

S E C R E T

15 September 1958

MEMORANDUM FOR: Chief, EE/H

SUBJECT: Water-Air Division Booklet Including  
Class A and Class B Projects  
"Equipment and/or Test Reports Available  
for Operational Use or Planning"

REFS: a. Book Dispatch No. 140, 6 Dec 1956  
b. Supplemented by Book Dispatch No. 356, 20 Aug 1957

1. Enclosed for your information and retention is above Booklet which includes descriptions and, in certain instances, photographs of Water-Air projects. Class A category are projects which have been completed and are available for operational use. Class L projects are those for near future completion.

2. It is requested that Book Dispatches No. 140 and No. 356 in references above be destroyed and be replaced with enclosed Booklet which contains up-to-date data and information.

3. It is not intended that the descriptive matter include all information as to the characteristics, purposes, and operational capabilities of each item. Questions concerning same should be forwarded to Technical Services Staff/Water-Air Division in order that more complete and up-to-date information may be given. In connection with recommendations of equipment for your use, one cannot overemphasize the importance of our knowing certain operational information whenever practicable. This should, if pertinent, include but not be limited to weather, sea, and air conditions; water or air transportation; terrain; coastal and interior defenses, such as radar, sonar, etc.; distances to target; number in party, and gross weight of men and equipment; whether the men will operate equipment en route or be escorted by a trained crew.

4. Such information furnished well in advance will be of material help in selecting and recommending appropriate operational equipment, and also in developing and procuring Water and Air equipment for your future use. It is, therefore, suggested that general requirements be made known in the early planning stages of respective operations whenever practicable.

S E C R E T

S E C R E T

15 September 1958

5. It is our intention, subject to your approval, to distribute a copy of this Booklet and an appropriate version of this dispatch to Headquarters and to the overseas addressees shown on the Distribution List noted below. This is in accordance with previous practice. Please indicate on copy attached your approval or changes thereto and return to Technical Services Staff, Water-Air Division (Westcot Bldg., Room 119).

6. Additional copies are available on request to Chief, Technical Services Staff/Water-Air Division. Subsequent reports will be furnished periodically.



Chief, TSS/WAD

Attachment:  
Booklet, 1 July 1958

50X1

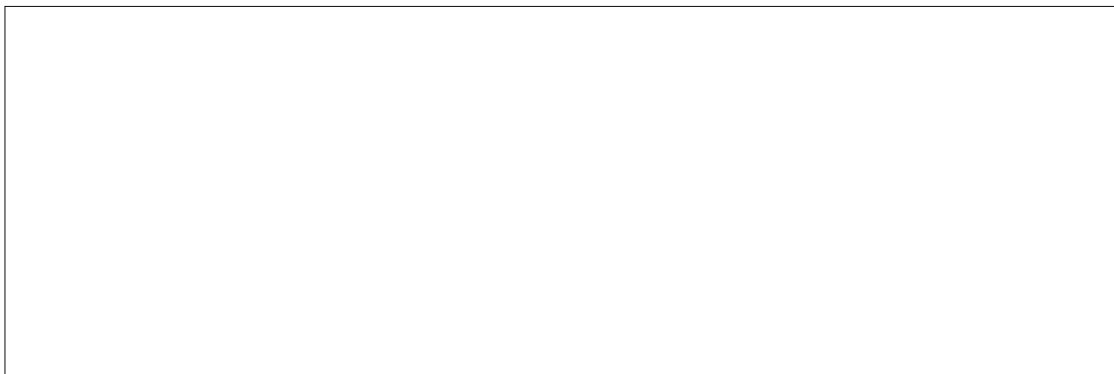
DISTRIBUTION:  
Orig & 1 - Addressee, w/attach

S E C R E T

**S E C R E T**

**15 September 1958**

**SUBJECT: Water-Air Division Booklet Including  
Class A and Class B Projects  
"Equipment and/or Test Reports Available  
for Operational Use or Planning"**



50X1

**S E C R E T**

S E C R E T

CLASS A PROJECTS - COMPLETED

S E C R E T



S E C R E T

1 July 1958

## INDEX

## CLASS A PROJECTS - COMPLETED

Water

- P* W-1 2/1940 - H09 - 0629 Rubber Boat, Inflatable, Type RB-12, 4-man  
*P* W-2 2/1940 - H09 - 1430 Rubber Boat, Inflatable, Type RB-9.5, 3-man  
*P* W-3 2/1940 - H09 - 1431 Rubber Boat, Inflatable, Type RB-90, 2-man  
*P* W-4 2/1940 - H09 - 1432 Rubber Boat, Inflatable, Type RB-68, 1-man
- W-6 Kayak, Inflatable, Neptune, 1-man and 2-man types  
 W-7 Kayak, collapsible, Klepper, 1-man and 2-man types  
 W-8 Paddleboards, Inflatable  
*P* W-9 Semi-Submersible "Skiff"  
 W-10 Boat, 15' aluminum, Feathercraft "Chief"  
 W-11 Boat, 14'6" aluminum, Grumman, runabout model  
 W-12 Boat, plastic, 16' inboard, Dyer  
 W-13 Underwater Breathing Apparatus, Aqua Lung, Scott Hydro-Pak, and Northill  
 W-14 Underwater Breathing Apparatus, Drager and Pirelli  
 W-15 Swim Suit, two piece, Type ODOATH  
 W-16 Swim Suit, Pirelli (long), Seal (long)  
 W-17 Swim Suits, sub-mariner, LaJolla types full suits  
 W-18 Swim Fins, Churchill, Voit, and Cressi Rondine types  
 W-19 Face Masks, Squale, Champion, and Drager types  
 W-20 Compass, underwater swimmers, wrist type, MK-1 model "O"
- } 4 Standard Boats

S E C R E T

S E C R E T

## CLASS A PROJECTS - COMPLETED

Water (continued)

- W-21 Depth gauge, underwater swimmer's, wrist type
- W-22 Wrist watches, swimmers, waterproof,  
Types: (1) ODOATH  
(2) Rolex Submariner
- W-23 Air compressor, portable, Cornelius
- W-24 Minisub, MK-6
- W-25 Aquaped
- W-26 Radios, portable  
(1) PRC-6  
(2) PRC-10
- W-27 Radar Detection Tests of Small Craft, CBA  
November 1953 Report
- W-28 Radar Detectability of Small Craft, CBA  
September 1954 Report
- W-29 Radar and Sonar Detection Tests of Small Craft,  
May 1954 Report



50X1

- P* W-31 Underwater telephone, shore-to-shore, portable
- W-32 Outboard Motors - Evinrude and Johnson, 3-35 H.P.
- W-33 Outboard Motor, Mercury, 40 H.P. hand and electric starting
- W-34 Electric Outboard Motor, Silvertrol
- W-35 Technique for Metal Boat Caching and Retrieving
- W-36 Compasses, boat, Corsair, 3-1/2 inch dial
- P* W-37 <sup>7/8415-405-7147</sup>  
Float Waders, Rubber
- W-38 Anemometer, Cape Cod type, portable, hand or mounted

S E C R E T

## S E C R E T

## CLASS A PROJECTS - COMPLETED

Water (continued)

- W-39 Anti-exposure suits, type R-1, ODUNIT and ODOATH
- W-40 Tachometers, engine, Frahm Resonant Reed type
- W-41 Fathometers
- W-42 Gasoline Fume Detector, Raytheon, single head (Model A)
- W-43 Air Rollers

50X1

W-48 Two-Man Catamaran, Inflatable - Japanese

W-49 15-1/2' "Zodiac"  Rubber Boat

50X1

W-52 14' Inflatable Boat, Airmat

W-54 Hydro-foil Boat, 35'

W-56 30 H.P. Outboard Engine "Evinrude" 1956 model

*2/2805-409-7425*  
*2/2805-409-1425*  
 DW-58a 7-1/2 and 15 H.P. Special Quieted/Waterproofed Outboard Engines

W-58b 7-1/2 and 18 H.P. Quieted/Waterproofed Outboard Motors,  
 Procurement of

*5/5805-409-0543*  
 DW-61a Underwater Telephone, Boat-to-Boat, Portable

W-75 Boat, 14' aluminum, Wagemaker

W-77 Gyro Compass, Miniature, Sperry MK-22 Mod O, ODOATH

## CLASS A PROJECTS - COMPLETED

Air

- A-1 Report on DeHavilland - Beaver, (AFL-20) Float Plane
- A-2 Piper Super Cub, PA-18, 150 H.P. (Army L-21)
- A-5 Parachutes; T-10 type, V-slotted

S E C R E T

S E C R E T

CLASS A PROJECTS - COMPLETED

Air (continued)

A-6a Cub Aircraft, JATO (Jet Assisted Take Off) Installation

A-6b Cub Aircraft, aerial towing and recovery

A-7 Boundary Layer Control (RASPET System) for "Cub" Aircraft

[REDACTED]

50X1

A-10 S-55 Helicopter with Additional Gas Tank

A-11a One-Place Pneumatic Aircraft

[REDACTED]

50X1

A-21 Noise Reduction, Helicopter

A-22 Airborne Course Recorder

[REDACTED]

50X1

A-24 L-20 (Beaver) Aerial Towing and Recovery

S E C R E T

S E C R E T

NO: W-1  
 DATE: 1 July 1958  
 CLASS: "A"

CATEGORY:

INFILTRATION/EXFILTRATION

(Additional Data on Request to KURIOT)

SUBJECT: Rubber Boat, Inflatable, Type RB-12, 4-man

PURPOSE: For transporting up to 1200 pounds in moderate seas,  
 900 pounds in rough seas.

CHARACTERISTICS: Length: 12'  
<sup>135</sup> *free material*  
 Weight: ~~175~~ pounds, including ④ paddles, 3 pumps,  
 repair kit  
 6

Size of Bundle: 60" x 22" diameter

Speed: 5-12 knots, depending on motor, load,  
 and sea

Recommend 18 H.P. motor

AVAILABILITY: Moderate number available (in stock).

## OPERATIONAL

CAPABILITIES: Excellent for operational use in ocean and coastal  
 reconnaissance, and infiltration and exfiltration  
 operations through surf using sand beaches, under  
 moderate to rough sea conditions.

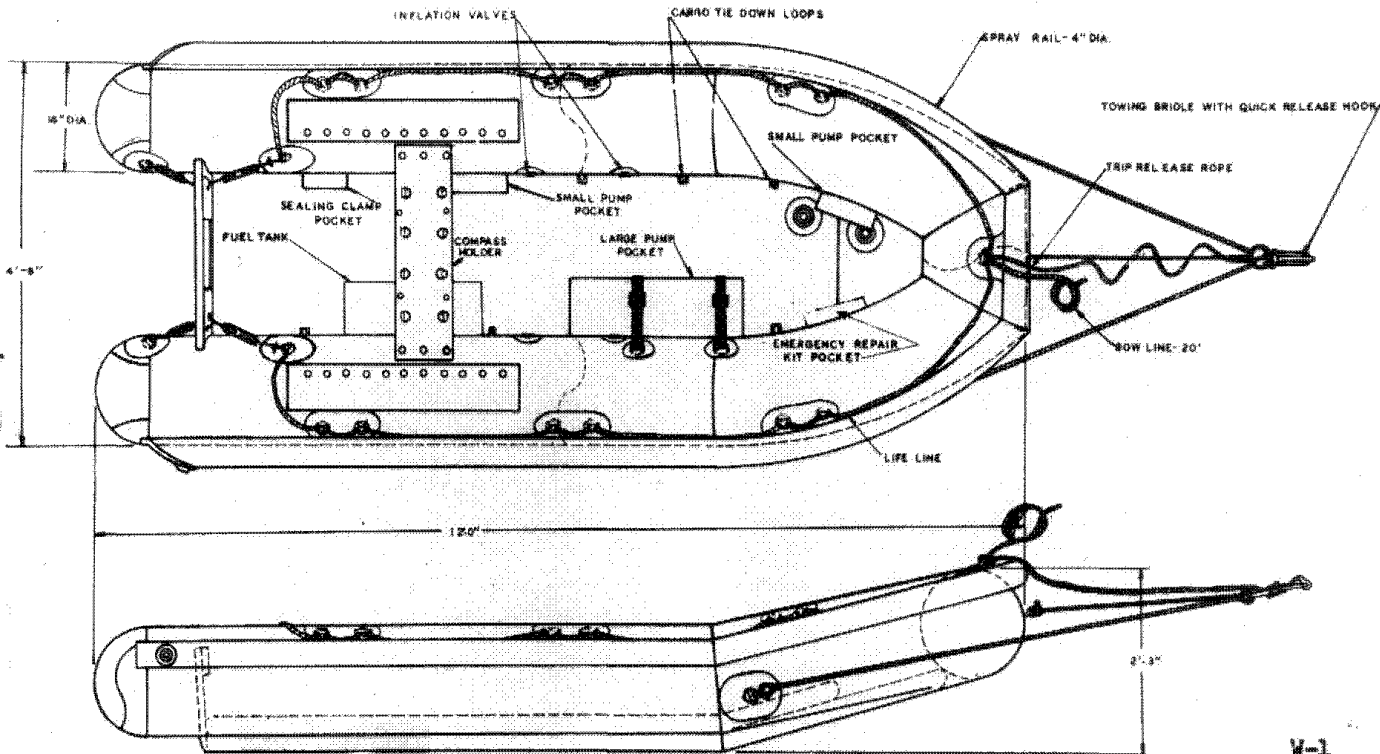
May be cached in ground.

Details available on request on speed performance  
 with various motors and loads, and on radar  
 detectability.

NO: W-1

S E C R E T

**SECRET**

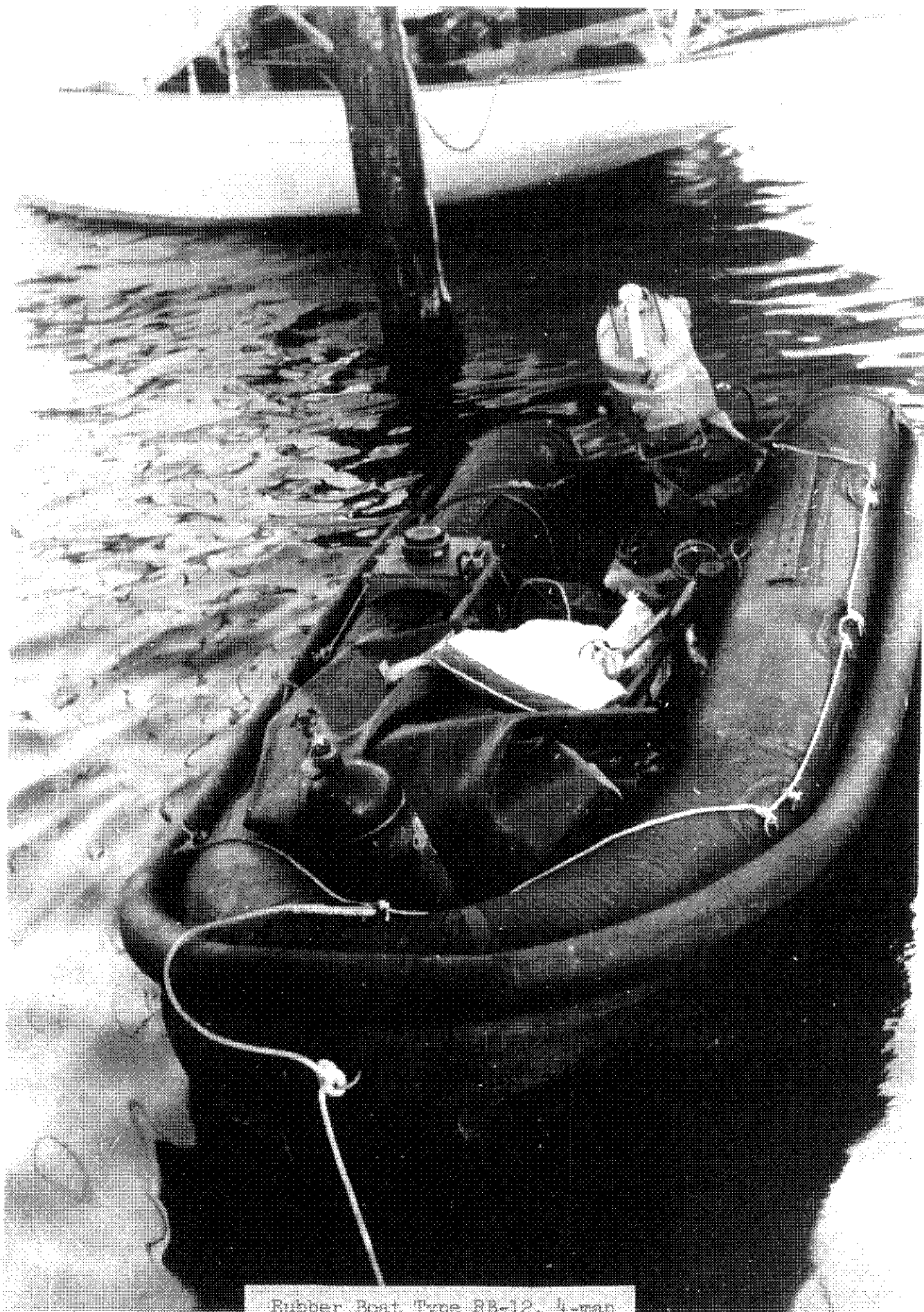


**SECRET**

12'-INFLATABLE UTILITY BOAT

**RUBBER BOAT, TYPE RD-12, 4-MAN**

W-1



Rubber Boat Type RB-12, 4-man

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-2

DATE: 1 July 1

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Rubber Boat, Inflatable, Type RB-9.5, 3-man

PURPOSE: For transporting up to 900 pounds in moderate seas,  
700 pounds in rough seas.

CHARACTERISTICS: Length: 9'6"

Weight: 78 pounds, including 2 paddles, pump,  
emergency repair kit, carrying case,  
and 20 pound field repair kit.

Size of Bundle: 60" x 18" diameter

Speed: 4-6 knots depending on motor, load and seas.

Recommend 7-1/2 H.P. motor.

AVAILABILITY: Moderate number available in stock.

OPERATIONAL

CAPABILITIES: Excellent for operational use in ocean and coastal  
reconnaissance, and infiltration and exfiltration  
operations through surf using sand beaches, under  
moderate to rough sea conditions.

May be cached in ground.

Details available on request on speed performance  
with various motors and loads, and on radar  
detectability.

NO: W-2

SECRET





Type RB-9.5, 3-man

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-3

DATE: 1 July 19

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Rubber Boat, Inflatable, Type RB-90, 2-man.

PURPOSE: For transporting, 2 men and equipment in moderate water,  
propelled by paddles or oars.

CHARACTERISTICS: Length: 90"

Weight: 17 pounds, including paddles, repair kit,  
pump and carrying case.

Size of Bundle: 27" x 15" x 9"

AVAILABILITY: Special procurement, 2-4 months.

OPERATIONAL

CAPABILITIES: Operation limited to short distances, 1-2 miles,  
such as river and lake crossings.

Readily cachable in ground.

NO: W-3

S E C R E T



CATEGORY: INFILTRATION/EXFILTRATION

NO: W-4  
DATE: 1 July 1961  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Rubber Boat, Inflatable Type RB-68, 1-man.

PURPOSE: For transporting 1 man and equipment in relatively calm water.

CHARACTERISTICS: Length: 68"

Weight: 9-1/2 pounds, including paddles, repair kit, pump, and carrying case.

Size of Bundle: 27" x 11" x 4"

AVAILABILITY: Moderate number available in stock.

OPERATIONAL  
CAPABILITIES: Readily cachable.

For crossing lakes, rivers, and similar bodies of water under relatively calm surface conditions.

NO: W-4

S E C R E T



Type RB-68, 1-man

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-6  
DATE: 1 July 19  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Kayak, Inflatable, Neptune, 1-man and 2-man types.

PURPOSE: For transporting personnel and equipment across lakes, rivers, bays, and infiltrating and exfiltrating through moderate surf.

CHARACTERISTICS: "One-Man"

Length: 9'

Weight: 29 pounds, including paddles and carrying case.

"Two-Man"

Length: 13'

Weight: 41 pounds, including paddles, pump, and carrying case.

AVAILABILITY: Special purchase, 2-4 weeks, also available commercially overseas.

OPERATIONAL

CAPABILITIES: Sea worthy in 3-4' seas and in moderate surf.  
Can be paddled short distances such as 5-10 miles.

Readily cachable.

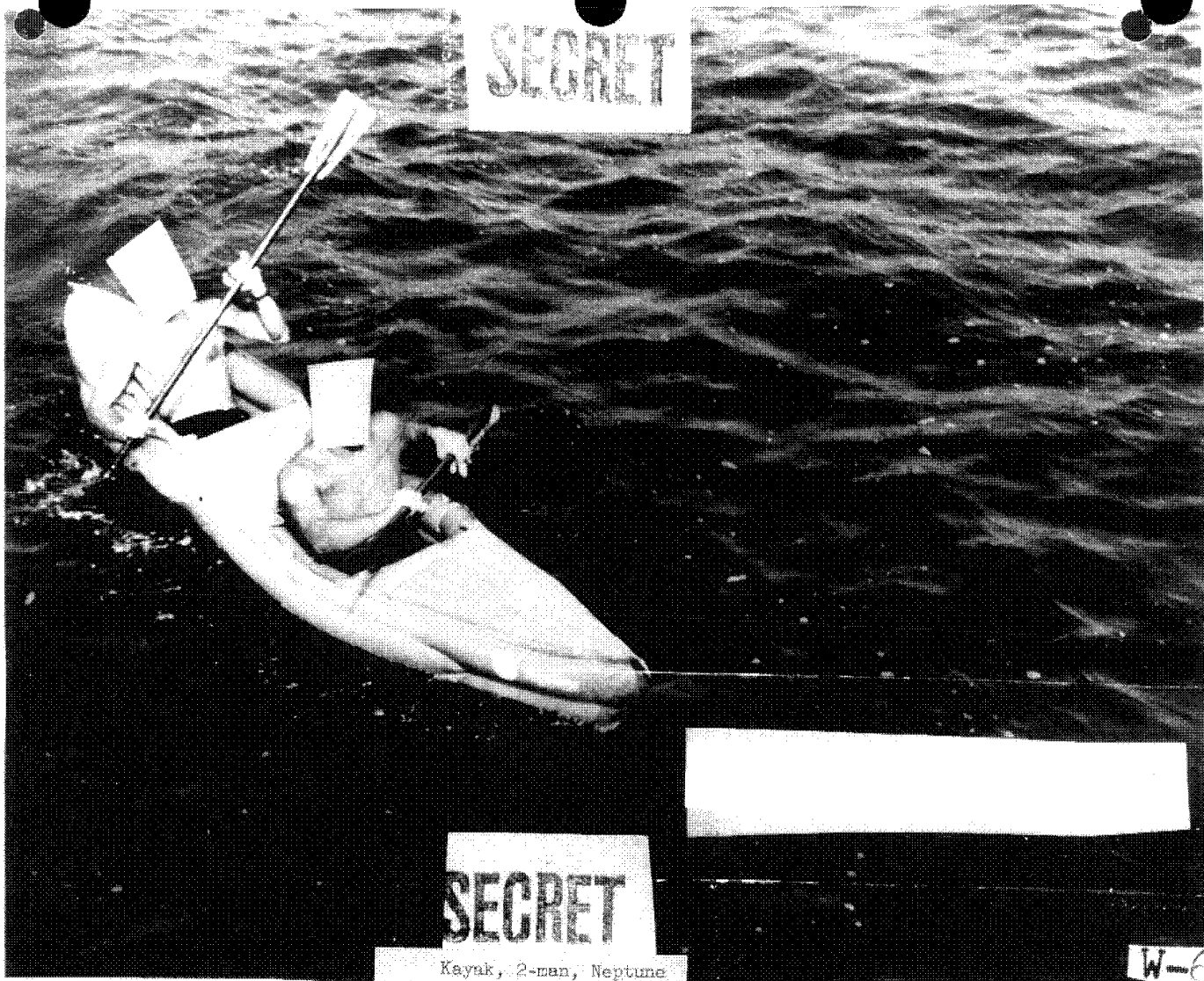
Can be made into compact, small bundle.

One-man type can be inflated by mouth.

NO: W-6







Kayak, 2-man, Neptune



S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-7

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Kayak, collapsible, Klepper, 1-man and 2-man types.

PURPOSE: For transporting personnel and equipment across lakes, rivers, bays, etc., when sea conditions are moderate.

CHARACTERISTICS: "One-Man"

Length: 14'

Weight: 57 pounds, with 2 paddles.

"Two-Man"

Length: 17'

Weight: 63 pounds, with 2 paddles.

Light wooden members serve as framework for the skin.

AVAILABILITY: Commercial sources, 4-6 weeks.

OPERATIONAL

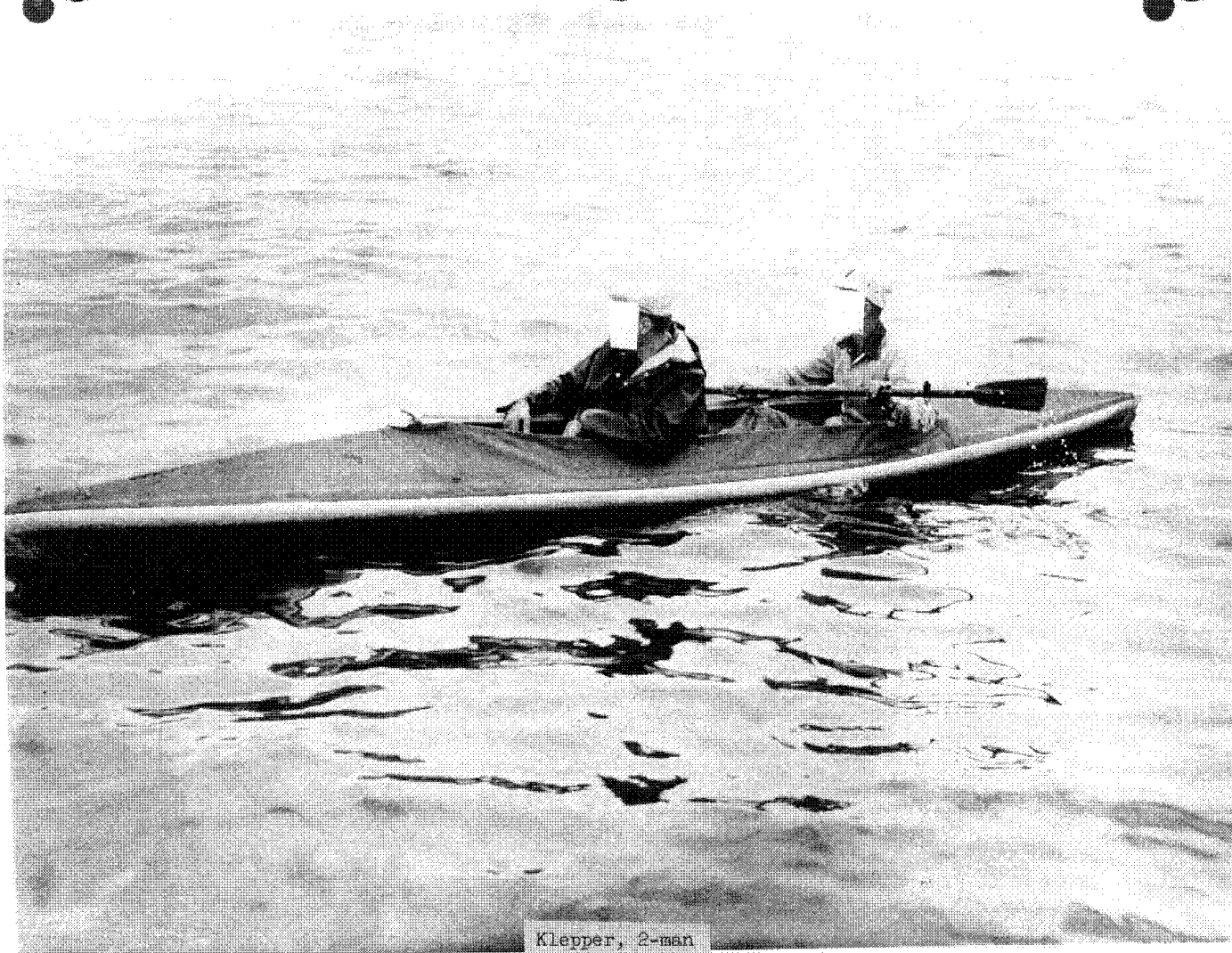
CAPABILITIES: Good performance in coastal, bay, and river areas in moderate water conditions.

Requires some training to erect and disassemble.

Can be paddled, but sailing rig, and outrigger for motor, are also obtainable.

NO: W-7

S E C R E T



S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-8  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Paddleboards, Inflatable.

PURPOSE: For carrying one man, with equipment, for short distances (1-2 miles) in moderate sea conditions and through moderate surf.

CHARACTERISTICS: Length: 10'

Weight: 11-1/2 pounds

Size of Bundle: 28" x 8" diameter

Small hand pump for inflation, 1 pound

AVAILABILITY: Special order, 2-4 months.

OPERATIONAL

CAPABILITIES: For carrying one man and equipment for short distances in moderate seas and surf.

Easily cachable in ground.

NO: W-8

S E C R E T

SECRET



SECRET

Paddleboards, Inflatable, 1-man

4-18

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-9

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Requests to KURIOT)

SUBJECT: Semi-Submersible "Skiff".

PURPOSE: For transporting an operator, 2 passengers, and 120 pounds of equipment in moderate to rough water for distances up to 110 miles.

CHARACTERISTICS: Operates in two conditions of trim; buoyant and semi-submerged.

Wood and aluminum construction with plywood sheathing on bottom, sides, and deck.

Length 19-1/2', beam 5'3", draft; buoyant 2'8"; semi-submerged 3'8", weight 3650 pounds.

Speed in semi-submerged condition; full speed 4.7 knots; cruising speed 4.1 knots; slow speed 2.5 knots.

Designed to be cached in up to 30 feet of water for periods up to 3-4 weeks.

AVAILABILITY: One available in 3 months.

## OPERATIONAL

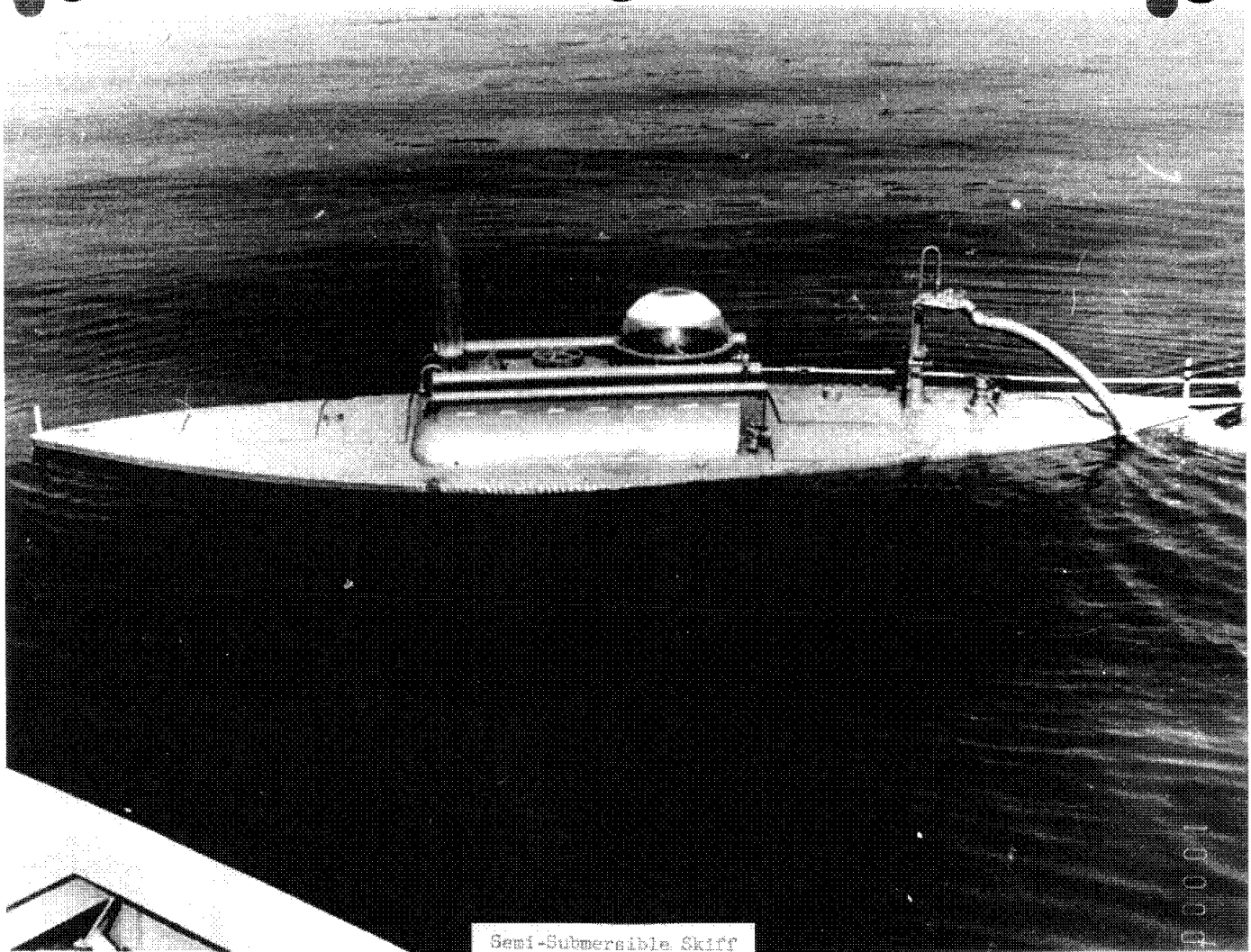
CAPABILITIES: This boat is remarkably stable, easy to maneuver and control. It has operated successfully in ocean swells of 6-8', with surface chop of 5' and winds of 30 knots. Sea-keeping qualities are excellent.

A number of radar detection tests, using various types of radar units have been conducted with this boat and radar detectability is less than that of a rubber boat, type RB-12. It is extremely silent acoustically and has been operated against various underwater hydro-phone equipment.

Further details available on request.

NO: W-9

S E C R E T



Semi-Submersible Skiff

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-10

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Boat, 15' aluminum, Feathercraft "Chief."

PURPOSE: For transporting up to 1200 pounds in moderate to rough water.

CHARACTERISTICS: Length: 15'

Weight: 315 pounds

Speed: 10-22 knots depending on motor, load  
and sea.

Outboard motors: 15, 25, 30, 40 H.P.

Extremely rugged and durable.

AVAILABILITY: Close substitutes in stock, 4-6 weeks.

OPERATIONAL

CAPABILITIES: Excellent seaworthiness and good range in coastal sea  
operations under moderate to rough sea conditions.

May be cached underwater.

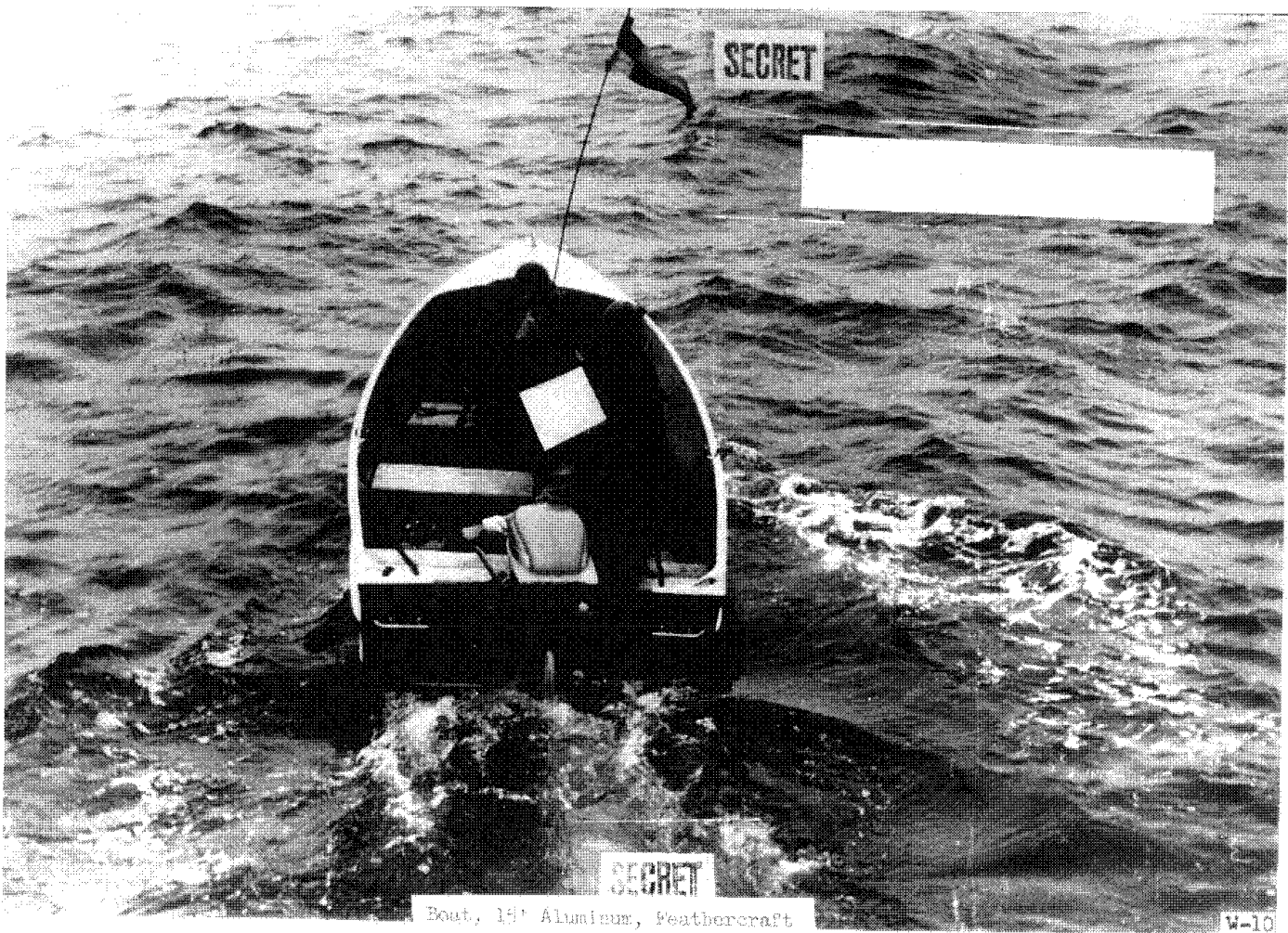
Reports available on request, on caching, on speed  
performances with various motors and loadings, and  
on radar detectability.

This model no longer available.

Close substitutes can be obtained.

NO: W-10

S E C R E T





S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-11

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Boat, 14'6" aluminum, Grumman, runabout model.

PURPOSE: For transporting up to 1200 pounds in moderate to rough water.

CHARACTERISTICS: Length: 14'6"

Weight: 275 pounds

Speed: 10-22 knots depending on motor, load,  
and sea conditions.

Outboard motors, 15, 25, 30, 40 H.P.

Extremely rugged and durable

AVAILABILITY: Moderate number available in stock.

OPERATIONAL

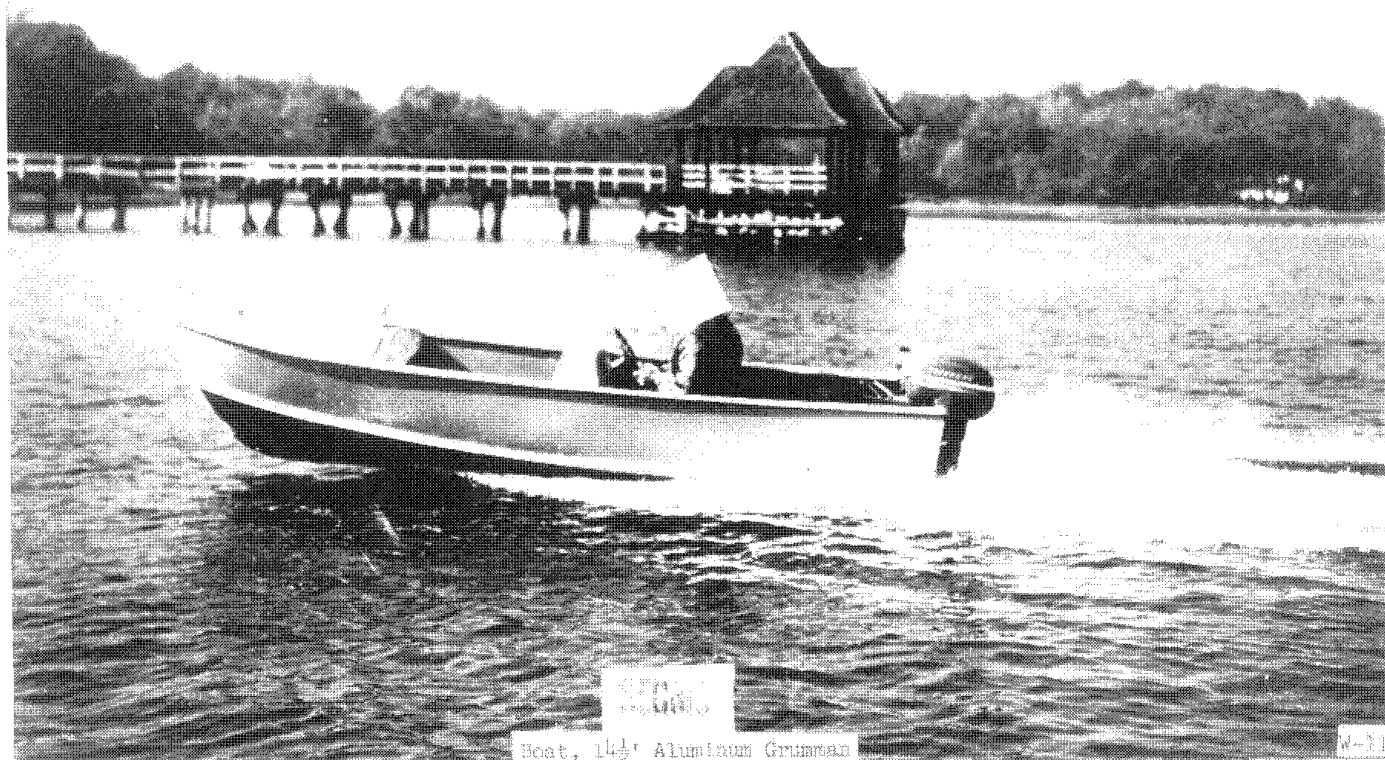
CAPABILITIES: Excellent seaworthiness and good range in coastal sea operations under moderate to rough sea conditions.

May be cached underwater.

Reports available, on request, on caching and on speed performances with various motors and loadings.

NO: W-11

S E C R E T



S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-12

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Boat, plastic, 16' inboard, Dyer.

PURPOSE: For transporting up to 900 pounds, load in moderate to rough seas, where higher speeds are needed.

CHARACTERISTICS: Length: 15'9"

Engine: 65 H.P.

Weight: 1000 pounds

Gas Capacity: 40 gallons

Folding spray canopy forward

Speeds: 15-21 knots, dependant on load and sea conditions.

AVAILABILITY: Commercially available, 6-8 weeks.

OPERATIONAL

CAPABILITIES: For offshore and coastal reconnaissance and infiltration and exfiltration operations where higher speeds and good seaworthiness under moderate weather conditions are requisite.

Further information on speeds under various loading and sea conditions available on request.

NO: W-12

S E C R E T



SECRET

Boat, 16' Inboard, Dyer

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-13

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Underwater Breathing Apparatus, Aqua Lung, Scott Hydro-Pak, and Northhill.

PURPOSE: For underwater swimming.

CHARACTERISTICS: Compressed air type.

Standard equipment and contains two air bottles.

Weights of complete apparatus, 60-70 pounds.

AVAILABILITY: Moderate number of Aqua Lungs available in stock, other lungs commercially available 4-6 weeks.

OPERATIONAL

CAPABILITIES: Stream of exhaust bubbles may disclose presence of swimmer.

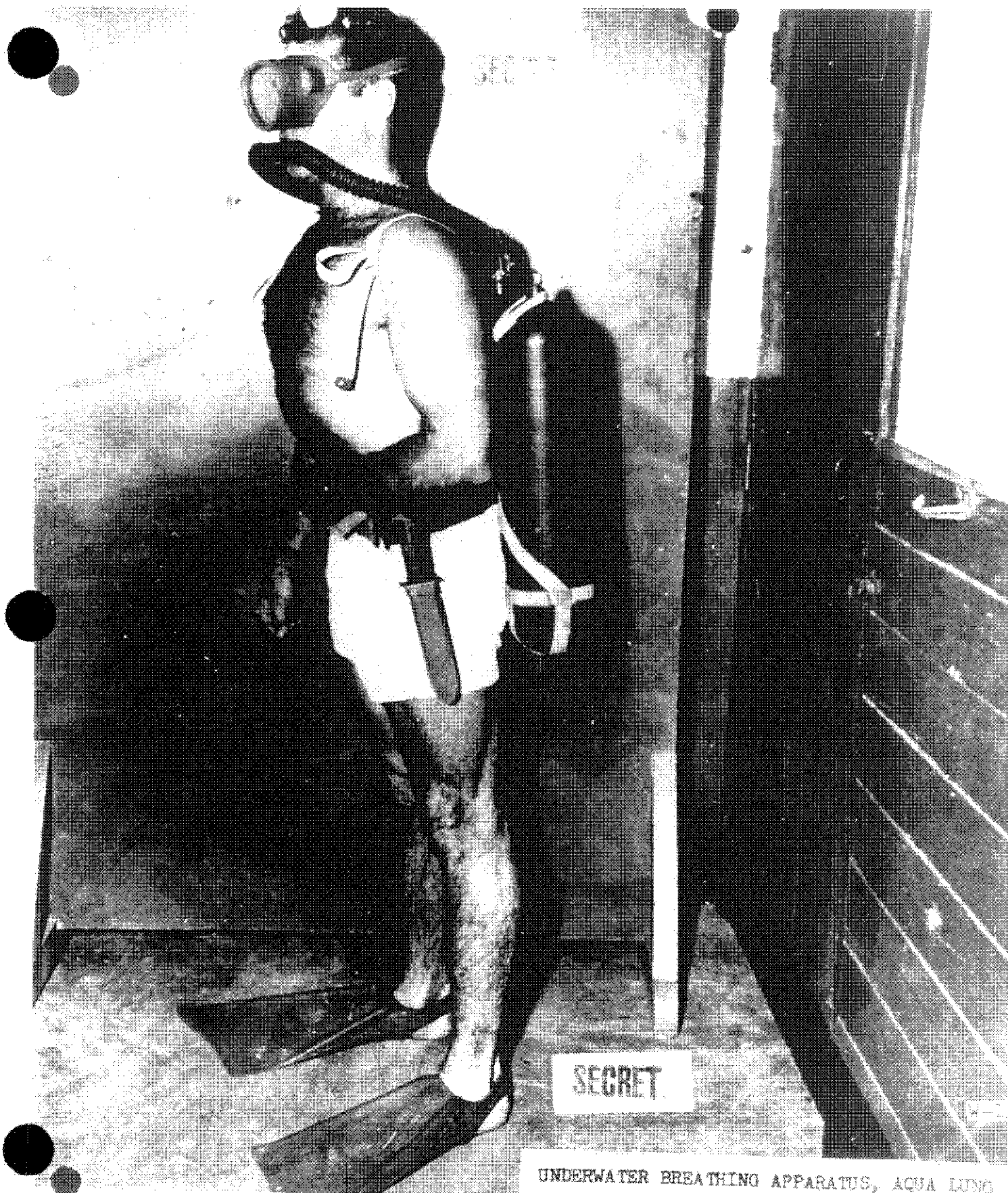
Duration approximately one hour.

Depths average swimmer to 30 feet.  
expert swimmer to 100 feet.

For over 30 feet, decompression facilities are recommended.

NO: W-13

S E C R E T



SECRET

UNDERWATER BREATHING APPARATUS, AQUA LUNG

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-14

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Underwater Breathing Apparatus, Drager and Pirelli.

PURPOSE: For underwater swimming.

CHARACTERISTICS: Closed oxygen circuit type.

Standard equipment contains two oxygen bottles.

Weight of complete apparatus: approximately 35 pounds.

AVAILABILITY: Commercially available, 4-6 weeks.

OPERATIONAL

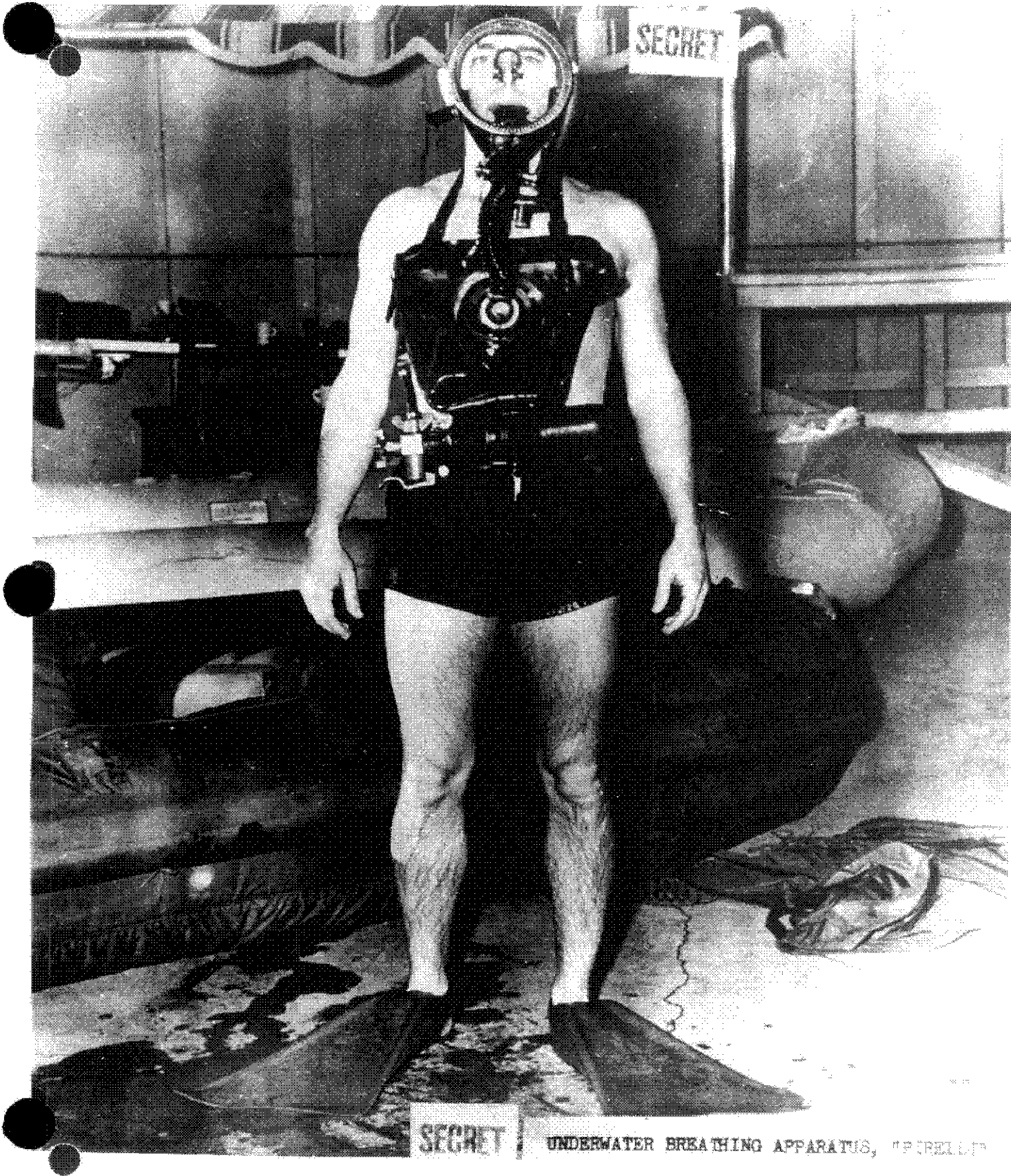
CAPABILITIES: Practically no air bubbles to disclose presence of swimmer.

Duration: 1-1/2 to 2 hours.

Depths: Should not be used at depths exceeding 30 feet.

NO: W-14

S E C R E T



SECRET UNDERWATER BREATHING APPARATUS, "PURELITE"



S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-15

DATE: 2 July 1958

CLASS: "A"

(Additional Data on Request to KURLOT)

SUBJECT: Swim Suit, two piece, type ODOATH.

PURPOSE: For use in swimming in water below 55-65°F or for period of long exposure.

CHARACTERISTICS: Dry type suit.

Watertight, heavy underwear worn under suit for warmth.

Integral hood and feet. Separate gloves.

AVAILABILITY: 6-8 weeks.

OPERATIONAL

CAPABILITIES: Very durable type suit with reinforced foot pads and is recommended where there is possibility of snagging or where walking is required.

Inked serial number and size should be obtained.

W. 1000

S E C R E T



Swim Suit, Type Odoath

W-15

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-16

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Swim Suit, Pirelli (long), Seal (long).

PURPOSE: For use in swimming in water below 55-65°F or for period of long exposure.

CHARACTERISTICS: Dry type suit.

Watertight, heavy underwear worn under suit for warmth.

Integral hood and feet.

Suits also available in short arms and legs for use in water above 65°F.

AVAILABILITY: 4-6 weeks.

OPERATIONAL CAPABILITIES: Will tear on snags.

NO: W-16

S E C R E T

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-17

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Swim Suits, sub-mariner, LaJolla types full suits.

PURPOSE: For use in swimming for very short periods in water  
below 60°F.

CHARACTERISTICS: Wet type suits

Unicellular foam material provides head insulation

Integral hood

Hands and feet exposed

AVAILABILITY: Commercially available, 4-6 weeks.

OPERATIONAL

CAPABILITIES: Easily torn.

NO: W-17

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-16  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Swim Fins, Churchill, Voit, and Cressi Rondine types.

PURPOSE: Swimming aids.

CHARACTERISTICS: Available in small, medium, large, and extra large sizes.

AVAILABILITY: Commercially available, 4-6 weeks,

OPERATIONAL CAPABILITIES: To serve as an aid in either free swimming or as a must when a breathing lung is used.

NO: W-16

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-19

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Face Masks, Squale, Champion, and Drager types.

PURPOSE: Underwater swimming aid.

CHARACTERISTICS: The masks are equipped with shatterproof lens and cover the swimmer's nose and eyes.

AVAILABILITY: Commercially available, 4-6 weeks.

OPERATIONAL

CAPABILITIES: Protects eyes from irritation.

NO: W-19

S E C R E T

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-20

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Compass, underwater swimmers, wrist type, MK-1 model "O".

PURPOSE: Aid for underwater swimmers.

CHARACTERISTICS: Luminous dial for night use.

Desired course can be pre-set and heading  
maintained by "matching pointers."

ODOATH type.

AVAILABILITY: 4-6 weeks.

OPERATIONAL

CAPABILITIES: Enables a swimmer to follow a desired or set course,  
day or night.

NO: W-20

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-21  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Depth gauge, underwater swimmer's, wrist type.

PURPOSE: Diving aid for underwater swimmers.

CHARACTERISTICS: (1) Graduated from 0 to 200 feet ODOATH,  
Bellows type.

(2) Graduated from 0 to 300 feet, Drager type.

AVAILABILITY: (1) 4-6 weeks.

(2) 3 weeks, commercial sources.

OPERATIONAL

CAPABILITIES: Enables a swimmer to maintain desired depth while swimming underwater and serves as a safety feature when ascending.

NO: W-21

S E C R E T



S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-22

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Wrist watches, swimmers, waterproof,

Types: (1) ODOATH

(2) Rolex Submariner

PURPOSE: Swimming aid.

CHARACTERISTICS: Reliably waterproof, luminous dial.

AVAILABILITY: (1) 2 months.

(2) 4-8 weeks commercially available.

OPERATIONAL

CAPABILITIES: Both types are reliable to all swimming depths.

NO: W-22

S E C R E T

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-23

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Air compressor, portable, Cornelius.

PURPOSE: For filling compressed air breathing lungs at pressures up to 2500 psi.

CHARACTERISTICS: (1) Powered with 1/2 H.P. 110-120 volt,  
60 cycle AC electric motor.  
(2) Powered with 1-1/4 H.P., 2 cycle, gasoline engine.

AVAILABILITY: Moderate number available in stock.

OPERATIONAL

CAPABILITIES: For use in providing filtered air for Aqua-Lung, Scott Hydro-Pak, and Northill underwater lungs.

Very dependable compressor.

NO: W-23

S E C R E T

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-24  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Minisub, MK-6.

PURPOSE: For transporting two men, or one man, plus cargo,  
underwater.

CHARACTERISTICS: Propelled by foot pedals, or 1 H.P. electric  
motor and batteries, turning counter-rotat-  
ing propellers.

Length: 150 inches

Width: 22 inches

Height: 42 inches

Weight: 155 pounds, (foot pedals)  
225 pounds, (with electric motor and batteries)

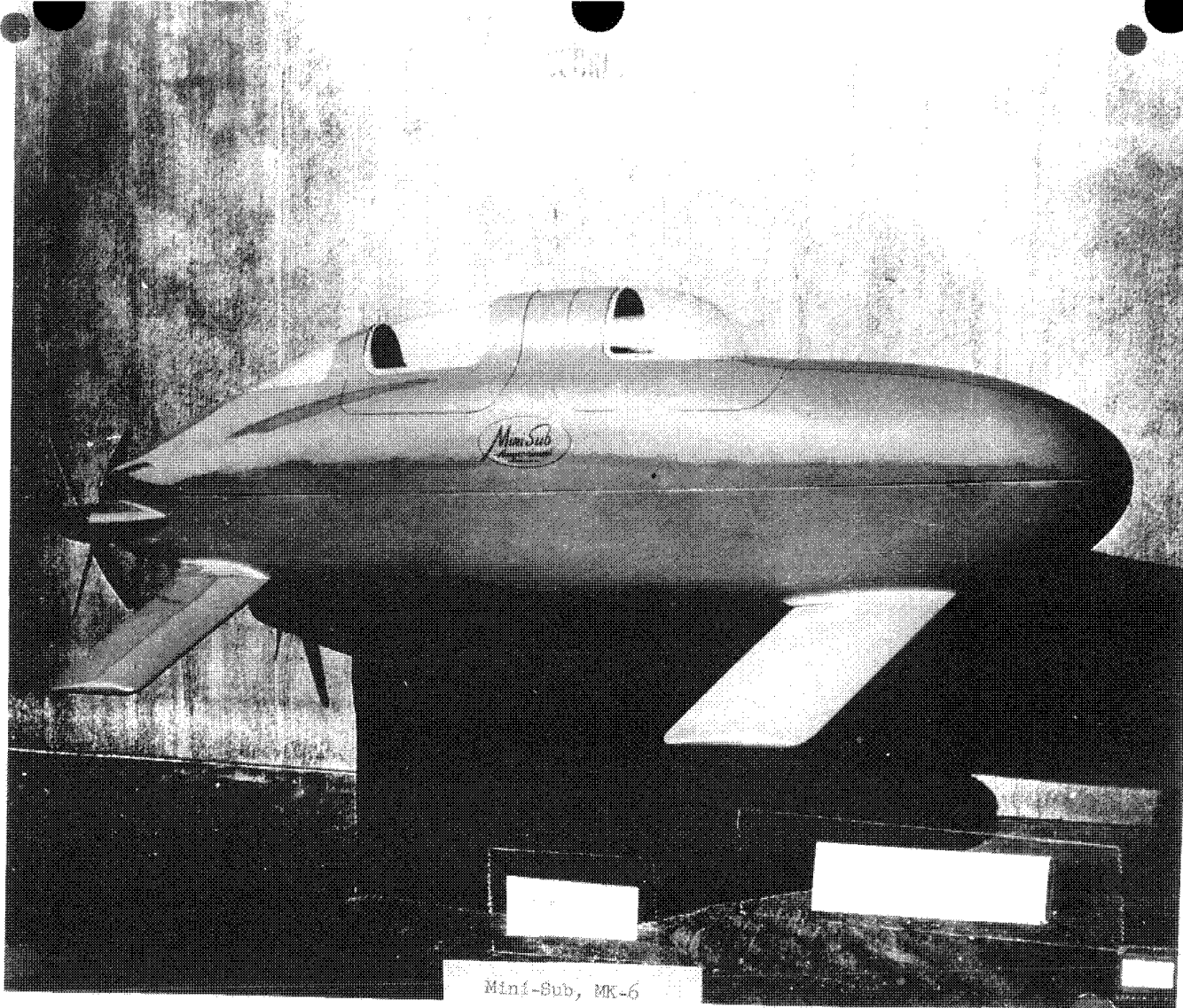
AVAILABILITY: Commercially available, 3 months.

OPERATIONAL

CAPABILITIES: The Minisub MK-6 is not recommended for operational  
use due to its bulk, weight, and fragility.

NO: W-24

S E C R E T



S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-25  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Aquaped

PURPOSE: To increase underwater swimmer's range.

CHARACTERISTICS: Propulsion, two propellers, contra-rotating.

Propelled by foot pedals.

Weight: 19 pounds.

AVAILABILITY: Commercially available, 2-3 months.

OPERATIONAL

CAPABILITIES: Not recommended for operational use due to its discomfort and its very slight gain in speed over that of a swimmer equipped with fins.

NO: W-25

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-26  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Radios, portable,  
(1) PRC-6  
(2) PRC-10

PURPOSE: Voice communication over short ranges.

CHARACTERISTICS: (1) PRC-6, 7 pounds

Size: 14" x 4" x 6"

(2) PRC-10, 26 pounds

Size: 18" x 3" x 10"

AVAILABILITY: 1 month.

OPERATIONAL

CAPABILITIES: (1) PRC-6: Very useful between boats, boat-to-shore, and mother ship to boat or shore where range will not exceed 2 miles. Light-weight, hand carried, small size, short antenna.

(2) PRC-10: Very useful under above conditions where range will not exceed 8-10 miles and where a slightly larger and heavier set can be accommodated. Not hand-carried, when in use should be carried on back or lashed securely in desired location. Long and short antennas available.

NO: W-26

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-27  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Radar Detection Tests of Small Craft, CBA.  
November 1953 Report.

PURPOSE: Determining maximum and minimum detection ranges of  
small craft as semi-submersible Skiff and Rubber  
Boats.

CHARACTERISTICS: 20 foot semi-submersible skiff.

12 foot rubber boat, type RB-12.

Radar, seven surface and air search types,  
frequencies 200-25,000 mcs.

AVAILABILITY: Report available on application to KURIOT.

OPERATIONAL

CAPABILITIES: Report gives maximum and minimum detection ranges  
under various atmospheric and sea conditions.

Also gives results of seakeeping and towing exercises.

Conducted by KURIOT at ODOATH experimental radar  
station with assistance of their scientific personnel.

NO: W-27

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-28  
DATE: 1 July 1954  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Radar Detectability of Small Craft, CBA.  
September 1954 Report.

PURPOSE: Determining ranges at which various radars detected small craft such as rubber boats, wooden and metal boats, and the semi-submersible skiff.

CHARACTERISTICS: 12 foot rubber boat, type RB-12.

20 foot semi-submersible skiff.

38 foot commercial boat, wood.

Radar, nine surface and air search types, frequencies 200 to 36,000 mcs.

AVAILABILITY: Report available on application to KURIOT.

OPERATIONAL

CAPABILITIES: Report gives detection ranges under various atmospheric and sea conditions.

Conducted by KURIOT at ODOATH experimental radar station with assistance of their scientific personnel.

NO: W-28

S E C R E T



S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-29  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Radar and Sonar Detection Tests of Small Craft,  
May 1954 Report.

PURPOSE: To determine maximum ranges at which various radars  
and underwater sonar devices, which protected a harbor,  
could detect small craft.

CHARACTERISTICS: 63 foot AVR patrol craft.

20 foot semi-submersible skiff.

15 foot wooden and aluminum boats.

9-1/2 - 12 foot rubber boats.

Mattresses and paddleboards.

Radars=surface and air search types,  
frequencies 2800 to 10,000 mcs.

Sonar Detectors - thirteen different types of  
hydrophones, heralds, and magnetic loops.

AVAILABILITY: Report available on application to KURIOT.

OPERATIONAL

CAPABILITIES: Report gives maximum detection ranges under various  
atmospheric, sea, and engine speed conditions.

Tests conducted by KURIOT at ODOATH installations  
with assistance of their personnel.

NO: W-29

S E C R E T

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-30

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: SARAH Homing Equipment, Maritime,  
Preliminary Test Report.

PURPOSE: To provide a system whereby exact direction can be determined for pickups by offshore craft of a swimmer, a man in a raft or boat, or ashore near a beach.

CHARACTERISTICS: SARAH consists of:

- (1) The receiving unit mounted on a vessel with adequate power supply.
- (2) The beacon unit carried by the person or persons to be picked up. The beacon weighs 52 oz. and will transmit a signal for 20 hours.
- (3) 243 mcs.

AVAILABILITY: One set - No longer available.

Others - 6-8 months.

OPERATIONAL

CAPABILITIES: Can locate a person on a beach or in a small boat, or a swimmer, at ranges up to 3 miles.

Two reports of tests by KURIOT, dated 13 June 1955 and 10 August 1955, of this equipment are available upon request. These include additional tests made at greater ranges, on beacan in elevated positions.

NO: W-30

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-31  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Underwater telephone, shore-to-shore, portable.

PURPOSE: To provide a reasonably secure voice communication system by using underwater electronic channel.

CHARACTERISTICS: Each telephone unit (transceiver, batteries, hand set, transducers), packaged in suitcase, weighs 56 pounds, complete and ready to operate. Extension cable can be provided if necessary to place transducer at considerable distance from operator's location.

AVAILABILITY: By special order, 6 months. Now available in transistorized model.

OPERATIONAL

CAPABILITIES: Excellent two-way voice communication:

- (1) Over 5 nautical mile range, straight line water path between stations.
- (2) Over 3500 yards range in fresh water lakes.
- (3) 600 yards range along canal around 36° bend.

Depth of water and depth of transducer not significant in above ranges.

A homing tone also built in, can be keyed.

Further information, including report of tests dated 4 January 1956, can be supplied if desired.

NO: W-31

S E C R E T

SECRET



SECRET

Portable Underwater Telephone, complete with transducers and 30-foot extension cable.

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-32

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Outboard Motors - Evinrude and Johnson, 3-35 H.P.

PURPOSE: Propulsion of rigid and inflatable small craft up to about 16 feet long and up to about 20 feet long when used in pairs.

CHARACTERISTICS: Sizes available (1957), and approximate weights:

3 H.P.	-	33 pounds
5-1/2 H.P.	-	56 pounds
7-1/2 H.P.	-	59 pounds
10 H.P.	-	74 pounds
18 H.P.	-	80 pounds
35 H.P.	-	123 pounds

REMARKS:

Electric starting available on larger models but not recommended.

REMARKS:

AVAILABILITY: Commercially available - 2-4 weeks.

Also available commercially in some foreign countries.

OPERATIONAL

CAPABILITIES: These motors have been tested by KURIOT and are mechanically reliable.

Additional information on speeds when mounted on various boats and with varying loads available on request.

NO: W-32

S E C R E T

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-33

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Outboard Motor, Mercury, 40 H.P. hand and electric starting.

PURPOSE: Propulsion of rigid small craft 15 feet to 20 feet long.

CHARACTERISTICS: 4 cylinders, 125 pounds weight.

AVAILABILITY: Commercially available - 2-4 weeks.

OPERATIONAL

CAPABILITIES: This motor gave a speed of 22 knots when used on a 15-foot aluminum boat with a 700 pound load.

Motor can run at lower engine speeds than most outboard engines.

Additional information on speeds, at various loads, available on request.

35 H.P. Evinrude and Johnson give comparable performance.

NO: W-33

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-34  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Electric Outboard Motor; Silvertrol.

PURPOSE: Quiet propulsion of small rigid and inflatable boats  
(under 14 feet length).

CHARACTERISTICS: For use with either 6 or 12-volt battery.  
.62 H.P. with 12-volts.

Weight of Silvertrol outboard motor, 21 pounds,  
plus weight of battery.

AVAILABILITY: Commercially available - 4-6 weeks.

OPERATIONAL

CAPABILITIES: For use over short distances (up to 3-6 miles)  
where very quiet operation is paramount.

Additional information is available, on request,  
on test results - speed, loadings, types of  
boats, and battery types and dururances.

NO: W-34

S E C R E T

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-35

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Technique for Metal Boat Caching and Retrieving.

PURPOSE: To cache and retrieve a small metal boat in depths of water up to 20 feet.

CHARACTERISTICS: Boat, 15 foot aluminum, capacity 6 men, outboard engine propelled, weight 315 pounds.

Flotation material, a small quantity of styro-foam which has great buoyancy properties. This is installed in the boat under the seats, etc.

Four, 50-pound sandbags attached to each side of boat.

A special stake to anchor the boat underwater.

AVAILABILITY: All caching gear can be fabricated in the field.

OPERATIONAL

CAPABILITIES: Boat can be cached in up to 20 foot depth on other than rocky bottom, for an indefinite time.

Swimmer dives and cuts anchor and weight lines, and boat surfaces.

Boat can then be bailed out.

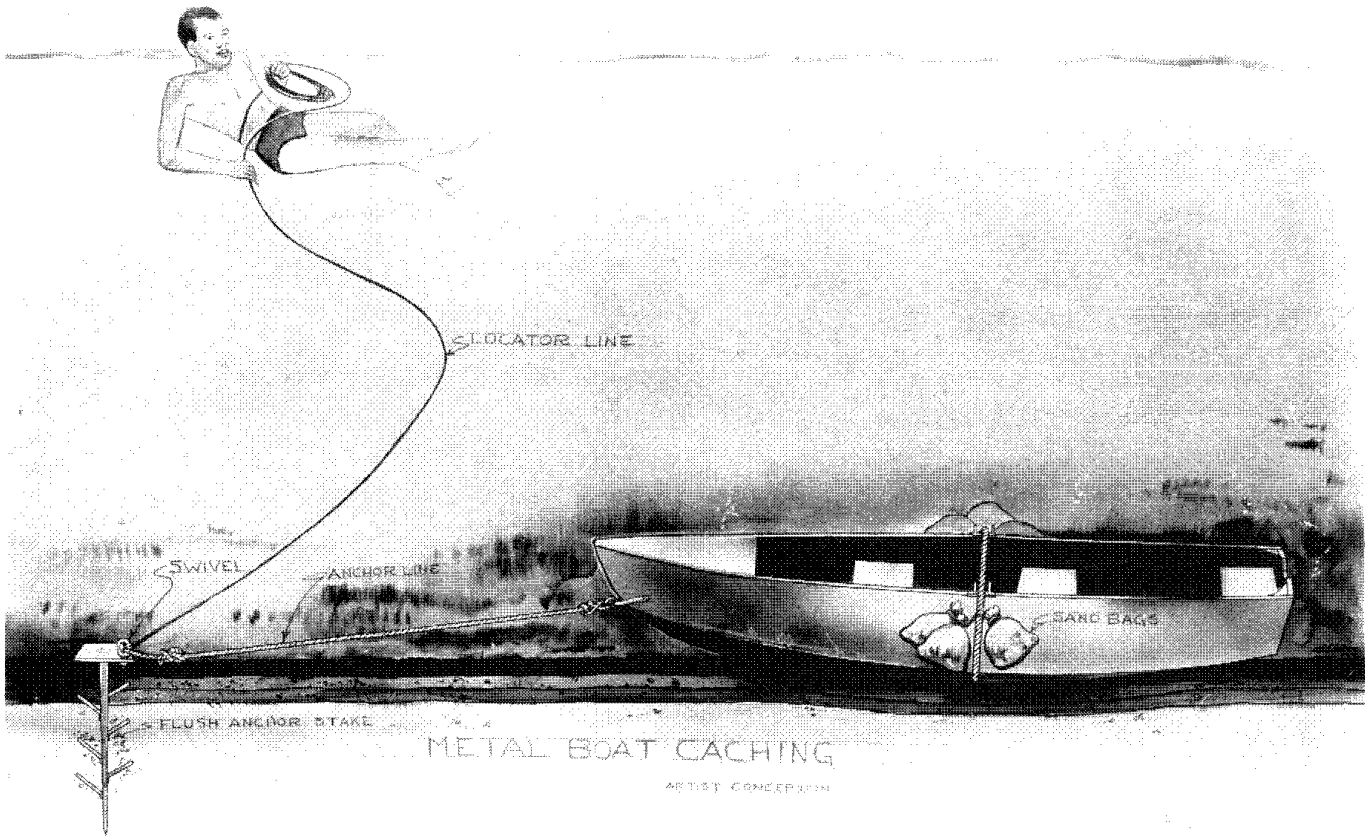
Similar procedure also applicable to wooden boats.

A complete report of equipment required and technique is available on request.

NO: W-35

S E C R E T





S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-36

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Compasses, boat, Corsair, 3-1/2 inch dial

PURPOSE: Navigational aid in small boats.

CHARACTERISTICS: Magnetic type.

Adjustable bracket for mounting.

AVAILABILITY: 4-6 weeks.

OPERATIONAL

CAPABILITIES: Useable on small boats in all sea conditions.

NO: W-36

S E C R E T

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-37

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Float Waders, rubber.

PURPOSE: Cross streams wearing normal outer clothing and carrying up to 60 pounds pack.

CHARACTERISTICS: Waders with inflatable, flotation tube at waist level. Oral inflation. Adjustable shoulder straps. Adjustable leg length. Heavy foot pads for rocky bottom. Spray shield tied under armpits. Weight, approximately 6 pounds.

AVAILABILITY: One to two months.

OPERATIONAL

CAPABILITIES: Allows wearer to cross a stream or small lake without getting equipment or clothing wet.

When water is deeper than waist-depth, wearer can remain upright and paddle, with hands, at .5 knot speed.

NO: W-37

S E C R E T



S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-38

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Anemometer, Cape Cod type, portable, hand or mounted.

PURPOSE: To measure wind velocity.

CHARACTERISTICS: Range: 0 to 100 mph

Consists of shaft approximately 16 inches high,  
with base mount, rotating cups on top, and dial.

Electrically operated, self-induced.

Dial can be placed up to 50 feet away (wire  
is provided)

AVAILABILITY: 4-8 weeks.

OPERATIONAL

CAPABILITIES: Dependable if handled with care.

NO: W-38

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-39  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Anti-exposure suits, type R-1, ODUNIT and ODOATH.

PURPOSE: To provide complete clothing protection from spray  
and weather when riding in small boats.

CHARACTERISTICS: Color: Gray (sterile); or yellow (non-sterile)  
if desired.

Fabric: Rubberized.

Entrance from the neck of the suits.

Equipped with gloves, integral feet and hood.

SIZES: Sterile; small, medium, and large.  
Non-Sterile; large.

AVAILABILITY: 1-2 months (yellow)

2-3 months (gray)

OPERATIONAL

CAPABILITIES: The suit enables a person to land dry, or substantially  
so, from a small craft after a rough, wet trip.

NO: W-39

S E C R E T

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-40

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Tachometers, engine, Frahm Resonant Reed type.

PURPOSE: To determine engine R.P.M.

CHARACTERISTICS: Available in ranges 1000 to 15,000 rpm.

Available for portable or permanent mounting.

AVAILABILITY: 4-6 weeks.

OPERATIONAL

CAPABILITIES: Of special value in connection with outboard engines, to accurately and instantly determine whether engines are performing at rated or other desired rpms.

NO: W-40

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-41  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Fathometers

PURPOSE: To indicate depth of water under boat or vessel.

CHARACTERISTICS: White D6  
Range in feet - 0 to 80

Bendix D4  
Range in feet - 0 to 100.

Raytheon  
Range in feet - 0 to 120.

All above makes are available for operation  
from 6V DC power and certain alternative  
power sources.

AVAILABILITY: Commercially available 4-6 weeks.

OPERATIONAL

CAPABILITIES: For rigid craft larger than approximately 14 feet  
length. The transducer must be permanently  
mounted outside or inside the bottom of boat  
near keel.

NO: W-41

S E C R E T



S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-42  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Gasoline Fume Detector, Raytheon, single head (Model A).

PURPOSE: To detect presence of gasoline vapors in engine spaces,  
etc.

CHARACTERISTICS: Panel size: Approximately 3" x 4".

Entire equipment weighs only a few pounds and  
can be obtained to operate from 6 V., 12 V.,  
etc. storage batteries.

Where desirable to install 2 detector heads  
at different locations instead of a single  
head, or where a bell alarm is desired instead  
of a meter, such models are available.

AVAILABILITY: 2 months.

OPERATIONAL

CAPABILITIES: Detects presence of dangerous accumulation of  
explosive gasses.

Especially necessary where gasoline engines operate  
in restricted or nearly closed up spaces with  
possibility of inadequate ventilation. Very  
reliable.

NO: W-42

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-43  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Air Rollers.

PURPOSE: For moving small craft short distances on shore.

CHARACTERISTICS: Inflatable.

Cylinder shape.

9-1/2" dia. x 48" length for 1200 pound load.

AVAILABILITY: Commercially available, 4-6 weeks.

OPERATIONAL

CAPABILITIES: For beaching or launching small craft where they must be moved short distances ashore. Best to use them in pairs or threes.

NO: W-43

S E C R E T

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S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-48  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Two-Man Catamaran, Inflatable - Japanese.

PURPOSE: For transporting two men and equipment at speeds  
in excess of 30 mph in calm water.

CHARACTERISTICS: Length: 9'

Weight: 135 pounds, complete with motor  
mounting bracket.

AVAILABILITY: Not available.

OPERATIONAL

CAPABILITIES: Not recommended.

Report available.

NO: W-48

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-49  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: 15-1/2' "Zodiac"  Rubber Boat.

50X1

PURPOSE: To test and evaluate performance.

CHARACTERISTICS: 15'6" Rubber Boat, non-inflatable "V"-bottom formed by portable wooden keel, floor members and plywood insert. Weight of boat, 285 pounds with 2 oars and air pump.

AVAILABILITY:

50X1

Final Speed, sea, and surf testing has been completed and the boat has been returned.

OPERATIONAL  
CAPABILITIES: Report Available.

NO: W-49

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-52  
DATE: 1 July 195  
CLASS: "A"

(Additional Data on Request to KURIOT)

**SUBJECT:** 14-foot, Inflatable Boat, Airmat.

**PURPOSE:** To transport up to 700 pounds in moderate to rough water and at higher speeds.

**CHARACTERISTICS:** Length: - 14 feet  
Approximate Weight: - 172 pounds  
Engine: - 15-30 H.P., outboard

**AVAILABILITY:** None.

**OPERATIONAL**

**CAPABILITIES:** Boat, designed and built by a contractor, was thoroughly tested and evaluated. Due to lack of rigidity at higher speeds, the design is not recommended.

NO: W-52

S E C R E T

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-54

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Hydro-foil Boat, 35 foot.

PURPOSE: To transport up to 1500 pounds at high speed and in moderate seas, for in/exfiltration operations.

CHARACTERISTICS: 35° aluminum hull.

275 H.P. gasoline engine.

2 crew, 2 passengers, equipment.

35 knots, 200-250 mile range.

Fuel capacity: Standard 106 gals. plus 55 gals. extra,  
Total - 161 gals.

AVAILABILITY: One in two months.

OPERATIONAL

CAPABILITIES: Continuous cruising speed 26-28 knots.

May be operated at 26 knots in surface chop of 2-1/2° to 3° waves and in moderate ocean swells of 4°-5° in height (trough to crest).

Far superior to similar size of conventional displacement boat in speed and sea-keeping qualities.

Report available.

NO: W-54

S E C R E T



35' Aluminum Hydro-foil Boat



S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-56

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: 30 H.P. Outboard Engine "Evinrude" 1956 model.

PURPOSE: Performance tests on rigid boats, for use in in/exfiltration missions.

CHARACTERISTICS: 30 H.P. at 4500 rpm.

Weight: 123 pounds.

AVAILABILITY: Manufacturer increased H.P. from 30 to 35. Now available in 35 H.P. size.

NO: W-56

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-58a.  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: 7-1/2 and 15 H.P. Special Quieted/Waterproofed  
Outboard Engines.

PURPOSE: (1) To operate at much lower noise levels than  
commercial models.  
(2) To protect against accidental submersion in  
breaking surf.

CHARACTERISTICS: Special valves and watertight covers for quiet-  
ness and waterproofness.

Total weight: 7-1/2 H.P. - 73 pounds.

15 H.P. - 95 pounds.

AVAILABILITY: New design available in 7-1/2 and 15 H.P. size.  
Moderate number of new designs available in  
stock. See W-58b.

OPERATIONAL

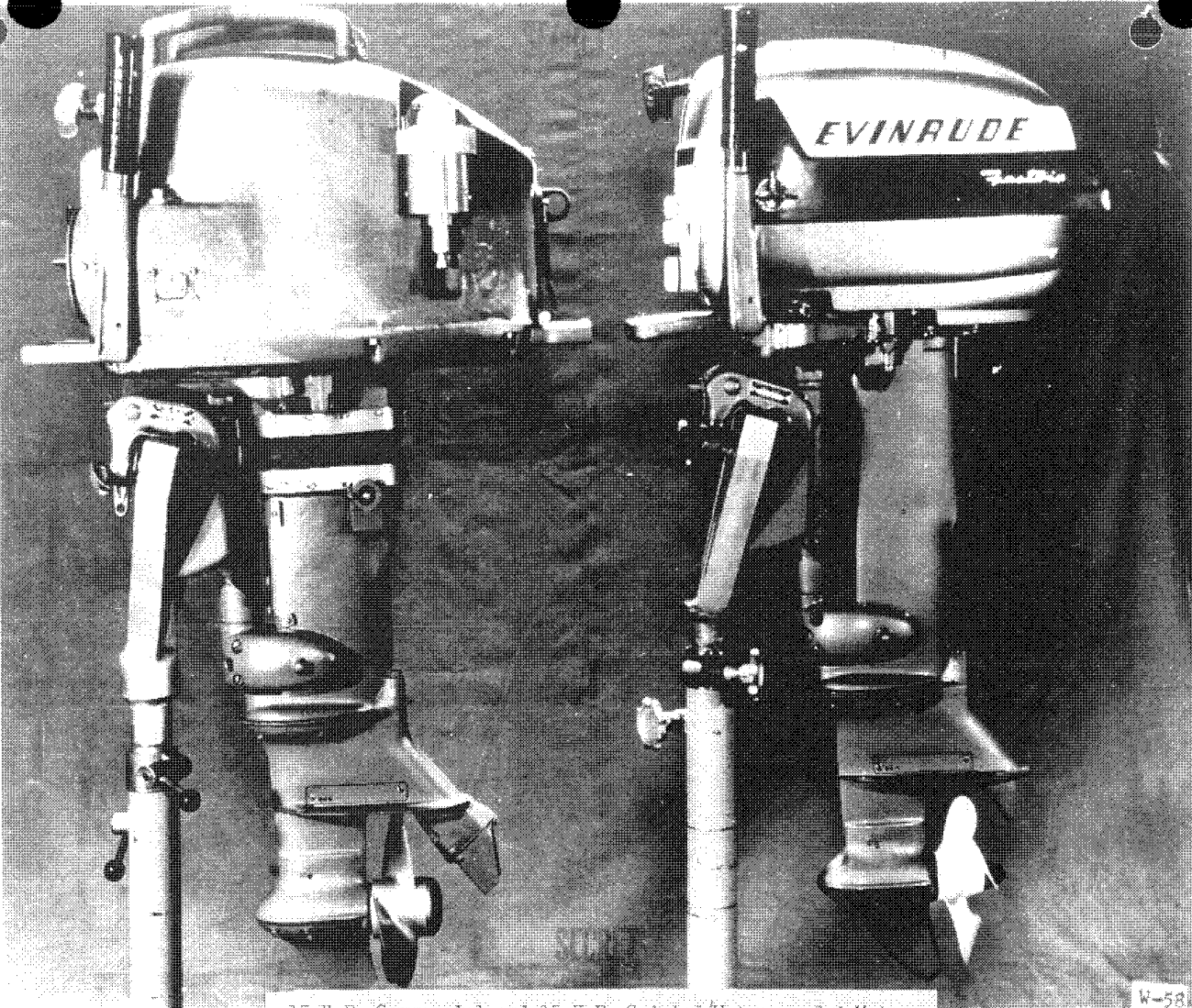
CAPABILITIES: At reduced speeds engine noise is less than  
water lapping on boat.

Motor may be "dunked" and restarted immediately.

Test data on request.

NO: W-58a.

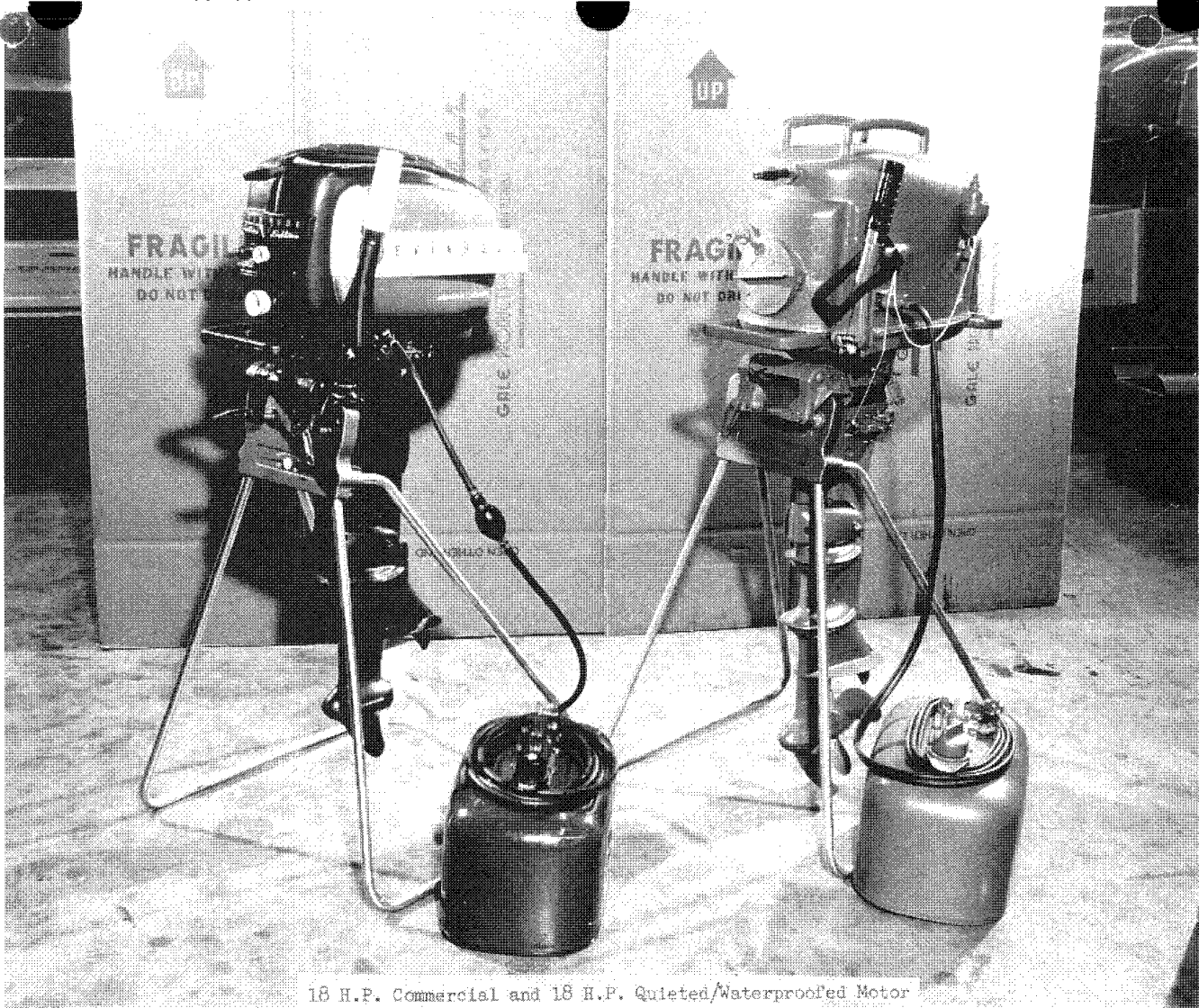
S E C R E T



15 H.P. Commercial and 15 H.P. Quieted/Waterproofed Motor

W-58

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18 H.P. Commercial and 18 H.P. Quieted/Waterproofed Motor

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-61a.

DATE: 1 July 1958

CLASS: "A"

(additional Data on Request to KURIOT)

SUBJECT: Underwater Telephone, Boat-to-Boat, portable.

PURPOSE: Provide reasonably secure voice and homing communication system by using underwater electronic channel.

CHARACTERISTICS: Complete unit packaged in spray-proof container, weight approximately 35 pounds.

Transducer supplied with extendable shafts, for positioning transducer in water.

AVAILABILITY: Limited number of units have been received and are available for operational use.

New procurement - 8 months.

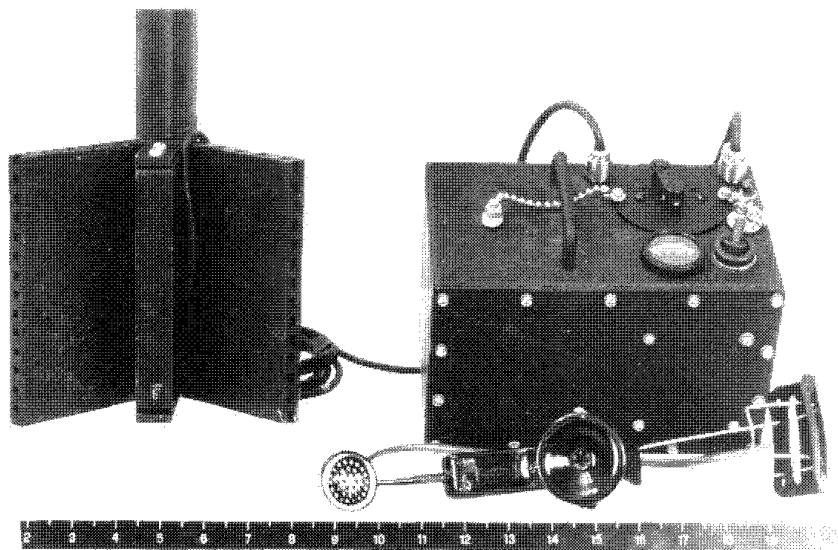
OPERATIONAL

CAPABILITIES: Telephones provide voice communication and homing signal between boats and between a boat and submarine or swimmer's telephone. Ranges up to five miles are common.

Report available on request.

NO: W-61a.

S E C R E T



Underwater Telephone, Boat-to-Boat, portable

ENCLOSURE 1

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-75  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Boat, 14' aluminum, Wagemaker.

PURPOSE: For transporting up to 900 pounds in moderate rough water.

CHARACTERISTICS: Model: - 7-14-61

Length: - 14 foot

Weight: - 205 pounds

Speed: - 10-20 knots depending on motor,  
load and sea.

Outboard Motors: - 10-30 H.P.

AVAILABILITY: Commercially available, 4-6 weeks.

OPERATIONAL

CAPABILITIES: Very good seaworthiness, excellent maneuverability and good range in coastal operations under moderate to moderately rough sea conditions. May be cached underwater.

Report available on request.

Makes 15 knots with 700 pound load and 15 H.P. motor.

NO: W-75

S E C R E T



S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: W-77

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Gyro Compass, Miniature, Sperry MK-22 Mod 0, ODOATH.

PURPOSE: Lightweight gyro compass, for use on various types of small craft under rough water conditions.

CHARACTERISTICS: Master compass - approximately 15 pounds.

Amplifier limit - 8 pounds.

Inverter - 8 pounds.

Power Supply - 12 volts, D.C.

AVAILABILITY: ODOATH stock item.

OPERATIONAL

CAPABILITIES: Report available on performance data.

NO: W-77

S E C R E T

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: A-1

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Report on DeHavilland - Beaver, (AFL-20) Float Plane.

PURPOSE: To determine feasibility of night black out water landings.

CHARACTERISTICS: Aircraft capacity - 6

Engine - Pratt & Whitney R-985, 450 H.P.

Gross weight - 5100 pounds.

Empty weight (Float Plane) - 3108 pounds.

Fuel Capacity - 95 - 181 gallons.

AVAILABILITY: Report available on request.

OPERATIONAL

CAPABILITIES: Test results show that the Beaver Floatplane possesses the capability for night black out water landings.

The landing technique used is similar to that used for large seaplanes, i.e. flying on instruments, the plane is trimmed for a nose high altitude with airspeed several knots above stalling. Airspeed and rate of descent is controlled by use of throttle.

Performance capabilities test report available in KURIOT.

NO: A-1

S E C R E T

SECRET



L-20 In Touchdown Attitude

A-1

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: A-2  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Piper Super Cub, PA-18, 150 H.P. (Army L-21).

PURPOSE: For in/exfiltration of personnel and material.

CHARACTERISTICS: Personnel capacity - 2  
Engine, Lycoming - O-320  
Gross weight - 2350 pounds  
Empty weight - 1150 pounds  
Fuel capacity - 36-73 gallons  
Special equipment - Special exhaust piping.  
Tandem landing gear.  
Full Feathering Propeller.  
Basic Instrumentation.

AVAILABILITY: Commercially 3-6 months.

OPERATIONAL

CAPABILITIES: Capable of operating from small unprepared fields, such as plowed fields, rough grass weedy fields, rutty road strips, etc.

Range, 800-1000 miles.

Test Report: Performance capability test report available in KURIOT.

NO: A-2

S E C R E T



Piper Cub With Tandem Seat

S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: A-5

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Parachutes, T-10 type, V-slotted.

PURPOSE: To obtain data for evaluation as to steerability characteristics.

CHARACTERISTICS: Standard T-10 troop type parachute modified by incorporating a 5-1/2 foot slot cut in the top center panel with proper reinforcements added.

AVAILABILITY: Initial tests completed in May 1955.

OPERATIONAL

CAPABILITIES: Lack of requirement terminated work.

NO: A-5

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: A-6a.  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Cub Aircraft, JATO (Jet Assisted Take Off) Installation.

PURPOSE: To develop, install and test JATO gear for extremely short take off.

CHARACTERISTICS: Four 250 pound thrust JATO bottles are mounted on the fuselage of the Cub between the landing gear struts. Firing is in pairs and the used bottles are dropable. Bottles weigh 55 pounds full and 35 pounds empty.

System is capable of being mounted on other types of aircraft.

AVAILABILITY: 3 months for bottles.

Rack and wiring currently available, on application.

OPERATIONAL

CAPABILITIES: Use of JATO enables the aircraft to take off in less 1/2 the distance required without JATO. For day and/or night operations.

	<u>NO JATO</u>	<u>JATO</u>
1850 pound gross weight:	260-280 feet	110-140 feet
2400 pound gross weight:	720-820 feet	340 feet

NO: A-6a.

S E C R E T



Cub with JATO (Jet Assisted Take Off)

A-6a



S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: A-6b.

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Cub aircraft, aerial towing and recovery.

PURPOSE: To provide means for towing and air to air recovery for Cub aircraft to substantially increase range, speed and provide navigational air in the transfer of Cub to operational area.

CHARACTERISTICS: Piper, 2-place, Super PA-18 Cub, 150 H.P. engine, tandem landing gear, full feathering propeller, fuel for 950 mile range, hookup equipment for day and/or night intercept and tow.

Tug C-47 equipped with model 15 C All American Engineering standard pickup winch, tow line and hookup stations. Both aircraft equipped with special lights for night operations.

AVAILABILITY: 2 kits available. Includes hookup equipment for Cub, hookup stations and tow line for tug and special lights. Winch for C-47 available through Organization stock.

OPERATIONAL

CAPABILITIES: Capable of operating day or night. May be operated under instrument flight conditions for periods of several hours. Maximum sustained tow speed 140 mph (122 knots).

Range limited only by range of tug C-47.

Movie and report available.

NO: A-6b.

S E C R E T



Cub Under Tow

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: A-7  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Boundary Layer Control (RASPET System) for "Cub" Aircraft.

PURPOSE: To reduce the stalling speed of the Cub and thereby reduce the landing field size required for operations.

CHARACTERISTICS: Increased lift induced by sucking air through multiple minute perforations in the wing. To effect BLC in landing requires a battery and electrical blower system which adds considerable weight to an extremely light airplane. Comparative tests of standard and BLC Cubs were conducted and evaluated.

AVAILABILITY:

OPERATIONAL  
CAPABILITIES: Not recommended.

Increased performance insufficient to warrant complexity and cost of installation.

NO: A-7

S E C R E T

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S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: A-11a.  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: One-Place Pneumatic Aircraft.

PURPOSE: To provide a means of air transportation for in/exfiltration which can be packaged compactly for easy handling, transporting, and caching and which can be inflated and flown by one person.

CHARACTERISTICS: Speed Maximum - 62.5 mph  
Speed Cruising - 57 mph at sea level  
Range - 478 miles  
Package Size - 38" x 40" x 52"  
Weight - 200 pounds  
Length - 22 feet  
Span - 20 feet  
Engine - 44 H.P.

AVAILABILITY: 5 units to be delivered and evaluated prior to December 1958.

OPERATIONAL

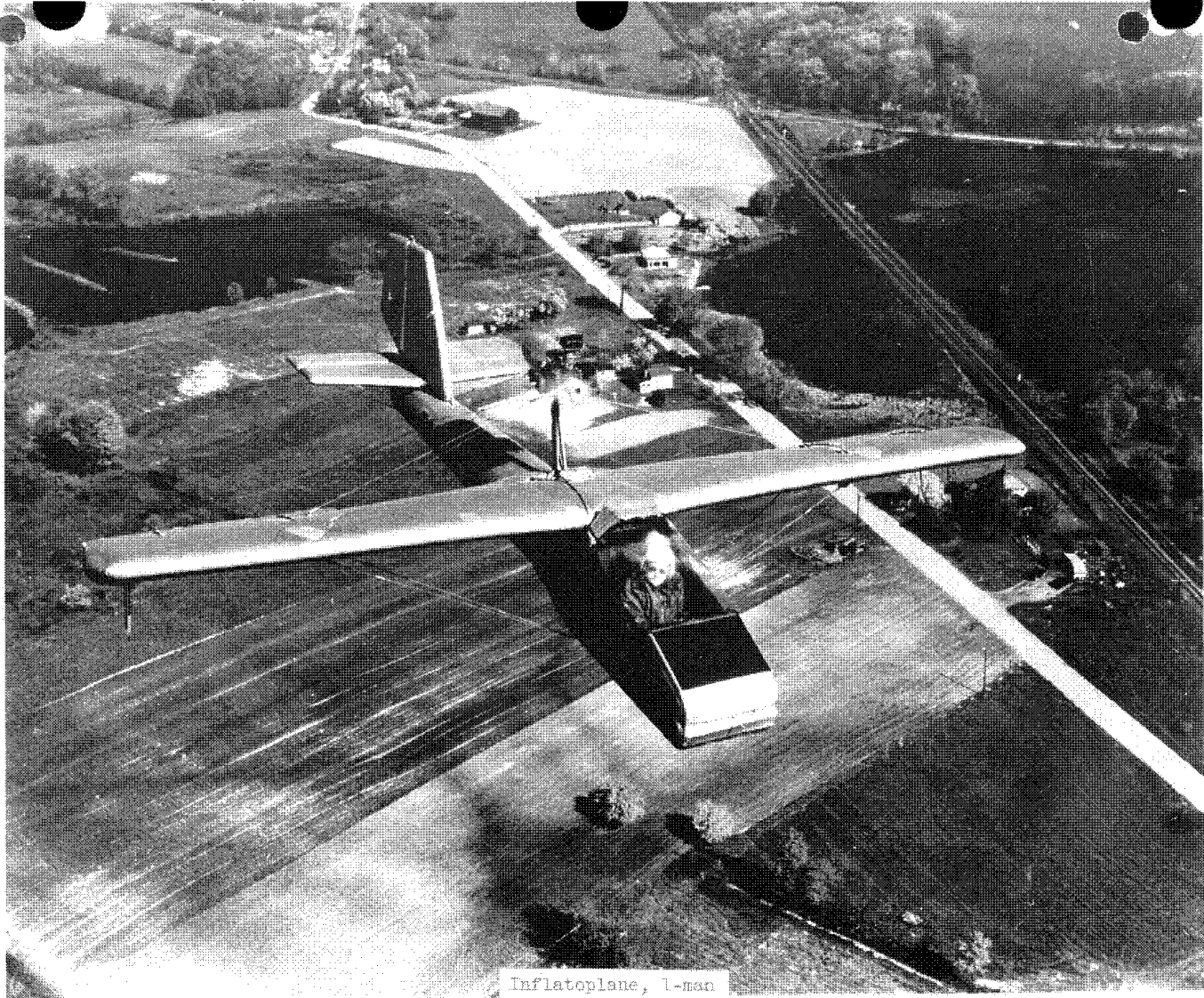
CAPABILITIES: Can be parachuted or flown in and cached.

Simple to fly.

Report available.

NO: A-11a.

S E C R E T



Inflatoplane, 1-man

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S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: A-21

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: Noise Reduction, Helicopter.

PURPOSE: To survey the external noise field of the YH-19 Helicopter,  
and to develop means of reducing noise at its source.

CHARACTERISTICS: YH-19 Helicopter.

Engine exhaust mufflers.

Test and evaluation of developed tuneable muffler  
based on Matheny and Miller multiple can system  
presently underway.

AVAILABILITY:

OPERATIONAL

CAPABILITIES: Terminated. Results minimal.

NO: A-21

S E C R E T



S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: A-22  
DATE: 1 July 1958  
CLASS: "A"

(Additional Data on Request to KURION)

SUBJECT: Airborne Course Recorder.

PURPOSE: To provide accurate data on overflight routes and altitudes for post-flight analysis.

CHARACTERISTICS: Recording components mounted in a spherical case approximately 13-1/2" x 16" x 15" in size; weight 25 pounds. Records airspeed, altitude, heading and time. Data recorded by means of styli embossing on aluminum foil 2-1/4" wide by 1 mil thick.

AVAILABILITY: 30-90 Days.

OPERATIONAL  
CAPABILITIES: Continuous 300-hour recording, record will withstand 2000° F. temperature for 30 minutes; 36-hour immersion in sea water, and 100 G load.

NO: A-22

S E C R E T

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S E C R E T

CATEGORY:

INFILTRATION/EXFILTRATION

NO: A-24

DATE: 1 July 1958

CLASS: "A"

(Additional Data on Request to KURIOT)

SUBJECT: L-20 (Beaver) Aerial Towing and Recovery.

PURPOSE: To provide means for towing and air to air recovery for L-20 (Beaver) to substantially increase speed, range, and to provide navigational aid in the transfer of the L-20 to an operational area.

CHARACTERISTICS: Standard L-20 aircraft equipped with full feathering propeller, hookup equipment, special gear for IFR flight, and special lights for day and/or night intercept and tow.

B-26 tug aircraft equipped with winch (model 15 C All American Engineering standard pickup winch), tow line, hookup stations, communication line and special lights for night operations.

AVAILABILITY: 2 kits - include hookup equipment for L-20, special gear for IFR flight, tow line, communications line, hookup station for tug and special lights for both aircraft. Winch for B-26 and C-54 available in Organization stock.

OPERATIONAL

CAPABILITIES: Capable of operating day or night; may be towed under instrument flight condition for periods of several hours.

Maximum sustained tow speed 150 knots (172 mph).

Range limited only by range of the tug aircraft.

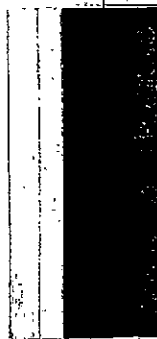
Report available.

NO: A-24

S E C R E T

**S E C R E T**

**CLASS B PROJECTS - FOR EARLY COMPLETION**



**S E C R E T**





S E C R E T

1 July 1958

INDEX

CLASS B PROJECTS - FOR EARLY COMPLETION

Water

- W-51 Inflatable Kayak/Skiff - KURIOT Type
- W-57 Outboard Engines
- W-59 Caching Bags, etc.



50X1

- W-62 Underwater Swimmer Telephone
- W-64 Retrieving Boat from Beach
- W-65 Paddleboards, Inflatable
- W-68b Underwater Propulsion/Demolition Device, Sea Dog
- W-73 Paddleboards, Plastic
- W-74 Rigid Boat, Folding
- W-76 Inflatable Boat, High Speed
- W-78 Magnetic Compass, Small Boat
- W-80 Surf/Spray Suits
- W-81 Hydrofoil, 14-1/2' Grumman

Air

- A-3 Air Snatch "SKYHOOK"
- A-4 Noise Reduction, OTTER Airplane
- A-9 Parachute



50X1

- A-29 Twin engine, multi-purpose, STOL type aircraft
- A-30 "Long Line" Aerial pickup System



S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-51  
DATE: 1 July 1958  
CLASS: "B"

(Additional Data on Request to KURIOT)

**SUBJECT:** Two-man Inflatable Kayak/Skiff - KURIOT Type.

**PURPOSE:** To transport 2 men and equipment across lakes, rivers, bays, and infiltrate and exfiltrate using outboard motor for increased speed or paddles.

**CHARACTERISTICS:** Total Load - 700 pounds

Length: 15-17 feet

Weight: Including paddles and pump, under 30 pounds, if possible.

Transom for 3 H.P. motor.

**STATUS OF**

**CONTRACT OR TESTS:** Design study in progress.

After receipt of prototype, tests will be conducted.

**ESTIMATED**

**COMPLETION:** June 1959.

**REMARKS:**

NO: W-51

S E C R E T







S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-57  
DATE: 1 July 1958  
CLASS: "B"

(Additional Data on Request to KURIOT)

SUBJECT: Outboard Engines.

PURPOSE: To investigate, evaluate, and test for operational use.

CHARACTERISTICS: Standard models of commercially available outboard engines, 3-50 H.P.

Special smaller models of engines, under 3 H.P.

STATUS OF

CONTRACT OR TESTS: Various name brand outboard engines are being investigated and/or tested in order to keep abreast of commercial developments.

ESTIMATED COMPLETION:

REMARKS: This is a continuing project.

Latest information available on request.

NO: W-57

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-59  
DATE: 1 July 1958  
CLASS: "B"

(Additional Data on Request to KURIOT)

SUBJECT: Caching Bags, Rubberized and Plastic Fabrics.

PURPOSE: To test watertight and other special containers for caching of outboard motors and special equipment.

CHARACTERISTICS: Neoprene coated fabrics.

Special sealing compounds.

Special closures and sealing devices.

Deflation valves for expelling all air.

Silica gel.

STATUS OF

CONTRACT OR TESTS: Prototype testing of various bags, containing outboard motors, gasoline cans and electronic equipment, is now underway. This equipment is being cached both underwater and in the ground for periods of 1-6 months.

ESTIMATED

COMPLETION: December 1958.

REMARKS: Results of some of these tests are already known and can be supplied on request.

NO: W-59

S E C R E T

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S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-62  
DATE: 1 July 195  
CLASS: "B"

(Additional Data on Request to KURIOT)

SUBJECT: Underwater Swimmer Telephones.

PURPOSE: Provide a reasonably secure underwater communication system.

CHARACTERISTICS: Transceiver and transducer packaged in water-tight containers carried on a swimmer's belt.

Head sets are bone type for use underwater.

Weight approximately 15 pounds (in air).

STATUS OF

CONTRACT OR TESTS: Units in hand. Testing being set up.

ESTIMATED

COMPLETION: Completion date of tests December 1958.

REMARKS: Device enables swimmers to communicate with each other or to boats or submarines.

NO: W-62

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-64  
DATE: 1 July 1951  
CLASS: "B"

(Additional Data on Request to KURIOT)

**SUBJECT:** Retrieving Boat from Beach.

**PURPOSE:** Provide a method of retrieving small boats, from a beach, to a larger boat offshore.

**CHARACTERISTICS:** Hand winches.  
Power driven winches.  
Polyethylens line.

**STATUS OF CONTRACT OR TESTS:** Various techniques are being investigated.

**ESTIMATED COMPLETION:** December 1958.

**REMARKS:** Equipment is initially designed to retrieve boats from distances up to 3000 feet.

NO: W-64

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-65  
DATE: 1 July 1958  
CLASS: "B"

(Additional Data on Request to KURIOT)

SUBJECT: Paddleboards, Inflatable, Two-man.

PURPOSE: For carrying two swimmers, with equipment, for short distances (1-2 miles in moderate sea conditions and through moderate surf.)

CHARACTERISTICS: Length: 12'

Weight: Approximately 15 pounds.

STATUS OF  
CONTRACT OR TESTS: Under construction.

ESTIMATED  
COMPLETION: Tests - completion 1958.

REMARKS: These paddleboards may be deflated and rolled into very small bundles.

NO: W-65

S E C R E T

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S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-73  
DATE: 1 July 1958  
CLASS: "B"

(Additional Data on Request to KURIOT)

SUBJECT: Paddleboards, Plastic

PURPOSE: For transporting a swimmer, with equipment for short distances in moderate sea conditions.

CHARACTERISTICS: Length: Approximately 9'

Weight: Approximately 20 pounds.

Cachable for indefinite periods without deterioration.

STATUS OF

CONTRACT OR TESTS: Design studies completed. Prototype testing underway.

ESTIMATED

COMPLETION: December 1958.

REMARKS:

NO: W-73

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-74  
DATE: 1 July 1958  
CLASS: "B"

(Additional Data on Request to KURIOT)

**SUBJECT:** Rigid Boat, Folding.

**PURPOSE:** To transport up to 3 men and equipment at high speeds across rivers, lakes and bays.

**CHARACTERISTICS:** Length: 11-3/4 feet  
Weight: 171 pounds  
Construction: Plywood, plastic covered aluminum keel  
Motors: Up to 25 H.P.  
Speeds: 12-22 knots

**STATUS OF CONTRACT OR TESTS:** Performance tests are underway.

**ESTIMATED COMPLETION:** December 1958.

**REMARKS:** When folded, dimensions are 12" x 2'-2" x 7".  
Assembly time 5 minutes (2 men).

NO: W-74

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-76  
DATE: 1 July 1958  
CLASS: "B"

(Additional Data on Request to KURIOT)

**SUBJECT:** Inflatable Boat, High speed.

**PURPOSE:** To transport up to 700 pounds in moderate to rough seas at high speeds.

**CHARACTERISTICS:** Length: Approximately 13 feet

Weight: Under 200 pounds

Engine: 18-35 H.P.

**STATUS OF CONTRACT OR TESTS:** Design study underway.

**ESTIMATED COMPLETION:** December 1958.

**REMARKS:**

NO: W-76

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-78  
DATE: 1 July 1958  
CLASS: "B"

(Additional Data on Request to KURIOT)

SUBJECT: Magnetic Compass, Small Boat.

PURPOSE: To test and evaluate various types of compasses for use on rubber boats and other small crafts.

CHARACTERISTICS: Four types are currently under test, and one additional type is being fabricated by ODOATH at our request, for our evaluation.

STATUS OF  
CONTRACT OR TESTS: Tests are underway.

ESTIMATED  
COMPLETION: December 1958.

REMARKS: Information on suitable types is available on request.

NO: W-78

S E C R E T

S E C R E T

CATEGORY: INFILTRATION, EXFILTRATION

NO: W-80  
DATE: 1 July 1958  
CLASS: "B"

(Additional Data on Request to KURIOT)

SUBJECT: Surf/Spray Suits.

PURPOSE: To provide protection from spray and weather when riding in small boats.

CHARACTERISTICS: Nylon/neoprene, or plastic materials. Entrance from the neck, integral feet.

Hood separate.

Initial test size: medium.

STATUS OF

CONTRACT OR TESTS: Design study underway.

ESTIMATED

COMPLETION: December 1958.

REMARKS: Suit, of very light weight materials, to be worn over clothing.

NO: W-80

S E C R E T

S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: W-81  
DATE: 1 July 1958  
CLASS: "B"

(Additional Data on Request to KURIOT)

SUBJECT: Hydrofoil, 14-1/2' Grumman.

PURPOSE: To transport up to 700 pounds at high speed in moderate seas, for in/exfiltration operations.

CHARACTERISTICS: 14-1/2' Aluminum boat  
35 H.P. Evinrude outboard engine, long shaft.  
1 crew, 1-2 passengers, equipment  
24-28 knots

STATUS OF  
CONTRACT OR TESTS: Comprehensive speed, sea-keeping and load carrying tests have been conducted.

Manufacturer is providing latest model of Hydrofoils for final tests.

ESTIMATED  
COMPLETION: December 1958.

REMARKS: Report scheduled for completion December 1958.

NO: W-81

S E C R E T



Hydro-foil - 14½' Grumman.





S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: A-3  
DATE: 1 July 1958  
CLASS: "B"

(Additional Data on Request to KURIOT)

SUBJECT: Air Snatch "SKYHOOK".

PURPOSE: To develop improved equipment and techniques for in-flight human pickups.

CHARACTERISTICS: "SKYHOOK" - A balloon suspends 500 feet nylon line. Fork on nose of aircraft engages line to which pickup is attached, line and pickup winched into plane.

STATUS OF  
CONTRACT OR TESTS: Daytime work in final phase.

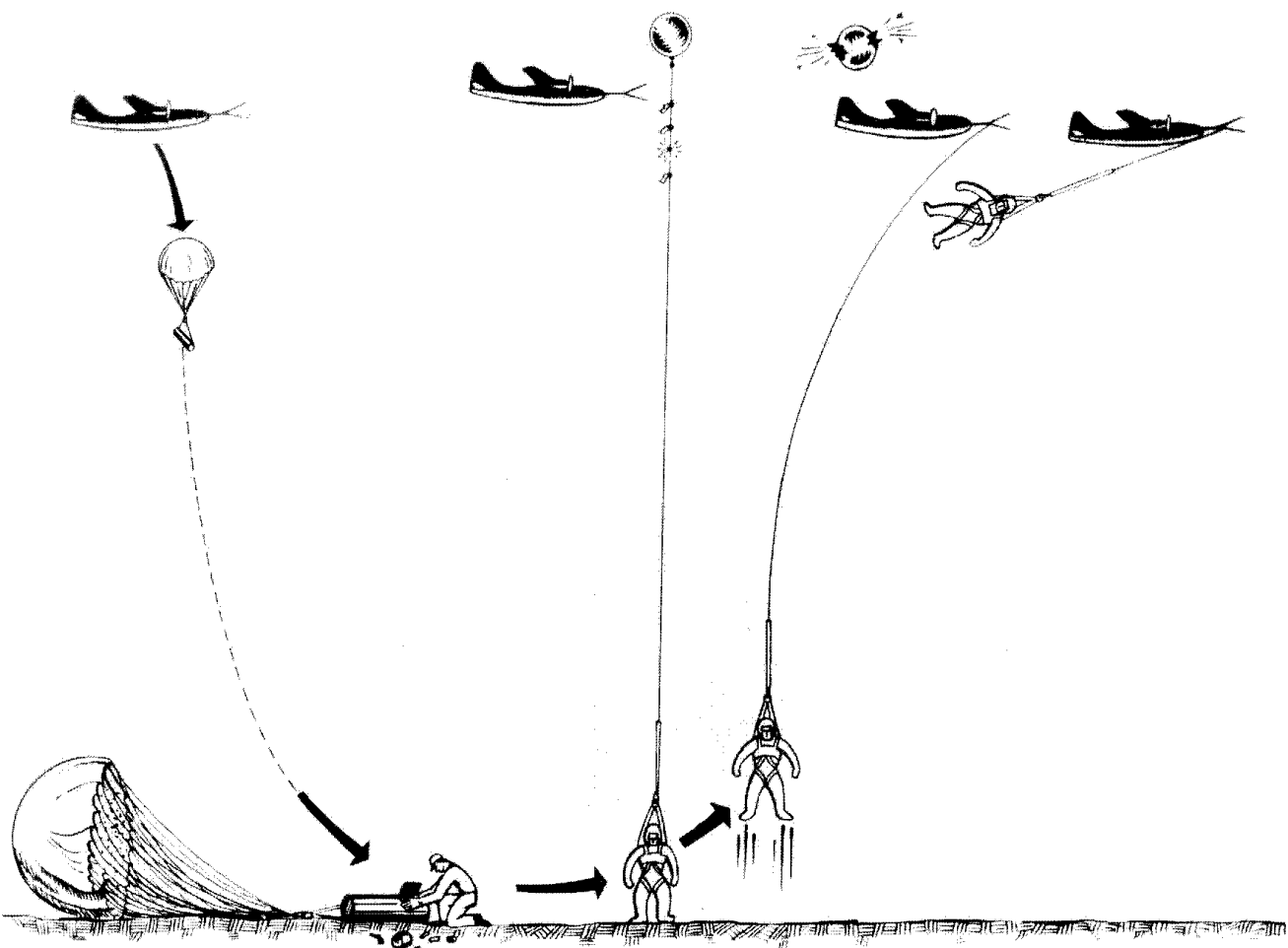
ESTIMATED  
COMPLETION: December 1958.

REMARKS: For day and/or night operations.

NO: A-3

S E C R E T





Air Snatch "Skyhook" System



S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: A-4  
DATE: 1 July 1958  
CLASS: "B"

(Additional Data on Request to KURIOT)

**SUBJECT:** Noise Reduction, OTTER Airplane.

**PURPOSE:** Substantially reduce the noise of the OTTER throughout all operational ranges.

**CHARACTERISTICS:** The OTTER is a sterile, rugged, single engine, 600 H.P., 14-place aircraft. The modifications will be made on a contractor furnished OTTER.

Special mufflers, special gear reduction and propeller.

**STATUS OF**

**CONTRACT OR TESTS:** Initial noise measurements have been made in coordination with consulting scientists.

Second phase to commence shortly.

**ESTIMATED**

**COMPLETION:** November 1958.

**REMARKS:**

NO: A-4

S E C R E T



SECRET  
De Havilland Otter

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S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: A-29  
DATE: 1 July 1958  
CLASS: "B"

(Additional Data on Request to KURIOT)

SUBJECT: Twin engine, multi-purpose, STOL type aircraft.

PURPOSE: To determine best type(s) for future procurement in modernizing Organization equipment.

CHARACTERISTICS: Short landing, rough terrain.

Range - 2000 miles

Speed - 180-200 mph (max. cruising speed)

25% more cabin space

Payload - 2000# plus fuel

STATUS OF CONTRACT

OR TESTS: Investigation underway.

ESTIMATED

COMPLETION: December 1958.

REMARKS: General plan is to investigate commercial planes, such as Helio, Cessna, Beechcraft, etc.

NO: A-29

S E C R E T



S E C R E T

CATEGORY: INFILTRATION/EXFILTRATION

NO: A-30  
DATE: 1 July 195  
CLASS: "B"

(Additional Data on Request to KURIOT)

SUBJECT: "Long Line " Aerial pickup System.

PURPOSE: To enable an aircraft in flight to pickup a person or material on the ground or water without landing.

CHARACTERISTICS: A long weighted line is trailed from the pickup aircraft which circles over the target area. The line descends to the ground where the weight is detached and the load attached. The line and load are winched into the pickup aircraft.

STATUS OF CONTRACT OR TESTS: A system evaluation contract has been negotiated and test work is underway.

ESTIMATED COMPLETION: January 1959.

REMARKS:

NO: A-30

S E C R E T

