PSF: Subject File

Carter, J. Franklin
Aug. - Sept. 1977

PSF: J. F. Carter folder 1-44

JOHN FRANKLIN CARTER
(Jay Franklin)
1210 NATIONAL PRESS BUILDING
WASHINGTON 4, D. C.

File Confidential

"We, the People"
"The Week in Washington"

Metropolitan 4112
Metropolitan 4113

~~SECRET~~

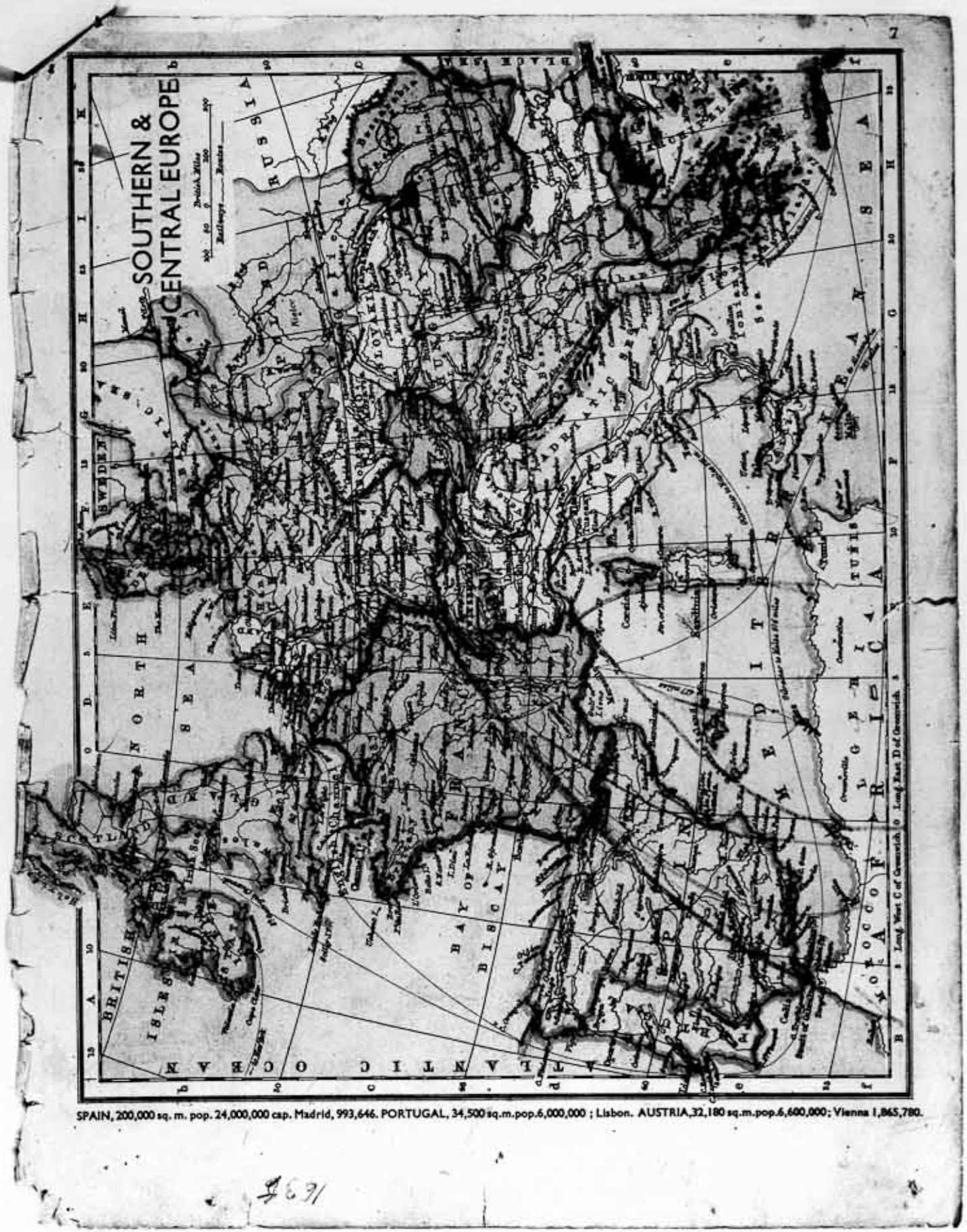
AUGUST 19, 1944.

REPORT ON RECENT TALK WITH PUTZI.

In a talk yesterday afternoon with Putzi, he pointed out that there was now strong evidence to show that the old Reichswehr Generals were on close terms with the Red Army leaders who, in turn, were largely German-trained during the pre-Hitler period of German "disarmament". The Stauffenberg plot he thought had Soviet support and General Von Paulus is now reported to have gone over to the Russians. He believed that Stalin would enjoy the friendly collaboration of the Reichswehr Generals in setting up a post-Hitler regime. In this connection, he asked me to bear in mind that from the start, in talks with me and specifically in a talk with Elmer Davis, he had urged that we utilize the Reichswehr as an agent in overthrowing Hitler.

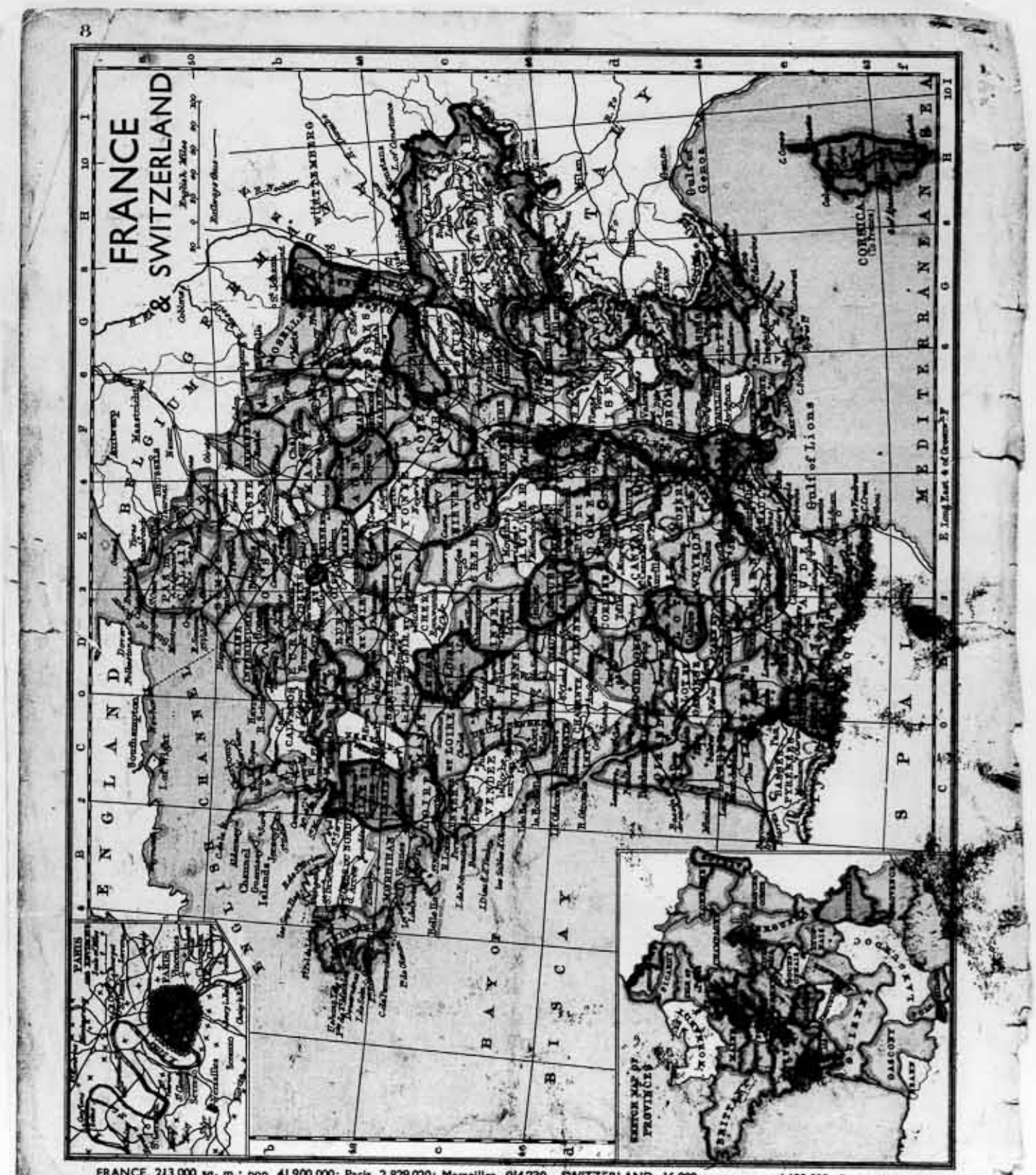
As of possible interest, I also enclose a map which Putzi marked in my presence a year ago, pointing out that Allied landings in the south of France should be between Toulon and ~~Cannes~~ Nice. The counter-arrow through Spain represented a possible German counter-thrust. I advised him to show this map to no one since his last flash of strategic insight--pointing to Casablanca as the point for our landing in Africa four months in advance of that landing--caused great uneasiness in G-2.

J.F.C.



SPAIN, 200,000 sq. m. pop. 24,000,000 cap. Madrid, 993,646. PORTUGAL, 34,500 sq.m.pop.6,000,000 ; Lisbon. AUSTRIA, 32,180 sq.m.pop.6,600,000; Vienna 1,865,780.

1691



FRANCE, 213,000 sq. m.; pop. 41,900,000; Paris, 2,829,020; Marseilles, 914,230. SWITZERLAND, 16,000 sq. m.; pop. 4,100,000; Berne, 111,783.

J. F. Carter folder
3-44

JOHN FRANKLIN CARTER
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August 23, 1944.

MEMORANDUM FOR MISS TULLY: REPORTS FROM BOWMAN-FIELD COMMITTEE ("M" PROJECT).

Dear Miss Tully:

Herewith please find Some* reports from the Bowman-Field Committee on Migration and Settlement ("M" Project) for the President's files.

J.F.C.

* No. L-1, L-3, L-4; A-1, A-10, A-11; T-52; R-66, R-68, R-69; M-128, M-130, M-131, M-132

T-345

THE WHITE HOUSE
WASHINGTON

August 24, 1944

MEMORANDUM FOR

GRACE

You might tell Jack Carter that this is a technical thing that he should take up directly with whomever General Marshall designates.

F. D. R.

(Report on Parachute-Release Equipment returned to J. F. Carter, 8/25/44.)

J. F. Carter folder 3-44

JOHN FRANKLIN CARTER
(Jay Franklin)
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WASHINGTON 4, D. C.

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"The Week in Washington"

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August 23, 1944.

MEMORANDUM FOR MISS TULLY: "T" PROJECT REPORT ON PARACHUTE-RELEASE EQUIPMENT.

Dear Miss Tully:

For help in handling, Dr. Field and I have agreed that in future, all reports on technical and related matters involved in the war-program, shall be classified as "T" Project Reports--"T" standing for "Technical".

Here is a complete and rather disturbing dossier on the delays in the matter of providing the Army and Navy aviators with and paratroopers with single-point release parachutes. The details are well-established and the question of responsibility seems also to be well-established. I do not know to which branch of the service this report should be distributed, in view of its findings, which are critical of Admiral Furer and also of the Army Air Force officers concerned. In this connection, Field and I both wish to emphasize that it is not our purpose to cause trouble for any officer or official and that it is our single desire to save the lives of valuable trained military and naval personnel both in training and in combat areas.

J.F.C.

THE WHITE HOUSE

WASHINGTON

August 26, 1944.

MEMORANDUM FOR

HON. JAMES F. BYRNES:

What do you think?

F.D.R.

T-347

PSF J.F. Carter folder 3-44

THE WHITE HOUSE

WASHINGTON

August 26, 1944.

MEMORANDUM FOR

HON. JAMES F. BYRNES:

What do you think?

F.D.R.

Memorandum, 8-25-44, from John Franklin Carter entitled, "Secret Report on suggested "Look-see" trip to Russia" - re A.M. Rochlen of Douglas Aircraft.

PSF: J.F. Carter file
3-44

THE WHITE HOUSE
WASHINGTON

August 28, 1944

GRACE:

Tell J. F. Carter I think he had better take up the matter with the British Embassy. I have no objection to his seeing his ex-wife.

F.D.R.

JOHN FRANKLIN CARTER
(Jay Franklin)
1210 NATIONAL PRESS BUILDING
WASHINGTON 4, D. C.

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~~SECRET~~

August 16, 1944.

REPORT ON PUTZI.

It is now a month since the British Embassy was told that we were holding Putzi at their disposition. No word has come to me or to the Army officials directly concerned with his security as to their intentions in the matter.

Do you wish me to take this matter up with them again or simply wait on the course of events? I mention this merely because the Army Counter-Intelligence decided to advise the personnel assigned for Puzti's custody that the project has been liquidated, while wisely refraining from giving him that information. In the circumstances, it would be remarkable if he did not guess that something untoward was impending.

Also, he has requested permission to see his ex-wife soon, in order to discuss matters involving their son Egon, now in our Army. This request has been provisionally refused by the Army and I should like your permission to take it up with them. His former wife knows that he is in this country and the interview could take place, if authorized, under circumstances which would preserve full secrecy and security.

J. F. C.

Show to JFC the
next time he comes
in

Alone

J. F. Carter folder 3-44

1699C

SAVE

THE JOINT CHIEFS OF STAFF
WASHINGTON 25, D. C.

28 August 1944

SECRET

MEMORANDUM FOR THE PRESIDENT:

Reference is made to the attached memoranda prepared by Messrs. Donald B. Keyes and John F. Carter on the advisability of establishing special industrial intelligence under O.S.S., and forwarded by you on 21 August 1944.

The writers of these memoranda are probably unaware of the fact that, under a directive from the Combined Chiefs of Staff, a Combined Intelligence Objectives Subcommittee is now being established in London, attached to the Supreme Headquarters, Allied Expeditionary Force. The American membership of this combined subcommittee is composed of representatives of the State Department, Military Intelligence, Office of Naval Intelligence, Air Intelligence, Foreign Economic Administration, Office of Strategic Services, and the Office of Scientific Research and Development.

The basic directive for the Combined Intelligence Objectives Subcommittee provides that among the functions assigned to the subcommittee shall be "to receive, approve, and coordinate all requests of British and U. S. governmental departments for intelligence of military or political significance which will become available as Allied forces advance in the area of the authority of the Supreme Commander, Allied Expeditionary Force (SCAEF) exclusive of the combat intelligence which SCAEF would normally seek, of normal technical information to be obtained through existing provisions for the examination of captured equipment, personnel, and documents, and of the intelligence requirements of the British Secret and Security Services, and O.S.S. (SI)."

A proposal is now before the Joint Chiefs of Staff which recommends the establishment near the Control

SECRET

Council for Germany, of a tripartite body, analogous to the Combined Intelligence Objectives Subcommittee now established near SHAEF. The functions of this tripartite body would include coordination of the intelligence requirements of the respective governments, after the Control Council takes over authority from Supreme Headquarters, Allied Expeditionary Force and the Russian armed forces in Germany.

The procurement of information regarding industrial processes, laboratory techniques, and trade secrets involves only to a slight extent clandestine operations, such as is suggested in the memoranda forwarded by you. What is presumably to be required is access to the files of German companies, to laboratory working papers, and to technical personnel. Access to such material will be controlled during the period of SCAEF by the Combined Intelligence Objectives Subcommittee and presumably during the period of the Allied Control Council by its analogous tripartite body.

It is suggested that the Office of Production Research and Development, War Production Board, draw up a plan for intelligence procurement and present this plan to the State Department for transmission to the Combined Intelligence Objectives Subcommittee for approval. Such approval would permit the organization of a working party of technically trained personnel to procure the information desired.

For the Joint Chiefs of Staff:

William D. Leahy

WILLIAM D. LEAHY,
Admiral, U.S. Navy,
Chief of Staff to the
Commander in Chief of the Army and Navy.

Encls.

THE WHITE HOUSE
WASHINGTON

B 85518

August 21, 1944.

MEMORANDUM FOR

ADMIRAL LEAHY:

What do you think?

F.D.R.

AUG 23 44

JOHN FRANKLIN CARTER
(Jay Franklin)
1210 NATIONAL PRESS BUILDING
WASHINGTON 4, D. C.

B 85521

"We, the People"
"The Week in Washington"
[redacted]

Metropolitan 4112
Metropolitan 4113

August 17, 1944.

REPORT ON PROPOSAL TO ESTABLISH SPECIAL INDUSTRIAL INTELLIGENCE UNDER O.S.S.

I think you will be interested in the attached memo. from Donald Keyes, Director of the WPB Office of Production Research and Development. Keyes tells me that both the Soviet and British authorities have thorough and effective organizations to take over industrial secrets in Axis countries, and that they do not appear likely to share their take with the American authorities. Even if they should do so, we would strengthen our position for an exchange of such secrets if we laid hands on some of them ourselves.

The specific suggestion is that the Office of Strategic Services, which already is doing much the same thing with respect to purely military weapons and equipment, shall receive an enlarged directive from the Joint Chiefs of Staff to embrace industrial intelligence operations. Keyes is anxious to assist in suggesting competent personnel. *This would supplement the special enquiries already under way by O.S. R & D.*

His thought was that a small group of about ten should be sent immediately to reoccupied France to make a brief survey in order to report back promptly on organization and operating methods. On the basis of this report a much larger group should be sent to reoccupied France to use it as a training ground for the industrial intelligence units involved in such a program. His thought was that, when the German Armistice comes, we should be prepared to send four or five hundred competent industrial intelligence men into Germany and Axis Europe, to lay their hands on everything they can find, for the benefit of American industry and in order to put ourselves in an economic bargaining position with the Soviet Union and the United Kingdom.

This Unit is anxious to cooperate with this proposal in every way.

J.F.C.

WAR PRODUCTION BOARD
WASHINGTON, D. C.
25

B 85519

OFFICE OF PRODUCTION
RESEARCH AND DEVELOPMENT

August 16, 1944

IN REPLY REFER TO:

Room 4132
New Municipal Building

Mr. J. F. Carter
National Press Building
Washington, D. C.

Dear Mr. Carter:

The O.P.R.D. of W.P.B. has been interested for some time in the question of how to obtain information regarding industrial operations and new products developed during the war period in European countries, especially in the Axis Powers.

We are told at the present there are several military missions to reoccupied countries collecting such information but involving only specific projects concerned with implements of warfare. It is our idea that this collection of technical information should be extended to include all scientific and engineering data that would be of vital importance, both to the industries and to the people of this country.

Our tentative proposal would be to set up immediately in the Office of Strategic Services, with the approval of the Joint Chiefs of Staff, an organization for this over-all purpose.

The O.P.R.D. with its hundreds of consultants, including the most prominent technical men in the country, is willing and anxious not only to aid in the setting up of such an organization but principally in recommending technical experts who would be satisfactory members of such a group and who would be able not only to collect but to evaluate the desirable data.

This office also feels it is highly desirable not only to obtain and evaluate this information, but to set up means for its most effective distribution in this country. Again this office has consultants who are thoroughly familiar with this matter and should be of real aid.

The urgency in the whole undertaking is apparent, in that setting up the proposed mechanics immediately would enable us to have an efficiently functioning organization by the time of the German armistice which would permit coverage of German developments immediately thereafter. If the proposed operation is authorized, this office would recommend the immediate dispatch of a small group of qualified personnel to

reoccupied France with orders to report back promptly on organization and operating methods. On this basis a larger operation could be established in a minimum of time prepared to expand to the degree required by successive industrial intelligence missions in Axis Europe and Japan.

Very truly yours,

Donald B. Keyes

Donald B. Keyes
Director

T-337 . . . .

J. F. Carter folder
3-44

THE WHITE HOUSE
WASHINGTON

August 21, 1944.

MEMORANDUM FOR

ADMIRAL LEAHY:

What do you think?

F.D.R.

Secret report on proposal to establish special industrial intelligence under O.S.S. submitted by J.F. Carter, 8-17-44, with attachd letter to Mr. Carter, 8-16 from Dir. Donald B. Keyes, Dir., WPB re same.

(3405)

BF J.F. Carter folder 3-44

THE WHITE HOUSE

WASHINGTON

August 29, 1944.

MEMORANDUM

FOR DR. McINTIRE:

Will you look this over?

F.D.R.

Memorandum for Miss Tully from John Franklin Carter, 120 National Press Building, Washington 4, D. C., 8/21/44, enclosing two reports "High Altitude Emergency Oxygen Equipment", and "Engine Destruction by Gas or Smoke" both of these papers being marked "Secret".

THE WHITE HOUSE

WASHINGTON

August 28, 1944.

MEMORANDUM FOR GRACE:

To tell J. Franklin Carter to talk to Ross McIntire about this.

F.D.R.

J.F. Carter folder
3.44

JOHN FRANKLIN CARTER
(Jay Franklin)
1210 NATIONAL PRESS BUILDING
WASHINGTON 4, D. C.

Bill Leahy

"We, the People"
"The Week in Washington"

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Metropolitan 4113

August 30, 1944.

MEMORANDUM FOR MISS TULLY: "T" PROJECT REPORTS.

Dear Miss Tully:

Herewith enclosed please find two "T" Project Reports:

1) Report on delay in O.S.R.D. development of medium-weight incendiary bombs;

2) Report on desirability of utilizing D.D.T. for fumigation of merchant vessels as either a substitute or an aid to regular quarantine fumigation and public health formalities. It is pointed out that, in distinction from cyanide, D.D.T. is entirely safe for use by merchant vessel officers and crew and might offset the growing risks of infection from foreign personnel or material due to the rush of war-shipping operations.

J.F.C.

Technical Series Report # 2

August 30, 1944

MEDIUM WEIGHT INCENDIARY BOMB

[redacted]

Technical Series Report # 2

August 30, 1944

MEDIUM WEIGHT INCENDIARY BOMB

It is reported that development work, long under way on a 40 pound incendiary bomb has practically reached a standstill.

This project, carried on under the auspices of the National Defense Research Committee of the Office of Scientific Research and Development, was initiated to provide the Services with a medium weight incendiary bomb. However, it is stated that, although the greatest need exists to bring the development work to a successful conclusion in order that procurement may be started, no effective steps in this direction are being taken by N.D.R.C.

It is further reported that the situation as above outlined is paralleled by other similar projects. The responsible officers of O.S.R.D. and N.D.R.C. are said to exercise the loosest type of control over Research Projects initiated by them. In this connection, it is stated that, at the present time, development work contracted for with commercial companies has been sharply checked due to deflection of energies to Post-War Problems.

It is stated that the need for medium weight incendiary bombs is particularly acute inasmuch as the choice is now quite generally limited to the 2 to 3 pound cluster thermite pencil type,

SECRET

which are incapable of burning through substantial roof structures and the 2500 pound explosive incendiary.

The need for such an effective incendiary bomb of medium weight in the Pacific Theatre is obvious. Such an incendiary bomb, dropped in large numbers over Japanese Ports and Cities, has, it is stated, the widest possible use and effect.

It is recommended that steps be taken to complete the developmental tests in order that procurement for use may be promptly initiated.

Washington Post August 30,1944.

Postwar Plan

Army, Navy To Continue Research

Joint Army-Navy plans to set up a permanent postwar military research agency are being whipped into final shape for public announcement in the near future, it was learned yesterday.

A committee of admirals, generals and nationally known scientific figures has been meeting with Charles E. Wilson, who just resigned as executive vice chairman of the War Production Board since last June.

Wilson will preside over another meeting of the committee tomorrow and then will leave town to return to the presidency of the General Electric Corp.

The proposal for such an agency was made initially by Wilson in an address to the Army Ordnance Association last January.

Then, he said: "Really good managers, in Government or business, would never have allowed their own businesses to operate as haphazardly and spasmodically as has the business of defending the United States against its enemies."

The proposed postwar research institute would make use of the research facilities of colleges and universities and industrial laboratory facilities, it was indicated. It would carry on the work being performed for the war's duration by the Office of Scientific Research and Development.

Wilson had stressed that existing facilities should be used and that the research work of civilian and military groups should be brought together at one level.

As presently conceived, the research agency would be supplied with sufficient funds to build experimental models and conduct research on a wide scale.

Thus such developments as the rocket bomb would be studied along with plans to counteract it.

All work would be coordinated with strategic plans of the services.

Technical Series Report # 3

August 30, 1944

MERCHANT VESSEL FUMIGATION

[redacted]

Technical Series Report # 3

August 30, 1944

MERCHANT VESSEL FUMIGATION

It is reported that the fumigation of merchant vessels in the U.S. and foreign ports is becoming extremely haphazard and sporadic.

Medical officers of responsible and established steamship companies are of the opinion that the present staff of the Marine Division of the Public Health Service is inadequate and that medical officers of War Shipping Administration are not at all effective in taking some of the wartime load in matters of vessel fumigation and sanitation.

It is stated that the volume of shipping to and from congested and potentially infected ports with probability of contamination from enemy prisoners or materiel points the need for effective and coordinated action to utilize Public Health Personnel, War Shipping Administration Agents and Army Medical Personnel to effectively prevent contamination of U.S. or foreign vessels and the consequent spread of disease.

It is reported that the widespread application of D.D.T. powder to vessel sanitation is most desirable. The simplicity of use and non-toxic qualities of this effective

agent are reported to make it extremely effective and safe (otherwise vessel fumigation must await evacuation of ship and use of deadly cyanide gas) in the hands of merchant officers and crews.

The best information does not indicate, however, that the War Shipping Administration has established high priority with supplies to insure adequate issuance of sufficient quantities of D.D.T. powder to U.S. merchant vessels as well as War Shipping Administration Agents in foreign ports.

[redacted]

PSF J F Carter file
S-44

JOHN FRANKLIN CARTER
(Jay Franklin)
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~~SECRET~~ ← file.

August 31, 1944.

REPORT ON BRITISH INQUIRIES CONCERNING THE "NEXT WAR"

Last night, at my house, General Davidson, British Intelligence, Joint Chiefs of Staff, asked me a couple of times how absolute British-American solidarity could be maintained against the "next war". He also referred to Russia as the opponent in the "next war". I suggested that the best insurance against this possibility would be for this country to maintain diplomatic detachment, not commit itself to support of British policy in detail, and serve on occasion as an honest broker between Russia and Great Britain. I also suggested that, so far as they had any freedom of action, the British should trust this country and refrain from any action which might plausibly increase the potentiel of isolationism in the United States. General Davidson was not, in my judgment, being either indiscreet or engaging in a "try-on" but was honestly concerned over the role which this country would play in an anticipated future conflict between the British Empire and the Soviet Union.

J.F.C.

T-362

PSF J. F. Carter folder 3-44

THE WHITE HOUSE
WASHINGTON

September 8, 1944.

MEMORANDUM FOR
ADMIRAL WILSON BROWN:

TO DO THE NECESSARY.

F.D.R.

Memo for Miss Tully, 7-30-44 from John Franklin Carter, attaching a series of special reports obtained through quick investigation in New England.

T-365

J. F. Carter folder
3-44

THE WHITE HOUSE
WASHINGTON

September 9, 1944.

MEMORANDUM FOR

J. FRANKLIN CARTER:

In regard to your reports on "Rocket-type projectiles" and "Means for Disturbing Remote Control", it is suggested that you take these up with the Chief of Ordnance.

Grace G. Tully
Private Secretary

THE WHITE HOUSE
WASHINGTON

September 8, 1944.

GRACE:

Tell J. F. Carter to talk to the Chief of Ordnance about these two.

F.D.R.

JOHN FRANKLIN CARTER
(Jay Franklin)
1210 NATIONAL PRESS BUILDING
WASHINGTON 4, D. C.

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July 29, 1944.

REPORT ON ROCKET-TYPE PROJECTILES.

The attached "Preliminary Plan for Coordination of Development of Rocket and Jet-Propelled Devices" represents the views of various well-qualified technicians in this field, most of whom are already associated with government projects. It is suggested that the Chief of Ordnance might wish to consult with or utilize these men, especially in view of the fact that "non-jammable" radio is available through them as a means of guiding projectiles to the target. In that event, contact should be made through Dr. Henry Field, in the O.S.S., who will be in charge of Washington operations of this unit from August 1 to August 15, inclusive.

It is respectfully suggested that for the immediate present, intensive development of rocket-type projectiles should aim, not only at surpassing the present German weapon but at devising counter-measures to the use of these weapons. In March, 1942, OSRD declined to interest itself in a rocket-projectile startlingly similar to the German device on the ground that no tactical use for such a weapon was open to the Allies. My thought is that development of the weapon would facilitate tactical defense against it.

J.F.C.

July 28, 1944

PRELIMINARY PLAN
for
COORDINATION OF DEVELOPMENT OF ROCKET AND JET-PROPELLED DEVICES

The launching of automatically controlled missiles proves that a new and practical jet-propelled weapon has been developed by the Germans.

This is a crude but effective example of one of the things that can be done by jet propulsion. It is to be anticipated that foreseeable improvement in the efficiency of propulsion and development of non-jammable radio control would permit the making of a missile, much heavier and of much greater speed, which could be directed to a specific target.

Previous to the use of such missiles by Germany, development in this country was not encouraged because of supposed "tactical" consideration. It was believed that there were no targets where we would like to use inaccurate unguided missiles.

It was further believed that practical methods of radio guiding would not likely be found. And above all, comparison was made with what could be achieved by use of bomber aircraft without difficult development. It was decided in vacuo that even if guided missiles were developed their use would be more costly than the use of bomber aircraft.

SECRET

If missiles are made which can attain such speeds as to baffle defense and if they are guided to the target, then an entirely new weapon is in hand. Bomber aircraft could not be compared with such a weapon.

It is believed that the development of this weapon is possible in this country.

Use of jet-propulsion is not limited to propelling missiles. Jet-propelled, super-speed, man- or radar-controlled aircraft can be developed. Indeed, against the missiles mentioned above such man-controlled or radar-controlled aircraft must be developed.

The above is only a brief account of two out of many fields for the use of jet-propulsion.

A concerted, planned development effort is needed in this country. At present much talent for development exists and work actually is being carried on at various places. However, aside from work on the thermo air jet being done by General Electric and Westinghouse a Central Office is needed.

Proposal

Establishment of a Central Office for Coördination of Rocket and Jet-Propelled Devices to:

I. (a) Compile all data from the Armed Forces and Industry.

(b) Concentrate mathematical development of supersonic flow past solid bodies.

(c) Recommend awarding of contracts and expenditure of funds.

(d) Build a large supersonic wind tunnel.

(e) Organize research on athodyd and various aeropulse devices.

II. Staff

Director
Engineer
Physicist
Mathematician
Chemist
2 Clerks
4 Clerk-stenographers

III. Liaison with all existing Government Agencies interested in these problems.

JOHN FRANKLIN CARTER
(Jay Franklin)
1210 NATIONAL PRESS BUILDING
WASHINGTON 4, D. C.

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July 30, 1944.

REPORT ON MEANS FOR DISTURBING REMOTE CONTROL.

The attached secret report may be of interest to the Ordnance officials concerned with the development of long-range rocket-type projectiles and of counter-measures against this type of weapon.

It is submitted because it seems probable that the Germans will attempt to develop radio control of these projectiles, which is technically feasible. Henry Field, in my temporary absence, will be in a position to put any interested officer of the armed forces in touch with the personnel competent to advise in this extremely technical field of electronics.

As a matter of pertinent interest, one of the best-qualified men in this field was retained by the Navy, which is not using him but which has put him on oath to reveal nothing to any officer of the United States Army. Whatever the justification for this precaution when originally adopted, it would seem wise to establish a unit under the Joint Chiefs of Staff to work unitedly on this project and pool information and personnel rather than perpetuate the traditional jealousies and suspicions in the vital realm of military technology.

J.F.C.

MEANS FOR DISTURBING REMOTE CONTROL

It is very unlikely that the Germans use remote control by wireless without protecting it against our interference.

The four most practical methods of such protection are, in our opinion, the following:

1. Control by low-frequency currents impressed on the high frequency carrier in the form of amplitude modulations.

This method has been experimentally studied and tested out in several countries. It consists in modulating the high frequency carrier emitted by the controlling sender, with a certain number of low frequency currents having different frequencies. Each of these currents is destined to control a determined element of the engine submitted to the wireless remote control. In the reception set of the engine the high frequency carrier wave is detected in the usual ("linear") way whereby the above mentioned low-frequency currents are faithfully reproduced. Each of them is then separated from the others either with the help of an oscillating electric circuit tuned to its frequency, or by another filtering arrangement and, after having thus been selected, is conveyed to the relay or element it is destined to control.

In order to disturb the performance of the enemy controlled engine, we must impress on an interfering wave we have to emit, the same low-frequency currents, as carried by the enemy wave. The defense against interference which the enemy would use in this case would be to impress on the high-frequency carrier emitted by the controlling sender a great number of additional low-frequency currents in order to hide the acting currents; these additional currents are all rejected at the reception and by the tuned circuits or filtering devices, but their presence in the controlling wave is intended to prevent us from detecting the low-frequency currents which we are to employ in order to disturb the functioning of the controlled engine.

2. <u>Control by low-frequency currents impressed on the high-frequency carrier in the form of frequency modulations</u>.

An ordinary radio receiver cannot intercept frequency modulations. Therefore, a remote control wave carrying frequency modulations cannot be detected unless we use a special receiver adapted for F.M. (i.e., comprising a so-called "discriminator"). The other conditions are exactly the same as in Paragraph 1.

3. Frequency varied transmissions

A long time before the present war it had been proposed (as early as in 1909) to effect remote control by varying synchronously the tuning of the transmitting and receiving circuits. If this method is employed a disturbing effect can be obtained only in the case where the frequency of the disturbing wave is varied in a similar way. In other words, we must detect and reproduce the rhythm of frequency variations, employed by the enemy which is a rather difficult task.

The new (purely electrical) methods of frequency variation are much simpler and easier than the old (mechanical) ones, and it is likely that this system of protection may be used at present by the Germans.

4. Remote control by transient state (electric shocks)

It is possible to effect remote control with the help of particular signals having the form of so-called "transient states," for instance with the help of strongly damped, extremely short wave-trains having variable (modulated) energy levels.

At the reception end, special feed-back arrangements can be used (such as described in Dr. Gabrilovitch's

U.S.A. patent specification, Serial Number 503,821) which stop any "steady state" whatsoever, i.e., any continuous wave or plurality of such waves, but let pass any "transient state" such as an electric shock.

If the Germans are using this principle for protection of remote control, the problem of interference becomes extremely difficult. The following information might, however, be of assistance in solving the problem, if the principle is used by the Germans and, in case they have not yet arrived at the solution.

Dr. Gabrilovitch has constructed in Paris, in his personal laboratory (12, rue Galilee), several sets based on this principle and designed to stop any steady state but to let pass any transient state. They were designed to separate static and signals in radio reception for static elimination purposes.

One of these sets has been seized by the Germans after the occupation of Paris, together with some equipment of the above mentioned laboratory, at 12, rue Galilee, and with a certain number of blueprints concerning these sets.

It is not impossible that a study of the seized set might have suggested to enemy technicians the idea of using this arrangement for remote control purposes.

Another one of these sets was brought over to England by Dr. Gabrilovitch, in March, 1940, and handed over to Mr. Terroni, director of the Research Laboratory of the Automatic Telephone and Electric Company Ltd. (Norfolk House, Norfolk Street, London). This set is now probably either in London or in the Automatic Telephone Laboratory in Liverpool. The study of this set might be of use to Government Research Departments.

Methods of Interference

Only careful direct observation made with the help of oscillographs, wave-analysers and discriminators can permit to identify with certainty the type of remote control employed by the enemy. However, the following interference device could be tested out, and will probably give satisfactory results if the protection used by the enemy is effected according to the assumptions indicated in Paragraph 1, 2, or 3. This device could hardly interfere in the case outlined in Paragraph 4--but the eventuality of the Germans applying this system seems very remote.

The basic idea of the proposed method consists in the production of an extremely broad and dense frequency spectrum which undergoes a steady but very slow frequency variation. The width of the employed spectrum depends

on the frequency range which the enemy is using for his remote control. For very short waves (e.g. below 7 meters) this width can attain several megacycles, as in television. The above mentioned "disturbing spectrum" is produced by conveying one or several continuous or relaxation oscillations having very low frequencies through a saturation device, in the form of an appropriately biased tube; the output of the latter is conveyed to a levelling amplifier wherein the amplitudes of the outcoming plurality of harmonics are equalized; the frequency band produced in such manner is then impressed on a high-frequency carrier whose frequency is made to vary in accordance with a predetermined very low rhythm. (Vide attached drawing.)

Description of the Disturbing Device

The relaxation oscillator (1) generates a relaxation oscillation whose fundamental frequency equals 10 cycles per second. This relaxation oscillation is conveyed through the levelling amplifier (2) whose action consists in bringing to approximately the same level the fundamental and the ten first harmonics of the oscillation referred to above. The output of the amplifier (2) will thus be practically constituted of ten oscillations having all

approximately the same amplitude and respectively the following frequencies: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100.

This plurality is fed to the saturation device (3) transforming each incoming sinusoidal oscillation in a "square wave," that is to say, in a very rich sequence of odd harmonics of the mentioned sine-wave. The amplitudes of these harmonics will be inversely proportionate to their ranks, so that e.g. the amplitude of the 301st harmonic will be equal to $\frac{1}{301}$ of that of the fundamental.

The output of the saturation device (3) is fed to another levelling amplifier (4) which approximately equalizes the amplitudes of all harmonics up to the 301st. The frequency spectrum constituting the output of 4, will have a width of approximately 30,000 cycles per second, extending from 10 cycles per second to about 31,000 cycles per second. The density of this spectrum will vary with the frequency range; however, the maximum distance between two neighboring frequencies will not exceed 200 cycles per second (at the extreme upper end of the spectrum).

Anyone familiar with radio technique will readily realize that the width and the density of the described frequency spectrum can be increased in considerable

proportions by using very simple and handy devices, whose size and weight are comparatively small.

The output of Amplifier 4 is conveyed either to Modulator 5-a or to Modulator 5-c wherein this output is impressed on a high-frequency carrier generated by a special oscillator (6), arranged in such a way that the frequency of the generated wave is made to vary in accordance with the shape of the variable voltage provided by an auxiliary generator (7).

Modulator 5-a is designed to provide amplitude modulations, while Modulator 5-c is adapted for frequency modulation. It is very easy to establish whether the enemy is using for his remote control A.M. or F.M. In accordance with the observed facts either 5-a or 5-c is to be employed.

The swing of the frequency variations of the high-frequency carrier should be rather small (e.g. not greater than 250-300 cycles) and it is advisable to effect these variations in accordance with a very slow rhythm (e.g. not exceeding 5-10 periods per second).

If the enemy effects his remote control in accordance with our assumptions of Paragraph 1 or 2 (i.e., with the help of A.M. or F.M. modulations selected at the reception and, after linear detection, by tuned circuits

or appropriate filters), the slowly moving wide and dense spectrum, as described above, will necessarily produce interferences and thus disturb the performance of the controlled engines, whatever may be the frequencies of the employed controlling currents. However, the "movement" of the disturbing spectrum must be very slow, since the enemy may use some element (such as relays and the like) whose functioning is characterized by more or less appreciable time lags (before the last war, i.e., before 1914, the use of such time lags had even been proposed as a method for protecting remote control against interference).

As to the regularity and reliability of the disturbing effect, it is easy to see that after the described disturbing wave is demodulated, it will produce in the receiving circuit a very great number of alternating currents whose frequency range will be such that, whatever the controlling currents used by the enemy, there will necessarily appear in their closest neighborhood a disturbing current produced by the demodulation of the disturbing spectrum.

If the enemy relies for the protection of his remote control on a system in accordance with our assumption of Paragraph 3 (i.e., by varying the frequency of the controlling spectrum) two possibilities are to be considered:

A. The "leaps" of frequency are very great, e.g.

exceeding one megacycle.

Such frequency variations cannot be produced by the usual methods such as employed in F.M. The "leaps" referred to above can be obtained only and exclusively with the help of switching arrangements, which arrangements may be of purely mechanical, electro-mechanical or even electronic nature. If the leaps exceed several megacycles, two or more generators must be used and the switching will have to be synchronously effected in all the transmitting and receiving stages and will, therefore, become so complicated and require so bulky and heavy installations, that it is very unlikely that such devices could be used on air-torpedoes, rockets and the like.

As regards frequency varied controlling waves whose swings are not exceeding 1-2 megacycles, they can be disturbed by using interference spectra having the width of television bands. Such spectra can be created in accordance with what has been explained above.

A sufficiently effective interference can be obtained even by using much narrower spectra so that only a part of the controlling frequencies is disturbed.

B. The swing is comparatively small. In this case a comparatively narrow disturbing spectrum is to be used.

-T-266

PSF J. F. Carter folder 3-44

THE WHITE HOUSE

WASHINGTON

September 9, 1944.

MEMORANDUM FOR

J. FRANKLIN CARTER:

In regard to your eight reports of August 17th, it is suggested that you take them up with Admiral Brown.

Grace G. Tully
Private Secretary

THE WHITE HOUSE
WASHINGTON

September 8, 1944.

MEMO FOR GRACE:

Tell J. F. Carter to talk to Admiral Brown about this.

F.D.R.

JOHN FRANKLIN CARTER
(Jay Franklin)
1210 NATIONAL PRESS BUILDING
WASHINGTON 4, D. C.

"We, the People"
"The Week in Washington"

Metropolitan 4112
Metropolitan 4113

August 17, 1944.

MEMORANDUM FOR MISS TULLY: VARIOUS REPORTS.

Dear Miss Tully:

Herewith find a number of reports on various technical subjects for possible reference to the interested war-agencies:

1) Report on development of a practical device for locating plane crashes over water. This is a dye-marker which is visible from five miles, the development of which has hitherto been impeded by the Coast Guard.

2) Report on the desirability of supplying pharmacist personnel to help train RAF on administering plasma to rescued pilots, said to be chiefly American pilots.

3) Report on new German mine which blows off the stern of ships, resulting in loss of personnel in the No. 5 Hold.

4) Report on the development of a satisfactory type of signalling mirror for sea-air rescue work.

5) Report on Congressional investigation of the life-raft situation, which is developing into a drive against Admiral Land.

6) Report on development of a new-type aerial delivery container for dropping supplies without use of parachutes.

7) Report on failure of Coast Guard to develop lightweight life-saving and exposure suits.

8) Report on slow progress of new type radio equipment being manufactured under Navy contract.

J.F.C.

August 5, 1944

REPORT ON LOCATION OF PLANE CRASHES AT SEA

The difficulties encountered in conducting overwater search by aircraft for survivors of plane crashes at sea are well known.

The futile search conducted after the recent loss of the C-54 Transport Plane with 18 stretcher patients on board accents the need for a method of temporarily marking the spot where a plane crashes. (Exhibit A)

About a year ago a recommendation was made by the Emergency Rescue Equipment Section (then operating jointly with OSS under Joint Chiefs of Staff Memorandum No. 58) that a suitable DYE MARKER be developed immediately and attached to military and commercial planes engaged in overwater flights. A workable device containing about two pounds of fluorescein dye (identical with dye utilized by Army and Navy Air Forces in the "Life Jacket Dye Marker") and automatically detached on making a crash landing was developed by the Section.

Tests which were conducted indicated that the dye spot thus produced would be visible under normal conditions for a period of about 16-18 hours and at a distance of at least 5 miles at altitudes from 5,000 to 10,000 feet.

The prompt follow-through to procurement and issue of this simple equipment would have enabled search planes

to operate at comparatively high altitudes making "sweeps" at least 10 miles wide until the crash scene is located by means of the highly visible dye spot.

In this way the period between the initial location of the actual crash scene and the following low level search for survivors is immeasurably shortened.

While the recommendation resulted in a project being set up under the N.D.R.C. to test and develop DYES, etc., no prompt action to secure the final development and adoption of a DYE MARKER utilizing available dye has been taken.

Further, since August 30, 1943 (when the Emergency Rescue Section was, in effect, placed under the Commandant, U.S. Coast Guard) the policy adopted by Captain Louis B. Olson, U.S.C.G., Officer-in-charge, resulted in no effective action being taken despite the obvious and urgent necessity of such a simple device.

Known now as the Air-Sea Rescue Agency (ASRA), sole action on such devices apparently consists in Committee or Sub-Committee consideration.

Until such a dye marker is utilized on planes making overwater flights valuable initial hours are lost in making low level searches over hundreds of square miles of ocean.

RECOMMENDATION

Action should be taken to provide suitable temporary markers immediately and to procure suitable permanent dye markers for standard issue.

EXHIBIT A

WASHINGTON POST, JULY 31, 1944

Fliers, Ships Continue Search For Missing Hospital Plane

More than 150 planes of the Air Transport Command and the Royal Canadian Air Force, together with surface craft of the Navy, Coast Guard and other services, last night continued their search for the C-54 Army transport plane, which has been missing since last Wednesday.

The hospital plane with 26 persons aboard, carried 18 patients, mostly war casualties, and was on its way from Scotland to Mitchel Field, New York.

Four members of the transport's crew were from Alexandria and the fifth from Arlington. TWA men, they flew the four-engined plane under contract to the War Department.

The pilot, Capt. Robert W. Funkhouser, lives at 800 North Wayne st., Arlington; First Officer Howard R. Latimer, the co-pilot, at 521 Bashford Lane, Alexandria; Rayburn Darst, Flight Engineer lives at Wellington Villa, Alexandria; Harold E. Holman, the navigator, is from 1614 Preston rd., Alexandria, and Radio Operator Harry Barr, Cumberland flyer, at Beverly Park Gardens, Alexandria.

August 17, 1944

RAF AIR-SEA RESCUE

It is reported that Royal Air Force Air-Sea Rescue groups are rescuing more American airmen from the sea than British. Conferences with American medical authorities indicate that they desire RAF Rescue people to administer plasma to survivors on rescue boats or immediately upon arrival at shore bases.

The RAF, on the other hand, reports that it has no suitably trained personnel to competently administer plasma and is hesitant to undertake responsibility with untrained men.

It would seem to be most desirable that some American pharmacists be assigned to work with the RAF Rescue groups in the European Theater to raise the level of medical care provided for American airmen, as well as for British air crews.

August 17, 1944

MINE THREAT TO AMERICAN MERCHANT VESSELS

It is reported that at least five American merchant vessels engaged in shuttle service after the Normandy Landing had their sterns blown off due to some new type of German mine or device which floats up from the bottom and invariably entangles itself around the rudder and the propellor before going off.

After the first two incidents Army authorities were warned not to put troops in the No. 5 (the "after hatch") Hold. However, it is reported that this warning was ignored and nearly 1,000 men lost their lives due to this type of damage.

August 17, 1944

SIGNALING MIRROR

A new type signaling mirror with superior sighting device has been devised by the Bureau of Standards, and steps have been taken to expedite development of suitable samples.

August 17, 1944

LIFE RAFTS

The life raft situation between the Coast Guard and the Maritime Commission is having the attention of a House Committee on Merchant Marine and Fisheries. Senator Aiken, Admiral Land's arch enemy, is also in the picture.

Admiral Waesche was called into an informal hearing with a group of members of the M.M. and F. Committee and when questioned as regards the inconsistent and faulty performance of the Coast Guard in raft approval, etc., he finally broke down and told them that he and the Coast Guard were at fault but that they were trying to help out Admiral Land.

The best information indicates that all groups, including Aiken, are making a drive to place Land on the griddle for the whole affair.

August 17, 1944

AERIAL DELIVERY CONTAINER

A free-fall aerial delivery container capable of delivering a maximum of 50 pounds safely on the ground from nominal air speeds of from 120 to 140 miles per hour at altitudes above 600 feet has been successfully tested at Wright Field.

A recent test conducted last Saturday (August 12) under R and D, OSS was a total failure due to overloading the containers and excessive air speed as well as complete lack of attention to type of package to be delivered, as well as packing.

August 17, 1944

LIFESAVING SUITS

There has been no amendment to the Coast Guard Regulation requiring heavy lifesaving suits on Merchant Vessels, nor has there been any production of lightweight exposure suits for Merchant Seamen.

August 17, 1944

RADIO EQUIPMENT

New type radio equipment under development by the Federal Telephone and Radio Company has been brought to the attention of Communications, OSS, who are proceeding to Newark, New Jersey, to interview engineers.

It is stated that a Navy Development Contract for this equipment is moving exceedingly slow and since OSS apparently has need for this device it may be that production will be expedited.

(3482) Carbon of this memorandum, approved by the President, returned to the Secretary of State 9/18/44.

J. F. Carter fonder 9-44

ADDRESS OFFICIAL COMMUNICATIONS TO
THE SECRETARY OF STATE
WASHINGTON, D. C.

"CH
OK
FDR"

DEPARTMENT OF STATE
WASHINGTON

September 14, 1944.

MEMORANDUM FOR THE PRESIDENT

I seriously question the advisability of sending Mr. Rochlen to the Soviet Union for a "look-see" trip. The situation in the Soviet Union is so different from that in England that no comparison is possible. Our experience has been that sending a person to the Soviet Union ostensibly for one purpose but in reality for another is highly undesirable. The Soviets soon realize that he is not there for the purpose announced, and they become doubly suspicious. Therefore, unless Mr. Rochlen has a definite and important purpose in connection with the war effort for going to the Soviet Union, I believe that his visit would be unwise.

CH

FOR VICTORY BUY UNITED STATES DEFENSE BONDS AND STAMPS

J. F. Carter folder
3-44

THE WHITE HOUSE
WASHINGTON

September 7, 1944.

MEMORANDUM FOR
THE SECRETARY OF STATE:

What do you think?

"F.D.R." F.D.R.

Secret memorandum from John Franklin Carter, 8/25/44, in re L. D. Lyman's "look-see" trip to England, and suggesting that A. M. Rochlen, of Douglas Aircraft, go to Russia, in order to check on performance, maintenance and other aspects of Douglas Aircraft supplied to Russia under Lend-Lease.

OFFICE OF WAR MOBILIZATION
WASHINGTON, D. C.

JAMES F. BYRNES
DIRECTOR

August 28, 1944

MEMORANDUM FOR THE PRESIDENT:

As to Jay Franklin's memorandum attached, I do not know Rochlen and, therefore, hesitate to express an opinion. I can see no objection to Douglas Aircraft, or anyone else, sending a representative to Russia to check on Lend-Lease transactions. If, however, the man is led to believe that he represents you, or to make some study for you, I think it would be important to tell Hull about it in order to avoid trouble with the State Department. That is particularly true when we do not know much about the individual.

J. F. B.

J. F. Carter [illegible]
9-44

THE WHITE HOUSE
WASHINGTON

File Personal

September 22, 1944.

MEMORANDUM FOR

JOHN FRANKLIN CARTER

In regard to Technical Report No. 4 ("I" Project), it is suggested that you take this up with the Coast Guard or the Navy.

Grace G. Tully
PRIVATE SECRETARY

JOHN FRANKLIN CARTER
(Jay Franklin)
1210 NATIONAL PRESS BUILDING
WASHINGTON 4, D. C.

"We, the People"
"The Week in Washington"

Metropolitan 4112
Metropolitan 4113

September 20, 1944.

MEMORANDUM FOR MISS TULLY: TECHNICAL REPORT NO. 4 ("T" Project)

Dear Miss Tully:

The attached report on the Coast Guard "tests" of light-weight exposure suits suggests that there was considerable skill and enterprise directed towards insuring the "failure" of the tests. No officers, it is reported, left the bridge of the vessel during the tests. It is also reported that the Petty Officer in direct charge opened the neck closures of the suits, before the men went overboard, paving the way for the report that the suits "leaked". It may be that this is too small a detail to concern the high command, although lives are at stake, but I feel justified in passing on the allegations as reported to me from sources familiar with the conditions of the tests.

J.F.C.

Technical Series Report No. 4
September 19, 1944

EXPOSURE SUIT TEST--U.S. COAST GUARD

It is reported that the test conducted off New London, Connecticut, on June 10, 1944, by the Air-Sea Rescue Agency, U.S. Coast Guard, on so-called "Life-saving Suits" and exposure suits, as well as on several other devices, lacked direction and sincerity.

A copy of the tentative Agenda of the Test Program is attached. Not only did the personnel include manufacturer's representatives of all "Heavy Lifesaving Suits" (which were fully reported on previously as dangerous), but all concerned knew that the test had been ordered by the "White House."

No direction was given to the test procedure. The attitude of the Senior Coast Guard Officer (Captain Louis B. Olson, U.S.C.G.) was reported to be complete and utter indifference. In fact, it is stated that almost all the Officers on board were, by example and inferred orders, kept <u>on the bridge</u> during the test.

No proper instruction was given to the subjects and the Petty Officer in charge of the men is stated to have "framed" the test by opening up the neck closures (<u>See</u> Memorandum Report of test attached)[1] on the lightweight suits before subjects went overboard.

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1. This is the only written Report made available to U.S. Maritime Commission and War Shipping Administration.

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Information indicates that no conference was held with the Test Committee prior to the test in order to discuss procedure, nor was any subsequent meeting held to discuss conclusions and recommendations.

It is stated that the duration of the test and the smooth condition of the sea did not demonstrate the dangerous characteristics of the heavy suits during immersion.

It is reported that no change has been made in the Coast Guard regulations requiring the use of heavy suits on merchant vessels.

Further, it is reported that about 20,000 additional, heavy (13 pound--3 pounds in feet) suits have been ordered by the U.S. Maritime Commission and are being manufactured by U.S. Rubber Company although the procurement is diversified under four different trade names, i.e., Vaco, Goodall, Watertight Slide Fastener (Morner), and U.S. Rubber.

C O P Y C O P Y

EVALUATION OF PRIMARY LIFE SAVING EQUIPMENT

TEST ASSIGNMENT

ABOARD USCGC MANASQUAN 10 JUNE 1944

COMMITTEE #5 AIR-SEA RESCUE
PERSONNEL ATTENDING TESTS:

U.S. NAVY

Captain M.R. Tawes, USNR, War Shipping Administration
Captain L.L. Adamkiewicz, USN, BuMed & Surg., Washington, D. C.
Lt. Comdr. J.L. Caillouet, Jr., USNR, BuShips, Washington, D. C.
Lt. (jg) R.J. Willingham, USN, BuAeronautics, Washington, D. C.

U.S. ARMY

Major J.W. Phillips, U.S. Army, Air-Sea Rescue Agency, Washington
Captain V.J. Monke, U.S. Army, Wright Field

U.S. COAST GUARD

Captain L.B. Olson, USCG
Comdr. R.H. Smyth, USCGR, CG Headquarters, Washington, D. C.
Lieut. B.H. Harris, USCG
Lieut. W.G. Davis, USCG

U.S. MARITIME SERVICE

Lt. Comdr. K.H. Irmscher, USMS, Fort Trumbull, New London, Conn.

U.S. PUBLIC HEALTH SERVICE

D.C. Cameron, Surg., USPHS, USCG Academy, New London, Conn.

CIVILIAN REPRESENTATIVES

J.T. Funkhouser, U.S. Maritime Commission, Washington, D. C.
Allan Osbourne, U.S. Maritime Commission, Washington, D. C.
R.C. Hughes, Navy Yard, Philadelphia, Pa.
R.F. Thornley, Navy Yard, Philadelphia, Pa.
P.E. King, Army Transportation Corps, Arlington, Va.
L.H. Newburgh, NRC, NNMC, Washington, D. C.
Edward Marshall, Goodall Rubber Co., Philadelphia, Pa.
N.R. Keeling, B.F. Goodrich Co., Washington, D. C.
E.D. Wells, B.F. Goodrich Co., New York, N. Y.
W.J. Gruner, U.S. Rubber Co., Naugatuck, Conn.
M.J. Messer, U.S. Rubber Co., Naugatuck, Conn.
Harry Holding, Vaco Co., New York, N. Y.
H.G. Morner, Watertight Slide Fastener Corp., New York, N. Y.

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COPY

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Subj: Test Procedure 10 June, 1944

1. 0800 departure Coast Guard Wharf, New London, Connecticut
2. Arrival Test Station
3. Naval Equipment:
   Item 1. Buoyant Apparatus (Float) Reynolds Metal Co., 25 person
   Item 2. Buoyant Apparatus (Float) Air Marine Research Co., 25 person
   Item 3. Floater net, Navy standard, 25 person
   Item 4. Life preservers, Navy standard, kapok
   Item 5. Life preservers, Navy tentative design

   Note: Test of equipment under jurisdiction of Lt. Commander Caillouet, USNR

4. Coast Guard Equipment:
   Item 1. Life saving suits, standard, Goodrich Mfg. Co.
   Item 2. Life saving suits, U.S. Rubber Company
   Item 3. Life saving suits, Goodall Mfg. Company
   Item 4. Life preservers, Coast Guard Standard M.M.-10,24 Oz.
   Item 5. Life preserver, Navy Standard, 27 Oz.
   Item 6. Parachute rescue harness
   Item 7. Lightweight exposure suits, Goodrich Mfg. Co.
   Item 8. Lightweight aviation suit

   Note: Test of equipment under jurisdiction of Committee #5 (Naval Life Saving Equipment Air-Sea Rescue)

5. Twenty-five Coast Guard personnel for test assignments. Instruction for assignments by Lts. Harris and Davis with respect to Coast Guard equipment and items 1 and 2 of paragraph 3 (Naval equipment).

6. Instructions to personnel assigned to Floater net evaluation and life preserver by Lt. Commander Caillouet.m (Items 3, 4, and 5, paragraph 3, Naval equipment).

7. Coast Guard photographer for such duties as assigned.

The object of the tests outlined is to determine the efficacy of equipment in actual use under conditions simulating service in the open sea.

Emphasis will be placed on tests which can be effected only at sea, in order to use to the best advantage, the limited time available.

The most important tests planned will be in connection with the use of various protective suits by men under conditions simulating as nearly as possible those encountered in the open sea. It is intended that these tests be extended over a considerable period. Conditions permitting.

The protective suits to be used are as follows:

(a) Approved type Coast Guard (heavy suit)
(b) Medium and lightweight types under development for various services including lightweight aviation type.

The tests outlined will be conducted under the jurisdiction of Committee #5 (Primary Life Saving Equipment Air-Sea Rescue) which

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committee will formulate all appropriate reports in connection therewith.

Comments and suggestions in writing may be sent to the committee.

Committee - #5 (Primary Life Saving Equipment)

Address - U.S. Coast Guard Headquarters, Washington, D. C.
Air-Sea Rescue Section

Members - Commander Smyth - USCGR
Lt. Commander Caillouet - USNR
Major Fenwick - USA

COPY COPY

June 14, 1944

MEMORANDUM FOR BOARD FOR AIR-SEA RESCUE

Results of tests on June 10 of lightweight exposure suits:

A. All exposure suits leaked.

B. Lightweight exposure suits leaked more than standard Coast Guard suit now provided.

C. Time required to don lightweight suits exceeds time required for standard types.

D. Closing device on lightweight suits more complex than standard type.

Signed: Commander R.A. Smyth, U.S. Coast Guard

Lieutenant Commander J.L. Caillouet
U.S.N.R., Bureau of Ships

Major P.P. Fenwick, U.S. Army
Water Transportation Corps

~~SECRET~~

T-378.

PSF: J. F. Carter folder 3-44

THE WHITE HOUSE
WASHINGTON

September 22, 1944.

MEMORANDUM FOR

J. FRANKLIN CARTER:

In view of the fact that the Army is now responsible and has Putzi in charge, we should go along with the Army's wishes.

F.D.R.

JOHN FRANKLIN CARTER
(Jay Franklin)
1210 NATIONAL PRESS BUILDING
WASHINGTON 4, D. C.

"We, the People"
"The Week in Washington"

Metropolitan 4112
Metropolitan 4113

[redacted]

September 11, 1944.

MEMORANDUM FOR MISS TULLY: VISIT OF PUTZI'S EX-WIFE TO "SEDGWICK".

Dear Miss Tully:

Following the President's instructions, I took up with the British Embassy the question of whether Putzi was to be allowed to see his ex-wife. They consulted the Foreign Office and advised me that the British authorities had no objection. I communicated that information to the Counter Intelligence Service of the Army, and today am in receipt of the enclosed communication, in which the Army takes the position that Putzi should be held incommunicado pending his transfer, notwithstanding the attitude of the British authorities and the President's having said that he had no objection to the proposed visit.

Since I do not wish to appear to argue with the Army on this point, I would appreciate your instructions as to whether I should accept the Army's decision or whether to insist on giving effect to the visit which is acceptable in principle to the President and to the British authorities.

J.F.C.

[redacted]

WAR DEPARTMENT
OFFICE OF THE CHIEF OF STAFF
WASHINGTON 25, D. C.

September 9, 1944

Mr. John Franklin Carter
1210 National Press Building
Washington 4, D. C.

Dear Mr. Carter:

The Military District of Washington has brought to this office your letter of September 8 addressed to Captain Neumann concerning Sedgwick's seeing his wife. The statement to the effect that you have agreed with Mr. King of the British Embassy that "the U.S. Army and Counter-Intelligence would be responsible for secrecy and security" has been noted.

Our Intelligence people feel that the proposition of Sedgwick's seeing his wife is inadvisable and impracticable from the standpoint of security. The Army in assuming responsibility for Mr. Sedgwick also assumed that it would have the authority to control completely Mr. Sedgwick's activities, subject only to interrogation for intelligence purposes. Since Sedgwick's wife's visit appears to have no connection with an intelligence project, our people strenuously object to the visit.

Furthermore, it is the Army's understanding that at the present time Mr. Sedgwick is being held awaiting agreement with the British as to his return to British authorities and that the United States Government is in no way interested in continuing the intelligence project. Since this is the case, our G-2 people feel that Mr. Sedgwick should be held incommunicado insofar as possible, just as any other enemy alien would be.

Of course, our thoughts are subject to the desires of the President, and if word is received from the White House that the visit is desired by the President, immediate action will be taken to make the necessary arrangements.

Sincerely yours,

B. W. Davenport

B. W. DAVENPORT
Lt. Colonel, G. S. C.
Asst. Secretary, General Staff

[redacted]

PSF: J. F. Carter file 3-44

JOHN FRANKLIN CARTER
(Jay Franklin)
1210 NATIONAL PRESS BUILDING
WASHINGTON 4, D. C.

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"The Week in Washington"

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September 25, 1944.

REPORT ON LIQUIDATION OF THE HANFSTAENGL PROJECT.

On my return today from a short trip to New York, I was advised by Lt. Colonel B.W.Davenport, Asst. Secretary, General Staff, that in my absence and without the requested notification to me, the Army had flown Putzi over to England and had turned him over to the British at 10:30 A.M. on September 24.

Lt. Colonel Davenport also advised me that the Army had got tired of waiting for the British to make up their mind about Putzi and so had told the British that we would fly him over. I do not know whether the Army had received any orders along these lines, since to the best of my knowledge the only indication they had was an informal notification from me that we had advised the British that we were holding Putzi at the disposition of the British authorities.

This report is submitted on the supposition that you may wish to be advised of the Armyôs action in this case. My own opinion on the subject is that, unless appropriate orders were issued, it was officious in the ~~extreme~~ extreme for the Army to take this matter into their hands and above all to take this action without notifying me or my assistants of the contemplated action. My judgment and that of my colleagues remains as stated in my memorandum of last July.

J.F.C.

~~SECRET~~

WAR DEPARTMENT
OFFICE OF THE CHIEF OF STAFF
WASHINGTON 25, D. C.

September 25, 1944

Mr. John Franklin Carter
1210 National Press Building
Washington 4, D. C.

Dear Mr. Carter:

As you know, we have been working for several months on the proposition of returning Mr. Sedgwick to the British. Complications arose which delayed the completion of the project, but this morning I received a radio message from England saying that Mr. Sedgwick was turned over to the British at 10:30 A.M., September 24. I thought you would want this information for the completion of your files.

Sincerely yours,

B. W. Davenport

B. W. DAVENPORT
Lt. Colonel, G. S. C.
Asst. Secretary, General Staff

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J. F. Carter folder
5-44

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WAR DEPARTMENT
OFFICE OF THE CHIEF OF STAFF
WASHINGTON 25, D. C.

September 25, 1944

MEMORANDUM FOR MISS TULLY:

You will remember that on July 12 Mr. John Franklin Carter wrote you suggesting that the Army discontinue the Putzi Hanfstaengl project.

We went to work on this matter immediately but have been delayed because of our inability to obtain British agreement to return Putzi to British jurisdiction. Finally, as a last resort, we asked the British if we could deliver Putzi by air to the United Kingdom and obtained their consent. This morning I have received a radio from England advising me that Putzi Hanfstaengl was turned over to the British at 10:30 on September 24.

B. W. DAVENPORT
Lt. Colonel, G. S. C.
Asst. Secretary, General Staff

~~SECRET~~

PSF J. F. Carter [illegible] 3-44

JOHN FRANKLIN CARTER
(Jay Franklin)
1210 NATIONAL PRESS BUILDING
WASHINGTON 4, D. C.

"We, the People"
"The Week in Washington"

Metropolitan 4112
Metropolitan 4113

Grace — To find out what this should be referred

September 26, 1944.

MEMORANDUM FOR MISS TULLY: THREE TECHNICAL REPORTS ("T" PROJECT)

Dear Miss Tully:

Herewith attached, please "T" Project Reports Nos. 5, 6 and 7.

5) A report on a special type of clothing material known as "Byrd Cloth", which gives protection against insect bites, on which there seems to be unwarranted delay in procurement. This type would be particularly useful to troops in tropical service.

5) A report on Electrolytic Time Delay, a non-mechanical device for use in setting off delayed firing, smoke and other devices, which would seem to re uire special attention at Edgwwood Arsenal, priorities, etc.

6) A report on failure to supply General Stilwell with Brodie Aircraft Landing System, as requested, in the CBI area. This report is accompanied by an O.S.S. restricted pamphlet, outlining the nature of this equipment. Accordingly, I respectfully ask that this Unit be protected against possible criticism for having a copy of this pamphlet in its possession. Not that we really care about criticism, but because such criticism might be made an excuse for not considering the substantial problems involved in General Stilwell's requdst for this equipment.

J.F.C.

Technical Series No. 5
September 26, 1944

USE OF BRODIE AIRCRAFT
LANDING SYSTEM IN CHINA-BURMA-INDIA THEATRE

It is reported that for approximately six months General Stilwell has been requesting the immediate shipment by the most rapid dispatch of at least one complete Brodie System for handling the landing and takeoff of light planes in areas of difficult and rough terrain.

It is stated that these requests are routed to the Office of Strategic Services, who have had the responsibility for the development and production of the Brodie gear and equipment. (This gear consists essentially of two collapsible masts with a suspended cableway. Erected in the field, a system of pulleys and brakes running on the suspended cable enables light scouting planes to land and take off.)

It is further reported that at the present time the Office of Strategic Services has under its jurisdiction approximately eight systems and that the delay in shipping one or two outfits to General Stilwell has hinged around a continuing discussion as to method of dropping the equipment by parachute, packaging, etc. It is reported that efforts to have one or two systems dispatched immediately are unavailing and that the routine procedures

necessary to prepare the equipment for parachute dropping is likely to take another four to six months.

It is recommended that immediate action be taken to dispatch one or two complete outfits of the Brodie System to General Stilwell in order that his request, now long overdue, may be filled.

ELECTROLYTIC TIME DELAY ELEMENT

The increasing number of uses for time delay devices has focused attention upon the need for the development and production of a simple, lightweight, temperature-immune delay element.

Recent experiments initiated at Edgewood Arsenal (Maryland) have resulted in the production of a prototype device about the size of a single flashlight cell which depends for its action on the electrolytic plating away of a copper holding-down wire. Breaking of the wire releases a contact spring which closes the circuit. Accurate to within four minutes over a period of six hours, the device is stated to be eminently suitable for many uses, such as setting off smoke pots to mark bombardment areas in enemy territory, delayed action for lights, set guns and like devices.

It is reported that responsible personnel at Edgewood Arsenal are desirous of pressing forward through the pilot-model stage to a most immediate procurement program. Further development is continuing under the direction of Private Wharton (who designed the device) under Major Clay at Edgewood.

All other types of time delay devices depend upon their functioning for clockwork or other complicated arrangements. They are, furthermore, not available in the quantities desirable nor are they sufficiently light and simple in operation.

It is recommended that immediate steps be taken to give this device sufficient high-level priority to assure prompt final development and production for use by the Services.

Technical Series No. 6

September 26, 1944

MATERIAL FOR TROPICAL UNIFORMS

It is reported that in tests conducted in Panama and other tropical areas over six months ago, finely woven lightweight material known as "Byrd Cloth" proved far superior in preventing mosquito bite.

Responsible Officers report that it is from thirty to forty times better than ordinary khaki drill or twill now generally in use and issued to U.S. troops as summer uniform equipment in all theatres.

It is further reported that tests have shown beyond any doubt that personnel under jungle conditions wearing pants and shirt of Byrd cloth and supplied with proper head net and ankle protectors can sleep in the open with comparative immunity from mosquito bite.

The comprehensive tests conducted by the Mobile Forces Unit in Panama, together with statistical analysis, have been completely ignored by Army Service Forces and Army Ground Forces despite the immediate adoption of this cloth for uniforms in all tropical theatres by the British and Australians.

It is reported that opposition to the changeover from the present weave of drill or twill is based on the alleged displacement of "the civilian shirt industries."

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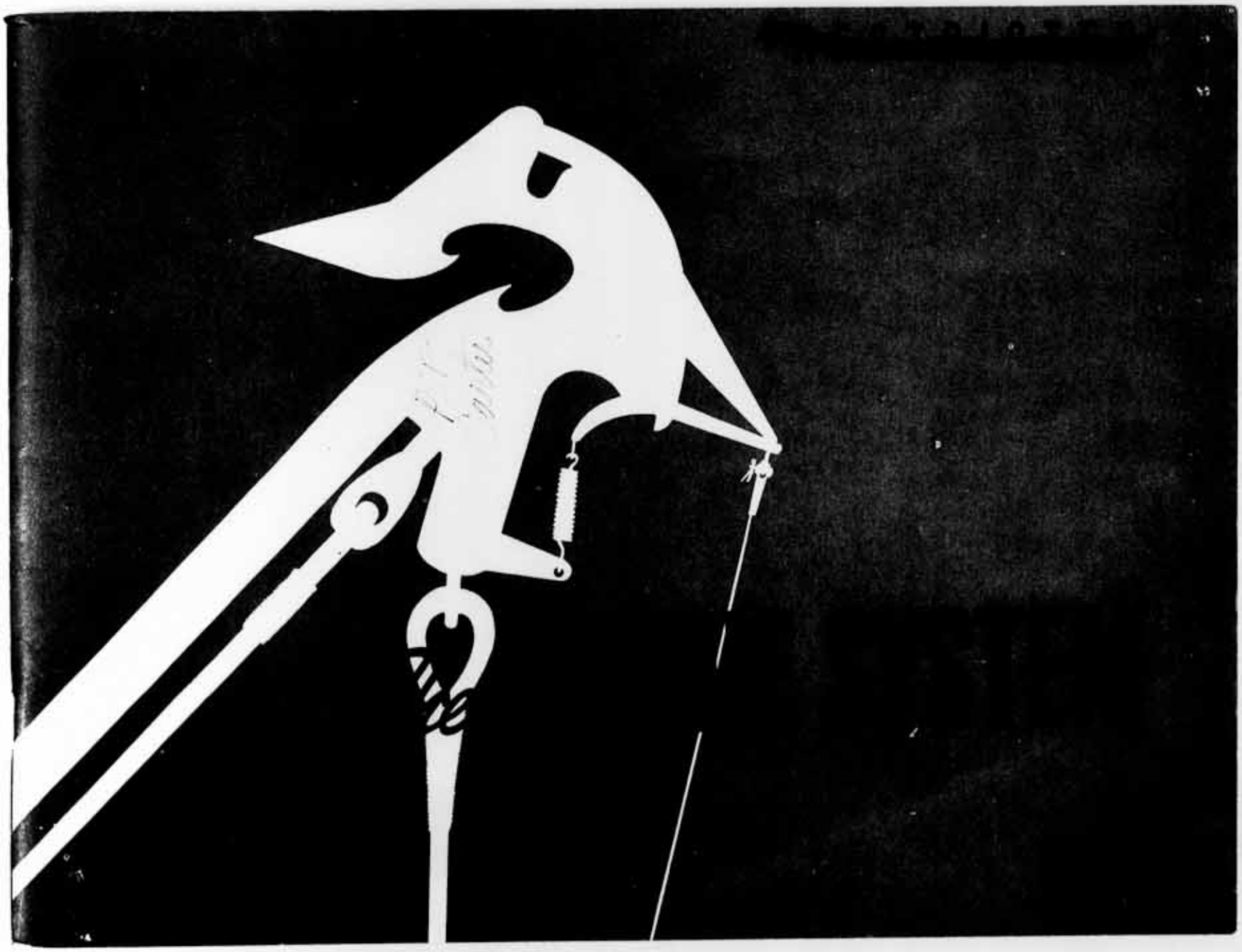


Prepared by

PRESENTATION BRANCH
OFFICE OF STRATEGIC SERVICES

Washington, D.C

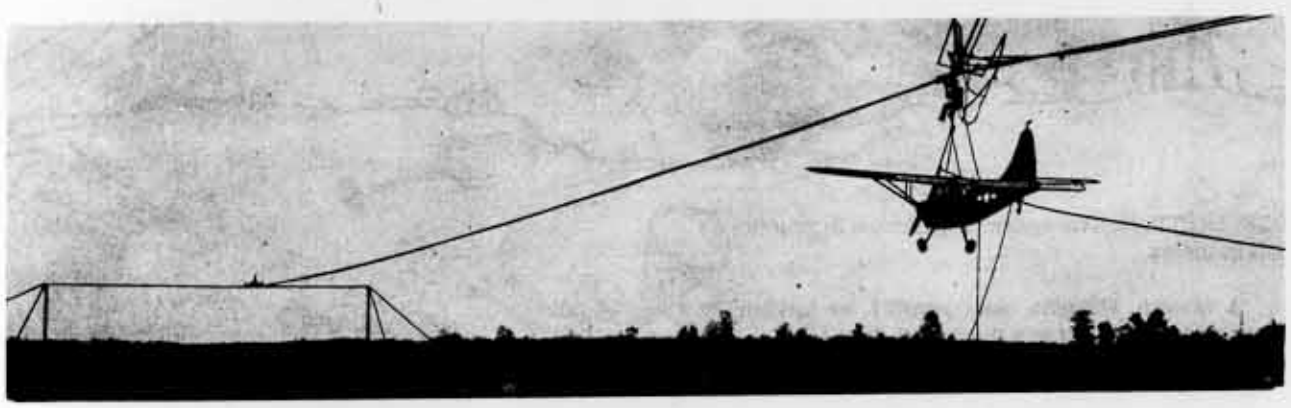
July 1944

LITHOGRAPHED IN THE REPRODUCTION BRANCH, OSS

INSTRUCTION MANUAL

THE BRODIE SYSTEM

OF LANDING AND LAUNCHING LIGHT AIRPLANES FROM A PORTABLE RIG



INTRODUCTION

This manual describes a portable rig for landing and launching light planes from a tight, overhead cableway. The system, devised and tested by Lieutenant James H. Brodie, F.A., offers extensive possibilities for tactical use.

The Brodie System greatly increases the usefulness of liaison planes.

It is portable.

It is independent of terrain.

It is difficult to see from above 500 feet.

It can be set up or knocked down and moved to a new location in a comparatively short time.

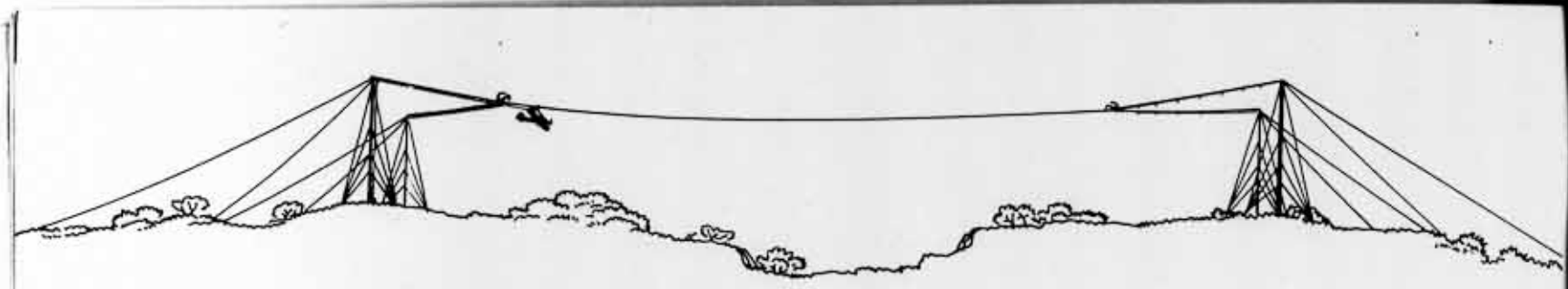
The rig can be set up in well-advanced positions and in any kind of terrain—mountains, deserts, jungles, marshes—where the construction of the conventional runway or landing strip is difficult or uneconomical. It is easily camouflaged and is structurally a difficult bombing target.

Any pilot capable of handling a plane in normal flight can land and take-off from this rig with a minimum of training.

Operation of the Brodie System in the field will undoubtedly result in the discovery and development of additional specific uses to which it can be put.

This booklet is designed primarily to instruct ground crews in setting up and operating the apparatus in the field. It may also serve to suggest new uses to which the Brodie System can be adapted.

All operational information in these pages refers to the Army L-5 airplane.



DESCRIPTION: The system is as simple in practice as it is in theory.

A smooth, straight, clear runway for landing or launching is provided by a horizontal, taut cable. Along this cable runs a trolley with an attached sling underneath.

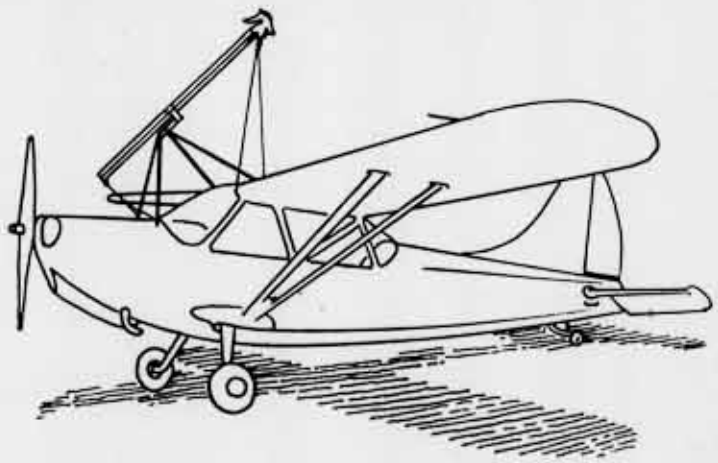
The same cableway is used for both landings and take-offs. However, the trolleys, slings, and minor auxiliary equipment are different for the two operations.

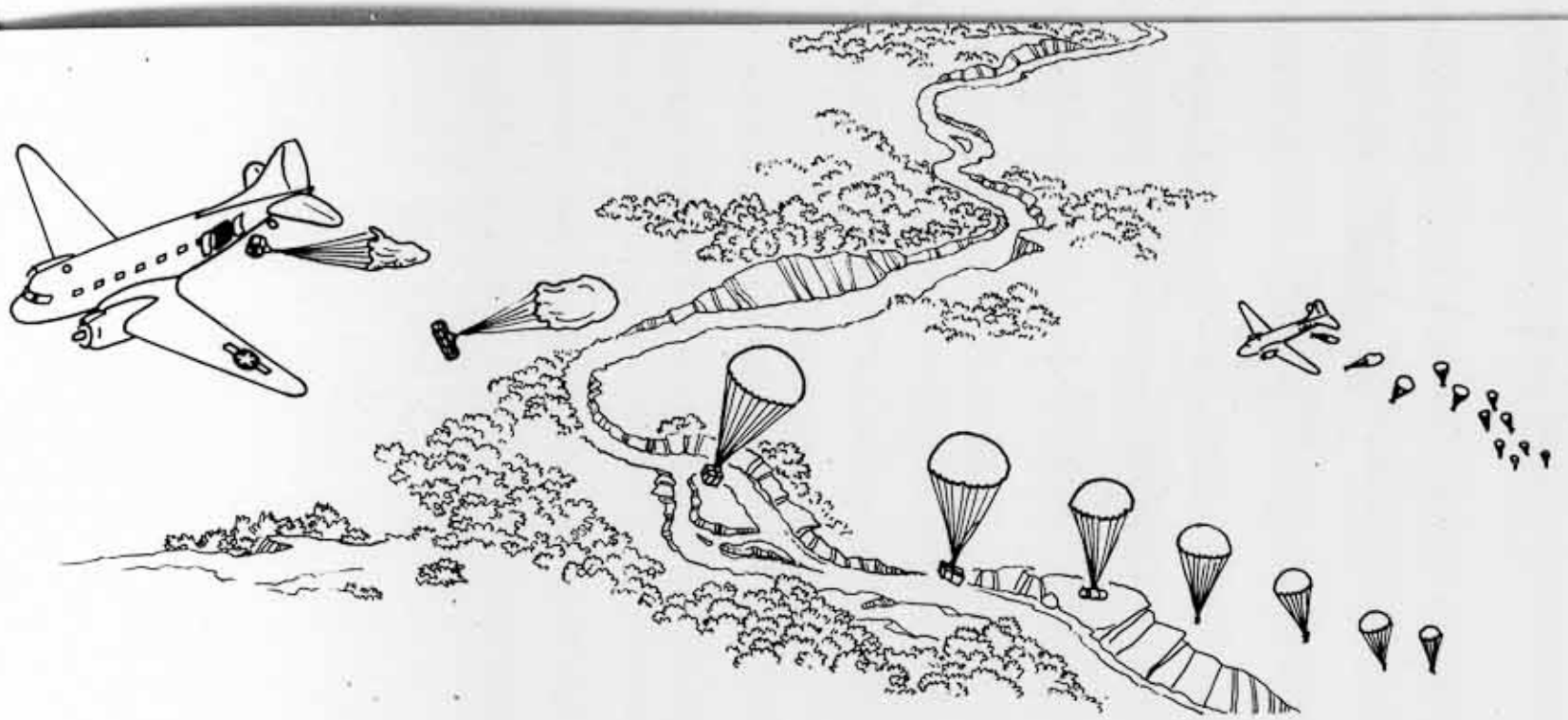
The apparatus is exactly the same at both ends of the cableway. This permits landings, and take-offs from either end, depending on the wind direction.

The plane is fitted with an overhead hook at the end of a swivel arm.

In landing, the hook engages the sling and as the trolley rolls along the cableway the plane is brought to a gradual stop by a brake line attached to the trolley.

In launching, the plane, suspended from a different trolley and sling, accelerates under its own power until flying speed is reached, whereupon it is released by the pilot from the sling and procedes in normal flight.



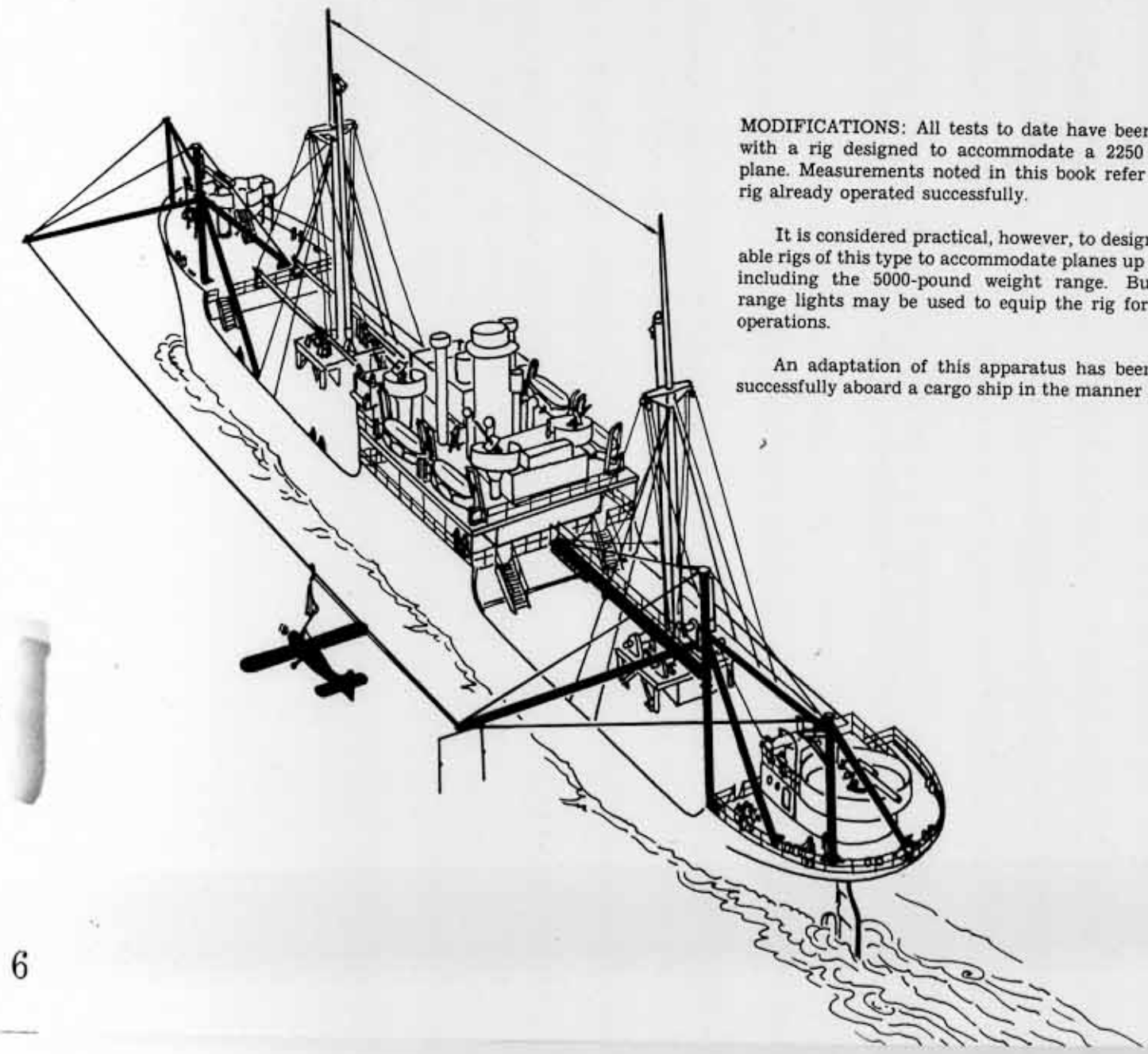


PORTABILITY: All equipment for erecting a Brodie landing and launching rig—including the tools and tackle—weighs less than 9000 pounds. Before assembly each part is small and light enough to be airborne when necessary.

The entire rig plus a 9-man crew can be carried by cargo planes. The rig can be flown over a designated location, landed by parachute, and erected by the airborne ground crew.

Where roads exist two 2½-ton trucks or one 5-ton truck is sufficient to haul in the crew and all equipment.

Even with the use of hand-operated tools and tackle alone the rig can be made ready for landings and take-offs in less than 24 hours.

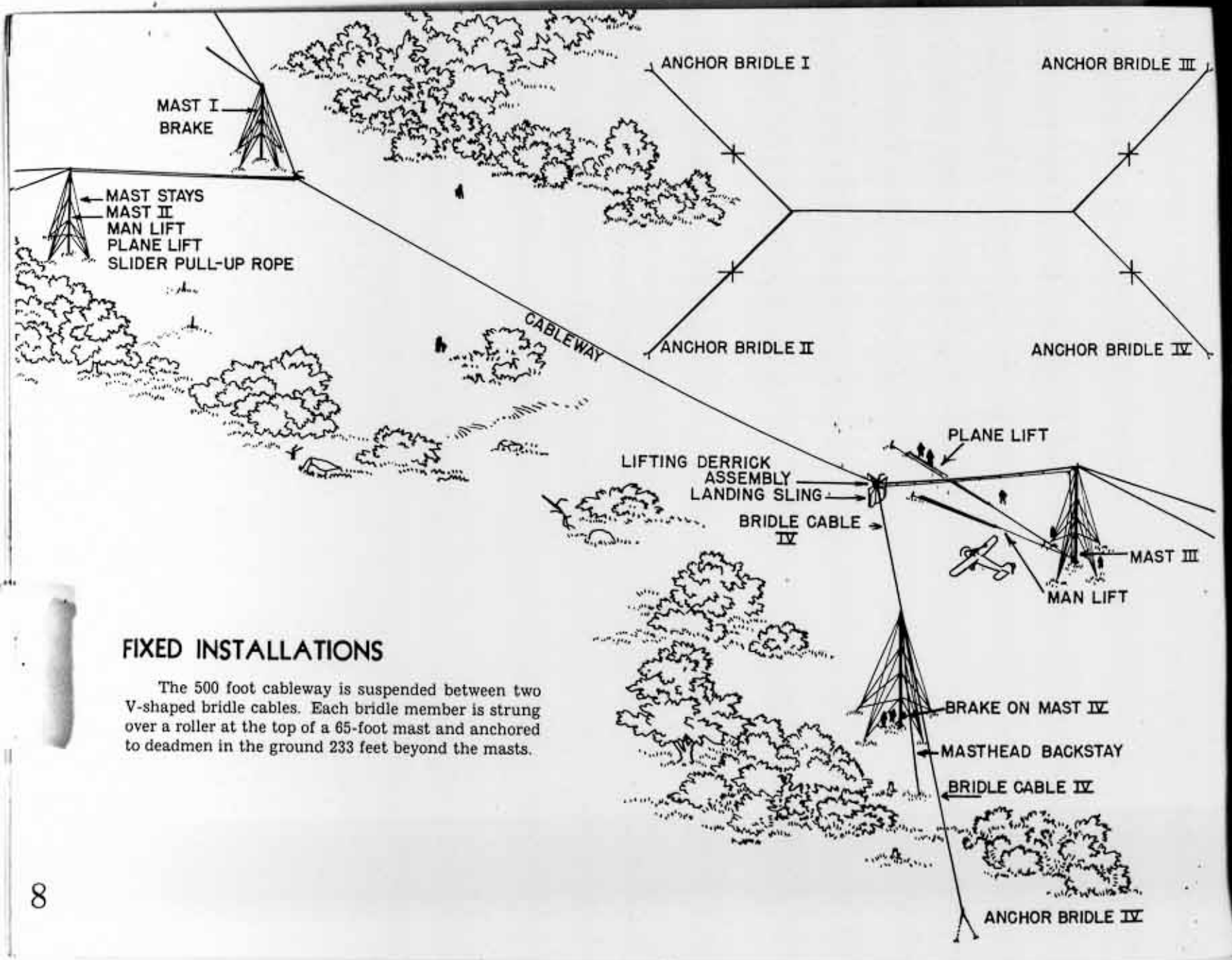


MODIFICATIONS: All tests to date have been made with a rig designed to accommodate a 2250 pound plane. Measurements noted in this book refer to the rig already operated successfully.

It is considered practical, however, to design portable rigs of this type to accommodate planes up to and including the 5000-pound weight range. Bulls-eye range lights may be used to equip the rig for night operations.

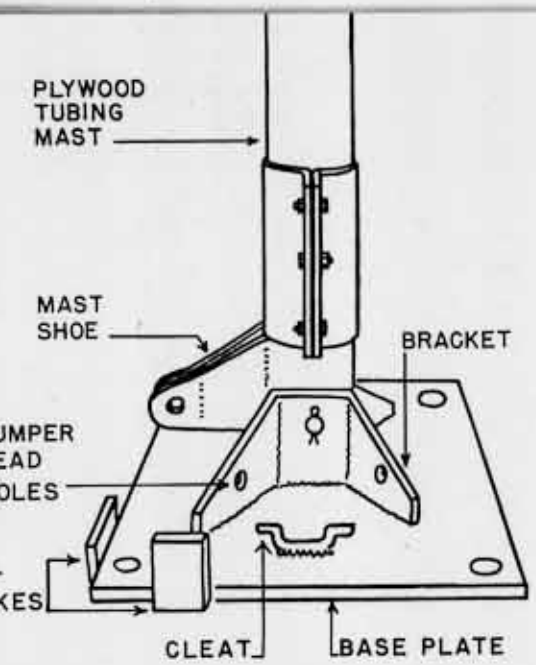
An adaptation of this apparatus has been used successfully aboard a cargo ship in the manner shown.

PART 1 APPARATUS

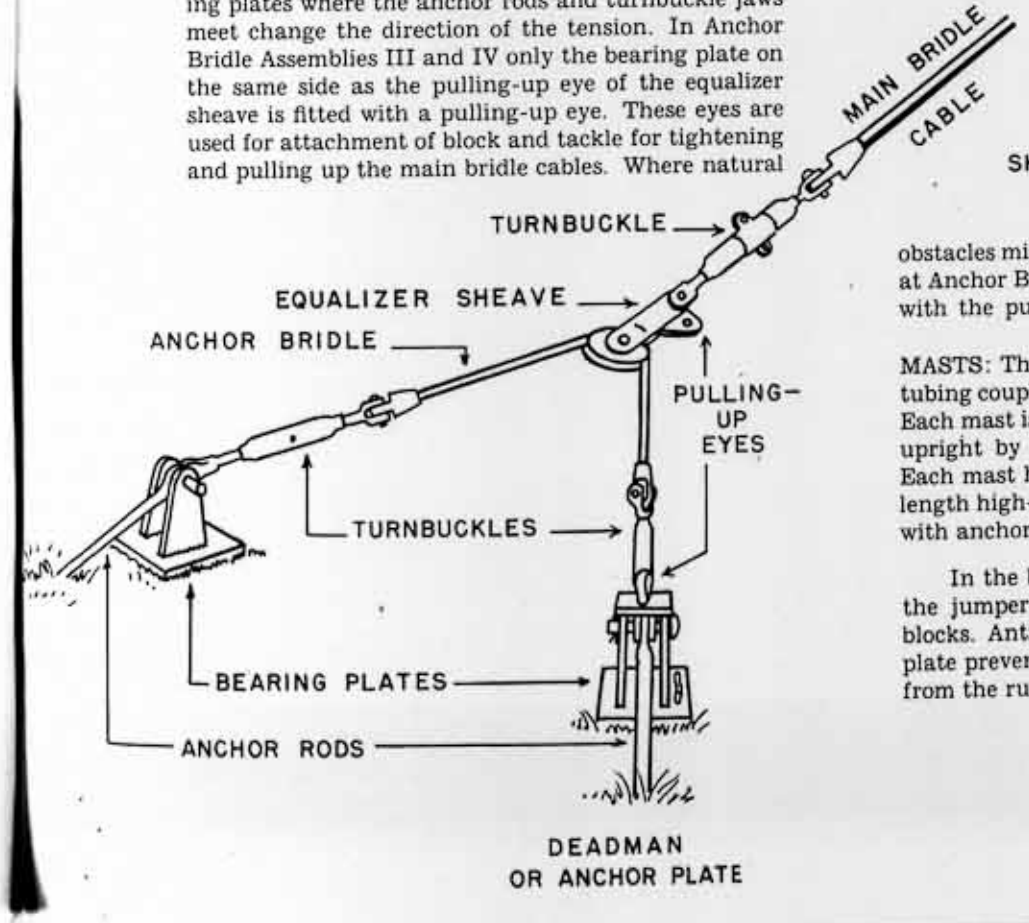


FIXED INSTALLATIONS

The 500 foot cableway is suspended between two V-shaped bridle cables. Each bridle member is strung over a roller at the top of a 65-foot mast and anchored to deadmen in the ground 233 feet beyond the masts.

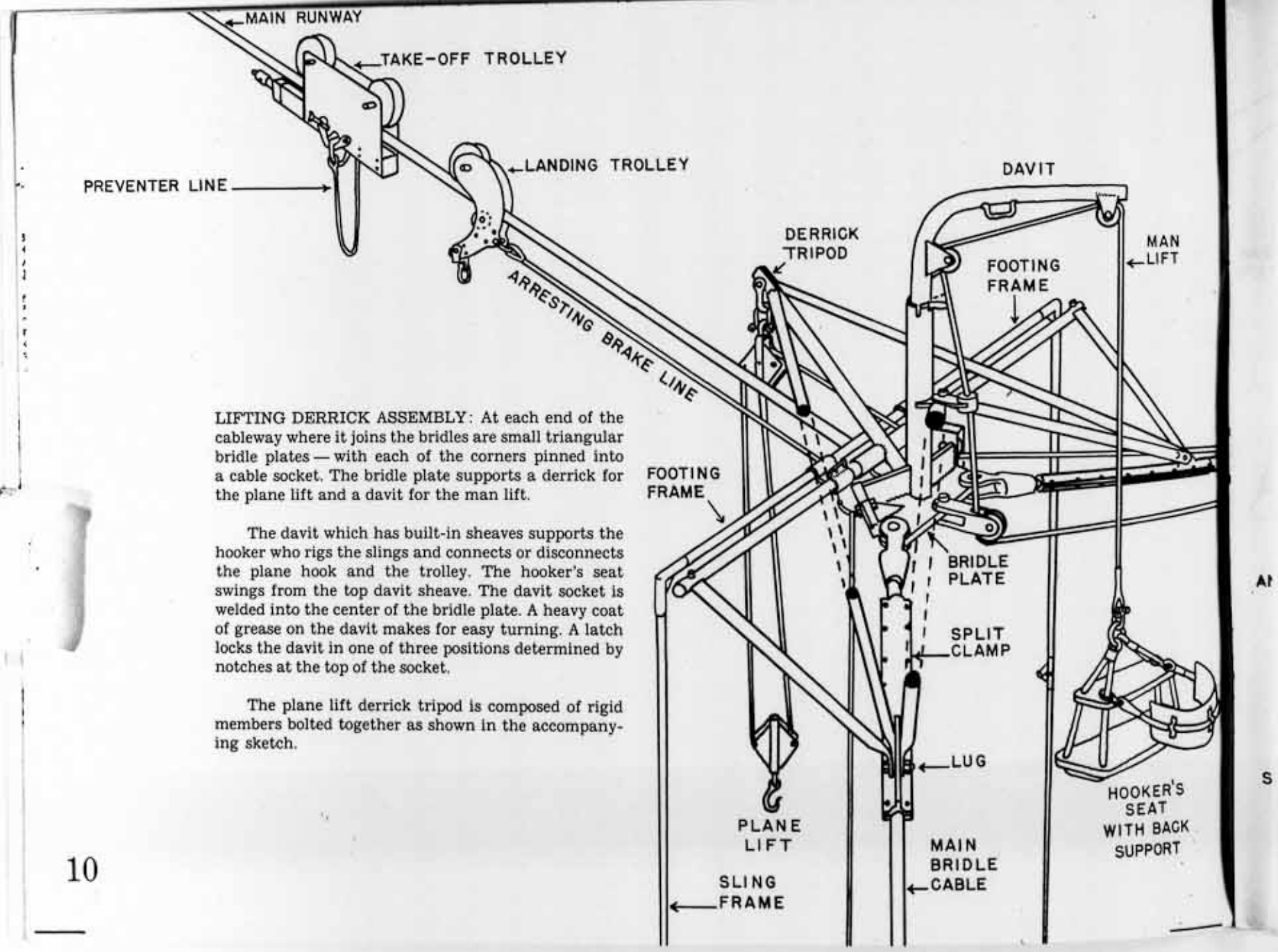


ANCHOR BRIDLE ASSEMBLIES: Connecting the deadmen and the main bridle cables are turnbuckles, anchor bridles, and equalizer sheaves—making up anchor bridle assemblies. The anchor bridle which runs over an equalizer sheave takes up the load of the main bridle cable and divides it between two 9-foot anchor rods. Anchor rods are secured by anchor plates which serve as deadmen. Turnbuckles at the cable ends permit tension adjustment of the entire apparatus. Bearing plates where the anchor rods and turnbuckle jaws meet change the direction of the tension. In Anchor Bridle Assemblies III and IV only the bearing plate on the same side as the pulling-up eye of the equalizer sheave is fitted with a pulling-up eye. These eyes are used for attachment of block and tackle for tightening and pulling up the main bridle cables. Where natural obstacles might interfere with the pulling up operation at Anchor Bridles III and IV, install the bearing plates with the pulling-up eyes at Anchor Bridles I and II.



MASTS: The four masts are 8-foot sections of plywood tubing coupled together with 24-inch steel split sleeves. Each mast is supported by a pivot at the base and held upright by proper adjustment of the guys or stays. Each mast has four sets of four stays and one double-length high-strength masthead stay. Stays are secured with anchor rods locked by anchor plates.

In the base plate brackets are holes for shackling the jumper lead cables for man lift and plane lift blocks. Anti-skid stakes at the inner corner of the base plate prevent it from sliding due to horizontal tension from the running tackles of plane lift and man lift.

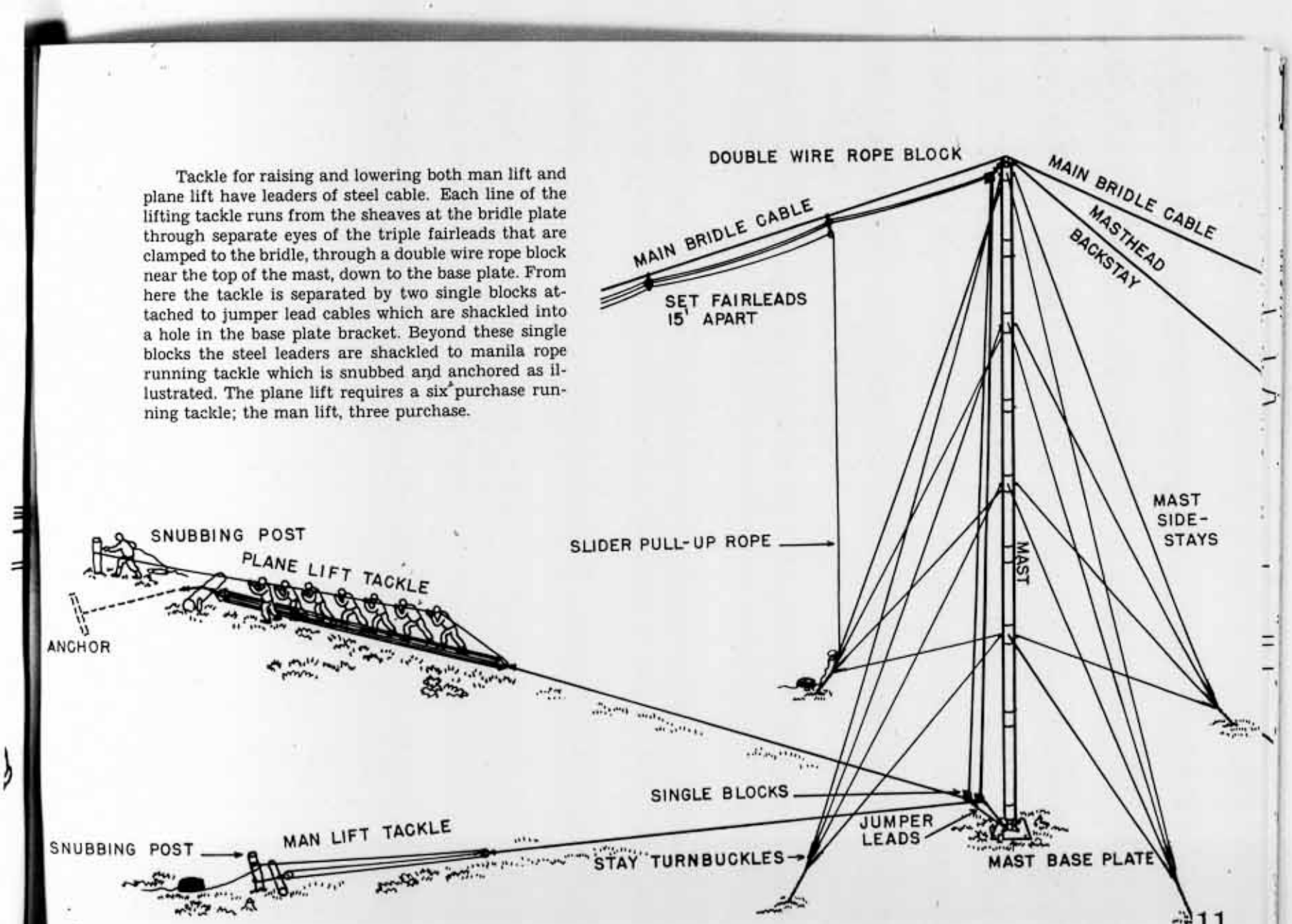


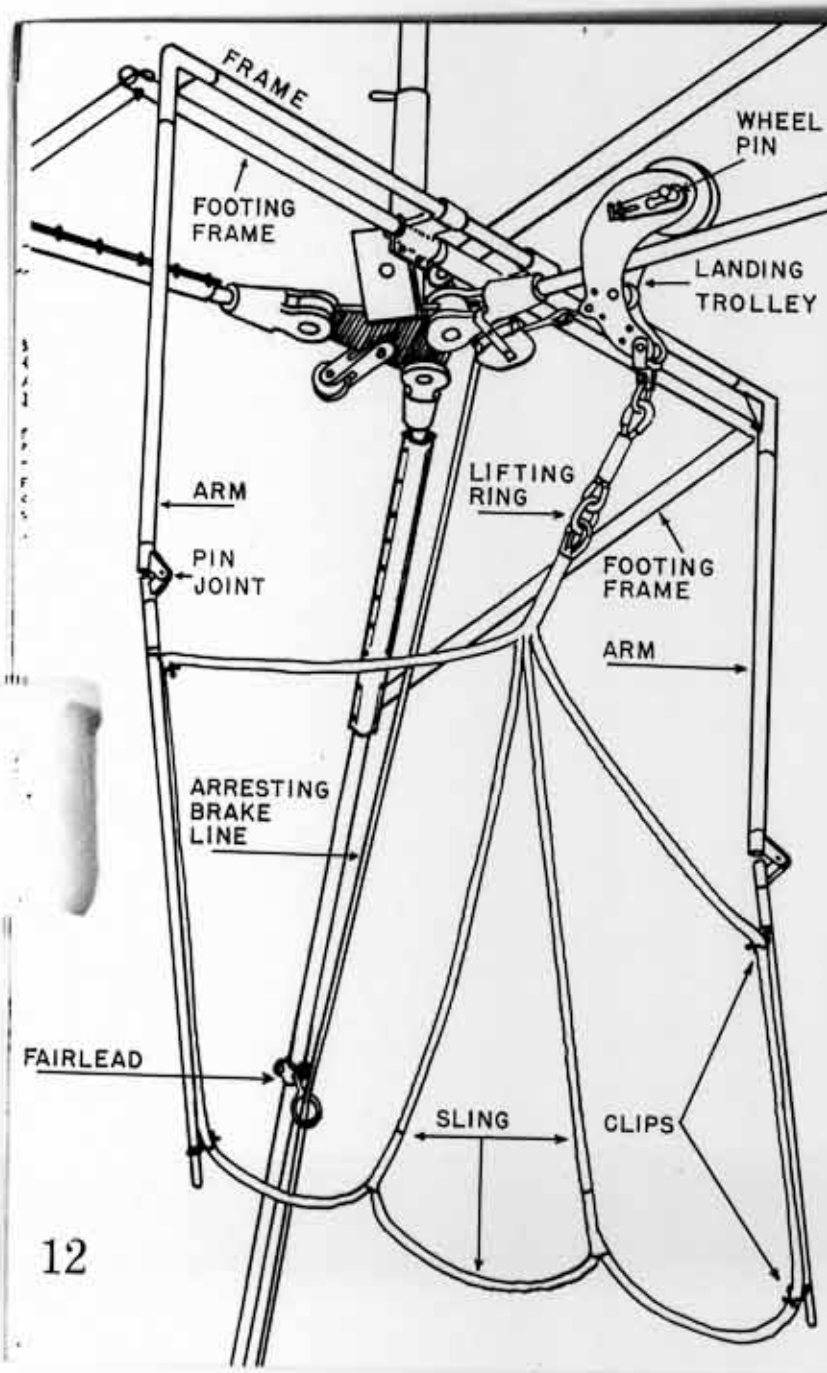
LIFTING DERRICK ASSEMBLY: At each end of the cableway where it joins the bridles are small triangular bridle plates — with each of the corners pinned into a cable socket. The bridle plate supports a derrick for the plane lift and a davit for the man lift.

The davit which has built-in sheaves supports the hooker who rigs the slings and connects or disconnects the plane hook and the trolley. The hooker's seat swings from the top davit sheave. The davit socket is welded into the center of the bridle plate. A heavy coat of grease on the davit makes for easy turning. A latch locks the davit in one of three positions determined by notches at the top of the socket.

The plane lift derrick tripod is composed of rigid members bolted together as shown in the accompanying sketch.

Tackle for raising and lowering both man lift and plane lift have leaders of steel cable. Each line of the lifting tackle runs from the sheaves at the bridle plate through separate eyes of the triple fairleads that are clamped to the bridle, through a double wire rope block near the top of the mast, down to the base plate. From here the tackle is separated by two single blocks attached to jumper lead cables which are shackled into a hole in the base plate bracket. Beyond these single blocks the steel leaders are shackled to manila rope running tackle which is snubbed and anchored as illustrated. The plane lift requires a six purchase running tackle; the man lift, three purchase.



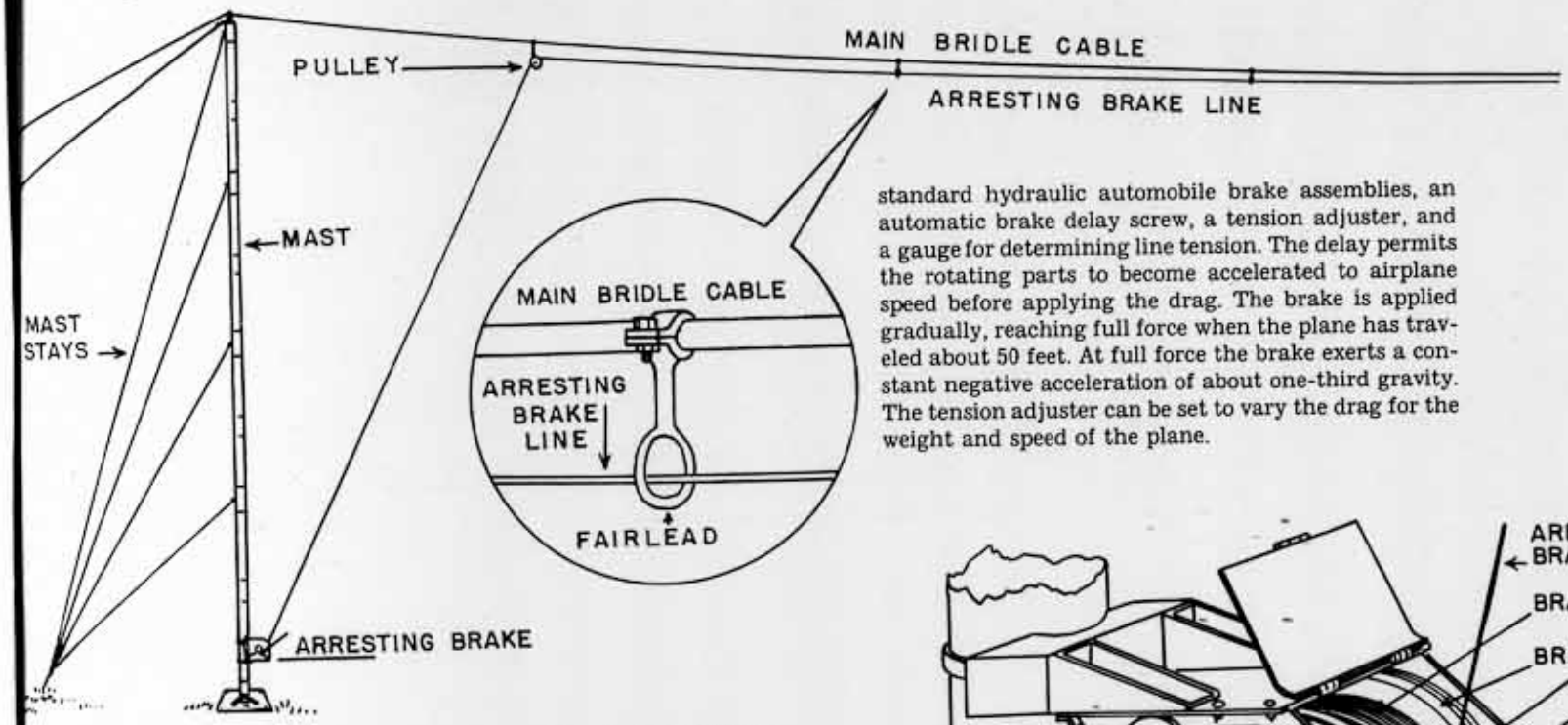


LANDING GEAR

TROLLEY: The landing trolley has a single wheel for running on the cable. It is light and is designed to hang vertically and to give a pendulum effect on acceleration that reduces some of the inertia forces. The trolley can be removed or replaced by slipping out the wheel pin.

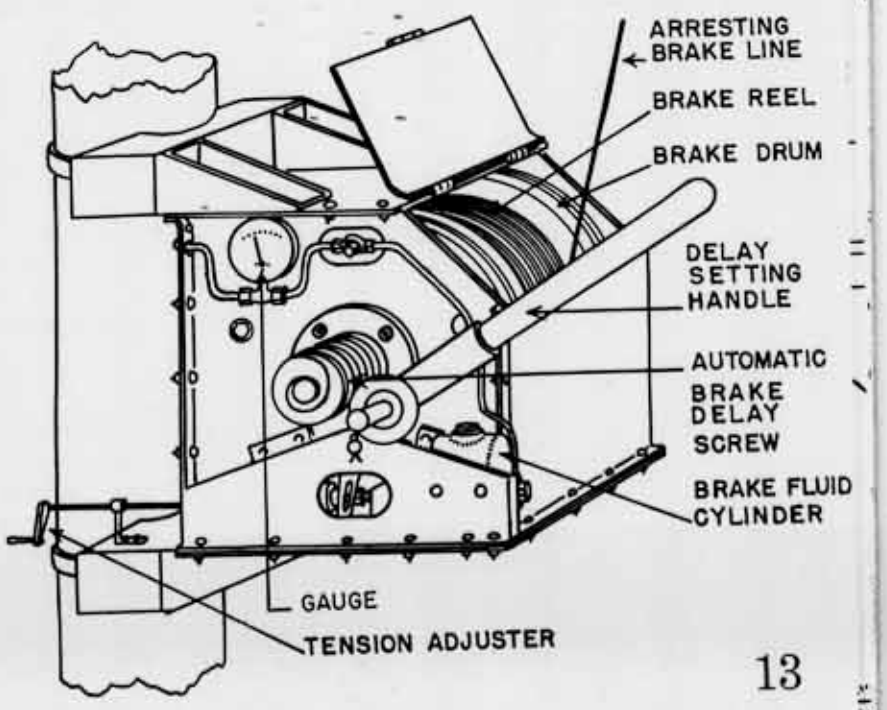
SLING: Shackled to the landing trolley is the landing sling. It offers a target 6 feet wide—consisting of three loops of 11/16-inch diameter nylon rope, any one of which may be caught by the plane hook for a successful landing.

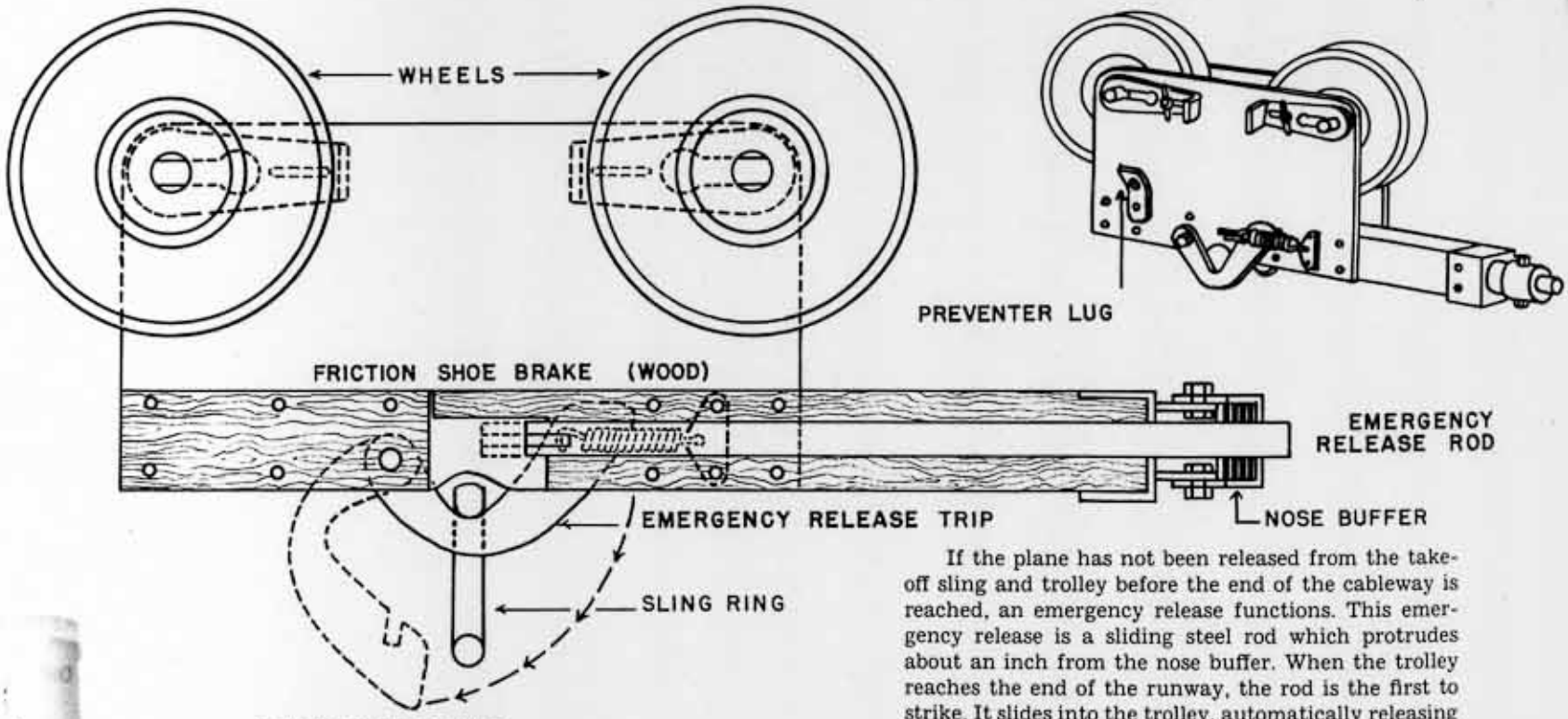
To extend the sling to its full width, the outer loops are clipped to a combination wood and steel frame. The frame is supported from the derrick arm and has two 9-foot pin-jointed arms. It swings freely with the sling when the plane makes contact. When the sling is engaged it pulls out of the clips and is free to travel with the trolley.



ARRESTING BRAKE: The arresting brake works on the principle of a giant fishing reel—resisting the momentum of the plane after the plane has engaged the sling. The line of the brake leads from the trolley through a pulley on the bridle plate (see pages 10, 12), then through single-eye fairleads along the bridle through a pulley 10 feet from the masthead, and down to a drum brake clamped to the mast about 4 feet above the base plate.

The brake unit consists of a magnesium reel, two standard hydraulic automobile brake assemblies, an automatic brake delay screw, a tension adjuster, and a gauge for determining line tension. The delay permits the rotating parts to become accelerated to airplane speed before applying the drag. The brake is applied gradually, reaching full force when the plane has traveled about 50 feet. At full force the brake exerts a constant negative acceleration of about one-third gravity. The tension adjuster can be set to vary the drag for the weight and speed of the plane.





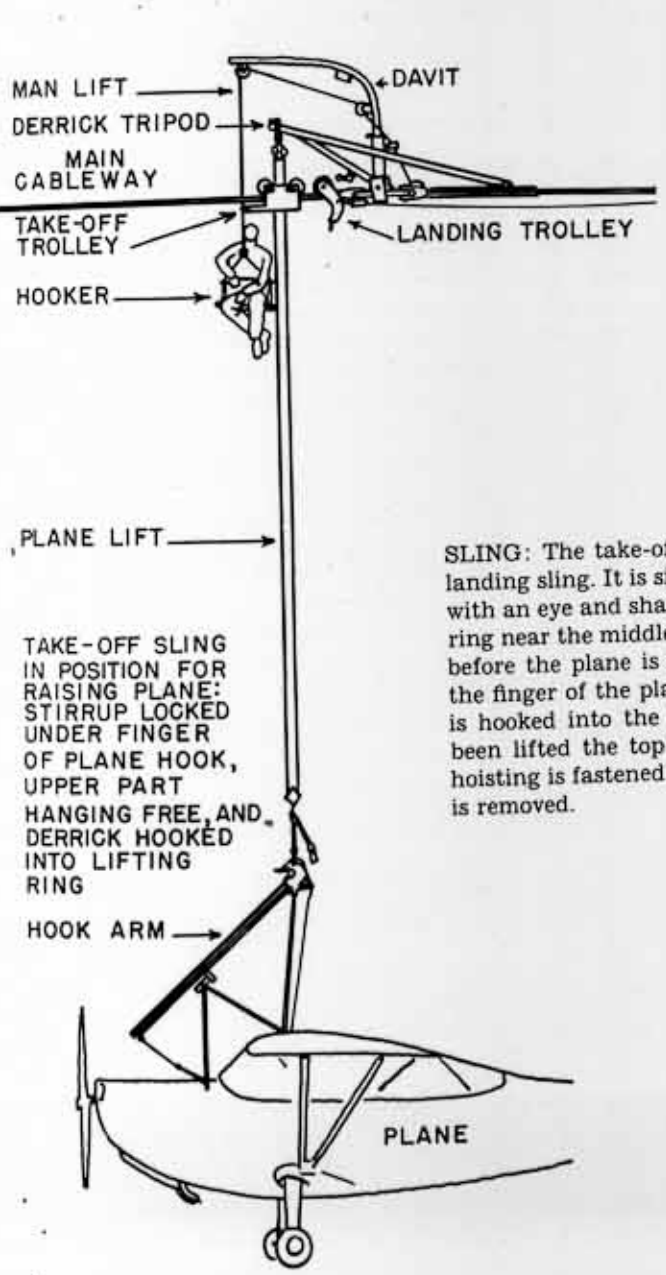
TAKE-OFF GEAR

TROLLEY: The take-off trolley is designed for easy rolling. It has two 6½-inch wheels, a wooden friction shoe, and an emergency release.

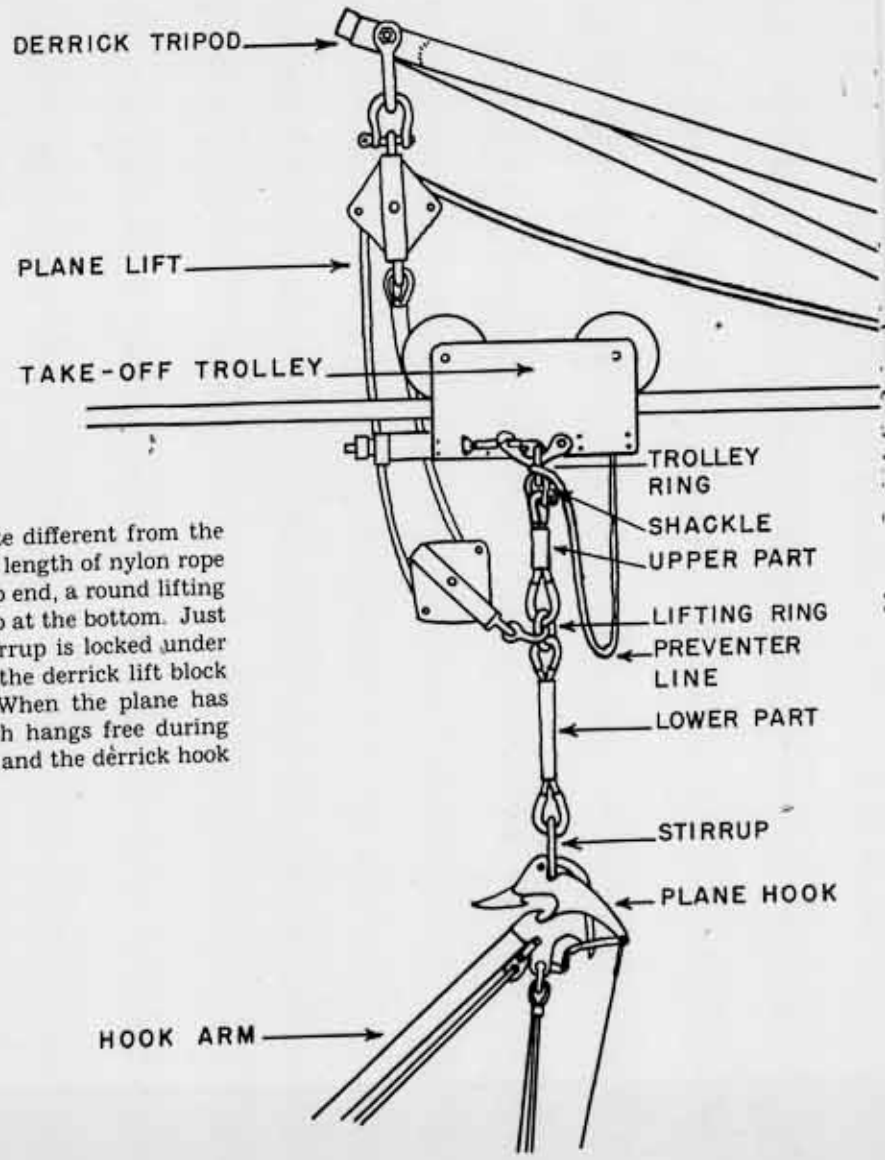
The trolley is self-braking. When the plane is released from the cableway during a take-off, the top-heavy design of the trolley tips the trolley over and causes it to run on its shoe block. The friction of the wooden shoe on the cable slows the trolley down before it reaches the end of the cableway.

If the plane has not been released from the take-off sling and trolley before the end of the cableway is reached, an emergency release functions. This emergency release is a sliding steel rod which protrudes about an inch from the nose buffer. When the trolley reaches the end of the runway, the rod is the first to strike. It slides into the trolley, automatically releasing both take-off sling and plane.

When the emergency release is tripped the take-off sling is kept from falling and striking the plane by a 4-foot nylon rope of a ¼-inch diameter which acts as a preventer. The preventer is attached to one end of the take-off sling. If the plane should still be attached to the take-off trolley when the emergency release functions, the preventer breaks—allowing the plane to fly on with the sling still attached to the plane hook. The sling should be released as soon thereafter as convenient.



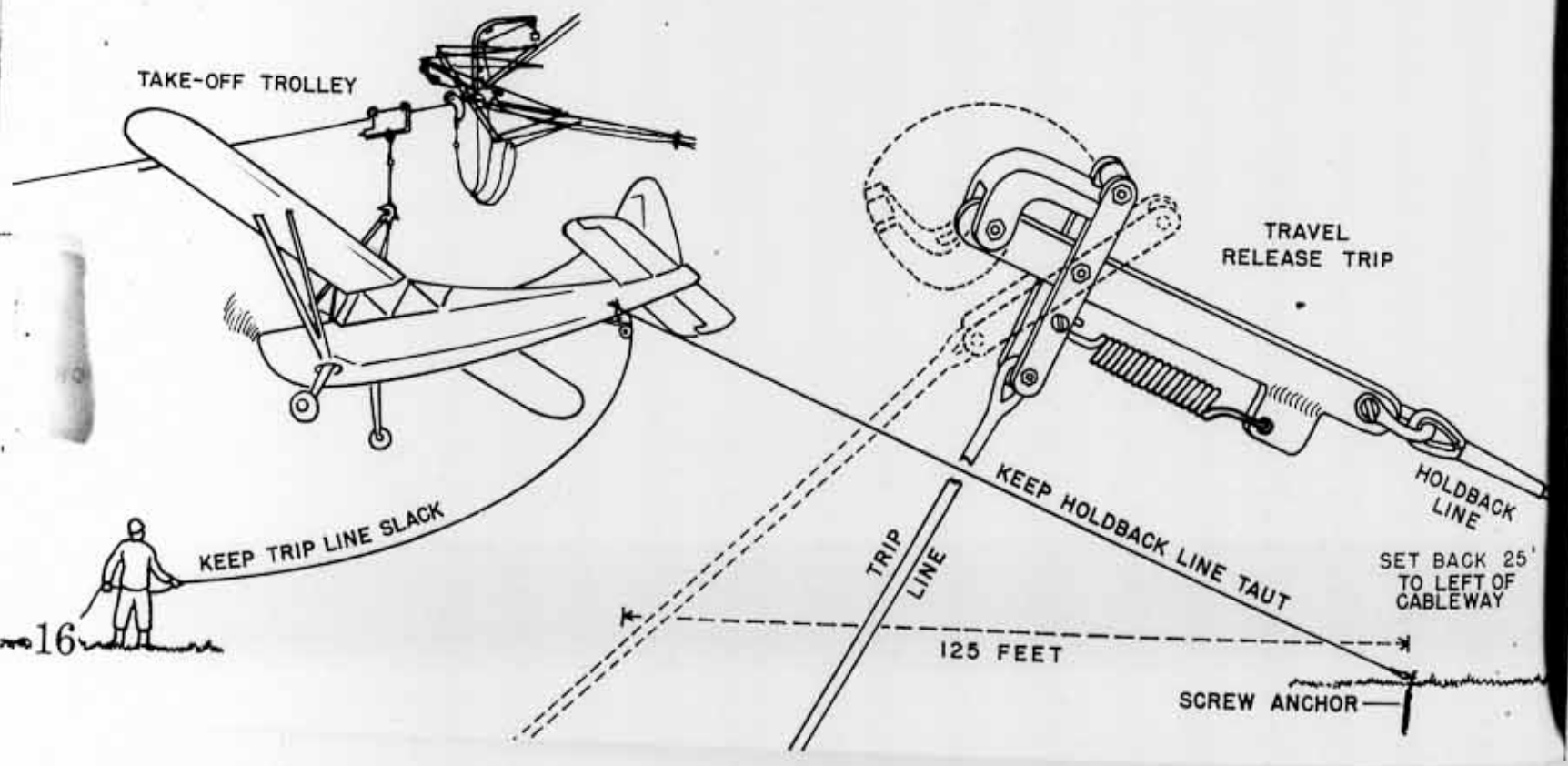
SLING: The take-off sling is quite different from the landing sling. It is simply a 4-foot length of nylon rope with an eye and shackle at the top end, a round lifting ring near the middle and a stirrup at the bottom. Just before the plane is raised the stirrup is locked under the finger of the plane hook and the derrick lift block is hooked into the lifting ring. When the plane has been lifted the top shackle which hangs free during hoisting is fastened to the trolley and the derrick hook is removed.

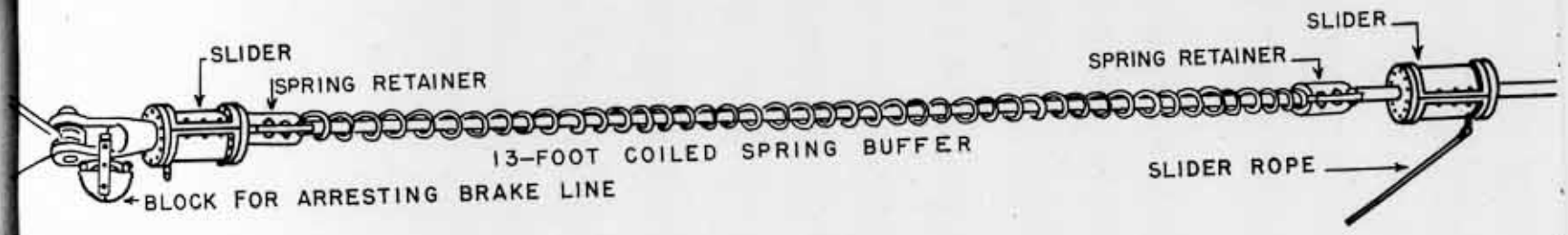


TRAVEL RELEASE: A travel release prevents the plane from starting its run until the engine is sufficiently revved up. The device is a sturdy bar with a spring-loaded trip lever at one end and a long holdback line at the other.

The holdback line is held fast by a large screw anchor in the ground. The anchor is set 125 feet behind the plane and 25 feet to the left side of it. The holdback line not only prevents a premature run but also keeps the plane headed in the proper direction.

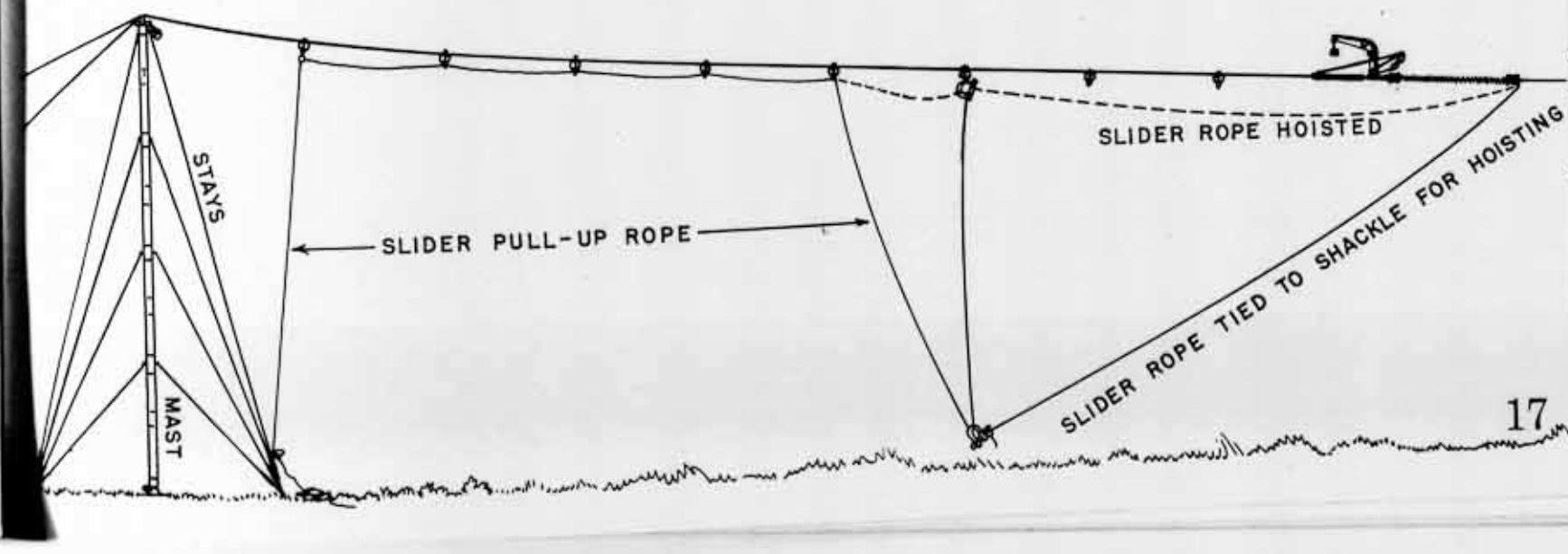
The trip is clipped to a wire loop fastened to the tail-lifting handle on the plane. A pull on the light lanyard attached to the lever trips the release and the entire device falls to the ground—permitting the plane to start its take-off run.

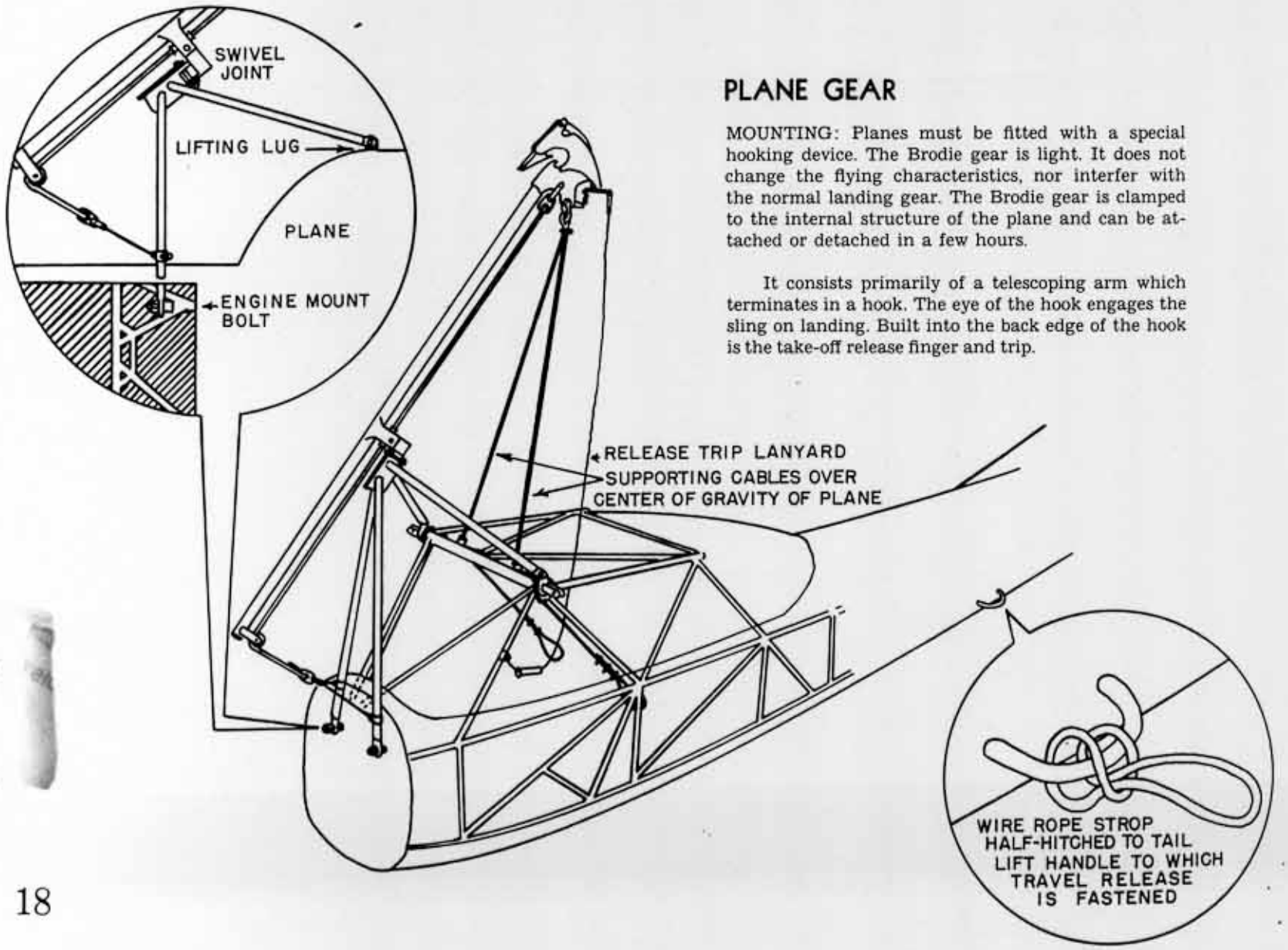




BUFFER AND SLIDER: If the trolley should travel to the end of the cable it is stopped by a 13-foot buffer spring coiled around the cableway and ending in spring retainers. At each end of the spring is an aluminum slider. The slider comes in two halves which are bolted together when they are attached to the cable. Each slider has a lug for attaching a rope which reaches to the ground. This device is used for sliding the trolley back for the next take-off.

When not in use the slider rope is tied to a shackle suspended from a light supporting or pull-up rope between two fairleads. As in the illustration the supporting rope runs through the small eye in the triple fairleads, through a pulley at the last fairlead down to an anchor chain where it can be easily handled.

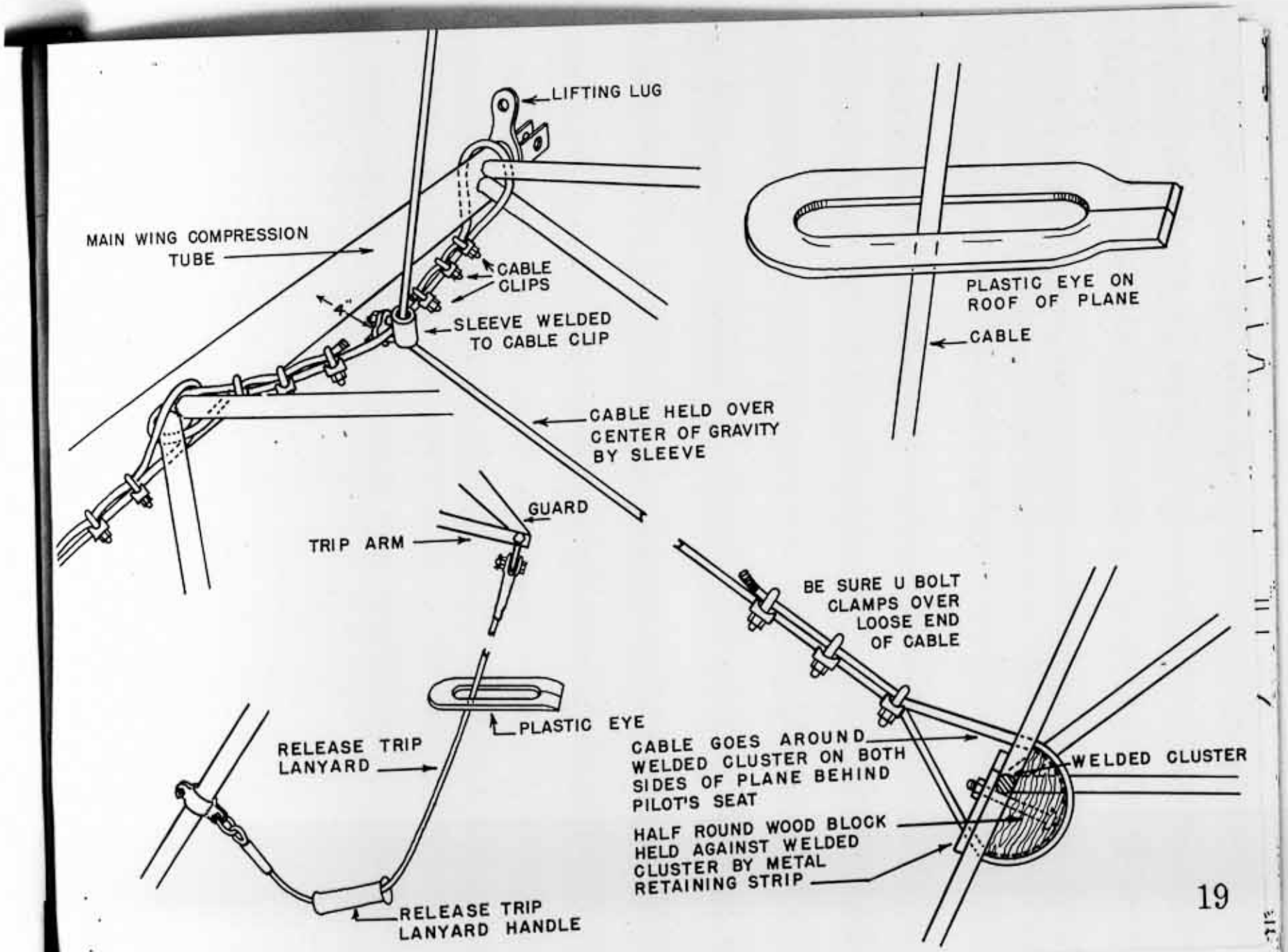




PLANE GEAR

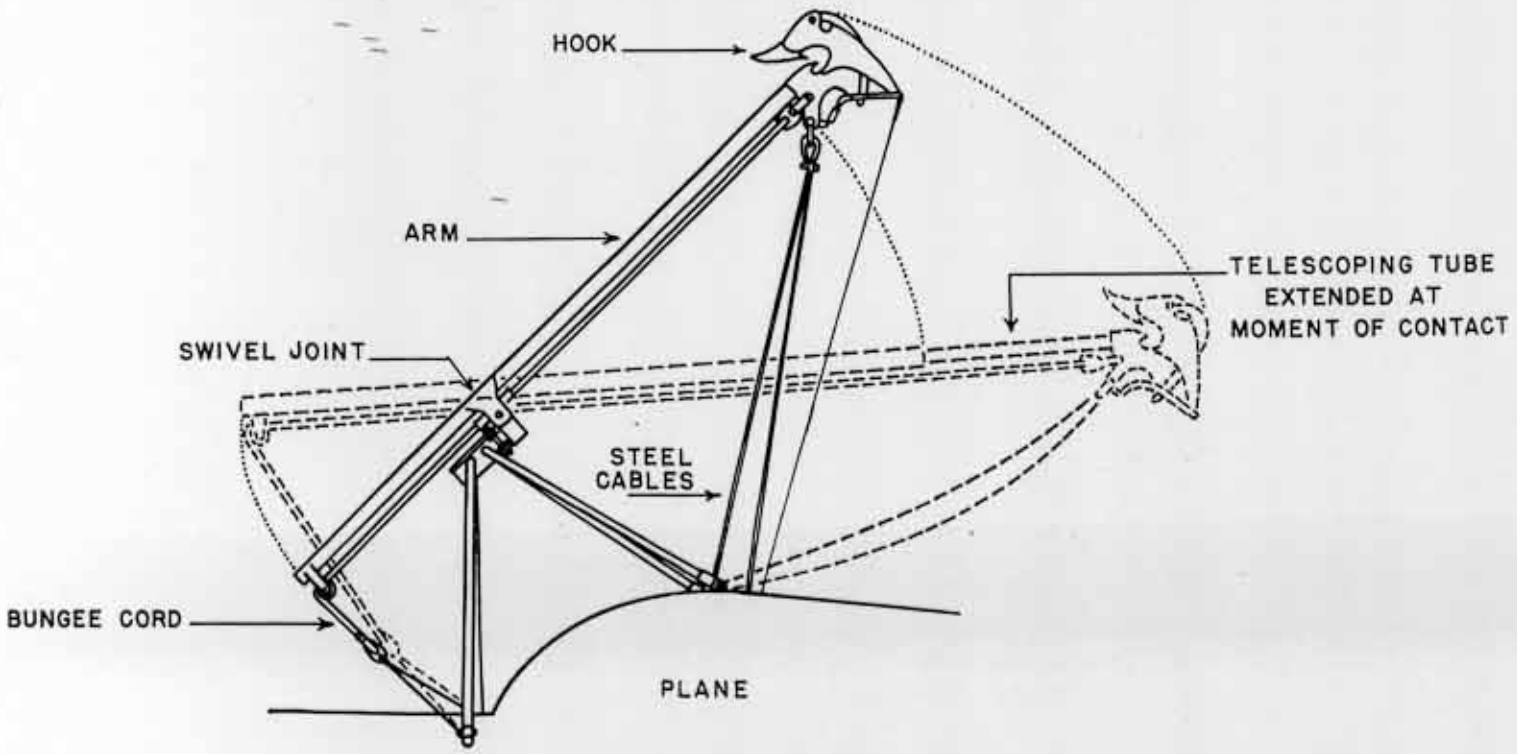
MOUNTING: Planes must be fitted with a special hooking device. The Brodie gear is light. It does not change the flying characteristics, nor interfer with the normal landing gear. The Brodie gear is clamped to the internal structure of the plane and can be attached or detached in a few hours.

It consists primarily of a telescoping arm which terminates in a hook. The eye of the hook engages the sling on landing. Built into the back edge of the hook is the take-off release finger and trip.

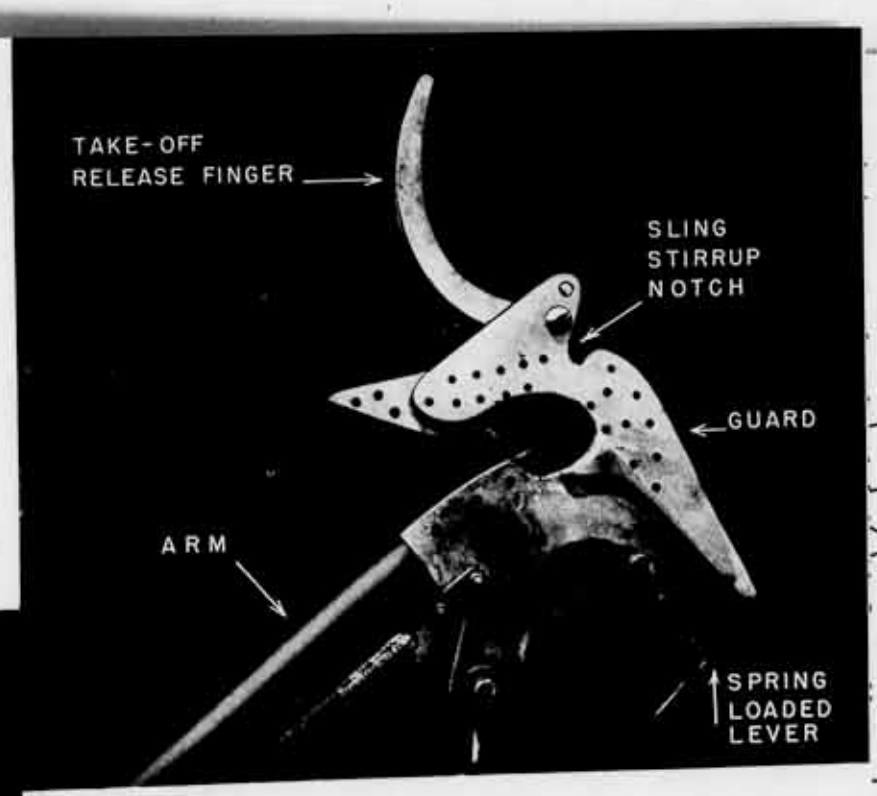

LIFTING LUG
MAIN WING COMPRESSION TUBE
CABLE CLIPS
4"
SLEEVE WELDED TO CABLE CLIP
CABLE HELD OVER CENTER OF GRAVITY BY SLEEVE
PLASTIC EYE ON ROOF OF PLANE
CABLE
GUARD
TRIP ARM
BE SURE U BOLT CLAMPS OVER LOOSE END OF CABLE
PLASTIC EYE
RELEASE TRIP LANYARD
CABLE GOES AROUND WELDED CLUSTER ON BOTH SIDES OF PLANE BEHIND PILOT'S SEAT
WELDED CLUSTER
HALF ROUND WOOD BLOCK HELD AGAINST WELDED CLUSTER BY METAL RETAINING STRIP
RELEASE TRIP LANYARD HANDLE

THE ARM: The arm is fastened by a swivel joint which gives flexibility to the entire assembly. Running under the length of the arm is a bungee or shock cord which supports it in a 45° position during flight and takes up some of the acceleration loads at the moment of contact. Two ⅜-inch steel cables take up the major load of accelerating the trolley and supporting the plane.

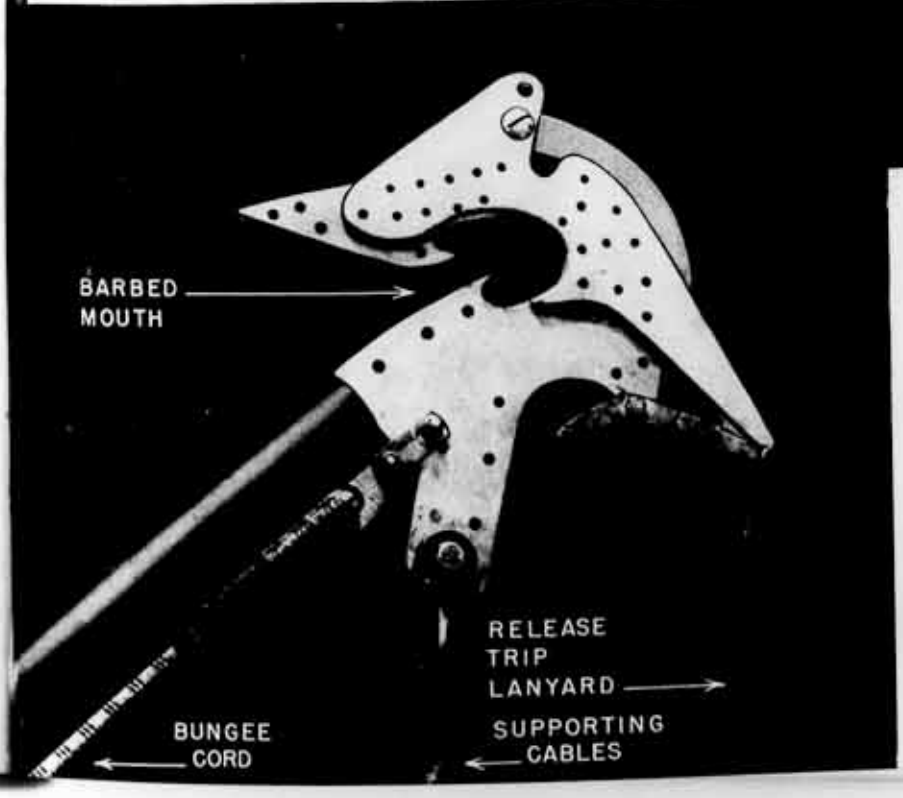
When the sling is caught on landing the arm swivels to a horizontal position and a tube telescopes out of the arm about 24 inches. This action transmits the full load along the two supporting cables directly into the two points on either side and just above the plane's center of gravity. It eliminates a large force couple which would tend to nose the plane up when landing, and incidentally relieves some of the acceleration loads which result when the trolley is activated from a static position.



HOOK: The plane hook is fixed to the telescoping tube of the arm. On landing the open hook catches the sling in its barbed mouth and holds it securely until removed by hand.



OPEN



CLOSED

The take-off release resembles a long finger. When locked it fits snugly along the top and back of the hook, where it holds the sling stirrup in a small notch. The finger is unlocked by a lanyard which leads from the cockpit to the hook. A tug on this lanyard pulls down a spring-loaded lever and unlocks the finger, which lifts — releasing the sling stirrup.