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

U.S. FLEET AIRCRAFT TACTICAL UNIT

AIR INTELLIGENCE SUMMARY NO. 56-40 (A)  
(Date of compilation: November 18, 1940)

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*0121 of 11-18-40*

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

A. CIVILIAN AIR GROUPS AMALGAMATE - JAPAN. (DATED 10/7/40).

The Communications Office announced on 20 September, 1940 the amalgamation into one body of the various civilian air organizations. The general outline of the reorganization is as follows:

POLICY.

In view of the emergency situation, the government has decided on the establishment of a powerful organization, to be formed by amalgamating various existing civilian air organizations, and it intends to contribute towards the creation of a national defense structure of the highest degree by expanding and strengthening the civilian air strength of Nippon under the government's well-controlled guiding policy.

GENERAL RULES.

1. Existing air organizations will be absorbed into the Imperial Aeronautic Association and the Dai Nippon Hiko Kyakai, (tentative name meaning Dai Nippon Aviation Society).
2. The D.N.A.S. will encourage the training of pilots of gliders and airplanes, training and guidance of technique, propagation of aeronautical knowledge among all classes of the nation, and various other enterprises necessary to the development of aviation.
3. The government will give an appropriate subsidy and other necessary aid to the D.N.A.S., concerning the carrying out of its enterprise.
4. The expenditures of the D.N.A.S. will be covered by government subsidy, membership fees and public contributions.
5. Close relations will be maintained among the related offices concerning the guidance and control of the D.N.A.S.
6. In case of activities of the society are consolidated and expanded, the government will take further measures to strengthen the organization and enterprises of the body.
7. The government will not permit the establishment of any other organization of the same nature as the D.N.A.S.

ORGANIZATIONS TO BE ABSORBED.

Organizations to be absorbed by the society are all the civilian associations aimed at the propagation of aeronautical knowledge or the training of glider and airplane pilots.

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BUSINESS OF THE SOCIETY.

1. Pilot training will be given, for the time being, to men students of higher schools and universities. Training concerning equipment will be parallel to the above.

2. Maintenance of the technique which has already been developed. (To provide opportunities to fly, chiefly for pilots on the reserve list).

3. Glider training: (a) Establishment of glider training camps throughout the country. (b) Training of glider pilots. (c) Establishment of an institute for study of gliding.

4. Sponsor or support of various events for the propagation of aeronautic thoughts.

5. Investigation and study of civilian aviation and the publication of aero maps and books on aviation

6. Encouragement of the trial construction of airplanes and other enterprises necessary for the encouragement of aviation.

B. NETHERLANDS EAST INDIES - GENERAL. (DATED SEPT. 1940).

During the months of January - June 1940, the sailing junk "Cheng Ho", with a Mr. Kilkenny (American) as Master, made an extended cruise through the Dutch East Indies, and upon return to Hong Kong, B.C.C., gave the following information to the Commanding Officer, U.S.S. MINDANAO:

1. The Dutch Authorities now forbid the collection of any hydrographic information, corrections to charts, sale of charts, etc.

2. At each port of call, the Authorities would inspect the ship's log, charts, etc.; and destroy anything that might be helpful to an invading fleet, particularly around the Celebes.

3. The following information was given orally by Mr. Kilkenny, from memory, on Dutch Sea Plane Stations, now established in the Celebes and vicinity:

(a) SIADÉ ISLAND. (Lat. 2°-45' N., Long. 125°-30' E). Shown on H.O. Chart No. 5590, has a small lake used by seaplanes. The lake is buoyed for moorings and has aviation fuel tanks. The closest supply base is Balikpapan on Borneo.

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(b) MENADO. (On NE tip of Celebes, has a lake about 20 kilometers from the village which the Dutch use for seaplanes instead of the bay. The lake is 15 miles long and wide enough to take off in any direction. Landing channels are marked with stakes flying white flags. Mooring buoys and aviation fuel tanks are installed. The lake is shown on British Admiralty Chart No. 942 A.

(c) GORONTALO. In Gulf of Tomini (Lat. 0°-30' N. Long. 123°-20' E) has a lake about five miles from the village that is equipped the same as MENADO described above. It is shown on British Admiralty Chart No. 942 A.

(d) TERNATE ISLAND. (Lat. 0°-01' N. Long. 127°-20' E)  
AMBON ISLAND. (Lat. 3°-45' S. Long. 128°-15' E).  
Each of the Islands had a seaplane base equipped the same as in Paragraph (b) and (c).

(e) MISOOL ISLAND. (Lat. 2°-00' S. Long. 130°-00' E)  
This Island was closed to all ships, the Junk "Cheng Ho" was stopped and not allowed to approach the island.

(f) There are no refineries in the Molukka Sea Area, and all lubricating oil, gasoline, spare parts, etc., must be brought from Sumatra, Java, or Borneo.

-----  
NETHERLANDS EAST INDIES - FURTHER INFORMATION (NOV. 1940).

Many indications noted that an undercover agreement may well have been made between Australia and the Dutch Indies. Australian Lockheed Hudson army bombers (at least 30) have been flown north, landing on Dutch airports, to Singapore during the past two months. At Palembang (Standard Oil outpost city in Sumatra) a super-airport is well underway with improvements far in excess of K.N.I.L.M. airline or company requirements. Informed quarters stated that the Palembang field is precisely a stepping stone on the Port Darwin-Singapore "lifeline".

From Timor to Palembang (Sumatra) every usable airport is heavily barricaded with palm logs, barbed wire entanglements, etc., leaving only one runway available for scheduled commercial planes. This can be closed to traffic in a few minutes in all instances. At Soerabaja (Java), naval base city, even regular KNILM ships are greeted by levelled machine guns controlled from bamboo towers where lookouts watch landings through field glasses.

The Indies have opened a pilots' school at Soerabaja. Some 1500 Javanese mechanics work in naval base shops which are able to completely rebuild planes.

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

*Dutch  
Australian  
Aircraft?*

The informant went to Palembang, Standard Oil concession in mid-Sumatra, enroute to Singapore. Here he found what appeared to be an A-1 aerial target for aircraft carrier based planes that could slip past Singapore defenses (since this is midway from Java to Malaya). The Dutch are preparing an ultra-modern airport at Palembang for no other reason, he assumes, than to provide a good stepping stone between Australia, Java and Singapore. There appears to be no use, from the strictly transportation or Indies point-of-view, for such an extended airdrome. An extremely reliable authority states that the plant two months ago began making 100-octane aviation fuel. The amount thus far produced - and for whom - is a deep secret.

Air raid shelters for operating personnel (350 men) have been prepared.

On August 28 the Indies government cancelled Palembang-Saigon (Indo China) tanker loadings, when the Jap-French situation grew tense.

Palembang poorly defended with 500 volunteer Dutch and 700 native troops, inadequately equipped with light artillery and machine guns. No fear of parachute invasion, however, since the jungle forms a natural barrier, and the new airport seems well barricaded against surprise landings.

Similar oil town (Shell) was Balikpapan, Borneo. Here they've prepared an auxiliary town for 30,000 persons five miles inland. Populace would go here if dynamiting of the refinery, etc. became necessary. Supplies for two months have been cached.

Some 1500 native troops with Dutch officers are said to be enough here to withstand a 5000-man Jap attack.

For these reasons, Balikpapan is considered an Indies trouble zone and has been well protected by beach-barricades, harbor mines, artillery pillboxes, etc.

C. JAPANESE AIR AND NAVAL BASES WITHIN RANGE OF PHILIPPINE OPERATIONS. (DATED 9/27/40)

The operating bases from which Japanese armed forces must necessarily commence any aggressive or hostile action against the Philippine Islands are Hainan Island, Taiwan, Weichow, bases in occupied territory in China, and Palao.

*Air  
opposition?*

It is assumed, from previous study of Japanese wars and observation of Japanese military activities in China, that the initial indication of hostilities would be widespread bombing raids in the Philippines for the purpose of effectively destroying, or severely limiting, the aviation and submarine defense forces. These bombing raids could develop from three directions, namely, Hainan, Taiwan and the Pacific Ocean east of the Philippines. The latter raids would be either forays

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by carrier aircraft or bombing missions carried out by the 4-engined Patrol planes based at Palao, or on aircraft tenders operating nearby. In any event, the attacks would undoubtedly be coordinated, and have the advantage of surprise.

To permit a logical estimate of the situation by our defense forces in the Philippine Islands, the following concise compilation of Japanese bases for air and surface craft, within a thousand miles of the Islands, is hereby submitted:

HAINAN ISLAND

Airdromes:

Kiungchow. The present main airdrome on the island is an enlargement of the old Chinese field at Kiungchow, located midway between Hoihow and Kiungchow, and northwest of the latter place. The original field has been extended and now includes the area formerly occupied by a village to the westward. The present field is reported to accommodate 300 aircraft. The known AA defenses consist of two batteries of AA (4.7"), two searchlights and eight AA machine guns. These defenses have probably been recently augmented. In April, 1940, there were 40 naval planes based at the field, approximately 200 aviation personnel, and a detachment of troops for guard duty. There are barracks, fuel and munition dumps at the field. (For sketch see APPENDIX "A"). Planes stationed here are:

- 2 sq. SSF (Type 97)
- 3 sq. S/E Light Bombers (Type 98)
- 1 sq. Fiat BR 20's HB
- 2 sq. Reconnaissance (Type 97) (108 planes)

Sanya. Located north of Yulinkan Bay and East of Dog Hill. During early 1940, at least 2000 workmen were constructing and enlarging the field into a large air base. During April, 1940, five naval planes were stationed at the field. At present, the 14th Air Regiment of 4 squadrons consisting of 2 sq. SSF (Type 97) and 2 sq. HB (Type 97) are based here. (54 planes). For sketch see APPENDIX "B").

Landing Fields:

Wen Chang. (Vun Sio) Located southeast of Kiangchow and west of Toncan Point. Auxiliary (132° 25')

San Kiang. Located approximately midway between Wen Chang and Kiungchow. Auxiliary.

Yai-Chu. Located near beach, midway between Snake Point and Great Cape.

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Tengchiao. Located vicinity of Tong kin, northeast of Yulinkan Bay. Auxiliary.

Three other fields in southern part of island, location indefinite from information available. (See sketch of Hainan Island, marked APPENDIX "C").

Fortifications:

In addition to the eight gun emplacements in the vicinity of Sama and Yulinkan Bays, concrete gun emplacements have been constructed at the following locations:

1. Ying Ko Tsui (Ying Khoa). (Southwest Point)
2. Ma Ling (East of Great Cape, near Yamamin)
3. Tung Chow)
4. Shi Chow ) Caalong Bay area, east of Yulinkan Bay.
5. In vicinity of Sanya airdrome.
6. Ahsien Cheng. Approximately midway between Snake Point and Great Cape (South coast),

Three or four guns have been installed along the coast north of Toncon Point (Northeast coast).

Some improvements have been made in the old Chinese fortifications at Hoihow Bay.

Reported (but no verified) that guns emplaced in vicinity of Chappu Bay (West Coast),

See sketch of Hainan Island, APPENDIX "C").

Ammunition Storage Facilities:

1. Northern Area; newly constructed building located in rear of Ju Yun Hospital, Hoihow.
2. Southern Area; located in a large cave (Lok Pi Tung) approximately twelve miles northeast of Yulinkan Bay.

A considerable number of barracks and concrete storehouses have been completed in the area adjacent to Yulinkan Bay. Work in the area is continuing.

Facilities for hauling out seaplanes have been constructed at Yulinkan Bay (See APPENDIX "B").

Eighteen storehouses have been completed at Hoihow. A large quantity of military stores is concentrated here.

Naval Anchorages:

Naval vessels have been observed at the following points:

North Coast: Hau Sui Bay

Chingmae Bay

Hoihow Bay

Pochin Bay

East Coast: Chunlan Harbor

Pakngo

South Coast: Yulinkan Bay (APPENDIX "B")

Gaalong Bay (APPENDIX "D")

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

General:

Hainan is being developed by the Japanese Navy as a major base for expansion southward.

There are about twenty thousand troops garrisoning the island, which is used as a rendez-vous for supplies, aircraft, troop transports, supply ships and naval units. For some time, large forces have been poised for a swift descent on French Indo-China.

Although nominally under complete Japanese control, Chinese guerillas operate with comparative freedom from molestation in the uninviting interior. Portable short wave stations operate by Chinese regularly report on Japanese activities.

The island is noted for its poisonous snakes, impenetrable thickets and unhealthy climate. Tropical diseases, such as cholera, dysentery and malaria take a heavy toll of the invaders.

WEI CHOW

The island of Wei Chow lies in the Gulf of Tongking, northwest of Hainan and south of Pakhoi. It was occupied by Japanese forces in 1938 and used as an air base for operations against Pakhoi and Yamchow in the Nanning campaign.

APPENDIX "E", a sketch of Wei Chow, is self-explanatory, with locations of objectives accurately marked. Other pertinent data also on sketch.

SAN CHOW (SAM CHUI)

San Chow is an island off the South China coast, directly south of the Portuguese Colony of Macao. It was occupied by the Japanese Navy and converted into an air base for carrier aircraft for use against Canton (and Hongkong).

The airfield is situated on the southern tip of the island. It is roughly rectangular in shape, with the long dimension E-W. A paved runway extends the length of the field. Size of airdrome 1000 by 300 yards. Hangars and barracks on N side of field. Fuel storage and one hangar underground in steep hill directly N of field. Ammunition dump and gas bousers to W of hangars.

The following bases (plus Hainan) are under Vice Admiral Shiro Takasu, Comdr. Second China Expeditionary Fleet (Flagship H.I.J.M.S. CHOKAI) which operates south of the Yangtze delta:

CHUSAN ISLANDS Naval Base (TINGHAI)

AMOY Special Base

CANTON Special Base

Chusan Islands - Minor repairs, supplies, seaplane tender base.



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Amoy - Carrier and seaplane tender base.

Canton - Heavy landplane bomber base, (Can accommodate 90 planes) present force 1 sq. HB (Type 97).

PESCADORES ISLANDS

BAKO (or MAKO)

The Pescadores are a group of fortified islands about 50 miles west of central Taiwan. For details of fortifications, see Monograph - Japan - Pages 39 & 157. Further information follows.

Bako is on Hokoto Island, largest of the group. A small naval station, with minor facilities is situated as shown in sketch. A seaplane station with tender moorings is located here. The large main radio station is near the navy yard. There is a 25 ton floating, cantilever crane. Two landing grounds, shown in sketch are being extended. 1 sq. Patrol planes. (Sketch labelled APPENDIX "G").

TAIWAN (FORMOSA)

Taiwan is a large island, north of Luzon, the most strongly fortified base of Japanese operations outside Japan Proper. Large Army ground and air forces are stationed here, and several naval and air bases.

The Naval anchorages and air bases are at Keelung, Tamsui and Takao. That at Takao is situated at the mouth of the Shimotamsui river, about 12 miles SE of Takao, and is easily recognizable from the air.

Army Air Bases are situated at:

HOKUTO  
SHINCHIKU  
ROKUKO  
POTISHI  
KAGI (Largest Base)  
OKAGAMA  
HEITO  
HOZAN  
REUGARTY  
JATI  
SUTEIRYU  
BORO  
KARENKO  
SUO  
GIRAN  
TAIHOKU (Keelung)  
ITAHASHI

Total Army planes, about 200.

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

Other air fields, which could be converted into military bases are at:

TAICHU  
KOKO  
TAINAN  
ANPING  
KAIKO  
GARANBI

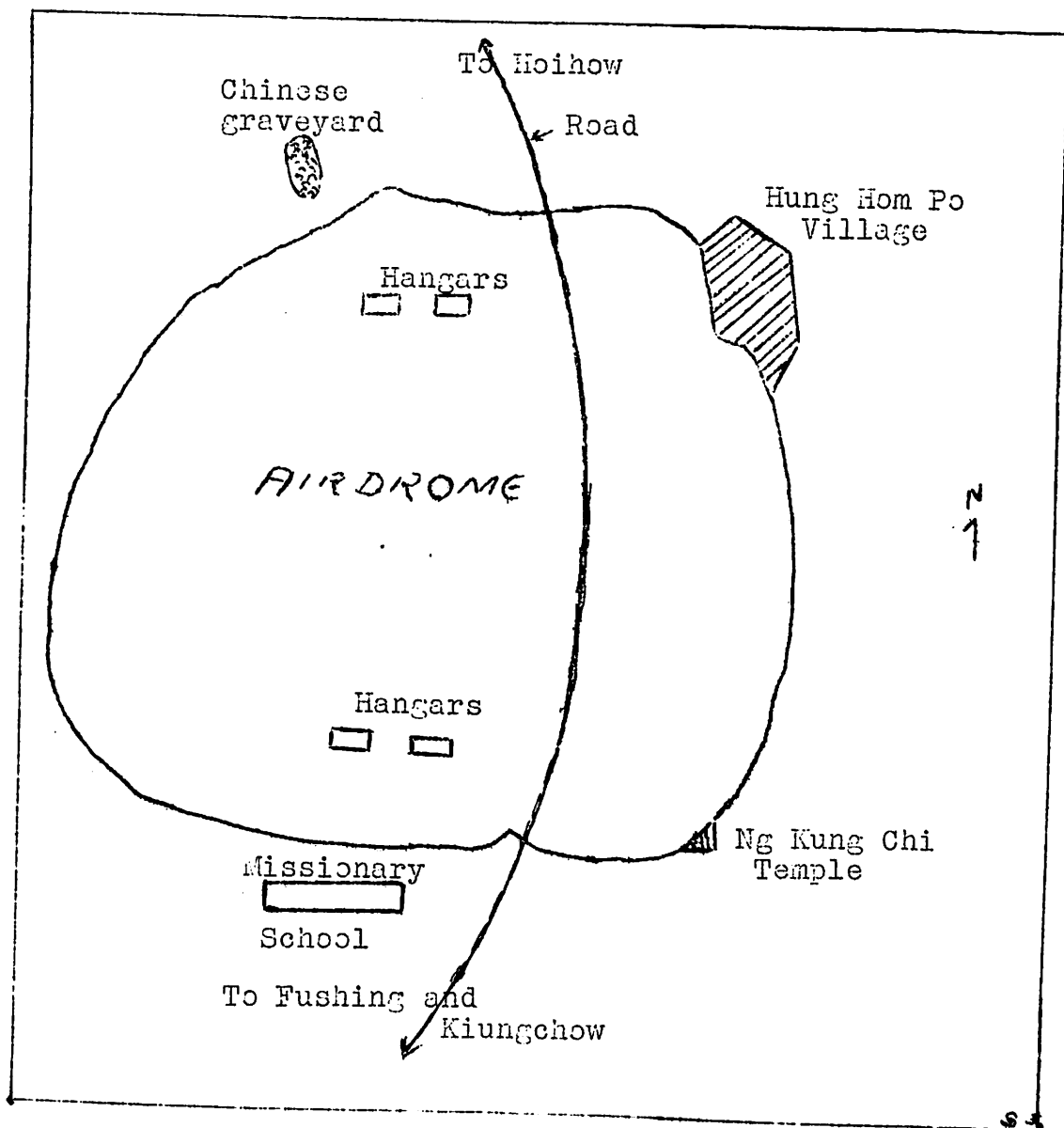
MAIN BOMBING OBJECTIVES: The single main railroad down western Taiwan, Kagi, Takao, Toko, Tainan, the main Navy Radio station at Mozan, and Taito are considered the principal objectives for bombing raids from the Philippines.

OPPOSITION TO BE EXPECTED: Fishing boats, some wireless equipped, as "listening posts".  
50 cal AA machine guns  
4" AA batteries at Kagi, Taito  
Minor Fighter Tactics.

BOMBS TO BE CARRIED: Against hangars, airfields, gasoline and fuel oil dumps - 100 Pound and Incendiaries.  
Against factories - 100 Pound and Incendiaries.  
Against docks, harbor installations, etc. 500 Pound.

PALAO

About five hundred miles East of Davao is the Japanese mandated island of Palao. It contains a seaplane base, landing field for carrier aircraft, oil tanks, and fortifications. The inner and outer anchorages, as well as all other points of interest are marked on the sketch, APPENDIX "H". Units of the 4th Fleet based on Palao at present have already been reported to the Department.



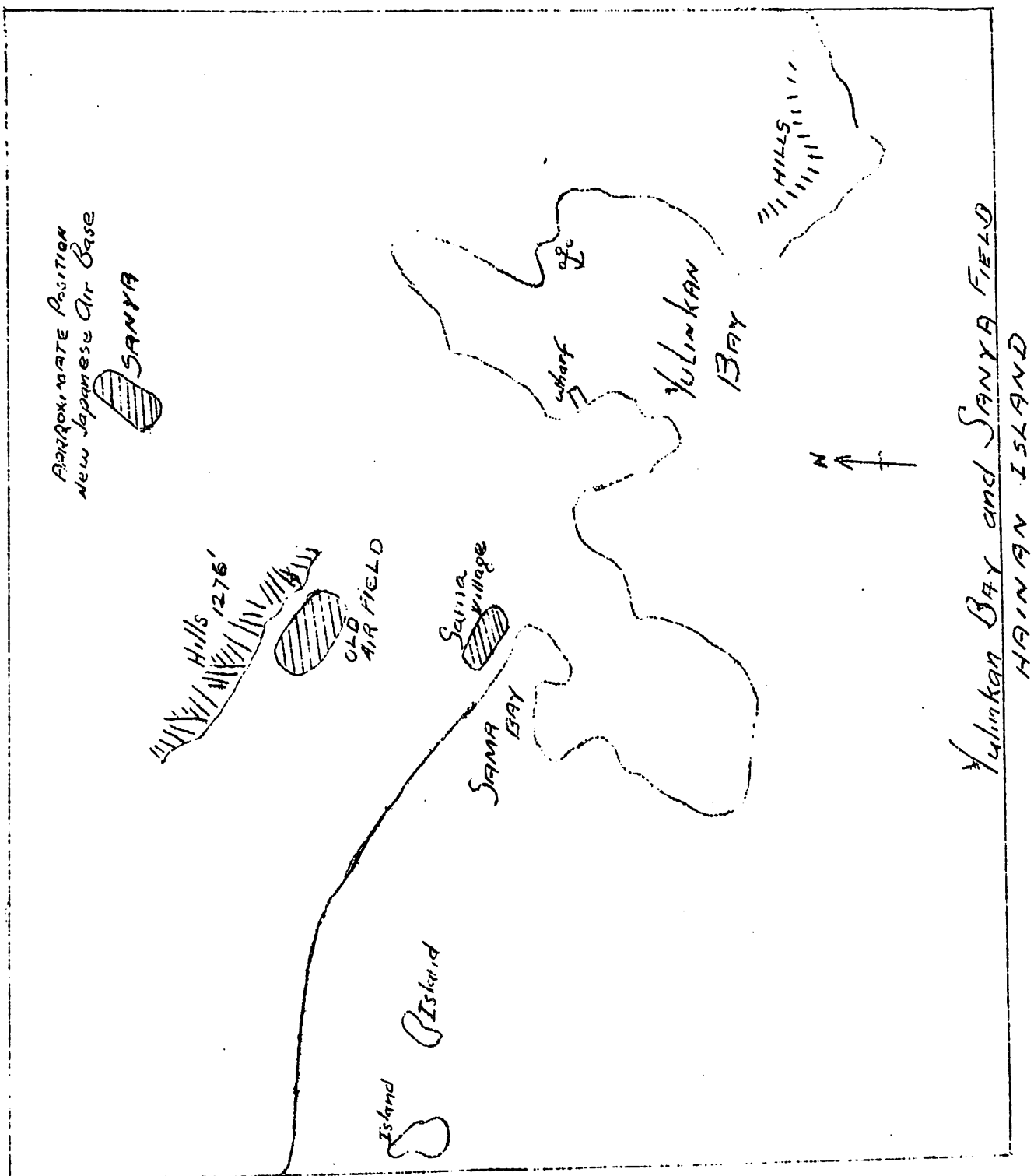
KIUNGCHOW (KIUNSHAN) AIRDROME  
HAINAN ISLAND

Located midway between HOIHOW and KIUNGCHOW  
Field: Flat and grassy. Usable in all weather  
Altitude: 20'  
Size: 650 x 500 yards

APPENDIX "A"

F.I.S. 56-40 (A), Page 10.

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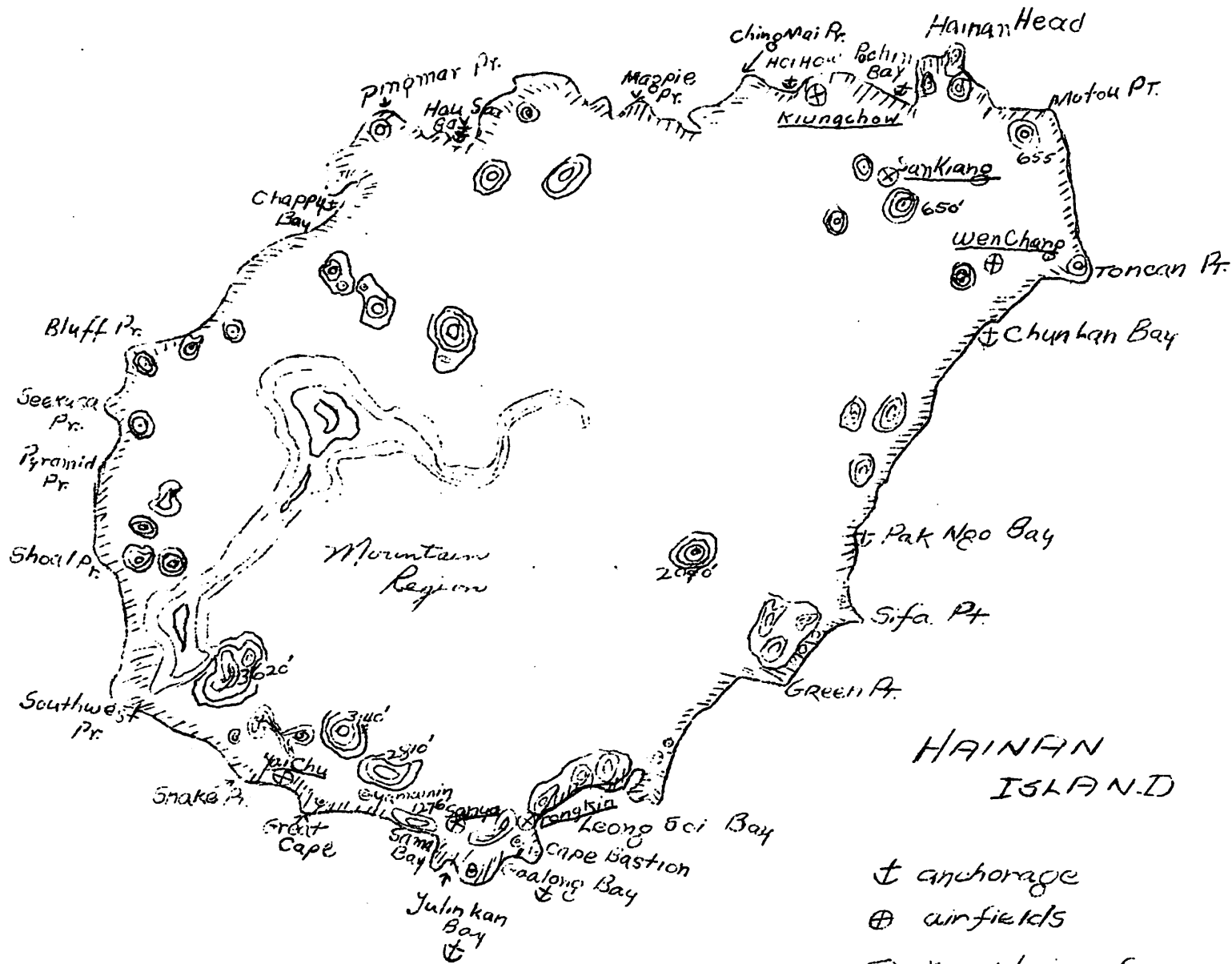


APPENDIX "B"

F.I.S. 56-40 (A), Page 11.

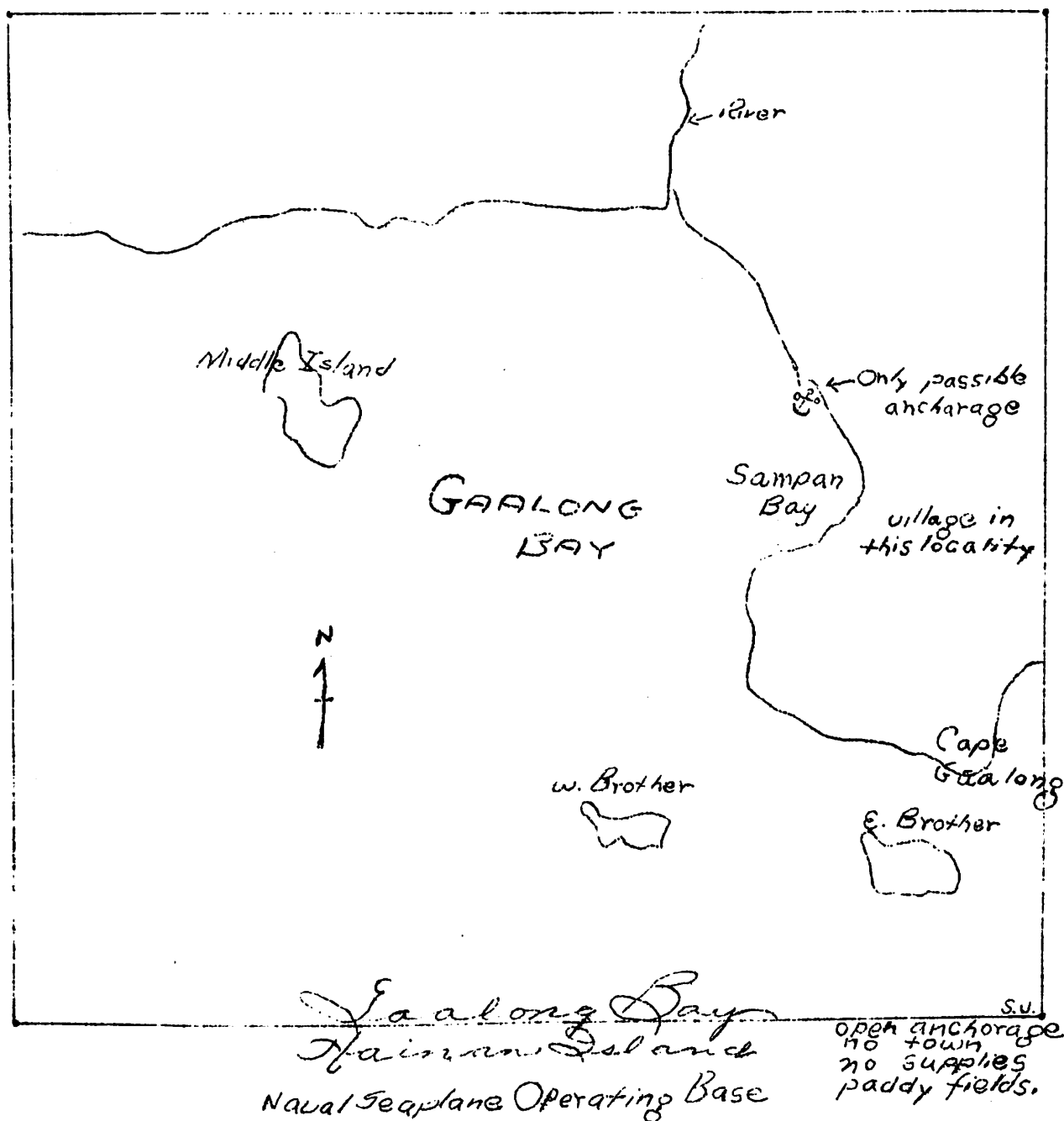
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APPENDIX "C"



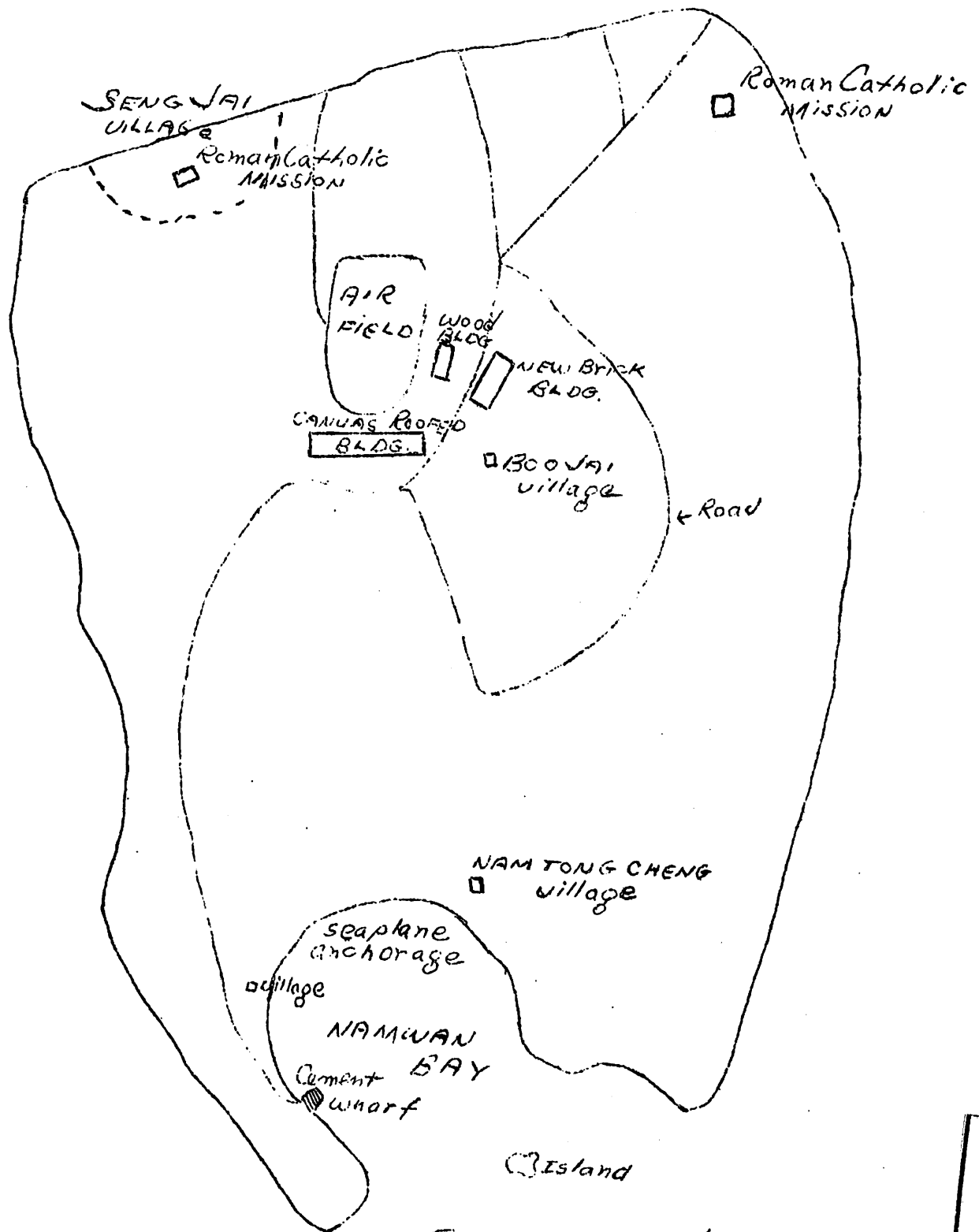
HAINAN  
ISLAND

- ⊕ anchorage
- ⊕ airfields
- ⊙ mountains, ft.
- //// lowland



# APPENDIX "D"

F.I.S. 56-40 (A), Page 13.

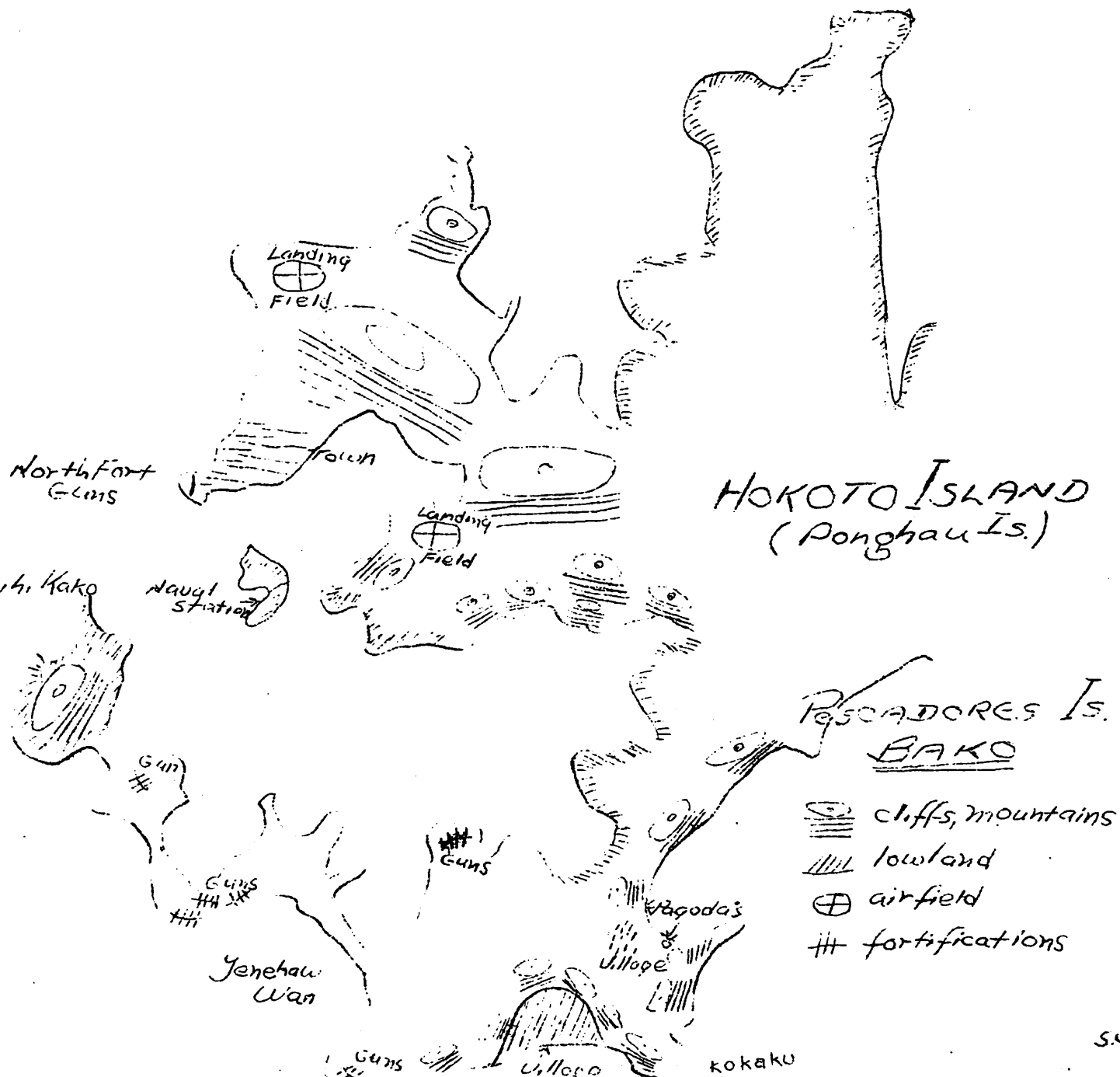


Highest land 250'  
 Landingfield 1200 x 600 yds.  
 Unmettled roads joining  
 military posts (not shown)

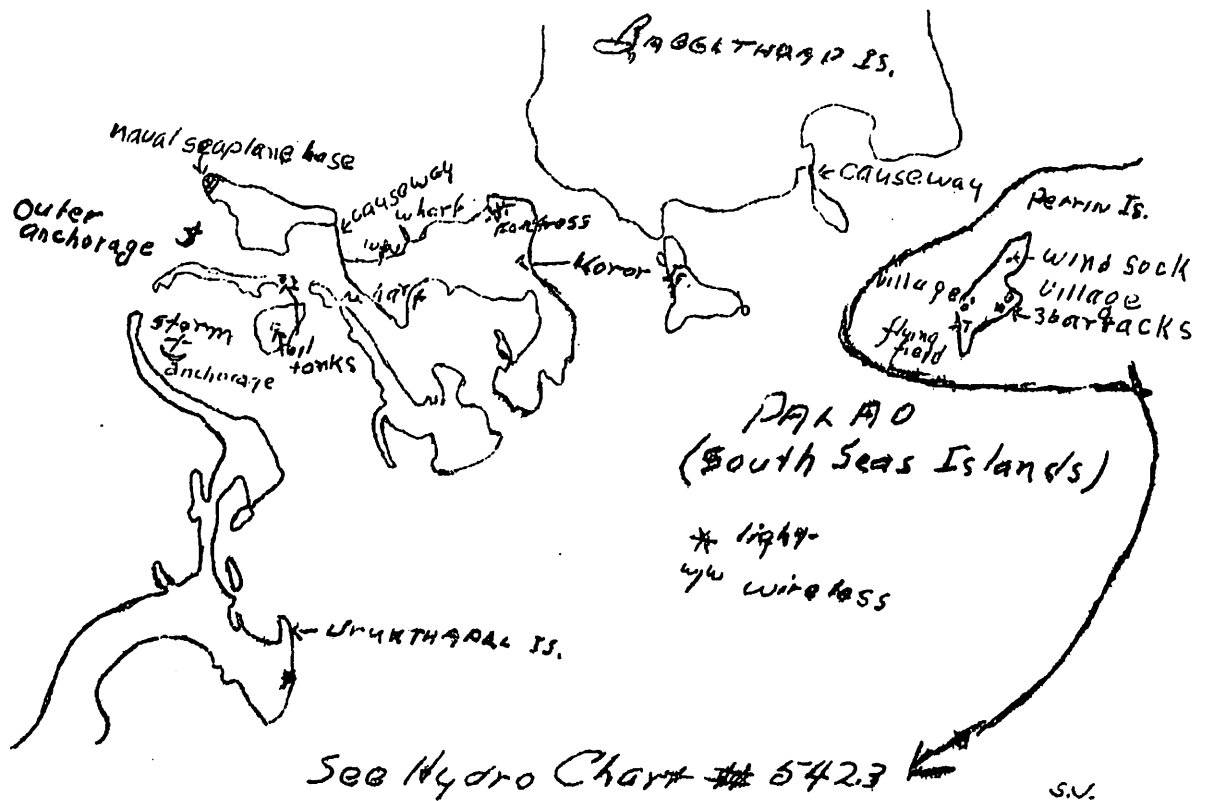
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 ↑  
 S

WEI CHOW  
 ISLAND

APPENDIX "E"







APPENDIX "H"

F.I.S. 56-40 (A), Page 16.

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

D. INDO-CHINA - HANOI AIR FIELD. (DATED 11/14/40).

The Military Attache, China, visited the airfield near Hanoi on August 5, 1940. This report describes the field which is now being used by the Japanese.

- - - - -

This airfield, about six kilometers west of Hanoi, was visited on August 5, 1940. At that time there were one pursuit and one observation squadron stationed there. The pursuit squadron consisted of eleven Morane No. 406. This plane is a small, low wing monoplane with retractable landing gear and flaps, powered with a 400 H.P. Hispano-Suiza motor. I was informed that the ship could make a speed of 500 kilometers at 5,000 feet and that it had an endurance of two hours and twenty minutes. Armament consisted of two wing 7.65 mm. machine guns and a center gun firing through the propeller hub. The center mounting can take either a third machine gun or a 23 mm. cannon. I saw no ships equipped with cannon and doubt that any are available.

The observation squadron is equipped with Potez No. 25 airplanes. This is an old type biplane resembling very much our Douglas observation planes now obsolete. It is slow and rugged and is armed with two 7.65 mm. machine guns. External bomb racks are mounted on the lower wings.

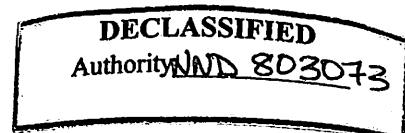
A number of other craft were also visible. Among them one modern twin-motored Potez light bomber which I was informed had the characteristics of the Morane 406, and one old Potez twin-motored bomber.

The field was about 2,500 feet wide and 4,000 feet long with gravel runways. I noted that all of the Morane pursuits had to have their elevator surfaces reinforced to protect them from the gravel blast.

All the pilots are Frenchmen, the ground crews Annamite supervised by Frenchmen. There is no aviation school in French Indo-China. It is reported that one will be started near Saigon in September

I was informed that there was another military field about thirty kilometers west of Haiphong at which a few bombers were stationed, but I was unable to verify this information.

E-N-D



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U.S. FLEET AIRCRAFT TACTICAL UNIT

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Mar. Brks, Parris Isl., S.C. (inc. 4th, 5th Defense Bns.)	4	541 - 544
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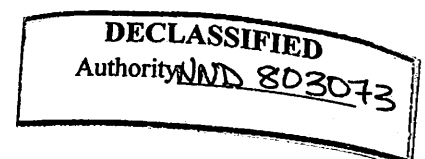
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C O N F I D E N T I A L

A. EFFECTS OF GERMAN AIR ATTACKS ON GREAT BRITAIN (DATED 11/4/40).

1. In order to present an accurate picture of the cumulative effects of German air attacks on the essential activities of Great Britain, the following resume has been made of the results of investigations during the week ending October 26.

2. Industrial war production: During the first two weeks of the present intense raids, that is, September 7-21, industrial production dropped about 30 percent. About one percent of this reduction was due to the damages to plants and structures. The remaining 29 percent was due to the hours lost by labor and the stoppage of machinery while workers took cover.

3. This figure has now been reduced by a system of roof spotters, by air-raid marshals, by the example of managing officials, and by the Government assuring workers that they will not forfeit insurance benefits by continuing at work.

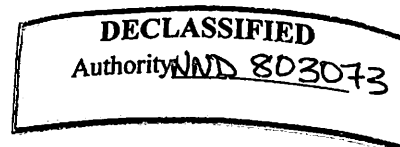
4. Outside of London it is estimated that at present the loss of production due to damage to plants is about one percent and due to taking cover and stoppage of machinery from three to four percent. It is believed that this last figure will never exceed five percent.

5. Due to the concentrated raids on concentrated targets the total reduction for London now is about 25 percent. More time is now lost through stoppage of plants due to unexploded bombs than due to actual damages and the time lost in shelters combined.

6. Labor engaged in war work: Labor as a whole continues to support war efforts in a magnificent manner. The few strikes that have occurred have been due on one hand to an occasional radical, self-seeking shop steward trying to take selfish advantage of the war situation and on the other hand to management making selfish and unwarranted demands on labor or failing to meet the additional shelter and safety requirements demanded by the situation.

7. Railroads: The delays in all classes of railway traffic to date due to damages to lines and bridges by bombs have averaged only about three hours a day. No terminal railroad station has yet been so damaged that some tracks could not be used. The most serious delay in these terminals has been caused by damaged to hand-operated remote control switch towers and crossover switches.

8. Electric signal systems and controls are highly vulnerable to bombing. They are damaged by blasts as well as by direct hits and are difficult to repair for emergency use.



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9. Time is lost by the reduction in speed of trains in raid areas to 15 miles an hour to avoid being wrecked by bomb craters on the lines, and by the reduction in intensity of light signals. Steam locomotives are preferable to electric. Air raid conditions require 10 percent more locomotives to move the same amount of traffic.

10. Utilities: Utilities are vulnerable in the following priority: water, gas, telephone, telegraph, electricity, highways.

11. Water: Water service is essential because of the complete dependence upon it of large urban population, because of the presence of large steam plant industries, and because of the large quantities required to extinguish fires. Pipe lines are easily ruptured by shocks and subterranean breaks are difficult to locate promptly.

12. Gas: Gas mains usually require a direct hit. When mains are broken there can be no cooking in the area served. Gas tanks are good targets.

13. Telephone and telegraph: In Britain the telephone and telegraph systems are centralized under Government control. German bombers seem to concentrate on telephone exchanges. A direct hit on any exchange building generally puts all switchboards out of action for varying lengths of time. Dial operated systems are particularly sensitive to blasts.

14. Considerable delay is caused by the Post Office rules requiring operators to take cover during raids. It is impossible to estimate the delay and damages so far incurred. The time required for telephone calls and telegraph transmissions is probably three times that of normal times.

15. Electricity: Electric utilities are less affected by bombing than any of the foregoing due to the excellent grid interchange system. This results in little interruption to electric power for industry. Direct hits break some wires and conduits, but no serious interference seems likely or possible.

16. Highways: The English road net is so complete that bombs striking any highway only means easy detours over equally good roads. The main damage is caused when the bombs break the water, gas or electric lines beneath the road. The movement of military forces and supplies by motor transport is not interrupted by bombing.

17. Bridges: Despite continued heavy bombing none of the London bridges has been destroyed. One or two bridges have been closed temporarily due to the presence of unexploded bombs, but traffic has always flowed freely across the Thames River.

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B. GERMAN EYE WITNESS COMMENTS ON RAIDS ON LONDON. (DATED 11/8/40)

The following report from an American official source is a digest of information obtained from three American press representatives who are considered entirely reliable. The digest, it was stated, is of a conversation which these American press representatives had with a German with whom they are very well acquainted and with whom they have been rather closely associated for a number of years. The newspapermen who furnished this information were very desirous that the identity of their informant be kept secret and for that reason they would not state the official status of the German, except to say that he has a high regard for the English, and has a touch of mixed loyalty. This conversation took place on Sept. 24, 1940, and the informant is described as having just arrived and being elated by his experience and anxious to talk.

"I have just returned to Berlin after a month of duty with various air units stationed in northern France. While with these units I participated in two flights over London acting as machine gunner in a bombardment airplane.

"This bombardment unit was stationed northwest of Paris and was engaged almost exclusively in night attacks. Our squadrons consist of seven bombers and they frequently landed back at a different airdrome than the one from which they departed.

"We had a conference at six p.m. each day. At this time the missions were assigned and instructions were given. We were always assigned military targets, but sometimes they were extremely difficult to locate. I have lived in London and am familiar with the city. I could see the river plainly and could locate some landmarks, but not very many. (Note: This man's air experience is limited, and the regular crew probably could do better.)

"Take-offs are always made on a split-second schedule, and our formations for bombers from many points in Belgium, France and Holland rendezvous with each other and with accompanying pursuit (when pursuit is used). Usually we would rendezvous about 25 minutes from the mouth of the Thames. All bombardment missions are very strictly coordinated on split-second timing from beginning to end. Route out, route back, altitude at various times, are all specified and closely timed. This increases the strain on personnel.

"We usually approached at an altitude of about 5,000 - 5,500 meters and then came down to approximately 3,500 meters for the attack; this descent was usually made quite steeply just before releasing our bombs. The balloon barrages are around 2,000 meters and it is not safe to attack below 3,000 meters. Rendezvous problems are not always entirely successful. That is the reason why German losses are so terrific as a week ago Sunday (Sept. 15).

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Bombers and pursuit failed to rendezvous and bombardment went in unaccompanied. (Note: It is believed this refers to a daylight attack.)

"In the attacks on London the most impressive thing is the amazing size of the city and one immediately has the impression of the colossal amount of aerial bombardment necessary to accomplish large-scale destruction.

"Antiaircraft artillery defense is terrific and the British searchlights are very good. We have encountered night pursuit on various occasions. On one night raid, I was manning a lower gun when word was received from the squadron commander that pursuit ships were about. I saw one pursuit ship for a split-second as a sort of a shadow he flashed a yellow searchlight.

"On return to our airdrome we made our report and were asked if we had been fired upon. We said: 'No.' An inspection of the ships was immediately ordered and one airplane was discovered which had a large number of machine gun bullet holes in one wing. The crew was unaware that they had been hit.

"Our airdromes are illuminated for 30 seconds at a time when we return to home fields. British pursuit frequently attack the airdromes at this time, using machine gun fire. Generals Goering and Kesselring were almost caught in this way at one time. They were both in a 'Gefechsstand' watching the landings, when a British fighter swept the area with bullets. Goering walked to the raid shelter, but he was taking very fast steps. Incidentally, it is true that Goering did make a flight over England as reported in the papers. I personally saw him enter the plane for this flight.

"One English fighter pilot has become quite famous among the Germans. They recognize him by the fact that he always appears to be smoking a cigarette, or holding something white in his mouth. He has made many attacks on places on the coast of the continent. German pilots talk of him on every occasion and have an unlimited respect for him. Some pilots have stated that if he is ever captured they would try to conceal him from the authorities as long as possible, in order that he would not have to enter a prison camp.

"The morale of the flying personnel is high, but they have a great respect for the English fighters. There is no personal hatred indicated; on the contrary, they consider the English honorable opponents, and flying personnel will take any risk to save the life of a British pilot when one is brought down on land or sea.

"The talk among pilots when they are gathered together at mess or recreation is almost exclusively confined to air combat tactics. English slang expressions are widely used in flyers' conversations.



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The expression 'OK' is one specific example.

"There is considerable difference in the quality of the living accommodations provided for the officer pilots and the enlisted pilots. In bombardment units there are many enlisted pilots and there is some dissatisfaction on this score. The enlisted pilots feel that they are taking the same risks as the officers and should have more nearly the same living accommodations. Food for all flying personnel, however, is plentiful and extraordinarily good. The bomber pilots are very tired and under a heavy nervous strain. There must be a shortage of qualified pilots because many of them are obviously in need of relief for at least a couple of weeks and there must be some good reason why they are over-worked. Sometimes they fly two missions in one night and four or five nights of duty per week is the rule. There seems to be no shortage of aircraft, but I think 'qualified pilots' is a bottleneck.

Question: "Do you believe Germany is now exerting her maximum sustained air effort?"

Answer: "Yes, I believe so. I think she could intensify her attacks for a day or so, but that she is now exerting her maximum sustained effort and I believe her effort is limited because of pilot shortage. All air combat personnel are working a good twelve hours daily. The six o'clock conference for orders and instructions often is 10 to 30 miles from the quarters and squadron airdrome. Also, when the missions return to alternate fields many times the personnel have to travel a considerable distance on the ground before reaching their quarters.

"Bomber fields are generally located farther from the coast than the fighter fields, and the British appear to be concentrating their attacks on the fields close to the coast. They are making many attacks there. Once we were between Dunkirk and Calais on the way to Ostend and were attacked. We got under the car for protection.

"While I was with the bomber unit, two of our airplanes failed to return from a mission. We waited quite a long time for them to come in, but they never did. I did not enjoy this experience. The bomber squadron I was with is making night attacks almost exclusively.

Question: "Why is that?"

Answer: "I do not know why, but that is the case."

Question: "Have you seen any 1,800 kilogram bombs?"

Answer: "No, but I have seen many 500 kilo bombs. My impression is that the job of reducing England, over even London, by air attack is far from complete."

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C. ALTITUDE OF BOMBING RAIDS. (DATED 11/4/40).

1. German aircraft now bombing London fly at altitudes of from 16,500 to 22,000 feet. Occasionally, bombs are dropped from as high as 35,000 feet.

2. The tendency of bombers is to go higher and higher. Current developments of A.A. guns and directors should anticipate altitudes up to 40,000 feet.

D. BRITISH AIR OPERATIONS IN MEDITERRANEAN. (DATED 11/8/40).

1. This is an extract from a report of a reliable observer in Italy.

The Italians report a British bomber landed on the Italian island of Lampedusa by mistake on September 27, 1940.

The British appear to have intensified their defenses at Malta and Haifa, where Italian bombers were met by strong pursuit formations.

In the case of Malta this again confirms previous reports that the British had brought replacement pursuit planes to Malta by convoy to replace and augment those pursuit planes previously destroyed in the air and on the ground. The British, due to the incessant bombing of Malta by the Italians have evidently decided not to replace their bomber squadrons at Malta as the few fields have been so pock-marked with bombs as to render them unfit for service for anything heavier than pursuit planes. There have been no reports of British bombers operating from Malta since the early part of July.

E. GREAT BRITAIN - SHIPS - CONNING STATIONS. (DATED 11/5/40).

1. Bridges on British men-of-war, whether open or closed, do not have either engine-room telegraphs or steering wheel. All steering is done either from Central or from a separate steering station which is below the bridge. This procedure is accepted by every British Captain, finding voice-tube communication entirely satisfactory.

2. Heavy ships use their separate steering stations only when going alongside or when entering port. During the past year and a half of his command in the Mediterranean Fleet, the C. O. of the GLORIOUS used only Central.

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3. There is a definite trend towards elimination of the heavily armored conning tower. The present protected steering station is considered adequate, particularly in new construction and in other than heavy ships.

4. H.M.S. KING GEORGE V and refitted QUEEN ELIZABETH each has a 3 inch armored steering station but no conning tower. KING GEORGE V has a covered bridge but most types have open bridges.

5. Opinion largely favors open-type bridges but there are some dissenters particularly with respect to large ships where quick maneuvering is not feasible.

6. British Captains, including R.F.V.R.'s in small ships, indicate that this simplification is advantageous not only in action but also in all other operations day and night.

F. GREAT BRITAIN - DAMAGE CONTROL, AIR-PORTS. (DATED 11/4/40).

1. Due to the amounts of damage to air-ports and air-port covers from fragments and blast of bomb near misses, the British are eliminating or blanking off airports generally below weather decks. Some ports on each side in the living spaces are left for use as emergency escapes. Similar escapes are being fitted inside destroyers.

2. The policy in this respect is not clearly defined but the lesson is quite clear that air-ports are a source of serious weakness and they cannot be expected to remain tight after a bomb-attack.

3. Air-ports should be eliminated where they constitute a hazard to the ship in case of flooding. As an example, in cruisers they should unquestionably be eliminated or permanently blanked off below the second deck and in the ends up to the main deck. On destroyers they are generally a menace, particularly in the after spaces.

G. SWEDEN - GENERAL NOTES. (DATED 10/3/40).

The ( \_\_\_\_\_ ) called this morning. He said:

(1) The material now being delivered to Sweden (planes, motors, torpedoes, etc.) is material for which contracts were signed in 1938 or 1939. Deliveries were held up when Italy went to war but now Italy has decided to complete the contracts, rather than return the money deposited when the contracts were signed.

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(2) When surprise was expressed that Italy would sell torpedoes at the present time he said that Sweden is getting only a small number, which can be replaced by a few days' production, and he thought Italy had a fairly good supply on hand (which is contrary to previous information received). Sweden is buying only torpedoes for submarines and destroyers - not the type to be dropped from planes.

(3) In connection with torpedo planes, he said that Italians had stated that they preferred to attack a ship first with bombs to destroy the upper works and then sink it with a torpedo, rather than to make the original attack with torpedoes. They have not been very successful with aerial torpedoes.

(4) He said that the Italian Fleet had not been active against the British fleet in the Mediterranean because Italy has no raw materials for replacements in case of losses and Italy will need her navy when the war is over to control her large Empire. Even a tactical victory would not be advantageous to Italy if the fleet suffered losses.

(5) He said that there has been no confirmation of the Press report that Italy would take over French ships now in Toulon. In any case he did not believe it could be done because the Italian Navy has not enough trained men. Italy has recently commissioned 4 battleships and there are no men left.

(6) When asked about Germany's attitude toward Sweden, he said that the Germans are very polite and have told Russia to hold off. Germany wants Swedish ores and also wants Sweden as a buffer state against Russia. He said that Sweden would fight if attacked.

(7) After the last war, he said, there was a movement afoot to form a Scandinavian defensive bloc, but Norway would not join it. Yet Norway remained entirely unprepared for her own defense. He said that had Norway been properly prepared it would not have been difficult to push the invaders into the sea. He said that in Norway, even the Reserves did not respond when called.

(8) When asked how the Swedes felt about the overrunning of Europe by Germany and Italy, he said that they had seen what has happened in Norway and Denmark and realized that Europe will be like if the Axis wins but there is nothing that Sweden can do about it.

(9) He said that Russia appears to have accepted the Axis-Japan Pact without indicating any resentment. Russia will try to get an opening to the sea through Persia rather than the Dardanelles so as not to be bottled up in the Mediterranean. He thinks that the United States will have to act now if Japan is to be prevented from expanding southward. He does not believe that Spain will enter the war at present.