

g/p Armstrong

AVRO AIRCRAFT LIMITED

Inter-Departmental Memorandum

Ref 7748/03A/J
Date April 1, 1958
To S. E. Harper
From J. D. Hodge
Subject ANTENNA EVALUATION TESTS - ARROW 1

① Herewith R.F.T. No. 5044, which supercedes and cancels
R.F.T. No. 5003 "Antenna Evaluation Program CF105".

AA*bb

J. D. Hodge
J. D. Hodge
Technical Flight
Test Co-ordinator

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for transmittal to
S/L K. Owen, C.E.P.E.
detachment.

Central Files



AVRO AIRCRAFT LIMITED

MALTON, ONTARIO

REQUISITION FOR FLIGHT TEST

R.F.T. NO. 5044

SHEET NO. 1 OF

DATE: April 1, 1958

AIRCRAFT 25202

ASSIGNMENT NO. X73-386

WORK ORDER NO.

ANTENNA EVALUATION TESTS - ARROW 11. OBJECT

To establish verification of model antenna range patterns for a single plane.

2. EQUIPMENT

- 2.1 A ground station should be set up as detailed in Section 3 "Ground Station Equipment" of Report No. 71/Systems 13/3.
- 2.2 The Arrow 1 should be equipped for UHF transmission, with the AN/ARC-34 or equivalent, and for L-Band transmission, with the AN/APX-6. Details of the operation and modification of this equipment or given in sections 4.1, 4.2 and 4.3 of Report No. 71/Systems 13/3.
- 2.3 Also required for calibration purposes is a C100 aircraft with the same equipment installed as the Arrow 1.
- 2.4 Throughout the tests the dummy Irdome will be fitted to the Arrow 1.

3. PROCEDURE

The complete evaluation procedure for flight tests is given in section 5 of Report No 71/Systems 13/3. The C100 aircraft is to be used for calibration purposes in order to cut the required flight time of the Arrow 1 to a minimum.

Three UHF frequencies and two L-band frequencies will be tested and each pattern will be tested at least once and checked on a different day in order to establish repeatability. In order to consider the repeatability successfully established an accuracy of ± 1 db must be achieved.

R.F.T. PREPARED BY:

APPROVED BY:

AUTHORIZED BY:

DATE FOR COMPLETION

PRIORITY

ESTIMATED COMPLETION
DATE:



AVRO AIRCRAFT LIMITED

MALTON, ONTARIO

REQUISITION FOR FLIGHT TEST

R.F.T. NO. 5044

SHEET NO. 2 OF

DATE: April 1, 1958

AIRCRAFT <u>25202</u>	ASSIGNMENT NO. <u>X73-386</u>	WORK ORDER NO.
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The Irdome will be fitted in these tests, and dependent on the results of this assessment, the Irdome or the fin antenna may need to be relocated. The proposal as laid out in Report No. 71/Systems 13/3 requires that for each antenna coverage for only a single plane to be measured by flight test, the entire antenna pattern then being determined by model range techniques.

4. DATA

Report should include complete details of tests carried out and results obtained.

R.F.T. PREPARED BY: <i>[Signature]</i>	APPROVED BY:	AUTHORIZED BY:
DATE FOR COMPLETION	PRIORITY	ESTIMATED COMPLETION DATE:

F/L Harke

For review & comments

Return please to S/L Armstrong

SAL

UNCLASSIFIED

(1) S/L Patterson - Please study the attached RFT for implications re: instrumentation and forward to F/L Harke for his review and comments.

Armstrong S/L

AT-1

14 April

(2) AT-1

No major implications, other than using telemetry as the prime data acquisition agency. This appears to be an interim measure

S. H. Patterson S/L

A.T. 2 15 Apr.

(3) AT-1

No comment now. Regret I have not been able to keep sufficiently abreast of this programme to be of much help on detail at this time. W. Harke R

1D-1

23 April

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