Chapter 2 INTERCOMMUNICATION AND TELEBRIEF

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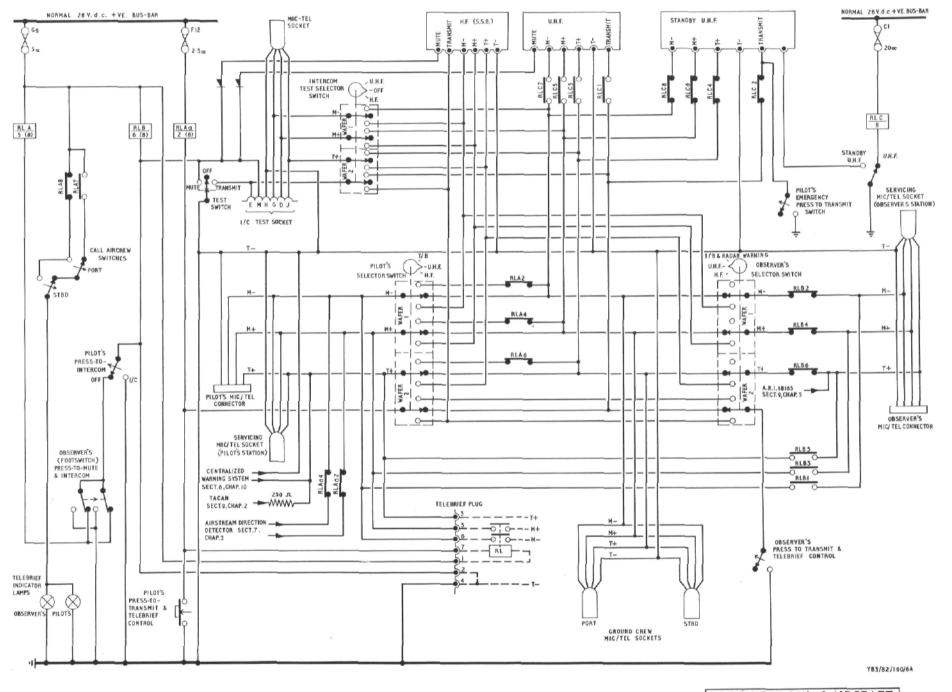


Fig. 1. Intercommunication and telebrief - theoretical

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BUCCANEER S Mk. 1 AIRCRAFT AIR DIAGRAM 6333AE/MIN.

> PREPARED BY MINISTRY OF AVIATION FOR PROMULGATION BY AIR MINISTRY ADMIRALTY

ISSUE 1

Introduction

1. This chapter contains descriptive and operational information on the intercommunication system which incorporates the selective circuits of the wireless equipment and the audible warning input circuits from associated systems. The operation of the intercom. system when a telebriefing land-line is connected is also described. For the location of equipment reference should be made to Chap. 1 of this Section.

Modification standard

1A. This chapter includes Mod 229 and280. ►

General

2. The intercom. system essentially comprises mic./tel. and selector circuits that are also common to the UHF and HF radio installations. In addition, the system incorporates aircrew/ground crew intercom. facilities, mic./tel. sockets and a test panel for ground servicing purposes and provides for the connection of a telebriefing land-line. Warning signals produced by certain airborne equipments are fed via the intercom. system to be heard in the aircrews' earphones.

3. Telebriefing is a land-line communication system which provides direct twoway speech facilities between flying control and aircraft crew. The system enables the aircrew to be briefed until the moment of take-off, when the connection between aircraft and the telebriefing system is automatically broken at the aircraft as it moves away.

4. For normal intercom. requirements, use is made of the AF amplifier incorporated in either the UHF or HF radio installation, whichever is selected by the the pilot. When a telebriefing land-line is connected to the intercom. system, amplification is provided for by the telebriefing system at the ground or aircraft carrier station.

FUNCTION

R/T communication

5. Each aircrew member is provided with a 3-position radio selector switch and a press-to-transmit switch. When a selector switch is set to either UHF or HF radio, the mic./tel. lines and transmit switch at the crew station concerned are connected to the appropriate transmitter-receiver. The third position, T/B of the selector switch, is normally used when a telebriefing land-line is connected to the aircraft (para. 11). However if a press-to-transmit switch develops a short circuit, the faulty switch can be isolated by selecting T/B at the crew station affected. An emergency press-to-transmit switch, the use of which is limited to UHF standby operation, is provided at the pilot's station.

Intercom. (aircrew)

6. Intercom. facilities between aircrew members are provided for by utilizing the AF amplifier in either the UHF or HF transmitter-receiver depending upon which radio installation is selected by the pilot. A combined press-to-intercom. and mute switch is located at each crew station, the observer's switch being foot-operated. When either switch is depressed, the observer's mic./tel. lines are commoned with those of the pilot and incoming R/T signals are muted. Use of the intercom. switch is not essential when the same radio installation is selected at both crew stations.

Associated systems

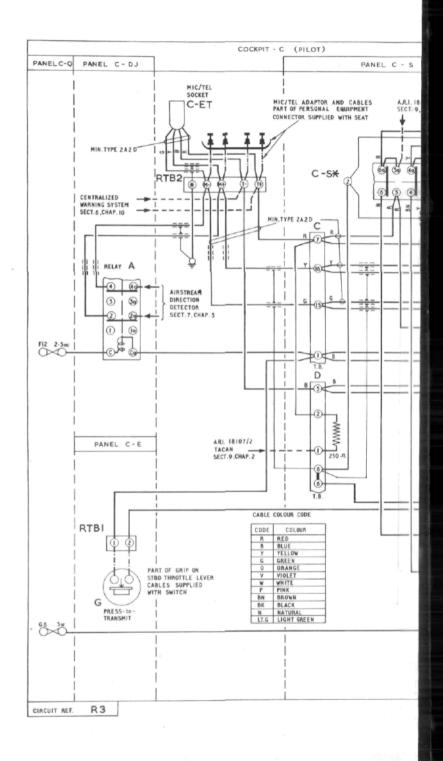
7. The signal produced by the audio warning unit in the centralized warning system and the coded signals received by TACAN are fed directly to the pilot's earphones. The output of the audio frequency generator incorporated in the airstream direction detector system is first taken to the selected radio installation, where it is amplified before being fed to the pilot's earphones. During periods of R/T transmission the A.D.D. signal is suspended. The above mentioned audible warnings will also be received by the observer when the same radio installation is selected at both crew stations.

8. Radar warning signals received by ARI. 18165 are fed directly to the observer's earphones to be heard as an audio frequency tone. By selecting T/B & RADAR WARNING on the radio selector switch, the observer can exclude all other incoming signals from his earphones.

Intercom. (aircrew/ground crew)

9. A mic./tel. socket and a call aircrew switch, located in each undercarriage wheel bay, provide intercom. facilities between ground personnel and aircrew during engine running and pre-flight servicing. Normally this facility is available only when the UHF radio installation is selected at the pilot's station and it then utilizes the AF amplifier in the UHF transmitter-receiver; intercom. with the observer's station is established either by selecting UHF radio at that station or by depressing an intercom. switch.

10. The call aircrew switches provide means of attracting the attention of the aircrew when ground personnel require use





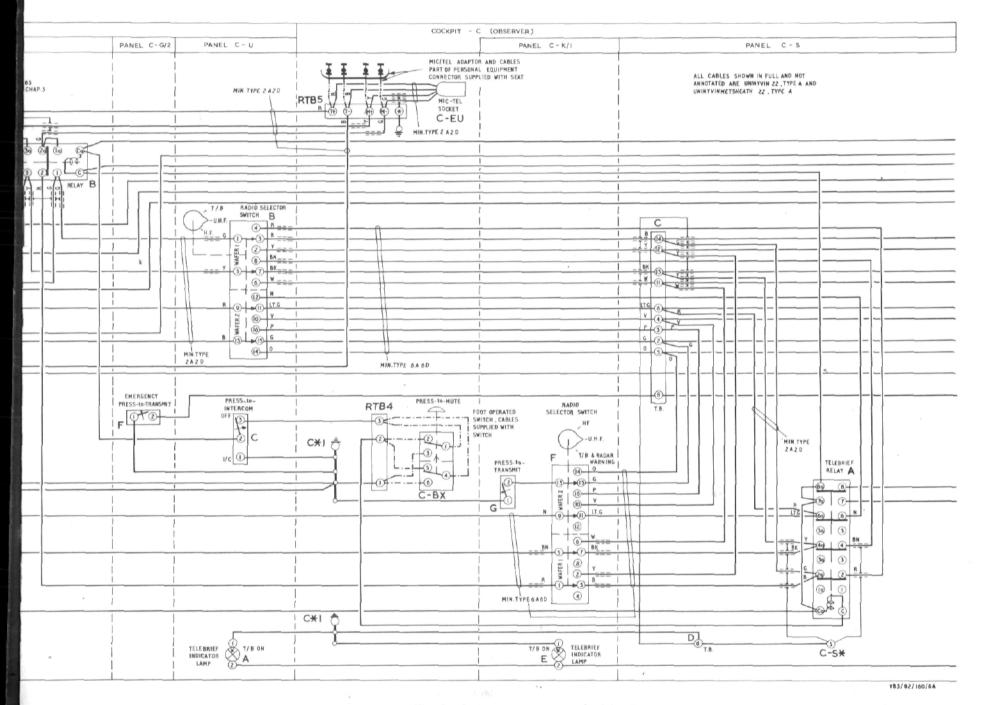


Fig. 2. Intercommunication and telebrief

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