AL

PATHOLOGY REPORTS FOR BLOOD TAKEN ON 21/7/58

NAME	W.B.C.	N.	E.	B.	M.	L.
	3,550	54	3	-	6	37
	3,750	41	3	1	8	47
	3,700	64	1	-	2	33
	4,000	61	6	-	5	28

REPORTS OF [redacted]

NAME	Hb.	M.B.C.	N.	E.	B.	M.	L.
	102%	9,500	61	4	-	5	30
	84%	10,300	52	2	-	5	41
	100%	6,000	56	5	2	9	28
	98%	9,700	65	8	-	4	23
	98%	3,850	65	6	1	5	23
	92%	4,350	57	1	-	5	34
	96%	3,350	56	4	-	6	34
"KATSUKO"							
	114%	5,500					
	94%	5,500					
	96%	5,600					
	94%	6,150					
	100%	4,600					
	90%	5,350					
	86%	5,600					

PRIVACY ACT MATERIAL REMOVED

CONFIDENTIAL

Q. What date exactly did you notice radioactivity?

A. 14th July 1958.

Q. How did you notice it?

A. At a noon check on 14th July 1958

Q. How much was it?

A. 35,000 ml-

Q. Did you notify Headquarters Japan?

A. Yes

Q. What was their answer regarding the danger?

A. Ordered to leave that area.

Q. What did you do?

A. Left the danger and washed the ship down with a neutral cleaner.

Q. What is the normal counting for

Geiger counter? A. 23 - 50

Scintillograph? A. ~~24,00~~ 2400

Q. What is the scintillograph result today?

A. 2,000

Q. Has any member of the crew felt dizziness? Or nausea?

A. No

Q. Did any member of the crew vomit? A. No

Q. Any loss of appetite? A. No

Q. Are there any skin conditions? A. Yes - sunburn before 14th July and afterwards.

Q. Any loss of hair? A. No

Q. Why did the doctor think [illegible] that the members [illegible] affected?

A. The doctor took two crew members at random and found their blood counts low.

Weather conditions on the day of 14th July 1958 - scattered showers after which we found radioactivity on the deck.

CONFIDENTIAL

DOE ARCHIVES

On 14th July 1958, about 1100 miles from Hawaii

11.30 a.m. noticed radioactivity coming by the scintillograph. (A normal counting reads 2,400)

Radioactivity rose to 3,600 - squall coming (8p.m.)

8.16pm radioactivity at 35,000

8.30pm rain stopped

10pm maximum count of radioactivity at 37,000 c.p.m.

Of the 51 members of the crew, two were chosen at random and tested for radioactivity. These two had low blood counts. There was definitely no sickness in the crew whatsoever.

10c

NBD 3/4/1410

Department of Public Health,
RABAUL.

July 24, 1958.

Director,
Department of Public Health,
PORT MORESBY.

Subject: Additional Report on radiation contaminated Japanese vessel.

My NBD 3/4/1378 of July 21, 1958, refers.

On July 22, 1958, at 3 p.m., accompanied by Sub-Inspector Stewart of the Police Department, I interviewed the officers of the "TAKUYO" regarding further details and clarification on some points.

Sub-Inspector Stewart was, after the War, stationed in Japan for a long period and has some practical knowledge of the Japanese language.

We found also from the "SATSUMO" one officer with practiceable English and with the help of the two officers, we could gather information regarding the accident.

"TAKUYO" was making routine checks for radiation daily. The ship is equipped with a geiger counter and scintillograph.

On July 13, 1958, the sky was slightly overcast and a strong south-east wind was blowing.

On July 1[illegible], 1958, about 1,100 miles from Rabaul, at 11.30a.m. they noticed that the counting per minute on the scintillograph was 3,600 (the normal counting is 2,400). At 8 p.m. a squall hit the ship and at 8.16p.m. the scintillograph showed 35,000 counts per minute. At 8.30 the rain stopped. At 10p.m. the maximum count of radio activity was recorded at 37,000 counts per minute.

Tokyo was contacted as soon as possible and the ship was advised to leave the area at the highest speed possible. They were also advised on how to clean the ship with a neutral cleaner. Radiation was mainly observed on the deck of the ship but was also observed in a small quantity below the deck. Rooms below the deck were cleaned on July 15, 1958. Clothes of the crew, canvas, etc., were also washed and checked. At Rabaul, a haircut for each member of the crew was ordered and carried out.

Regarding the evaluation of the counting I have been advised by the specialised officers of the ship that the geiger counter normal values are between 23 and 50 per minute. Scintillation count is 2,400 per minute normally.

On July 22, 19[illegible], the scintillograph counted, on the deck, only [illegible],000 per minute.

As far as I can [illegible], the [illegible] instructed from Tokyo that 50 scintillograph counts per minute [illegible] with radiation of 0.7 miliroentgen. 36,000 scintillations could mean [illegible] miliroentgens per [illegible]. They were advised that this was not [illegible] dose.

CONFIDENTIAL

It was mentioned by the Captain that prior [illegible] to his knowledge [illegible] milliroentgens per day and 300 milliroentgens per week were not a dangerous amount of radiation.

Regarding the medical side of the interview, the Doctor of the ship stated that on the 15th and 18th July, he chose ten members of the crew at random and checked their leucocytes. When the ship arrived at Rabaul, he was of the opinion that two crew members may possibly have been affected as they had lo counts. He asked for further investigation to be carried out. He stated that no member of the crew has since complained of dizziness, nausea, vomiting or loss of apetite. The only skin condition was sunburn, which occurred both before and after the accident. No loss of hair was observed and no general medical complaints reported.

In the second part of this interview, Mr. Poldi, District Commissioner, was present.

On July 23, 1958, two sailors - _____ and _____ - of the "TAKUYO" were seen at the Town Clinic.

_____ (B.p.110/70) complained that at 5 a.m. on July 23 he felt dizzy with slight nausea. He complained of pain in the lower abdomen, slight headache and dariness. On examination, no clinical signs could be found. Pathological tests were carried out with full blood picture, urine and stool examination. No positive findings were made. (See attached reports).

_____ (B.p.120/70) complained that on July 22 at 1 p.m. he became sick, felt giddiness, dryness of the mouth and lips and feverish. On examination, only slight sensitiveness could be felt on palpation in the right upper Abdomen in the liver area. In the urine no bile salts were detected. The Japanese Doctor claimed that according to his examinations, Urobilinogen was 1 + positive. Pulse was 70; temperature 97.6. Our examination did not disclose any other physical signs.

PRIVACY ACT MATERIAL REMOVED

To the examination of these two sailors, I asked the co-operation of Dr. Topham, and he agreed with me about the negativity of the clinical symptoms.

Please find attached, the following:

1. [illegible] on [illegible] and [illegible].

2. Total white cell count on the crew of "[illegible]".

3. Differential count reports on ten members of the "[illegible]" and one member of the "[illegible]".

4. The results of the fourteen first examined crew members seen on July 19, 1[illegible].

C. [illegible],
A/Regional Medical Officer,
[illegible].

mcle.

DOE ARCHIVES

CONFIDENTIAL

102

[redacted]

Received: 23.7.58

Name:

Specimen: Urine

Physician: Dr. Haszler

Specific Gravity: 1022

Colour: Amber

Albumin: Not detected

Sugar: Not detected

MICRO:
Pus cells: 3-7 per high power field

R.B.C.'s nil per high power field

Squamous epithelial cells: Numerous

Mucus threads: ±

Crystals: Nil

Casts: Not seen

Other abnormalities: No bile salts detected.

[redacted]

Received: [redacted]

Name:

Specimen: Urine

Physician: Dr. Haszler

URINE:
Reaction: Alkaline

Specific gravity: 1013

Colour: Straw

Albumin: Not detected

Sugar: Not detected

MICRO:
Pus cells: 6-16 per high power field

R.B.C.'s Nil per high power field

Squamous epithelial cells: Few

Mucus threads -

Crystals: Nil

Casts: Not seen

Other abnormalities: No bile salts detected.

[redacted]

Received: 23.7.58

Name: [redacted]

Specimen: Blood

Physician: Dr. Haszler

Hb. 116% (100% = 14.5 grms)

Total R.B.C.'s 5,500,000 per cmm.
Colour Index: 1.0

Total leucocytes: 4,300 per cmm.

Neutrophils	57%
Eosinophils	2%
Basophils	1%
Monocytes	4%
Lymphocytes	38%

(RML)

Remarks: Neutrophils mature but no senile forms seen.

[redacted]

Received: 23.7.58

Name:

Specimen: Blood

Physician: Dr. Haszler

Hb. 104% (100% = 14.5 grms)

Total R.B.C.'s 4,990,000 per cmm.

Colour Index 1.0

Total leucocytes 3,450 per cmm.

Neutrophils	59%
Eosinophils	4%
Basophils	-%
Monocytes	8%
Lymphocytes	29%

Remarks: Cells normal in appearance.

PRIVACY ACT MATERIAL REMOVED

DOE ARCHIVE

[redacted]

5

101

O V E R S I Z E D O C U M E N T S

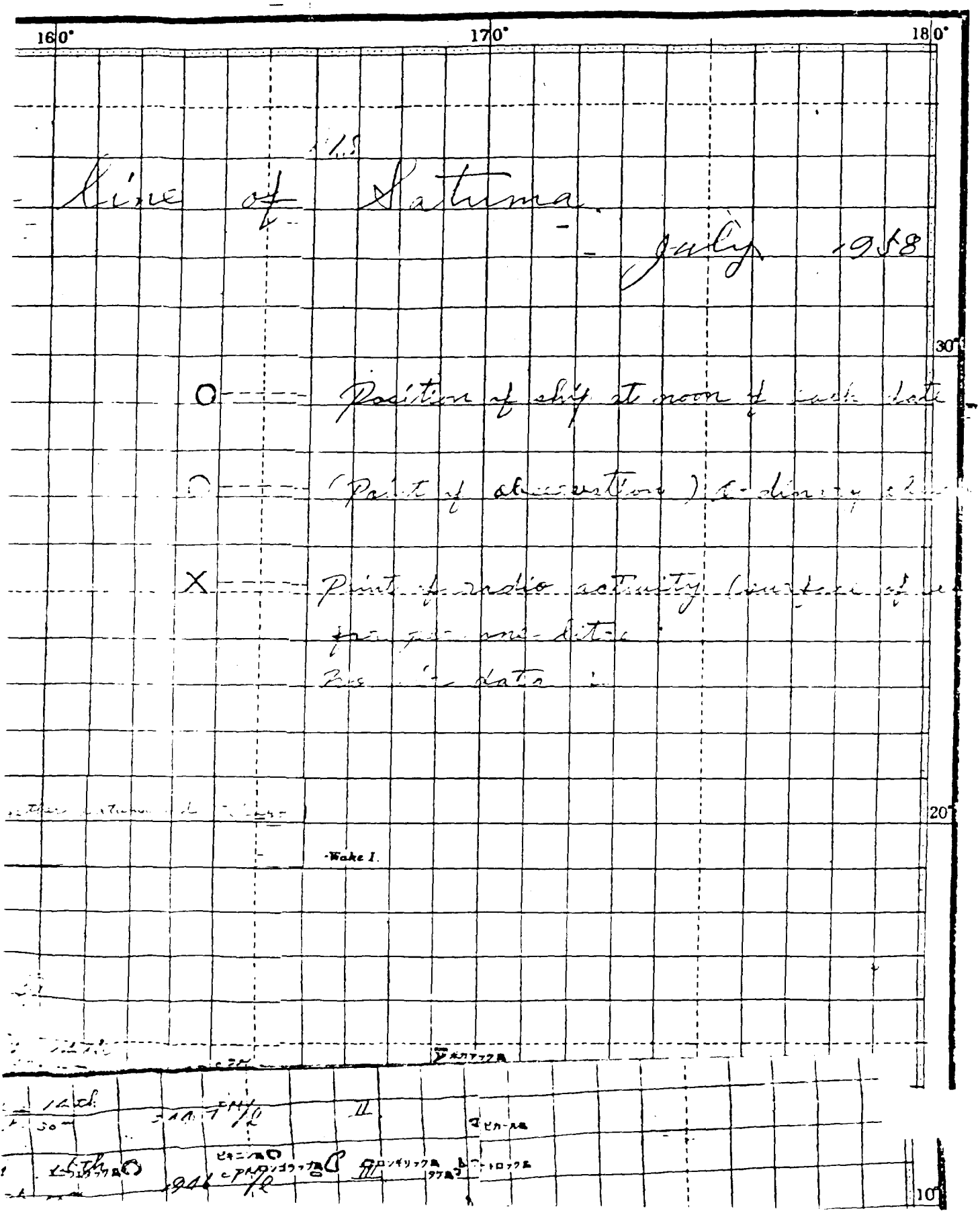
A R E A V A I L A B L E O N

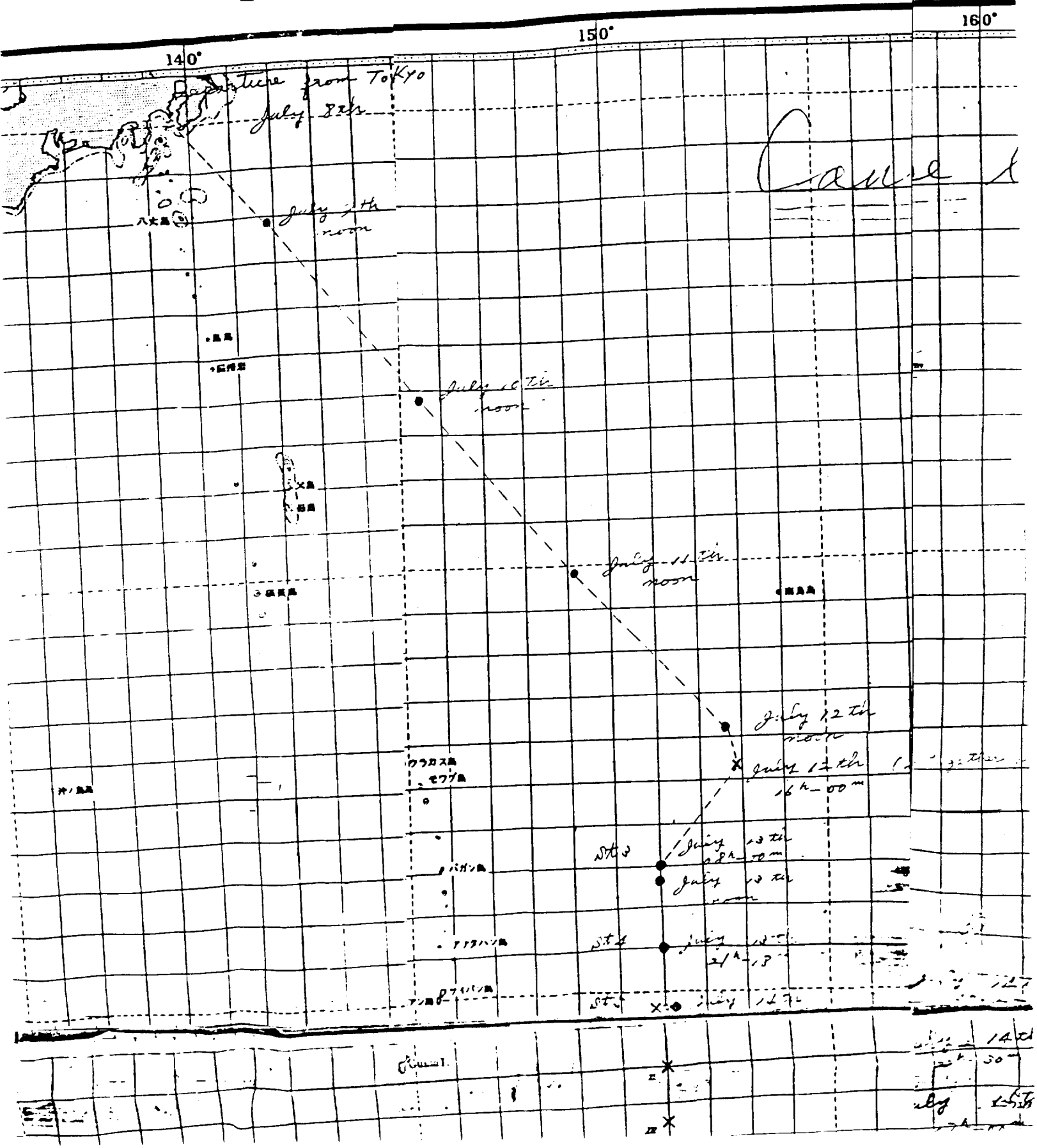
3 5 M M A P E R T U R E C A R D

N U M B E R (S) : 122447 DOE-HQHO

JAPAN IGY SHIPS 1958

PART
OF
71584





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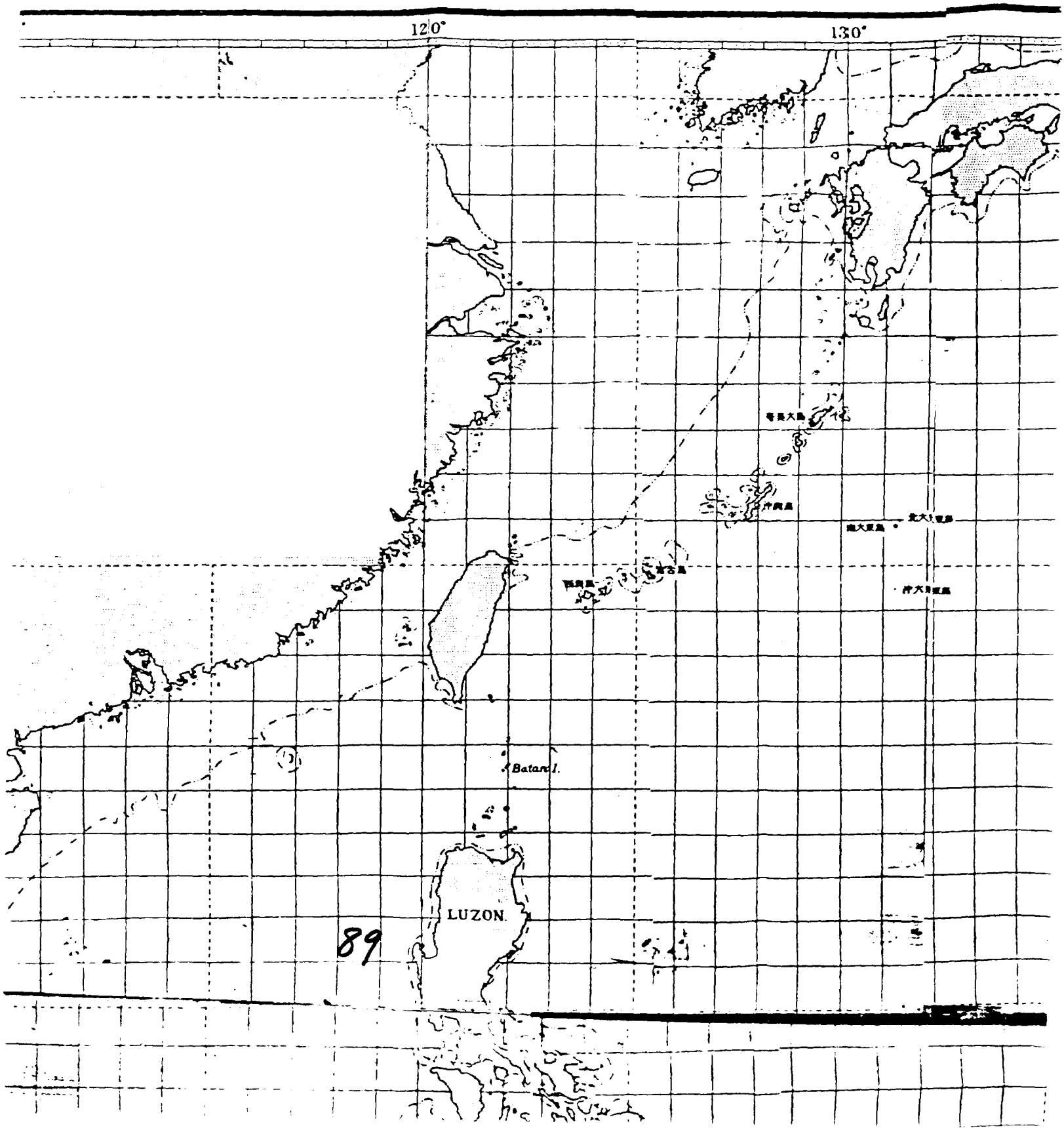

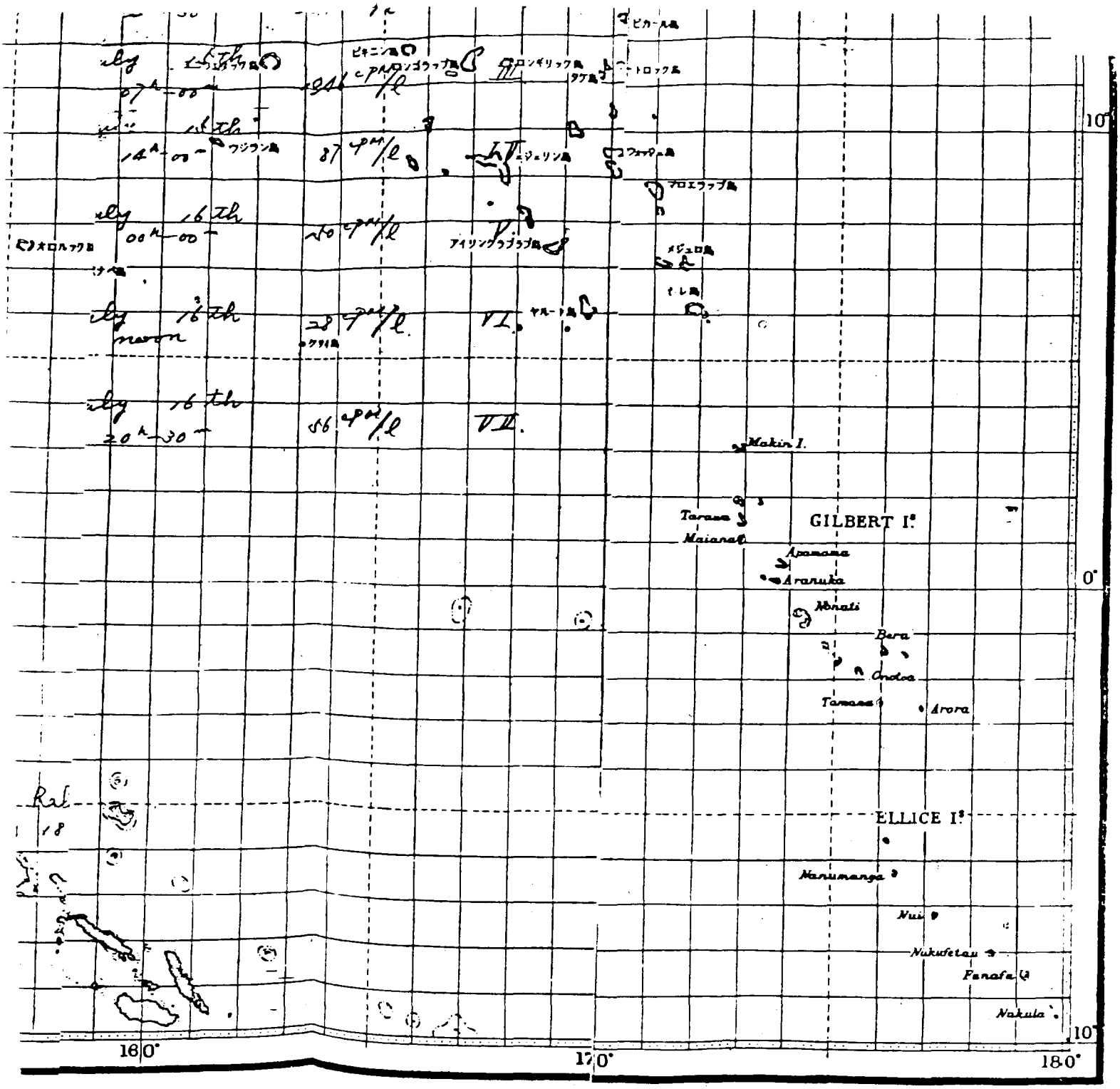
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Aranuka
Nonati
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170°
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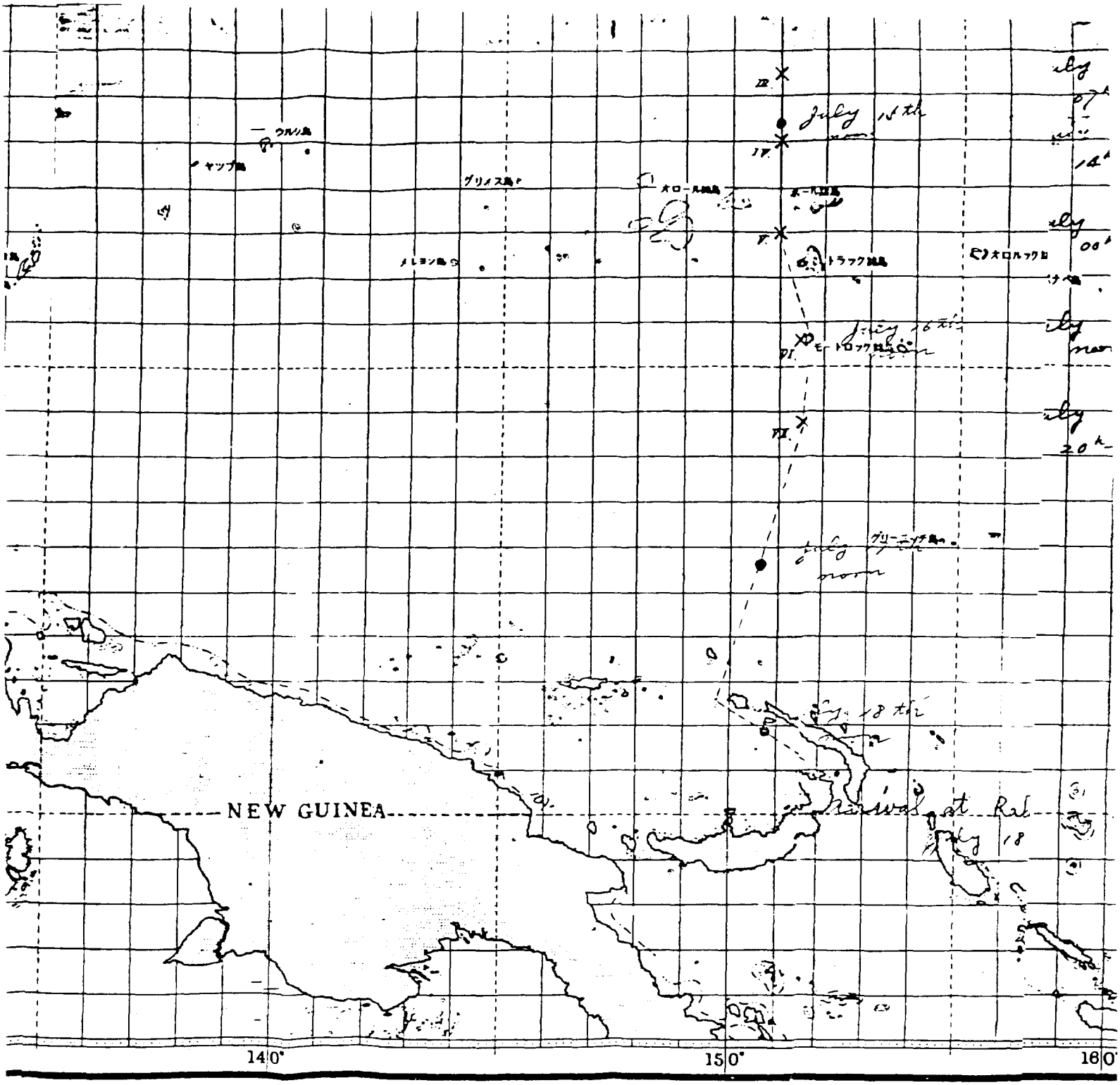
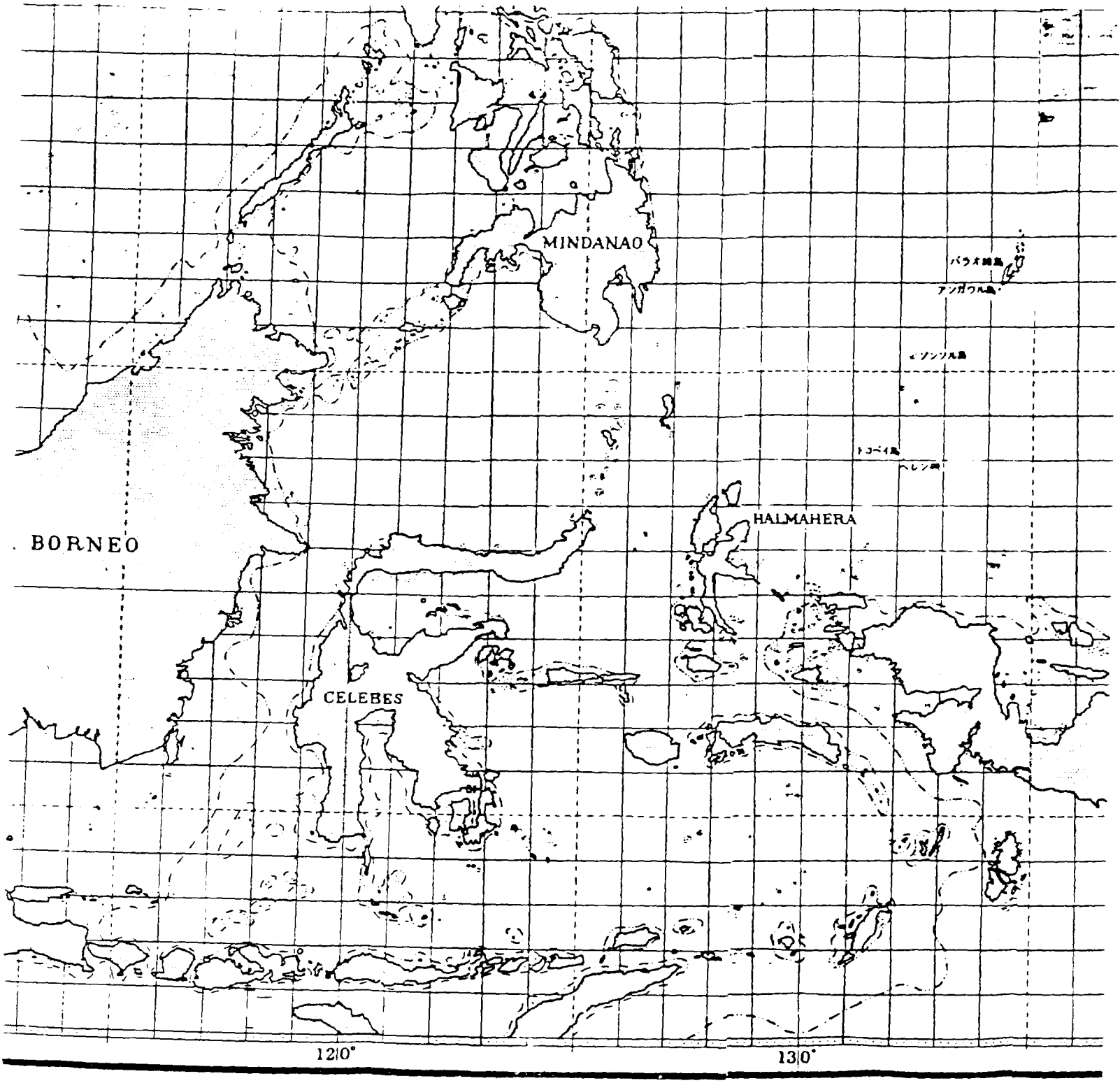
水路部



CONFIDENTIAL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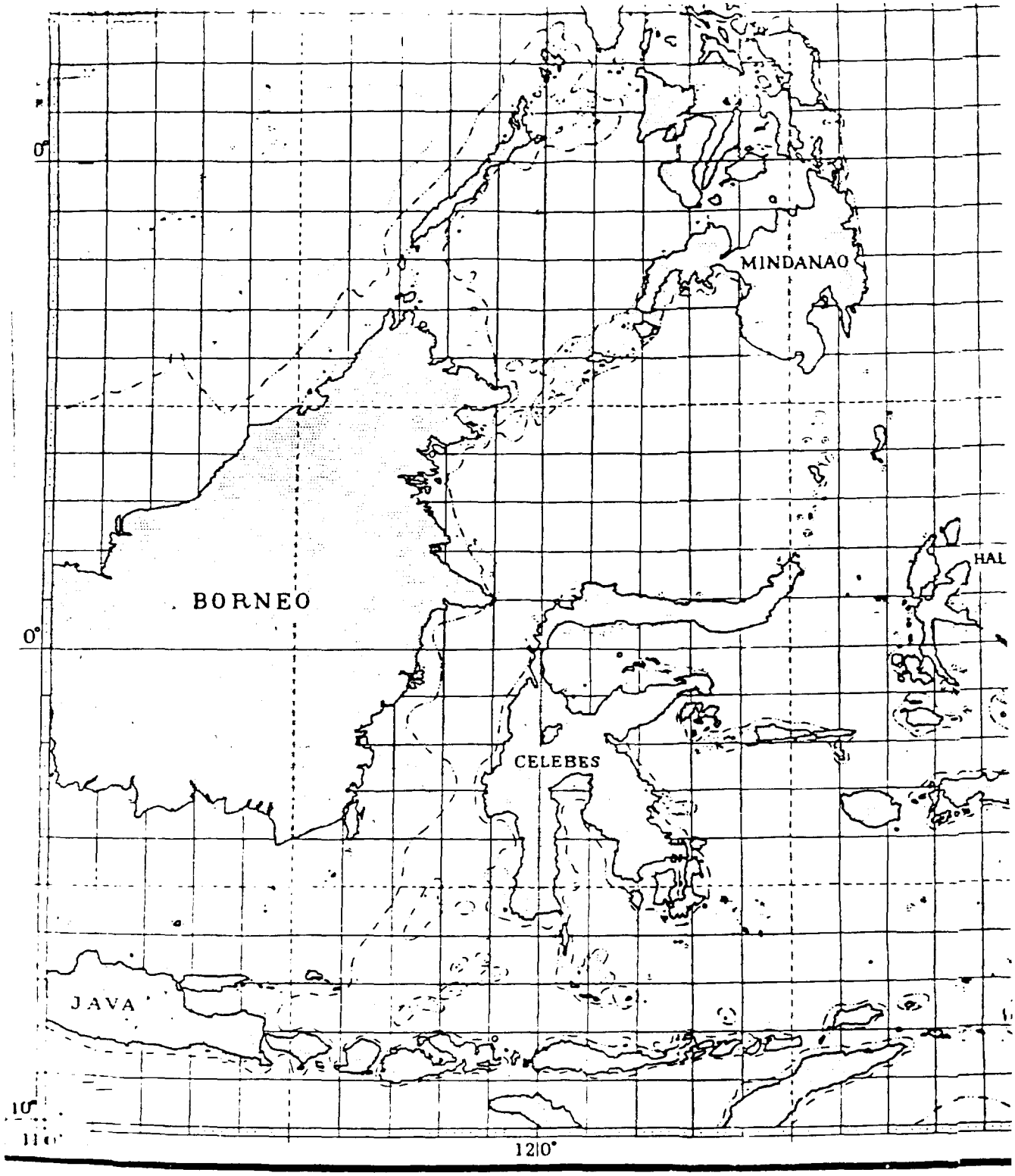
BORNEO
HALMAHERA
CELEBES
120°
130°


0°
MINDANAO
HAL
BORNEO
0°
CELEBES
JAVA
10°
110°
120°