# Wireless

Wirles. the are fitted one for Pilot +2 for observer a lichie light and causing key a the gap. (Sap adjusted pour 16 to 18 Clean light : (1) to enable to see when observer i the Verse. (2) To make one to see to the other. (1) to check sending. mad Power: Power is derived from a 6 lost battery concerting SI 2 C. A.V. ace. when feelly charged the batter sloved show a voetage of 7.5 for 2.5 per cell but affer short use this will drop to 6 Volts the remain constant for at least 400 5 ho continon Of Connection: Positive to Regative. ing Transmitter: The 6 Volto applied are stepped up Krough retion coil to about 0000 shich will - approxpange of 20 miles. prevent fre by breaking loo has i use: to in wo places they entered dis Transmitting keys Three are fitted. One for Pilot & 2 for observer & each one is fitted with a small electric light (2 3 C.A.V. acc. When freshly charged the battery decibells [sic], 3 Volts) Uses of Tension spring (1) Prevents vibration causing key to make contact at the gap. (Gap adjusted from 1/10 to 1/8" usage clearance) Method of Connection: (2) Makes sending much easier Positive to Negative. Uses of lights: Stirling transmitter: (1) To enable pilot to see when observer is sending or vice versa. (2) To enable one to send to the other.

(3) To check sending

# Source of Power:

Power is derived from a 6 volt battery consisting of

should show a voltage of 7.5 (or 2.5 percent) but after short use this will drop to about 6 Volts & then remain constant for at least 4 or 5 hrs continuous The 6 Volts applied are stepped up through an induction coil to about 20000 which will give your wireless an approx range of 20 miles. Safety plug: Chief use: to prevent fire by breaking [illegible] circuit into places thereby entirely

disconnecting the . . .

ace for the haus with NB. plug new where incused to send on lights all Sum: To fates to the left side / cock pit sis fittes with a band brake to allow the and t le controlled when running acual should be lowerd very gen runs of 20 ft. & avoid breaking acrine loosing weight. The drum is, how the remainder by an abouile bu set in the centre, This should be kept ver whereally how pea Varies from 150' 240 mle es of copper wire placed together sich of a metal sleeve a he having a bras ed theres: (1+2) a els as afundo. The arrial + (3) Forus a. meeting bet the paus mitter - arriae Wire by means of unlased lead taken from the Revial termal on the transmitter to the have terminal on the last connection is made till bracing wines of the Unaline

... acc. from the transmitter. NB. Plug need not be inserted to send on lights.

# Aerial drum:

Is fitted to the left side of cockpit & is fitted with a handbrake to allow the aerial to be controlled when running out. Aerial should be lowered very gently in runs of 20 ft. to avoid breaking aerial & losing weight. The drum is insulated from the remainder by an ebonite bush set in the centre. This should be kept very clean especially from grease.

# Aerial wire:

Varies from 150' to 240' in length & consists of 7 strands of copper wire plaited together for strength. Fair Lead:

Consists of a metal sleeve insulated by ebonite & having a brass bush & terminal attached. <u>Uses</u>: (1 & 2) Acts as a guider & insulator to the Aerial & (3) Forms a connection between the transmitter & Aerial Wire by means of an insulated lead taken from the Aerial terminal on the transmitter to the brass terminal on the fairlead. Each connection is made to the bracing wires of the machine.

WIRELESS (2)



(Full page illustration of connections between Stirling transmitter and key)

Test for Radiati Sucut pafet, plug press key then how metal depect above aread drum, if radiation in a spark will be seen from drun to object, N. B. This fest must be on the nound Wulliss Pahol : Having found wirelan Q.K. you pise to a height of 700' when this height attained incert safety plug & lower actual then each up the accodrome wing acknowledgen (ii) at non 19 to battery. Call my be competion of shoot take on (iii) plug are-wind derial notes on Sending: Never send 4 cept when (iv) Towards batter, never sun when turn Never send when observer is striding, hever send when monedially over receiving sta Never send too fant, as accuracy i much more imporbant than the speed.

# Test for Radiation.

Safety plug, press key then hold metal object above aerial drum, if radiation is O.K. a spark will be seen from drum to metal object. N.B. This test must be made on the ground.

Wireless Patrol:

- (i) Having found wireless O.K. You rise to a height of 700' when this height is attained insert safety plug & lower Aerial, then call up the Aerodrome.
- On receiving acknowledgement from Squadron proceeded to battery. Call up same & carry on with shoot.
- (iii) On completion of shoot take out safety plug & re-wind Aerial.
- (iv) <u>Notes on Sending</u>: Never send except when flying towards battery, never send when turning. Never send when observer is sending, never send when immediately over receiving station, never send too fast, as accuracy is much more important than the speed.

WIRELESS (3)

WIRELESS. (3). ARGET . FIre: Fire A A A Tracing Fauch on Pahoe If no acknowledgement is precived from pround or a riqual is put out stating that your (1) nals are not being received, examine for following pt for faults as see that safety plug is making proper connection (1) see that derive is O.K. (c) Ace - Faulear is unboken

(Illustration of appropriate sending points in relation to plane, battery and station)

Tracing Faults on Patrol:

 (i) If no acknowledgement is receive from ground or a signal is put out stating that your signals are not being received, examine following pts for faults:

(a) See that safety plug is making proper connection

- (b) See that Aerial is O.K.
- (c) See " fairlead is unbroken

(d) See Hoat Keyp are free from contact (A) If nove of these fancts can be found return to C.W.S. + call them up. If us acknowledgement , received, retur s overha SALE .

(d) See that keys are free from contact
(e) " " all terminals are properly connected & wires unbroken
(f) If none of these faults can be found returned to C.W.S. & call them up. If no acknowledgement is received, returned to squadron & have wireless overhauled.