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IN REPLY PLEASE QUOTE
No S1038CN-109-3(RCA/PR)

CANADA

Department of National Defence

Royal Canadian Air Force

Camden 2, N. J.
21 Aug 58

Ref: (a) AMTS Memorandum to VCAS S1038CN-180(AMTS/AAWS) dated 6 Jan 58 on Arrow 2 Operational Capabilities of Squadron Aircraft.

(b) AWS 3 Memorandum to AWS/MP 2 S1038CN-183(AMTS/AAWS) dated 7 Aug 58.

(c) Our letter S1038CN-109-3(RCA/PR) dated 13 Jan 58 which discussed RCA problems in obtaining Genie information.

(d) Our letter S1038CN-109-3(RCA/PR) to DDP(W) dated 10 Sep 57, copy attached.

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Chief of the Air Staff,
Air Force Headquarters,
Ottawa 4, Ontario, Canada.

Referred AAWS
AUG 26 1958
Ltr S1038CN-183.5
Chg'd to AAWS

Attention: AAWS

Arrow Electronic System -
Genie Installation

26 aug

1 The including of Genie in the Arrow Weapon System is covered contractually in RCA's Development Program Statement of Work and the associated requirement specification. However, this task was assigned a low priority in para 5 of reference (a). This direction has subsequently been reflected in the AWSCC reports and in the definition of Mk. 1A/Mk. 1B preproduction AES. Recognizing this priority, RCA recently has devoted virtually no attention to Genie; effort has been concentrated on the Sparrow II weapon.

2 With the receipt of reference (b) information copy, the company has been informally advised of the priority change and is taking appropriate action to reintroduce Genie effort, based on the understanding that formal direction will be provided.

3 To permit the company to complete its design work, specifically in the FCS computer, collaboration with AVRO is required.

4 Reference (c) described the difficulty that RCA was meeting in obtaining necessary Restricted and Non-Restricted Data information, summarized as follows:

(a) Flight characteristics, trajectory, range, etc. This information is needed to complete the design of the fire control computer.

(b) Method of launch and local airstream behavior. Required for design of the mechanization of a portion of the fire control computer, taking into consideration characteristics of the launching method.

(c) Method of computing safe time of flight. Required for computer design.

(d) Accuracy requirements of the fire control alignment and method of alignment. This information is required for the design of the fire control subsystem.

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There is evidence that RCA-held data used hitherto for Genie design requires updating. The company believes that their previous need-to-know difficulties may now be at least partially solved, but this has still to be confirmed. Arrangements for a number of visits by company personnel are now being processed.

5 Reference (d) indicates an unsuccessful attempt made to arrange for some joint RCA/AVRO work in the Non-Restricted Data area. Such clearances are still necessary, but must be complemented by access to appropriate Restricted Data.

6 Para 2, reference (b), excludes a necessary radome development; a further letter will cover the need for action in this area.

7 The following action is considered necessary:

(a) Formal direction to this office defining the revised Genie priority status.

(b) Coverage of this revised status in the preproduction program.

(c) Arrangements for AVRO access to the necessary Restricted and Non-Restricted Data for RCA/AVRO collaboration.

(d) Initiation of an AVRO development program to make radomes available to Class A specifications at a date compatible with evaluation for Genie capability.

(F. L. Bernstein) W/C
RCAF Plant Representative
Radio Corporation of America

cc: CJS(W)
OC TSDs AVRO
DDP(O)
DDP(W)