

## Chapter 9 AIR SERVICES

### LIST OF CONTENTS

DESCRIPTION	Para.	SERVICING	Para.
Introduction ... ..	1	General ... ..	7
General ... ..	2		

### LIST OF ILLUSTRATIONS

	Fig.
Radar and generator cooling ...	1

### DESCRIPTION

#### Introduction

1. This chapter deals with the cooling air supplies for the engine driven generators and alternator, the electric crate, the power panel and certain units of the radar and radio equipment. The arrangements for cooling the radio equipment are closely associated with cabin air conditioning and bomb bay heating, (Chap.8).

#### General

2. The generators and alternator mounted on the engine driven accessories gear boxes, are cooled by blast air ducted from a scoop on the underside of each

engine nacelle. The blast air exhausts through an outlet adjacent to each scoop.

3. Blast air, from ram intakes, is directed into the compartment for the Blue Silk inverter, the power panel and the electrics crate; the latter containing several inverters, each of which has its own built-in cooling fan.

4. On entering the power panel, the blast air passes through "heat sink" units which are internally finned to dissipate the heat generated by the electrical diodes in the panel.

5. The Blue Silk compartment, the power panel and the electrics crate, exhaust direct to atmosphere. Drain tubes prevent rain water collecting in the ram ducting and the electrics crate.

6. The radio equipment, on the radio shelf, is cooled by cabin air rising through holes in the shelf to replace the heated air being extracted by a fan. The radio shelf is divided into compartments, each having its own access door. Holes in that portion of the extractor duct above each compartment, are sized according to the heat output of the particular piece of equipment.

### SERVICING

#### General

7. Servicing entails the following:-

The examination of the cooling ducts for security, damage and obstruction.

The checking of the ram ducting and electric crate water drains for blockage.

The checking of the access doors to the Blue Silk compartment, the radio equipment and the electric crate, for flush fitting.

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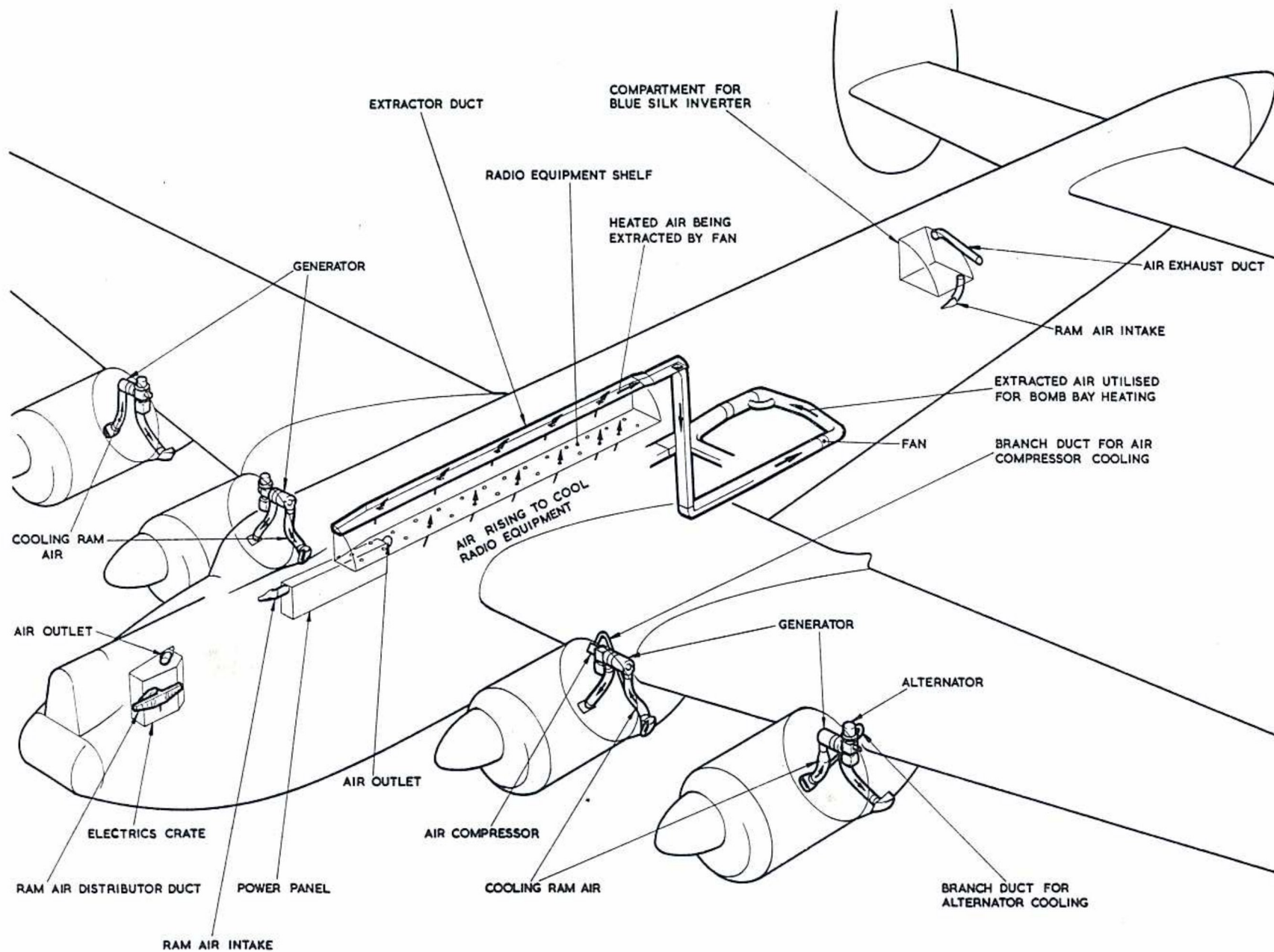


Fig. 1. Radar and generator cooling.