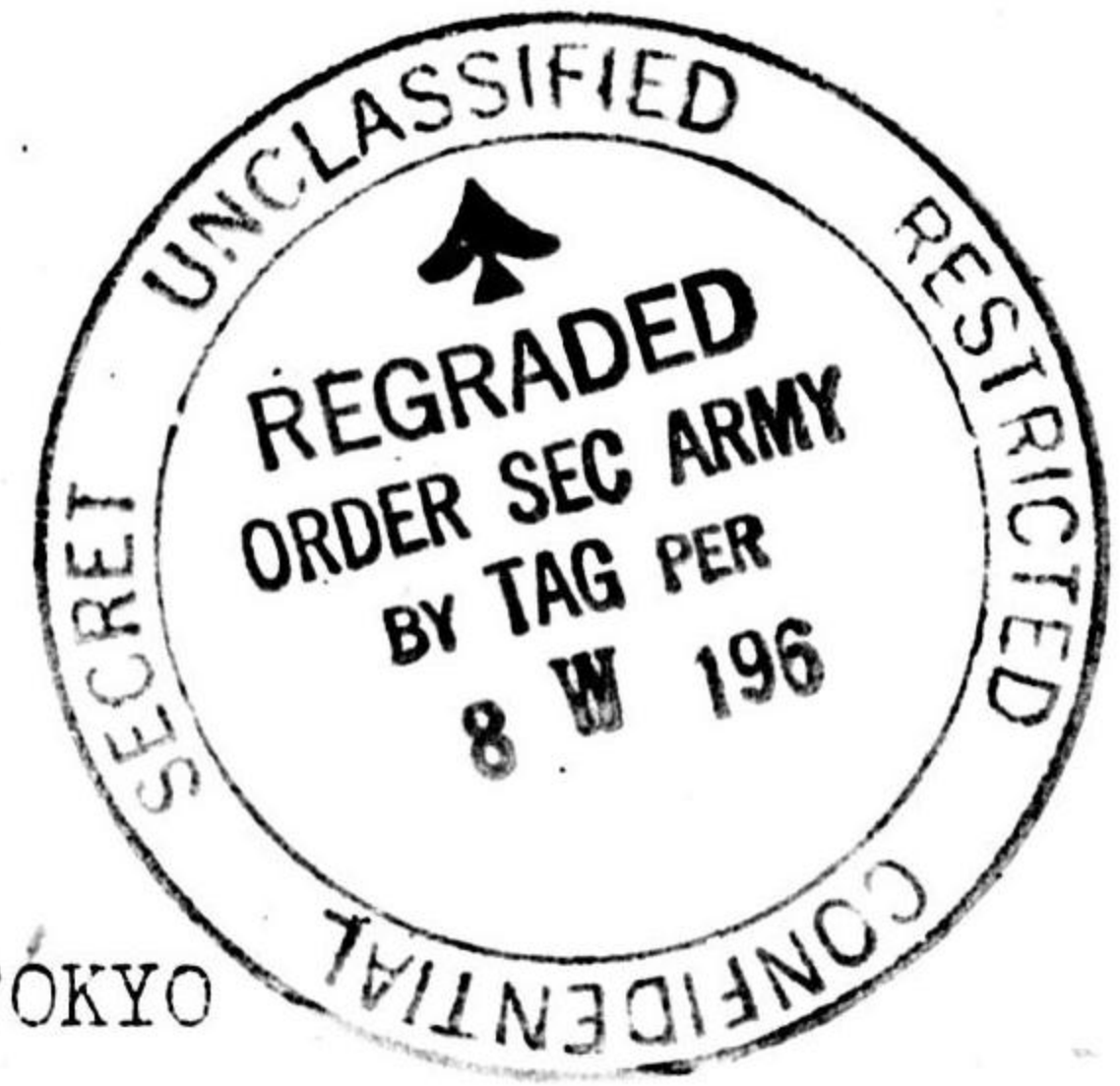


HEADQUARTERS
U. S. STRATEGIC BOMBING SURVEY
(PACIFIC)
C/O POSTMASTER, SAN FRANCISCO



INTERROGATION NO. 183

PLACE: TOKYO

DATE: 31 Oct. 1945.

Division of Origin: Strategic Air Division

Subject: Effect of American Radar Counter Measures on anti-aircraft defense.

Personnel interrogated:

Major YAMAMOTO, staff officer of 1st Anti-aircraft division

Where interviewed: Meiji Building Room 723

Interrogator: Capt. James H.C. Mulligan, AC

Interpreter: Mr. T. HARA

Allied Officers present: Lt. Ranker and Lt. Harton of Strategic Air Division.

Summary:

1. Anti-aircraft unit in 1st AA Division
2. Types of radar used for directing guns
3. Effect of counter measures
4. Liaison with Germans.

DISTRIBUTION: All Divisions.

INTERROGATION

Major YAMAMOTO was an officer on the staff of the 1st Anti-aircraft Division, which was assigned the task of defending Tokyo, Yokohama, Kawasski, Omiyo, Ota, Takesaki and surrounding territories. Some units and personnel from this division were on what we might call detached service to another sector and were located at Utsunomiya and Mito.

Major YAMAMOTO related the numbers and types of the various anti-aircraft units which were under the command of the 1st division, together with the composition of each.

The first type enumerated was what the interpreter called a class A regiment. This consisted of two anti-aircraft battalions and two searchlight battalions. Each AA battalion consisted of six AA companies and each company had six guns. Each searchlight battalion consisted of three companies and each company has six searchlights. The total for a regiment, in other words, is seventy-two guns and thirty six searchlights. The guns were of .75mm., 88mm., and 150mm. caliber with the first two predominating. Seven regiments of this type were noted, namely the 111th, 112th, 113th, 114th, 115th, 116th and 117th anti-aircraft regiments.

The next unit indicated was the 118th regiment, which the interpreter called a class 3 regiment. This outfit had no battalions but had four anti-aircraft companies and two searchlight companies. The number of guns and searchlights per company was the same as in the preceding paragraph; this made the regimental strength twentyfour heavy guns and twelve searchlights.

The 119th regiment consisted of two AA battalions and one searchlight battalion. Major YAMAMOTO said that the two AA battalions had six companies but, on reading the transcript, it is not clear whether he meant a total of six companies or six companies per battalion. It appears, however, from notations he made on paper during questioning, that he meant to say a total of six companies. The searchlight battalion appears to have been standard, with three companies each having six searchlights.

The 1st searchlight regiment was composed of two standard battalions each having a total of three companies, making a battalion strength of eighteen searchlights.

The 2nd AA battalion comprised four AA companies on a total of twenty four heavy guns. The 3rd AA battalion had four AA companies and one searchlight company giving a battalion total of twentyfour guns and six searchlights. The 4th AA battalion consisted of 4 AA companies for a total of twentyfour guns.

The 95th AA battalion which, according to interpreter was sometimes called a field anti-aircraft battalion, consisting of 3 AA companies for a total of 18 guns. The 96th and 50th battalions were of the same compositions as the 95th. The 1st Searchlight Battalion was composed of two companies for a total of 12 searchlights. There were 4 independent AA companies the 48th, 49th, 50th and 51st, each having 6 guns.

There were 3 so-called Machine-Gun Battalions (their armement consisted of 25mm guns rather than machine guns). The 1st and 4th Machine Gun battalions consisted of 6 companies each and the independent 1st Machine Gun Battalion (note the duplication of the number) consisted of four companies. There were also independent machine gun companies namely the 1st, 2nd, 13th, 14th, 15th, 16th and 34th. Major YAMAMOTO told the interrogator that the 25mm guns in these so called machine gun units had a maximum range of about 2500 meters.

It was indicated that the number of guns and searchlights per company indicated above were the standard equipment but might vary in individual cases.

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Another organization in the 1st Anti-aircraft division was the 1st Balloon Company which had about 30 balloons. These balloons floated at an altitude of about 1500 meters with steel cables extending to the ground. Major YAMAMOTO explained that the balloons were seldom used because they weren't practical; B-29 aircraft flew above them and our fighters cut the cables as they flew through them.

The Major was interrogated as to the types of radar which were used for directing anti-aircraft guns. He indicated five types which are noted here with the wave-lengths as he related them:

Type I	1.5 meters
Type II	1.5 meters
Type III	3.85 meters
Type IV	1.5 meters
Type 4 (modified)	1.5 meters

There was no electrical connection between the radar sets and the guns or searchlights. The only connection was by telephone and the minimum distance between the radar and the guns or searchlights was 100 meters.

When questioned as to the effect of rope (RR-3/U) the Major said that the dropping of rope by B-29's confused them at first but after a month's time they were able to train radar operators to distinguish between reflection from rope and the echo from an aircraft. This distinction was apparent because the rope remained stationary and the plane was in motion.

All the radar sets on 1.5 meters were completely jammed but the jamming on the 3.85 meter radar had practically no effect.

The major said that there were approximately 95 radar sets used for directing guns in the area covered by the 1st AA Division. There was no fixed rules for assigning radar units to certain regiments but such units could be attached to whatever regiment those in charge considered to need radar. The plans called for a radar set per company but the actual number was closer to two per battalion. This meant that one radar set provided information for approximately 3 companies or 18 guns. It was indicated that all guns received data from the radar sets.

It was indicated that the radar sets furnished range, azimuth and elevation data to the anti-aircraft companies. The battalion and company command posts converted the data received into that necessary for anti-aircraft fire. There was some type of computer for converting this data but it was not an electrical or electronic device according to Major YAMAMOTO.

It was stated that there was approximately one type III radar (3.85 meters) per battalion and when the other types were jammed they depended on type III for the data used to fire the guns.

Major YAMAMOTO was questioned as to how much warning the anti-aircraft defenses had before a B-29 raid. The reply was that they received about 3 or 4 hours warning before a raid. They also prepared for raids whenever weather conditions and the frequency of raids made a B-29 visit a probability.

When questioned as to whether German radar sets or designs had been received he replied that he did not know. He had heard however that a half-meter radar was being planned but knew nothing about details or production. He expected that such a radar set would be the remedy for our jamming.

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Major YAMAMOTO said that he had requested from authorities a ground transmitter to emit radiations which would interfere with our jamming. It was his opinion that Japanese scientists were pretty much in the dark about the nature of our jamming and for that reason no remedy was found.

He did not know whether the Germans had told the Japanese about our jamming in the European theatre.

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