[redacted]

ENCLOSURE "A"

26407

STATEMENT
on

OMNIPRESENCE OF BACKGROUND RADIATION

Prepared by the

Division of Biology & Medicine

Not all of the radiation which one ordinarily observes with a Geiger counter comes from atomic bombs. There is a natural background of radiation everywhere. It varies from place to place, and even from time to time, resulting in 30-300 counts per minute on the counter.

Everywhere on the earth's surface, in the air, and even in human and animal bodies and in plants, there is natural radioactivity due to the presence of uranium, radium, radiopotassium and other active elements in the earth, radon and thoron in the air, and cosmic ray particles from outer space. Altogether, these radiations result in doses to human beings of 80 to 800 milliroentgens per year. Depending somewhat upon the particular counter used, these doses correspond to 30-300 counts per minute. Dose levels of this amount are harmless to human beings. In fact, dose rates as high as 300 milliroentgens per week, corresponding to a rate of about 5500 counts per minute, have been agreed by international authorities to be safe for human beings.

All measurements of radiation intensities or contaminations should be expressed as over and above the background intensity of 30-50 counts per minute.

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AIR - MAIL

It is reported that on March 31st, Mr. Lewis L. Strauss, Chairman of the Atomic Energy Commission, made the following statements, among others, concerning the thermonuclear test which took place at the Bikini atoll on March 1, 1954.

'... A Japanese fishing trawler, the 'Fortunate Dragon', appears to have been missed by the search but, based on a statement attributed to her skipper, to the effect that he saw the flash of the explosion and heard the concussion six minutes later, it must have been well within the danger area. ...

'... The situation with respect to the 23 Japanese fishermen is less certain due to the fact that our people have not yet been permitted by the Japanese authorities to make a proper clinical examination. It is interesting to note, however, that the reports which have recently come through to us indicate that the blood count of these men is comparable to that of our weather station personnel. ...'

The portion of Mr. Strauss' statement quoted above not only entirely consistent with information officially received here, the Japanese Embassy wishes to place it on record that facts ascertained by the Japanese authorities on these points are as follows:

1. Upon investigation, it has been established that the crew

of the Fukuryu Maru No. 5 heard the detonation of the explosion seven or eight minutes after the crew saw its flash. It is estimated that the position of the vessel when they saw the flash and the spot where the ash fell upon them were respectively 19 miles and 25 miles outside the danger-zone which the United States Government had previously established and publicized by the official publication 'Notice to Mariners'. For the details as to the movement of the vessel reference is made to the attached copy of an Aide-Memoire handed in Tokyo to Ambassador Allison by Vice Minister Okumura of Foreign Affairs on March 27, 1954.

2. Dr. John J. Morton, of the Atomic Bomb Casualty Commission examined the Japanese crew members on the 17th of March in Tokyo and on the 20th at Yaizu. Dr. Merrill Eisenbud of the Atomic Energy Commission viewed the affected persons, accompanied by Dr. Morton, on March 25th in Tokyo and on the 26th at Yaizu. Their visits included an examination of the injured fishermen both by external observation and by obtaining specimens of their blood and excreta.

The more thorough check-up desired by the doctors has not yet been undertaken because of the special psychological situation in which these simple fishermen find themselves. They resent and refuse the type of clinical examination which

they feel might place them in the position of experimental objects. This is especially true where the examination is to be conducted by physicians other than Japanese. The Japanese authorities, however, are continuing their efforts to persuade the patients to undergo a more complete examination by American personnel at the earliest opportunity.

3. As to the question of the blood count of the exposed fishermen, information furnished to the American Embassy in Tokyo by the Japanese Government would appear to show that there is little ground to conclude the conditions of these fishermen are not serious, especially when the extraordinary nature of these cases are taken into consideration.

Enclosure: As stated.

Embassy of Japan,

Washington, April 17, 1954.

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AIDE MEMOIRE

The following data has been obtained as a result of investigations conducted by the Japanese Government with regard to the Fukuryu Maru No. 5.

The course of the Fukuryu Maru No. 5, its movement and circumstances of the accident as described hereunder are conclusions drawn from (1) statements made by the vessel's skipper, fishing master and other members of the crew; (2) entries in the ship's log-book and fishing records and (3) meteorological conditions at the time of the accident as revealed from the investigation by the Central Meteorological Observatory. All dates and hours given here are Japan Standard Time.

I. Stricken Vessel:-

Name:	Fukuryu Maru No. 5
Type:	Fishing boat, 99.9 tons
Registration No.:	SO 2-393
Owner's name and address:	Kakuichi Nishikawa 13-724, Yaizu, Yaizu-shi Shizuoka Prefecture
Skipper's name and address:	Hisakichi Tsutsui 50, Ryoyashiki, Sakushi-no-Mura Hazu-Gun, Aichi Prefecture
Number and names of crew:	23 persons (Names are given in the attached list)
Content and kind of cargo:	Tuna and other fish Total 2,299.3 kan

II. Course and Movement of the Fukuryu Maru No. 5:-

1. The Fukuryu Maru No. 5 left the port of Yaizu, Shizuoka Prefecture, at 1130 hours on January 22 and headed southeastward. On or about January 27, and from a position in the neighborhood of Lat. 27°35'N. and Long. 148°37'E. it shifted its course eastward. It started fishing on February 3, at Lat. 26°17 1/2'N. and Long. 171°30'E. Fishing operation was made several times until February 12. Later, in order to fish in the neighborhood of the Marshall Islands, the vessel changed its course and, while fishing on the way, it reached on February 23, a position in the proximity of Lat. 11°11.3'N. and Long. 173°33'E.

2. After February 23, the vessel directed its course toward the west and engaged in fishing operations. On March 1, at approximately 0115 hours it arrived at the position of Lat. 12°03 1/2'N. and Long. 166°56 1/2'E. and started to set lines. It completed setting lines at 0342 hours at lat. 11°52 1/2'N. and Long. 166°35'E. Afterward it cruised for ten (10) minutes toward the north-east (estimated cruising distance: 1 1/4 nautical miles), and drifted with its engine stopped. About 0412 hours, after it had drifted about twenty (20) minutes (estimated westward tide-way, about

one half (1/2) nautical mile), a streak of light which seemed to have resulted from an atomic bomb explosion was seen. The vessel's position at that time was approximately Lat. 11°53-1/4'N. and Long. 166°35-1/4'E.

3. About seven or eight minutes after the light had been seen, a detonation apparently resulting from an atomic bomb explosion was heard and the vessel immediately started hauling in its lines. This operation ended at 1030 hours and the vessel headed toward the north to get out of the area.

4. After 0440 hours, March 2 the vessel shifted its course toward the north-west and headed for Yaizu. It entered the port of Yaizu at 0630 hours on March 14.

III. Circumstances of the accident:-

1. About 0412 hours on March 1, a reddish brilliant light was seen in the direction of west-southwest of the vessel. The color of this light gradually turned to white-yellow and again back to red and faded away.

2. No wind resulting from the explosion was felt within the next seven or eight minutes but two blasts were heard in succession. A cloud having the shape of a mushroom was seen in the direction where the light was first seen and this cloud started to expand covering the sky with dark clouds.

3. As the crew saw the light, some of them realized that probably an atomic test, about which they remembered having read in the newspapers, might have occurred. Anticipating danger, they started hauling in the lines at about 0430 hours, from the position where they had previously finished setting the lines, progressing in the opposite direction toward the northeast. The lines were hauled in by machine using what is called a line-hauler. While hauling in the lines the vessel's engine repeated the process of "go slow ahead" and "stop" and the same again. In the present instance all hands with the exception of a few engineers on watch were working on the upper deck and in the wheel house.

4. In the midst of the operation of hauling lines, about three (3) hours later than the moment the light had been seen, and at the estimated position of Lat. 11°56 3/4'N. and Long. 166°12 1/2'E. ashes started to fall on the deck, which was turned white. As the hauling operation ended about 1030 hours in the vicinity of the estimated position of Lat. 12°03'N. and Long. 166°53'E. the vessel headed for north in the direction where ashes were not falling and cruised with a speed of seven (7) nautical miles trying to evacuate the area.

5. The crew, after having hauled in the lines, worked on the upper deck engaging in processing the catch. The ashes kept falling until about noon, when the vessel reached the estimated position of Lat. 12°14'N. and Long. 166°53'E.

6. In the following two or three days all the crew suffered from a slight headache and some of them felt nausea.

7. Seven or eight days after the accident, the crew began to feel painful irritations, from what looked like burns in the neck, face, ears and places where they wore "hachimaki" (a cotton towel wrapped around the head) which were exposed to the ashes.

IV. Miscellaneous:-

1. There is no evidence that the Fukuryu Maru No. 5 received warnings, by radio message or any other means, which being in the area before the accident occurred. (sic)

Investigation conducted so far showed no evidence of any receipt of any kind of warning by vessels other than the Fukuryu Maru No. 5.

2. The crew of the vessel did not hear any sound of aircraft at the time of the accident.

3. Matters Relating to Communications:

a. The communication log is found to have been duly and properly entered.

b. The vessel had one (1) Licensed Radio Operator, Second Class, who has a slight knowledge of English.

c. The condition of the radio equipment was good.

d. Listening hours of the vessel's radio were unfixed.

e. The communication waves were 2091 kc and 3251.5 kc.

V. Degree of the Damage:

The amount of damage suffered by the Fukuryu Maru No. 5 is now under investigation.