

1928

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preparation
and procedure
for ? Mark Flite.

HEADQUARTERS
ROCKWELL FIELD, CORONADO, CALIFORNIA

December 28, 1928.

REFUELING)
OPERATIONS ORDER)
NO. 1)

1. The following instructions are published for the information and guidance of all personnel connected with Refueling Flight. All concerned are cautioned that the success or failure of the flight will depend, in a great measure, on the coordination and cooperation of the personnel on the ground. Each officer and enlisted man so detailed must thoroughly familiarize himself with the procedure of the flight and the signals to be used, and must consider other duties and personal discomfort secondary to the success of the project.

2. The following personnel are designated for the following duties in connection with the project:

Airdrome Officer - - - - - Capt. H. M. Elmendorf, A. C.

ROCKWELL FIELD PERSONNEL

Assistant Airdrome Officer - - - - - Capt. F. H. Pritchard, A. C.
Night Airdrome Officers at Rockwell - - - - Capt. E. C. Black, A. C.

1st Lt. R. H. Clark, A. C.
1st Lt. E. C. Batten, A. C.
1st Lt. B. R. Dallas, A. C.
1st Lt. R. Baez, Jr., A.C.
2nd Lt. K. J. Gregg, A. C.

Press Relations - - - - - 1st Lt. C. P. Kane, A. C.
N. A. A. Representative - - - - - 1st Lt. F. W. Ott, A. C.
Pilots PW-9D - - - - - 1st Lt. A. F. Roth, A. C.
Engineering Officer - - - - - 1st Lt. R. G. Harris, A. C.
Supply Officer - - - - - 1st Lt. E. M. Robbins, A. C.
Flight Surgeon - - - - - Major W. S. Woolford, M. C.
Refueling Crew No. 1 - - - - - Capt. R. G. Hoyt, A. C.
1st Lt. A. C. Strickland, A. C.
2nd Lt. I. A. Woodring, A. C.

IMPERIAL, CALIFORNIA

Refueling Crew No. 2 - - - - - 1st Lt. Quas Moon, A. C.
2nd Lt. A. F. Solter, A. C.
2nd Lt. J. G. Hopkins, A. C.

William H. Duthie,
Joseph Schott,
Two Enlisted Men,

Pilot PW-9D - - - - - 2nd Lt. H. W. Keefer, A.C.
VAN NUYS, CALIFORNIA (Metropolitan Airport)
Officer in Charge - - - - - 2nd Lt. J. S. Stowell, A. C.
Pilot PW-9D - - - - - 2nd Lt. R. V. Williams, A. C.
Four Enlisted Men

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3. Duties, Instructions for, and Responsibilities of Personnel:

a. Airdrome Officer

1. General supervision ground organization.
2. Putting into effect any orders received from C-2.
3. General functioning of refueling service.
4. Supplying C-2 with weather reports, etc.
5. Alternate with Assistant at Operations Office 6 AM to 6 PM
6. Notify Crew No. 2 at Imperial when C-2 refueled O.K.
for the night.

b. Assistant Airdrome Officer is responsible for:

1. Duties of Operations Officer during his absence.
2. Obtaining weather forecasts at 6 AM, 11 AM, 4 PM and
at such other times as necessary.
3. Alternate with Operations Officer at Operations Office
6 AM to 6 PM
4. Keep a record of the flight, copies of all messages sent
and received, contacts by refueling ship, etc.

c. Night Airdrome Officer

1. To remain at Operations Office during tour, and to alternate with Sergeant in keeping continuously on the lookout for the C-2, keeping same under personal observation as long as ship is in vicinity of Rockwell Field.
2. Upon observation of signal from C-2 for:
 - a. Gas or oil, give ship O.K.; notify Refueling Crew No. 1; the Operations Officer.
 - b. Landing lights - call Naval Air Station - 79,
and request lights.
3. In event weather conditions at Rockwell are such as to make the morning refueling doubtful, notify Crew No. 2 by telephone - Imperial - local 282 - in time for them to warm motors before daylight.
4. In event weather conditions at Rockwell have cleared sufficiently for refueling, subsequent to notification in paragraph above, to notify Crew No. 2 at Imperial of such fact.
5. In case of doubt as to procedure to call the Airdrome Officer.
6. To assure himself that Crew No. 1 and ship's crew are awakened in time to be ready for refueling trip at daylight.
7. To note exact time (hour, minutes, seconds)
when C-2 rounds Rockwell Field on each trip. C-2 will signal with flashlight as it comes over Field.

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7. To conform to the following schedule:

Lt. Clark - Jan. 1, 4, 7, 10, etc. - 6 PM to 12 PM
Lt. Gregg - Jan. 2, 5, 8, 11, etc. - 12 M to 6 AM
Capt. Black - Jan. 2, 5, 8, 11, etc. - 6 PM to 12 M
Lt. Batten - Jan 3, 6, 9, 12, etc. - 12 M to 6 AM
Lt. Dallas - Jan. 3, 6, 9, 12, etc. 6 PM to 12 M.
Lt. Baez - Jan 4, 7, 10, etc. 12 M to 6 AM

d. Engineering Officer.

1. To keep both refueling C-1 planes in condition at all times.
2. To keep refueling apparatus in both C-1 planes in condition at all times.
3. To designate and arrange that crews for C-1's and gas tank are available at all times and report such arrangement to the Operations Officer.
4. To procure from Supply Officer necessary gas and oil and place in refueling plane.

e. Supply Officer.

1. To keep sufficient gas and oil on hand for refueling and to have same available at all times.
2. To furnish any supplies requested in shortest possible time.

f. Flight Surgeon.

1. To furnish prepared food packed in container and deliver same to C-1 at 6:30 AM (breakfast and lunch) and 3:00 PM (dinner)
2. To furnish any medical supplies called for by C-2.

g. Liaison Pilot.

1. To remain in the vicinity of Post Operations from 6 AM to 5 PM with flying equipment ready to perform mission as called for.
2. When signalling C-2 first fly ahead, give attention signal to pilot, and then fly alongside until given O.K.

h. Officer in Charge of Refueling Crew No. 1.

1. To have crew No. 1 at the plane in time to be warmed up and ready to take off at day break.
2. To require operators receiving messages from C-2 to immediately write down message received.
3. To have C-1 reloaded and refueled immediately after landing with correct amounts of gas and oil for next refueling trip.

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1. Officer in Charge of Refueling Crew No. 2.

1. - 4. Same as paragraphs above, and in addition,
5. To have one officer at the field at all times within call of telephone and on the lookout for the C-2.
6. To have all members of Crew No. 2 available as near as possible to field so that C-1 can be taken off with least delay.
7. In case of night refueling operation and unable to land safely at Imperial, proceed to March Field, land, and return to base at daybreak.
8. In case weather conditions make refueling impracticable or impossible, immediately notify the Operations Office at Rockwell - Local 29.
9. In case C-1 goes out of commission, immediately notify Operations Office, Rockwell.
10. Keep C-2 informed by written messages and panels as to weather conditions at Rockwell Field.
11. Report weather conditions by phone to Operations Office at Rockwell Field at daybreak - 11:00 AM - 4:00 PM each day.

j. Officer in Charge of Metropolitan Airport.

1. To have pilot of liaison plane available for transmitting messages to C-2 at all times.
2. To keep C-2 informed by panel and liaison plane as to weather conditions at Rockwell.
3. To be within reach by telephone at all times.
4. Liaison plane when signalling C-2 to fly ahead of plane, signal attention to attract pilot's attention, then fly alongside until received O. K.
5. To keep record of exact time (Hours, Minutes, Seconds) that C-2 turns pylon at Metropolitan Field each trip.

4. Means of Communication.

to

- a. When possible, all communications from plane ~~to~~ ground, ground to plane, or plane to plane, will be by means of written messages, as per below.
 - i. C-2 will use drop messages.
 - ii. C-2 will write on top wing messages to C-1, or return message with food container.
 - iii. C-1 will deliver weather reports, messages, etc. with mail at refueling time.
 - iv. PW-9D's, one side of the fuselage painted black, will be stationed at Rockwell Field and Metropolitan Airport for conveying messages to C-2 by printing on the side of the fuselage.

Refueling Operations Order No. 1:

b. Signals PLANE TO PLANE:

Message	By Day	By Night
We need more gas	(No. gallons required)  - required Hold both arms vertical over head, fist closed. Lower arms. Extend one arm full length and repeat for each 25 gal. required.	Flashlight 15 sec. - dash 15 sec. - wait 1 sec. dots for each 25 gal. required.
We need more oil	 (No. gallons required) Hold both arms horizontal, fist closed. Lower arms. Extend one arm full length and repeat for each 5 gal. required.	Series of 15 dots 15 sec. wait 1-sec. dot for each 5 gal. required
Message received O.K.	Wave open hand back and forth	Wave flashlight back and forth
Everything O. K.	K	

Note:- C-2 should repeat signals when possible.

Refuel Operations Order No. 7.8

c. Signals PLANE TO GROUND:

Message	By day	By night
:	:	:
:	:	Series of Red Flares:
Turn on Landing	10 sec. interval or	
lights	Plane motors over	
:	Naval Air Sq.	
:	:	:
:	:	Series of 3 or more
We Need Gas at	Dropped Message	Green flares
once	:	10 sec. interval
:	:	:
We Need Oil at	Dropped Message	Series of 3 or more
Once	:	White Flares 10
:	sec. interval	
:	:	:
We are dropping	One red Flare	
message	:	
:	:	:
Message receiv-	One white Flare	One White Flare
ed O.K.	:	
:	:	:

d. Signals GROUND TO PLANE:

A square panel 12 ft. x 12 ft. will be placed at Rockwell Field, Metropolitan Airport, and Imperial Airport, at such a place as to be readily discernible from the air. This panel will be used for panel signals in conjunction with two 3 ft. x 12 ft. panels, and will serve as a guide when dropping messages from C-47.
(forward)

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Message	By Day	By Night
Rockwell Field not Clear	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Red Ground Flare
Rockwell Field Clear	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	White Ground Flare
Rockwell Field C-1 out of Commission	<input type="checkbox"/> <input type="checkbox"/>	SAME AS
Rockwell Field C-1 back in Commission	<input type="checkbox"/> <input type="checkbox"/>	BY DAY
Imperial C-1 out of Commission	<input type="checkbox"/> <input type="checkbox"/>	ILLUMINATED
Imperial C-1 back in Commission	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Message Received	<input type="checkbox"/> <input type="checkbox"/>	WITH
Message Not Received	<input type="checkbox"/> <input type="checkbox"/>	FLOOD
Imperial Not Clear	<input type="checkbox"/> <input type="checkbox"/>	LIGHTS
Imperial Clear	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Written Messages	By C-1 or PW-9D	By C-1 or PW-9D

5. Miscellaneous Instructions:

- a. When calling Rockwell Field operator, say "Refueling Flight" and your call will be given priority.
- b. Only send messages when necessary. Make those sent, concise, simple and clear.
- c. No report is a good report. Example: Do not show panel "Rockwell Field Clear" unless it has been previously reported "Not clear".

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- d. In all cases where possible, get a repeat check for your messages.
- e. Any person requesting information about the flight will be referred to the Press Relations Officer.
- f. The following telephones are listed:

	<u>Exchange Number</u>
Operations Office.....	Rockwell Field - 29
Operations Officer (home).....	" " - 28
Asst. Operations Officer (Home)...	Coronado 697-J
Engineering Office.....	Rockwell Field - 5
" Officer (home).....	" " - 52
Supply Office.....	" " - 48
" Officer (home).....	" # - 32
Hospital.....	" " - 11
Crew #2 Imperial Airport.....	Imperial 282
Metropolitan Airport.....	
Press Relations.....	Rockwell Field - 58

6. Tentative Flight Schedule of "Question Mark"

- a. 1st Day - leave Metropolitan Airport..... 7:00 AM
 - Refuel with refueling ship No. 2
 - 250 gallons gas immediately
 - Arrive Rockwell..... 9:00 AM
 - Refuel with 250 gallons gas
 - Arrive Rockwell..... 1:00 P.M.
 - Refuel with 250 gallons gas
 - Arrive Rockwell..... 3:00 PM
 - Refuel with 30 gallons oil,
Supper, Mail, 300 gallons gas
- b. Succeeding Days:
 - (1) 6:00 AM to 8:00 AM over Rockwell Field
 - Require 250 gallons gas; 30 gallons oil,
Food - Mail
 - (2) 12:00 Noon - 250 gallons gasoline
 - (3) 4:00 PM - 220 gallons gasoline
 - Food - Mail
- c. On all Refuelings add 20 gallons gasoline and 5 gallons of oil for wastage.

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By order of Major SNEED:

OFFICIAL:

J. GREER,
FIRST Lieutenant, Air Corps,
Adjutant.

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First Lieutenant, Air Corps,
Adjutant.