Development of Phosphor Tagging on Canadian Stamps

CPS of GB - Zoom Convention
October 8, 2025
M. Zatka

Zatka Philately

Presentation Outline

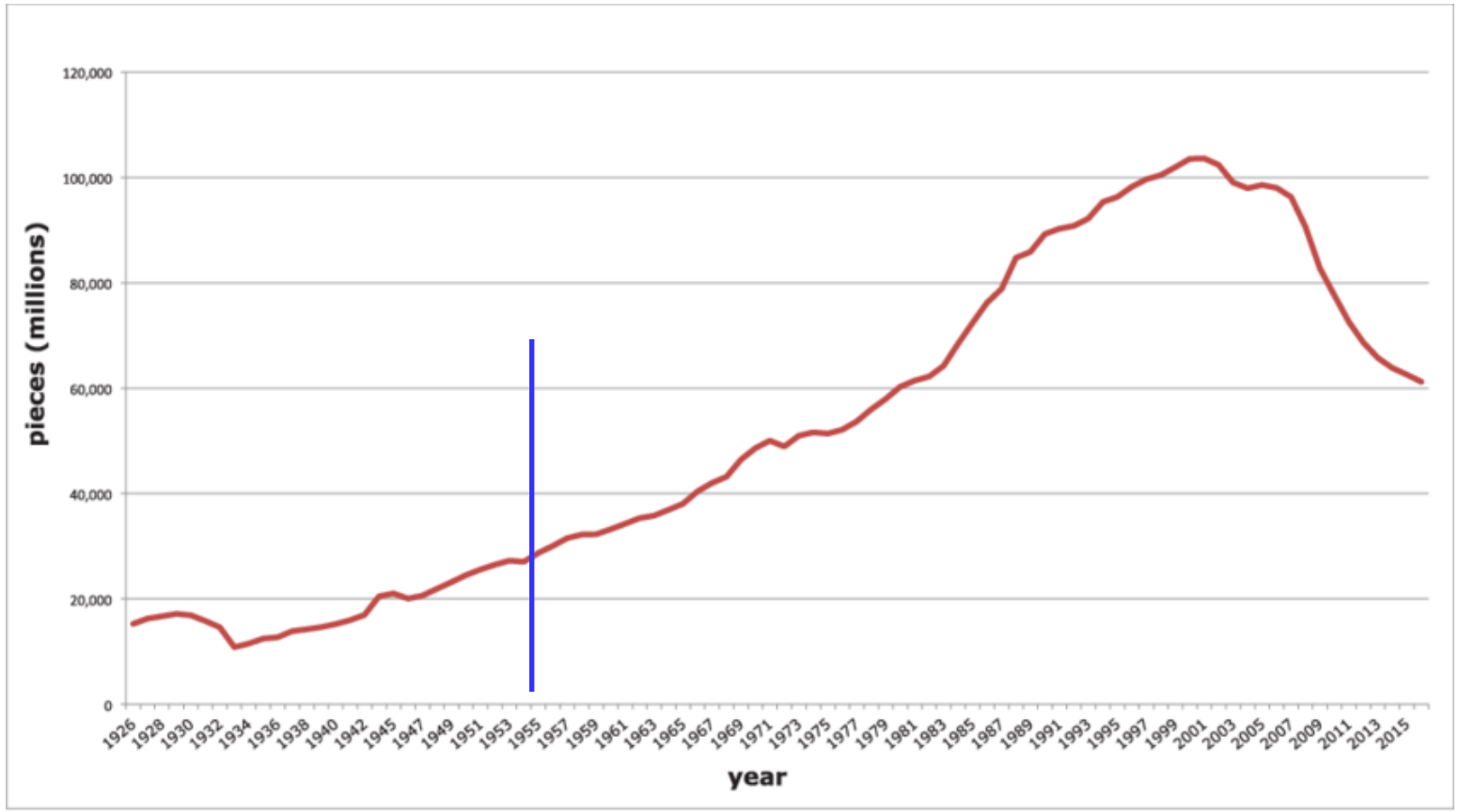
- Overall Project Objective
- Source of Material and Verification
- Partners in Development Work
- Number of stamp trials
- Initial Investigations
- Marking of Stamps / Trials
- Summary
- Acknowledgements

Overall Project Objective

To find a method for *mechanically* identifying stamps on a letter, and cancelling them using *automated* equipment:

- Volume of mail was increasing, requiring more manual intervention to cancel stamps used to prepay postage
- Processing costs were increasing.

Changes in Mail Volume



*Data source for chart:

USPS. *United States Postal Service: About.* Online at https://about.usps.com/who-we-are/postal-history/first-class-mail-since-1926.htm, access date 10 February 2018.

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Source of Materials / Verification

- All documentation obtained from Library and Archives Canada (LAC):
  - Research spanned several years
  - Involved several individuals
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- Most material consists of copies of correspondence between various contractors / partners
  - Permission for copies obtained, but
  - Actual LAC document numbers not available due to the way they were copied
- Actual (remaindered) stamps from two trials obtained from an estate sale in the 1990s,
  - Stamps certified as genuine in 2013 by the Greene Foundation.

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Partners in Development Work

- Initial focus was on production of paper that contained phosphorescent materials:
  - Earliest documentation is from 1955,
  - Involved the EB Eddy Company / Eddy Paper Company (‘Eddy’), stamp paper manufacturer in the US and Canada,
  - Reed Research Co. (‘Reed’), potential source of facer-canceller machines in the US, and
  - Canadian Bank Note Company (‘CBN’), security printer and supplier of stamps to the [Canadian] Post Office Department (‘POD’)

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  - Canadian Bank Note Company ('CBN'), security printer and supplier of stamps to the [Canadian] Post Office Department ('POD')
- Later participants became:
  - General Post Office (GPO); the British post office, and
  - Elliott Brothers (London) Limited, developers of a facer-canceller machine for the GPO.

Number of Stamp Trials

- Trial #1 – 1955 test stamps (from June 3, 1955 letter)
- Trial #2 – early 1960 (from December 1, 1959 letter)
- Trial #3 – pre-October 1960 (from October 10, 1960 letter)
- Trial #4 – early 1961 (from January 20, 1961 letter)
- Trial #5 – mid 1961 (from August 22, 1961 letter)

Number of Stamp Trials

- Trial #1 – 1955 test stamps (from June 3, 1955 letter)?
- Trial #2 – early 1960 (from December 1, 1959 letter)?
- Trial #3 – pre-October 1960 (October 10, 1960 letter)?
- Trial #4 – early 1961 (from January 20 letter)?
- Trial #5 – mid 1961 (from August 22 letter)?
- Were there any more for which documentation has not been found so far?

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Initial Investigations – Trial #1

June 3rd, 1955
Our reference 1-A

Dr. R. de Montigny
Technical Director
The E. B. Eddy Company
HULL, P.Q., Canada

Dear Dr. de Montingy:

Pursuant to our telephone conversation earlier this week and in accordance with your recent request, we enclose one sheet of experimental stamps 25/on printed on paper which you supplied to us having a phosphorescent treatment. We have forwarded comparable sample sheets to the Post Office Department for testing purposes.

You will be advised in due course what further steps are to be taken in connection with special paper.

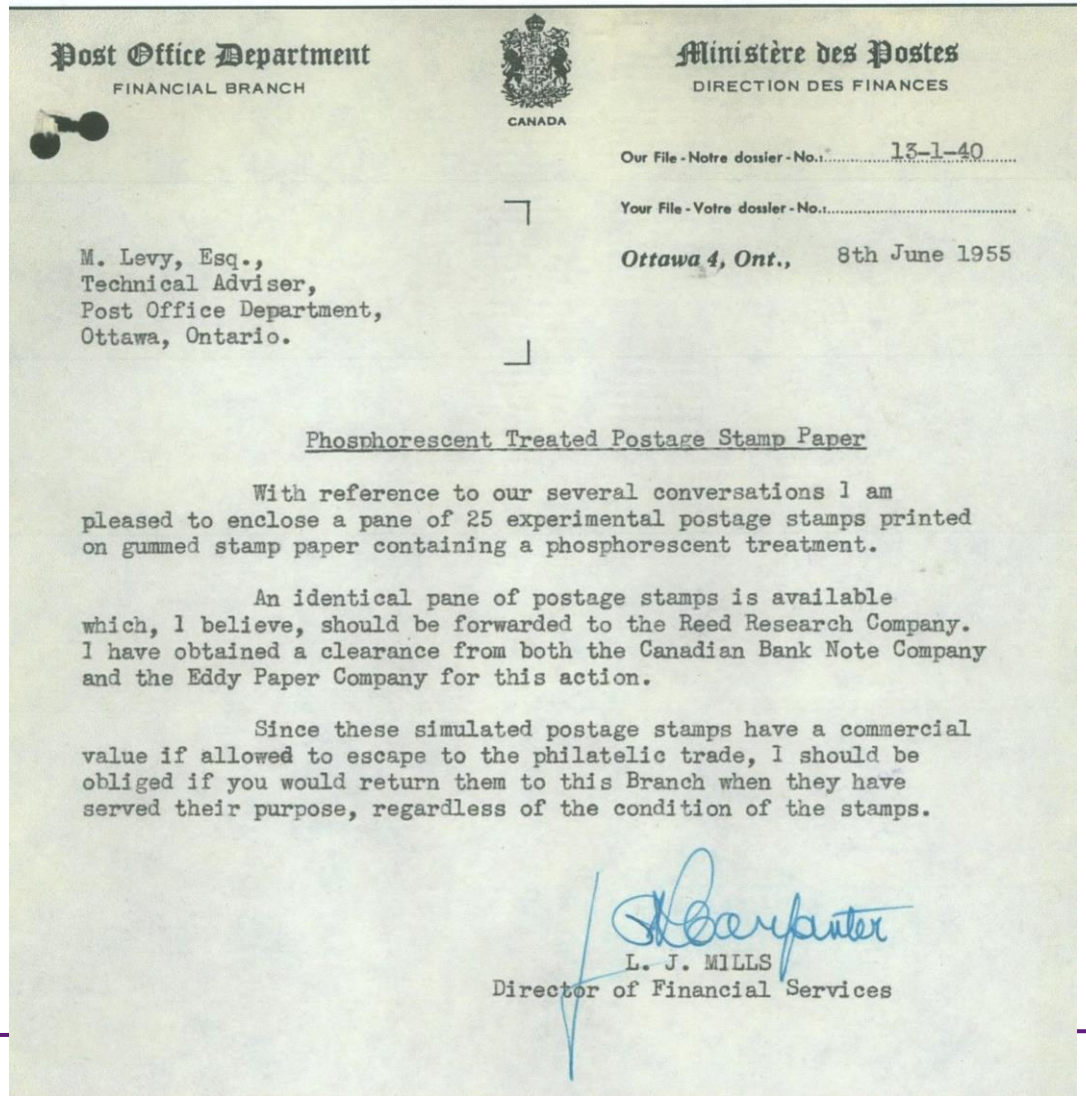
Yours very truly,

H. W. Jackson
Plant Superintendent

HWJ:VS
Enclosure

← CBN

Initial Investigations – Trial #1



Post Office Department
FINANCIAL BRANCH

CANADA

Ministère des Postes
DIRECTION DES FINANCES

Our File - Notre dossier - No.: 13-1-40

Your File - Votre dossier - No.:

Ottawa 4, Ont., 8th June 1955

M. Levy, Esq.,
Technical Adviser,
Post Office Department,
Ottawa, Ontario.

Phosphorescent Treated Postage Stamp Paper

With reference to our several conversations I am pleased to enclose a pane of 25 experimental postage stamps printed on gummed stamp paper containing a phosphorescent treatment.

An identical pane of postage stamps is available which, I believe, should be forwarded to the Reed Research Company. I have obtained a clearance from both the Canadian Bank Note Company and the Eddy Paper Company for this action.

Since these simulated postage stamps have a commercial value if allowed to escape to the philatelic trade, I should be obliged if you would return them to this Branch when they have served their purpose, regardless of the condition of the stamps.

L. J. MILLS
Director of Financial Services

Initial Investigations

- No LAC data on actual testing of these stamps.
- Discussions in 1955 rejected the evaluation of phosphorescent ink for printing stamps, and overprinting stamps with a phosphorescent material (!)
- Gap in LAC documents until 1959…

Marking of Stamps

1959 - development work was ongoing:

- Reed was out; new partners were the GPO and Elliott
- Agreement on marking stamps with invisible phosphorescent ink (no graphite bars)

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- Reed was out; new partners were the GPO and Elliott
- Agreement on marking stamps with invisible phosphorescent ink (no graphite bars)
- ‘Coding’ the stamps for local and forwarded delivery with one mark on 4c value; two marks on all other (1c – 5c) values
- Use of automatic letter facing machines to:
  - recognize stamp position on letter mail to correctly face and cancel the stamps, and
  - segregate local from forward first-class letter mail.

Marking of Stamps

- Agreement in a July 23,1959 meeting between the POD, CBN, and Eddy on:
  - Short-term: use vertical phosphorescent bars for testing on Canadian stamps (long-term: add phosphor to paper)
  - Phosphor ink to be based on type developed for the GPO
    - Two UK phosphor inks were supplied by the GPO to CBN (and Eddy) for testing on Canadian stamps

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  - Requested price quotes from CBN for the overprinting of stamps.

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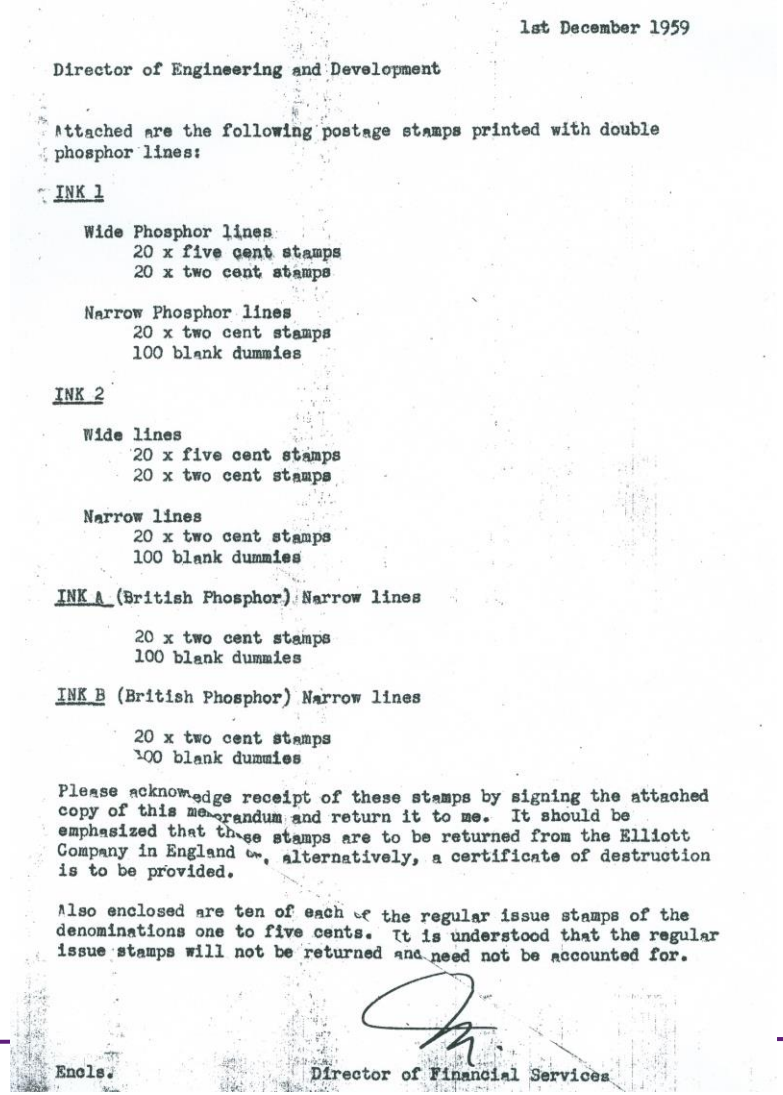
  - Requested price quotes from CBN for the overprinting of stamps.
- Dec 1, 1959 letter from POD to Elliott:
  - Confirmed focus on phosphor marking of stamps (not graphite lines)
  - Discussion on contractual requirements for supply of SEFACAN machines to POD.
  - Included sample marked stamps and business reply cards / OHMS envelopes

Trial #2 Stamps?

Letter to Elliott:



1st December 1959

Director of Engineering and Development

Attached are the following postage stamps printed with double phosphor lines:

INK 1

Wide Phosphor lines
20 x five cent stamps
20 x two cent stamps

Narrow Phosphor lines
20 x two cent stamps
100 blank dummies

INK 2

Wide lines
20 x five cent stamps
20 x two cent stamps

Narrow lines
20 x two cent stamps
100 blank dummies

INK A (British Phosphor) Narrow lines

20 x two cent stamps
100 blank dummies

INK B (British Phosphor) Narrow lines

20 x two cent stamps
100 blank dummies

Please acknowledge receipt of these stamps by signing the attached copy of this memorandum and return it to me. It should be emphasized that these stamps are to be returned from the Elliott Company in England or, alternatively, a certificate of destruction is to be provided.

Also enclosed are ten of each of the regular issue stamps of the denominations one to five cents. It is understood that the regular issue stamps will not be returned and need not be accounted for.

Encls.

Director of Financial Services

Marking of Stamps / Trials

- Another gap in documentation until October 1960:
  - Letter from the GPO to POD regarding marking line widths…

Marking of Stamps / Trials

G.P.O. HEADQUARTERS

ST. MARTIN'S-LE-GRAND, LONDON E.C. 1

GPO Telephone: HEAdquarters 4100

P.O. ref: PM/39/05

October 1960

Dear Nelson,

Phosphor stripes on postage stamps

As promised in my letter of 12th September, I asked our Engineers for information which might help you and they have let me have what appears to be a very useful report. A copy is attached. I hope you will find it helpful.

Yours sincerely,

(Sgd.) Ken

(K. S. HOLMES)

Mr. J. N. Craig,
Director of Engineering & Development,
Post Office Department,
Ottawa 4, Ont.

Phosphor Marking Lines on Stamps,
Canadian Post Office Department

noted 10/11/60.

Comments on the points raised in the letter from the Canadian Post Office Department dated 7th September 1960 are as follows:-

The decision as to the optimum siting and size of phosphor marking lines on stamps depends ultimately upon the standard of printing and perforation which can be achieved.

Very efficient detection is achieved if a line 1/32" wide is printed on the unmarked surface of a stamp between the perforations and the edge of the picture. Unfortunately, in Britain at present, the accuracy of perforation is not perfect, due to fundamental problems bound up with paper shrinkage and the fact that perforating and printing are carried out with an appreciable time lapse between. In Britain at present furthermore, although the situation is only temporary, the printing of the portrait and the printing of the lines are not carried out on a two-colour machine; that is the two operations are not completed in a single passage through the printing machine. This also introduces registration problems.

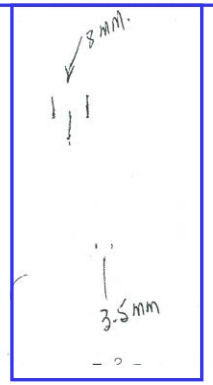
It is therefore not possible at present to locate the lines in this ideal position near the edge of the stamp where the brightness of the phosphor glow is not degraded by any colouring of the paper on which the phosphor ink is printed. It is hoped that eventually the ideal siting can be adopted, but a compromise is necessary for the time being.

Two main points must be considered when choosing where to place the lines and what width to make them: - Reliable distinction between one and two lines, and level of phosphor glow tolerable. For the machine to differentiate between one and two lines the wider the spacing the better, as this lessens the chance of an off square two line stamp being registered as a single line stamp. The extreme edges are therefore the obvious choice. Unfortunately the perforations sometimes encountered on the stamp do actually touch, though not cut, the portrait. Specimens where the perforations do cut the portrait are destroyed. It is therefore not satisfactory to phosphor mark only the white edge or "gutter", so-called, of the stamp as this area may be virtually destroyed by the perforating process. The phosphor marks must therefore be allowed to spread in from the edges of the stamp sufficiently far to permit ready detection despite the degrading effect of the deep colouring which is encountered when this is done in the case of most of the United Kingdom stamps involved.

The system which has therefore been adopted in the United Kingdom for stamps other than the 2d. is to mark lines 8 mm. wide, centrally positioned with respect to each "gutter" in the sheet. This results in lines approximately 3 mm. wide on both vertical edges of each stamp when separated, according to the accuracy of registration.

In the case of the 2d. stamp, again due to the difficulty of registration, it is not safe to position the single lin immediately adjacent to an edge for fear of poor registration giving rise to overlapping of the line on the other edge of the neighbouring stamp in the sheet. In this instance the line, which must therefore now be printed wholly on a coloured area, has been made 3.5 mm. wide and has been positioned nominally half way between the centre line of the stamp and the left hand edge. Apart from the fact that the edges cannot be used, the only reason for siting the line in this position is because the current design of 2d. stamp is only lightly tinted in this area, and it is stressed that providing excessive printing costs are not likely to be incurred when alterations are made to the stamp design, it is advantageous to consider the design and select a lightly tinted area for line siting. Such consideration should also be given to a double line stamp, although good spacing must take precedence.

Regarding the question of the suitability of the specimen inks, tests conducted by this Department confirm that signals generated by inks 1 and 2 were adequate, although weaker than those obtained from the ink used by the British Post Office. Current operating experience with the experimental machine at Southampton has shown, however, that some form of quality control of the stamp printing process is essential to ensure that stamps produced in quantity give at least the same intensity of signal as the original samples.



319833

- 2 -

Zatka Philately

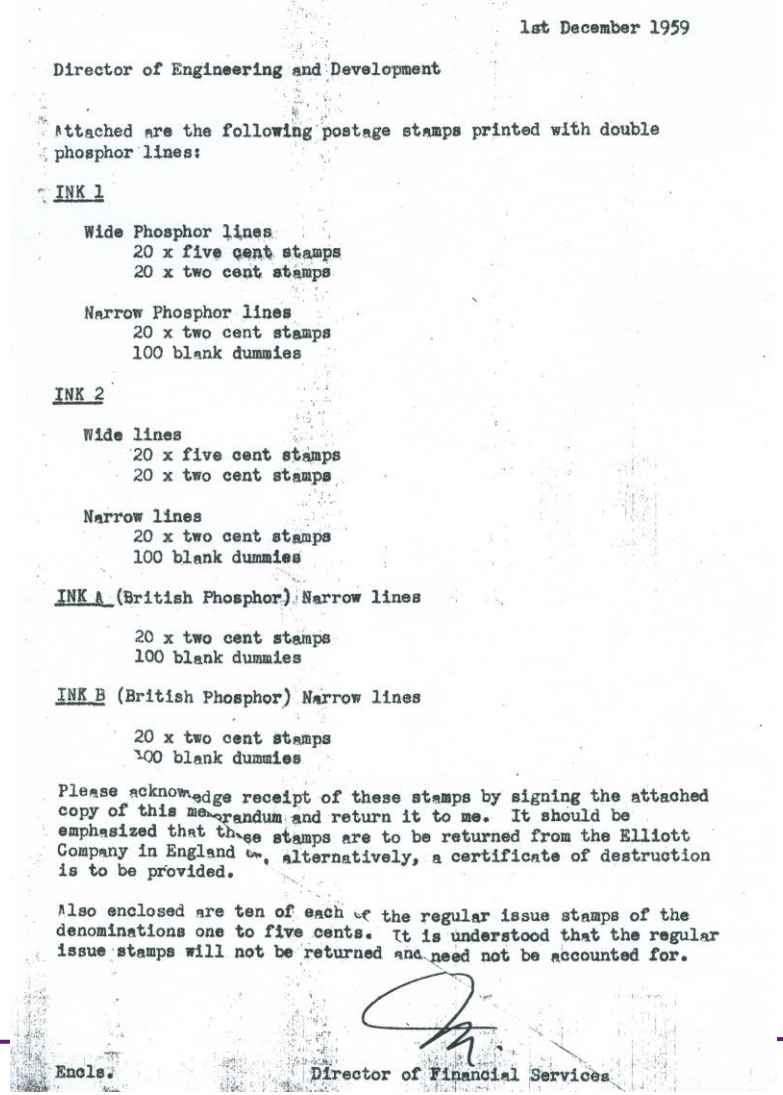
‘French’ - Tagged Test Stamps (1/16” wide): Trial #3?

‘Tagging’ ink fluoresces and phosphoresces,
but light decay is rapid

Zatka Philately

Trial #2 Stamps?

Letter to Elliott:



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Encls.

Director of Financial Services

Marking of Stamps / Trials

- Letter dated November 10, 1960 from POD to CBN regarding marking line widths…

Marked Stamp Trial #2?

60- 13-1-58

...lican

...nk Note Company, Limited
...d Road
..., Ontario

10 November 1960

Mr. Carpenter
Please note
10/11 am.

Dear Mr. Coolican

Please refer to my letter of the 1st November and our telephone conversation referred to in your reply of the 7th November concerning the marking of Canadian postage stamps with phosphate ink.

As a result of discussions with representatives of the Engineering and Development Branch of the Post Office Department, it has been agreed that our specification for marking of Canadian postage stamps with phosphate inks should be as follows:

1. For the one-cent, two-cent, three-cent and five-cent stamps the phosphate ink lines are to be eight millimeters wide centrally positioned with respect to each vertical space between postage stamps, that is, on the left and right hand sides so that when the stamps are separated at the perforations there will be a minimum of two millimeters of phosphate ink markings on the left and right vertical edges of each postage stamp in these denominations.

2. On the four-cent denomination postage stamps one vertical line three and one-half millimeters in width is to be printed centrally located on each postage stamp. The tolerance requirement on the four-cent stamp is that the vertical line be not closer than two millimeters to the left or right vertical edges of the design.

8 mm

3½ mm for 4¢

1-2-3-5
11 lines on panel of small stamps
...2

44 10 lines

Extra copy sent AHB. 15-11-60.

- 2 -

...re is one other phase to the use of phosphate ink markings on ...e one-cent to five-cent denominations which requires consideration ...d this was referred to in a recent letter from the British Postal ...dministration. They pointed out that the specimens of inks 1 and 2, ...hich were supplied on Canadian postage stamps for testing, were ...dequate on these specimens although weaker than signals on inks used by the British Post Office. They went on to say that current operating experience with the experimental machine at Southampton has shown that some form of quality control of the stamp producing process is essential to ensure that stamps produced in quantity give at least the same intensity of signal as the original samples. This would mean that in your production you would have to ensure that there is a minimum depth of deposit of phosphate ink on postage stamps equivalent to the depth of deposit on the sample which you gave us.

It has not been decided whether commemorative postage stamps shall be marked with phosphate ink or not. If the decision should be to mark the commemorative issues, cost may vary for each of the four or five different formats of commemorative issues. Therefore, would you please quote a price for each of the commemorative sizes and formats.

I believe that with this information you will be in a position to give us a quotation on the cost of printing phosphate ink markings.

Yours sincerely

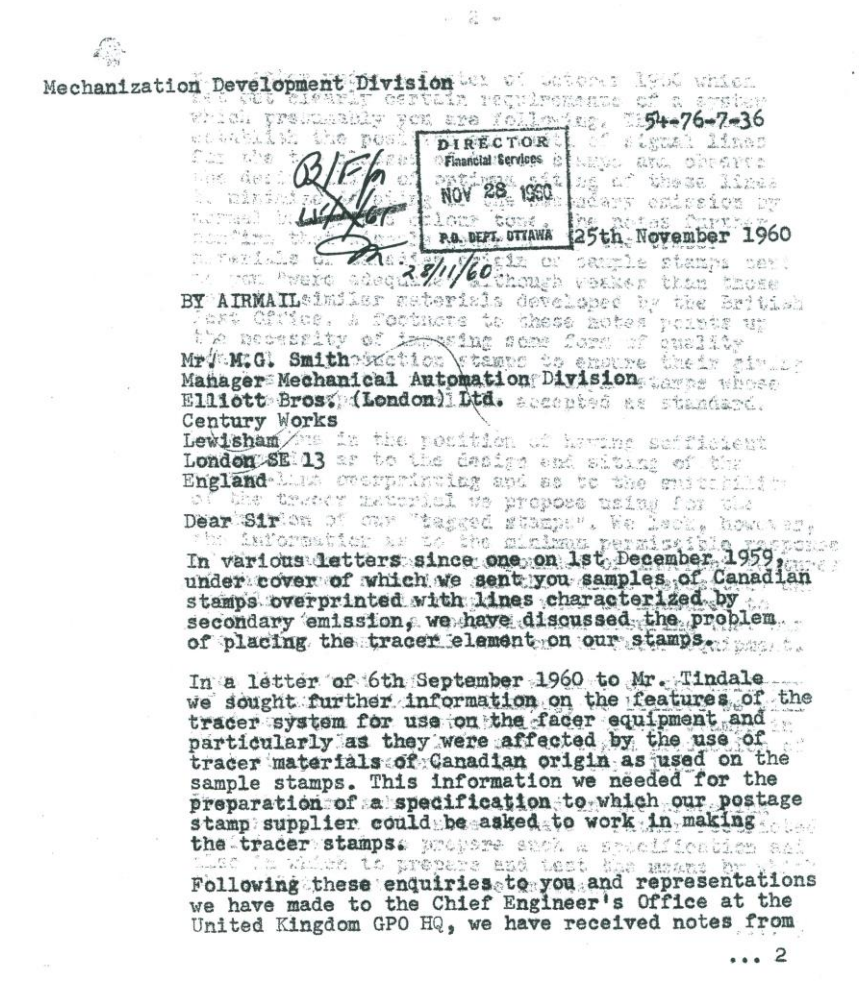
J.A. MacDonald
Director of Financial Services

c.c. Director of Engineering and Development

Marking of Stamps for Automatic Detection

- Letter dated November 10, 1960 from POD to CBN regarding marking line widths
- Nov 25, 1960 letter from POD to Elliott…

Marking of Stamps for Automatic Detection



Mechanization Development Division

54-76-7-36

DIRECTOR Financial Services NOV 28 1960 P.O. DEPT. OTTAWA

25th November 1960

BY AIRMAIL

Mr. M.G. Smith
Manager Mechanical Automation Division
Elliott Bros. (London) Ltd.
Century Works
Lewisham
London SE 13
England

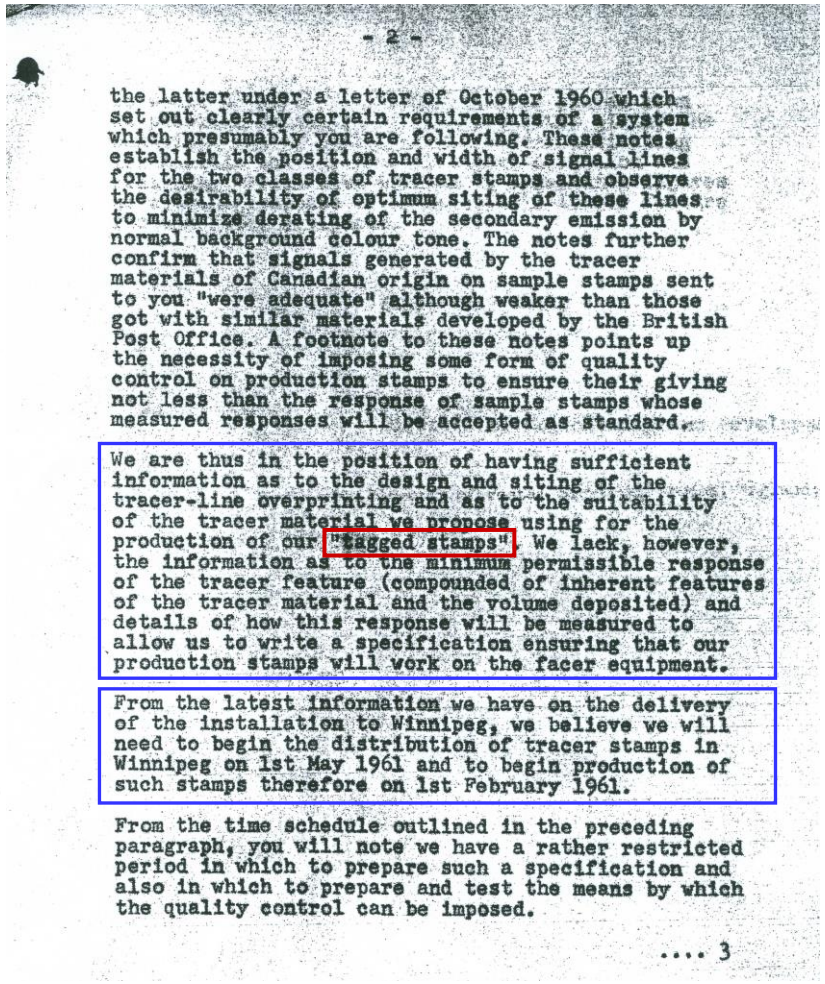
Dear Sir

In various letters since one on 1st December 1959, under cover of which we sent you samples of Canadian stamps overprinted with lines characterized by secondary emission, we have discussed the problem of placing the tracer element on our stamps.

In a letter of 6th September 1960 to Mr. Tindale we sought further information on the features of the tracer system for use on the facer equipment and particularly as they were affected by the use of tracer materials of Canadian origin as used on the sample stamps. This information we needed for the preparation of a specification to which our postage stamp supplier could be asked to work in making the tracer stamps.

Following these enquiries to you and representations we have made to the Chief Engineer's Office at the United Kingdom GPO HQ, we have received notes from

... 2



- 2 -

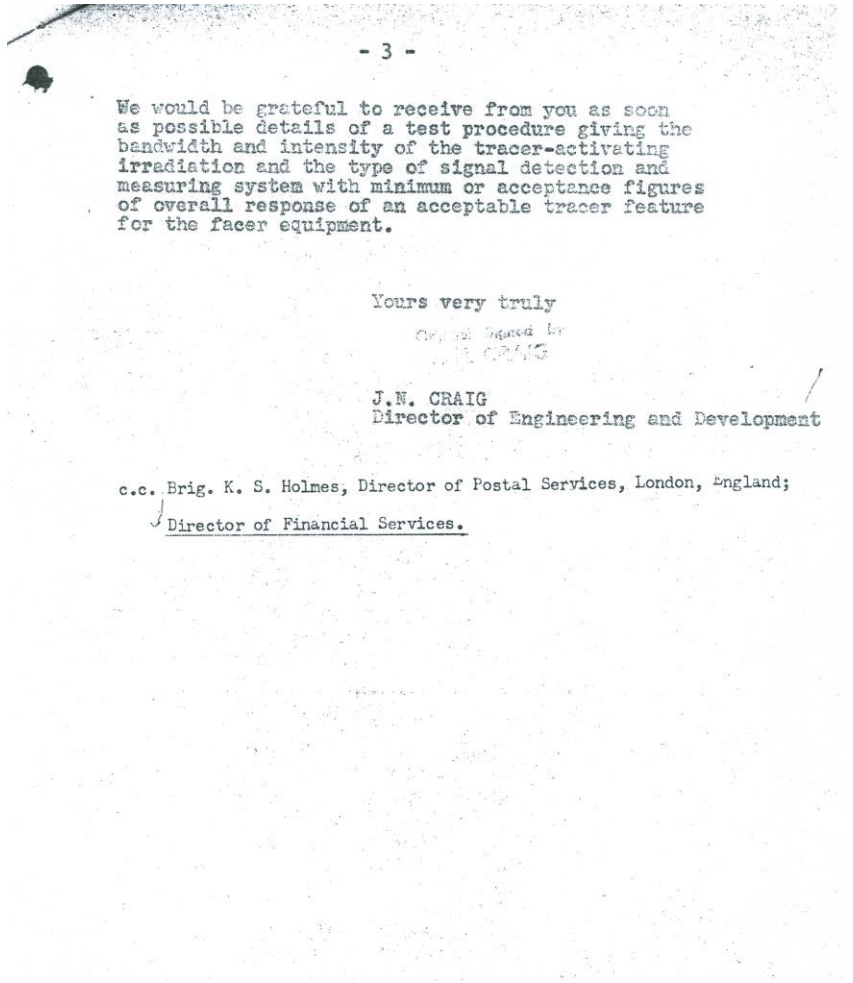
the latter under a letter of October 1960 which set out clearly certain requirements of a system which presumably you are following. These notes establish the position and width of signal lines for the two classes of tracer stamps and observe the desirability of optimum siting of these lines to minimize derating of the secondary emission by normal background colour tone. The notes further confirm that signals generated by the tracer materials of Canadian origin on sample stamps sent to you "were adequate" although weaker than those got with similar materials developed by the British Post Office. A footnote to these notes points up the necessity of imposing some form of quality control on production stamps to ensure their giving not less than the response of sample stamps whose measured responses will be accepted as standard.

We are thus in the position of having sufficient information as to the design and siting of the tracer-line overprinting and as to the suitability of the tracer material we propose using for the production of our "tagged stamps". We lack, however, the information as to the minimum permissible response of the tracer feature (compounded of inherent features of the tracer material and the volume deposited) and details of how this response will be measured to allow us to write a specification ensuring that our production stamps will work on the facer equipment.

From the latest information we have on the delivery of the installation to Winnipeg, we believe we will need to begin the distribution of tracer stamps in Winnipeg on 1st May 1961 and to begin production of such stamps therefore on 1st February 1961.

From the time schedule outlined in the preceding paragraph, you will note we have a rather restricted period in which to prepare such a specification and also in which to prepare and test the means by which the quality control can be imposed.

.... 3



- 3 -

We would be grateful to receive from you as soon as possible details of a test procedure giving the bandwidth and intensity of the tracer-activating irradiation and the type of signal detection and measuring system with minimum or acceptance figures of overall response of an acceptable tracer feature for the facer equipment.

Yours very truly

Original signed by
J. CRAIG

J.N. CRAIG
Director of Engineering and Development

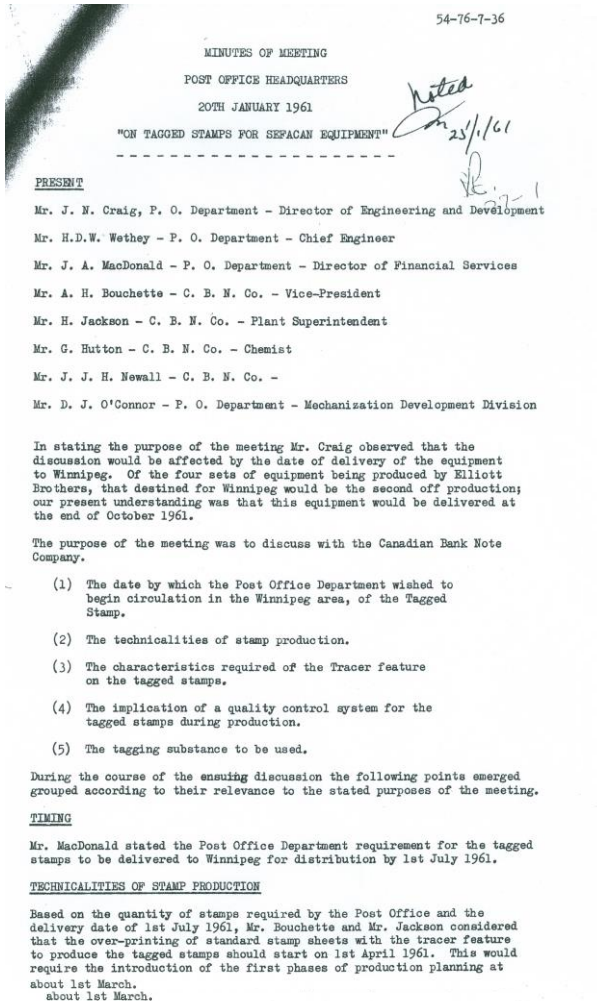
c.c. Brig. K. S. Holmes, Director of Postal Services, London, England;
Director of Financial Services.

Zatka Philately

Marking of Stamps for Automatic Detection

- Letter dated November 10, 1960 from POD to CBN regarding marking line widths
- Nov 25, 1960 letter from POD to Elliott
- Minutes of POD and CBN meeting from Jan 21, 1961…

Marking of Stamps for Automatic Detection



54-76-7-36

MINUTES OF MEETING

POST OFFICE HEADQUARTERS

20TH JANUARY 1961

"ON TAGGED STAMPS FOR SEFACAN EQUIPMENT"

PRESENT

Mr. J. N. Craig, P. O. Department - Director of Engineering and Development

Mr. H.D.W. Wethey - P. O. Department - Chief Engineer

Mr. J. A. MacDonald - P. O. Department - Director of Financial Services

Mr. A. H. Bouchette - C. B. N. Co. - Vice-President

Mr. H. Jackson - C. B. N. Co. - Plant Superintendent

Mr. G. Hutton - C. B. N. Co. - Chemist

Mr. J. J. H. Newall - C. B. N. Co. -

Mr. D. J. O'Connor - P. O. Department - Mechanization Development Division

In stating the purpose of the meeting Mr. Craig observed that the discussion would be affected by the date of delivery of the equipment to Winnipeg. Of the four sets of equipment being produced by Elliott Brothers, that destined for Winnipeg would be the second off production; our present understanding was that this equipment would be delivered at the end of October 1961.

The purpose of the meeting was to discuss with the Canadian Bank Note Company.

(1) The date by which the Post Office Department wished to begin circulation in the Winnipeg area, of the Tagged Stamp.

(2) The technicalities of stamp production.

(3) The characteristics required of the Tracer feature on the tagged stamps.

(4) The implication of a quality control system for the tagged stamps during production.

(5) The tagging substance to be used.

During the course of the ensuing discussion the following points emerged grouped according to their relevance to the stated purposes of the meeting.

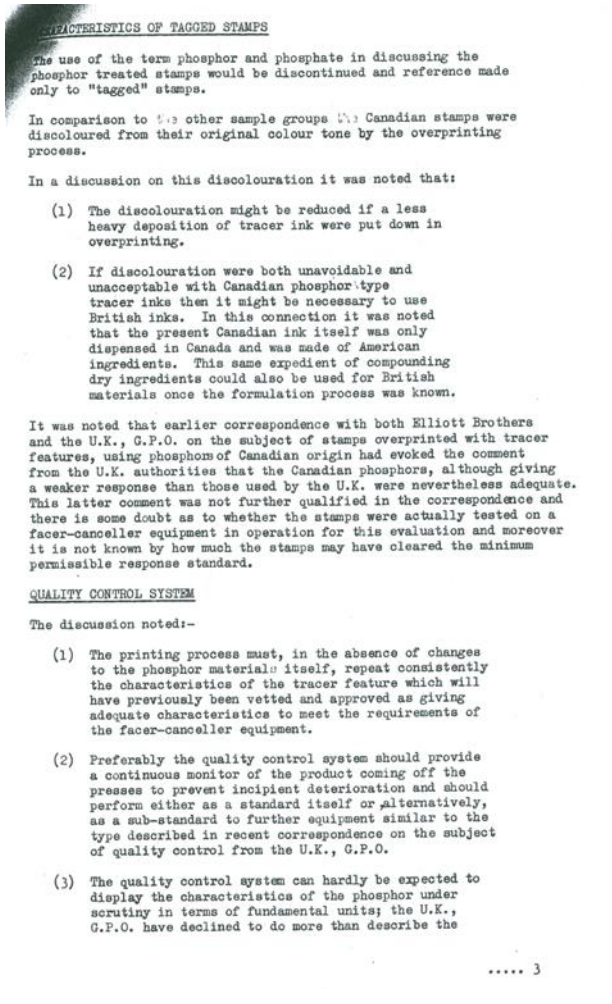
TIMING

Mr. MacDonald stated the Post Office Department requirement for the tagged stamps to be delivered to Winnipeg for distribution by 1st July 1961.

TECHNICALITIES OF STAMP PRODUCTION

Based on the quantity of stamps required by the Post Office and the delivery date of 1st July 1961, Mr. Bouchette and Mr. Jackson considered that the over-printing of standard stamp sheets with the tracer feature to produce the tagged stamps should start on 1st April 1961. This would require the introduction of the first phases of production planning at about 1st March.

about 1st March.



...ERISTICS OF TAGGED STAMPS

The use of the term phosphor and phosphate in discussing the phosphor treated stamps would be discontinued and reference made only to "tagged" stamps.

In comparison to the other sample groups the Canadian stamps were discoloured from their original colour tone by the overprinting process.

In a discussion on this discolouration it was noted that:

(1) The discolouration might be reduced if a less heavy deposition of tracer ink were put down in overprinting.

(2) If discolouration were both unavoidable and unacceptable with Canadian phosphor type tracer inks then it might be necessary to use British inks. In this connection it was noted that the present Canadian ink itself was only dispensed in Canada and was made of American ingredients. This same expedient of compounding dry ingredients could also be used for British materials once the formulation process was known.

It was noted that earlier correspondence with both Elliott Brothers and the U.K., G.P.O. on the subject of stamps overprinted with tracer features, using phosphors of Canadian origin had evoked the comment from the U.K. authorities that the Canadian phosphors, although giving a weaker response than those used by the U.K. were nevertheless adequate. This latter comment was not further qualified in the correspondence and there is some doubt as to whether the stamps were actually tested on a facer-canceller equipment in operation for this evaluation and moreover it is not known by how much the stamps may have cleared the minimum permissible response standard.

QUALITY CONTROL SYSTEM

The discussion noted:-

(1) The printing process must, in the absence of changes to the phosphor materials itself, repeat consistently the characteristics of the tracer feature which will have previously been vetted and approved as giving adequate characteristics to meet the requirements of the facer-canceller equipment.

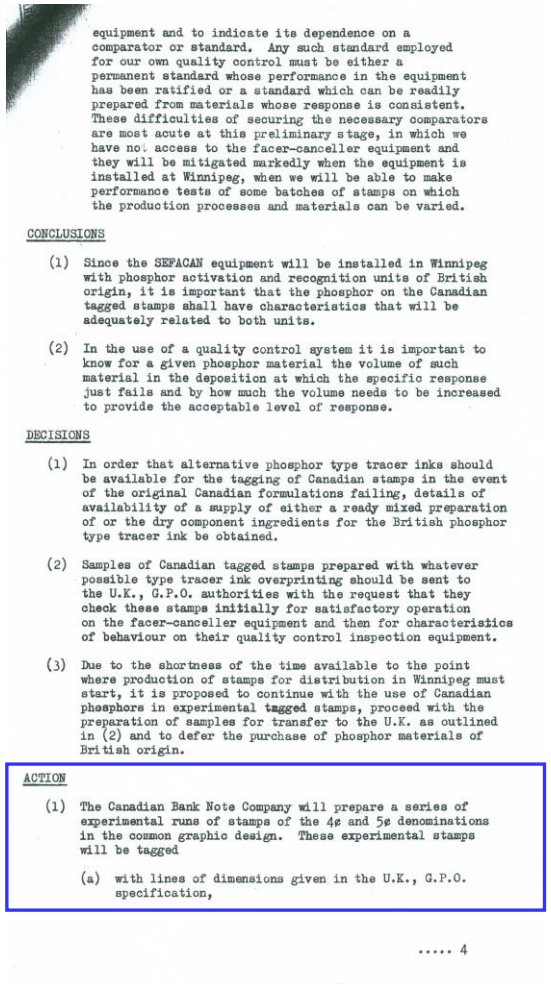
(2) Preferably the quality control system should provide a continuous monitor of the product coming off the presses to prevent incipient deterioration and should perform either as a standard itself or alternatively, as a sub-standard to further equipment similar to the type described in recent correspondence on the subject of quality control from the U.K., G.P.O.

(3) The quality control system can hardly be expected to display the characteristics of the phosphor under scrutiny in terms of fundamental units; the U.K., G.P.O. have declined to do more than describe the

..... 3

Zatka Philately

Trial #4?



equipment and to indicate its dependence on a comparator or standard. Any such standard employed for our own quality control must be either a permanent standard whose performance in the equipment has been ratified or a standard which can be readily prepared from materials whose response is consistent. These difficulties of securing the necessary comparators are most acute at this preliminary stage, in which we have no access to the facer-canceller equipment and they will be mitigated markedly when the equipment is installed at Winnipeg, when we will be able to make performance tests of some batches of stamps on which the production processes and materials can be varied.

CONCLUSIONS

(1) Since the SEFACAN equipment will be installed in Winnipeg with phosphor activation and recognition units of British origin, it is important that the phosphor on the Canadian tagged stamps shall have characteristics that will be adequately related to both units.

(2) In the use of a quality control system it is important to know for a given phosphor material the volume of such material in the deposition at which the specific response just fails and by how much the volume needs to be increased to provide the acceptable level of response.

DECISIONS

(1) In order that alternative phosphor type tracer inks should be available for the tagging of Canadian stamps in the event of the original Canadian formulations failing, details of availability of a supply of either a ready mixed preparation of or the dry component ingredients for the British phosphor type tracer ink be obtained.

(2) Samples of Canadian tagged stamps prepared with whatever possible type tracer ink overprinting should be sent to the U.K., G.P.O. authorities with the request that they check these stamps initially for satisfactory operation on the facer-canceller equipment and then for characteristics of behaviour on their quality control inspection equipment.

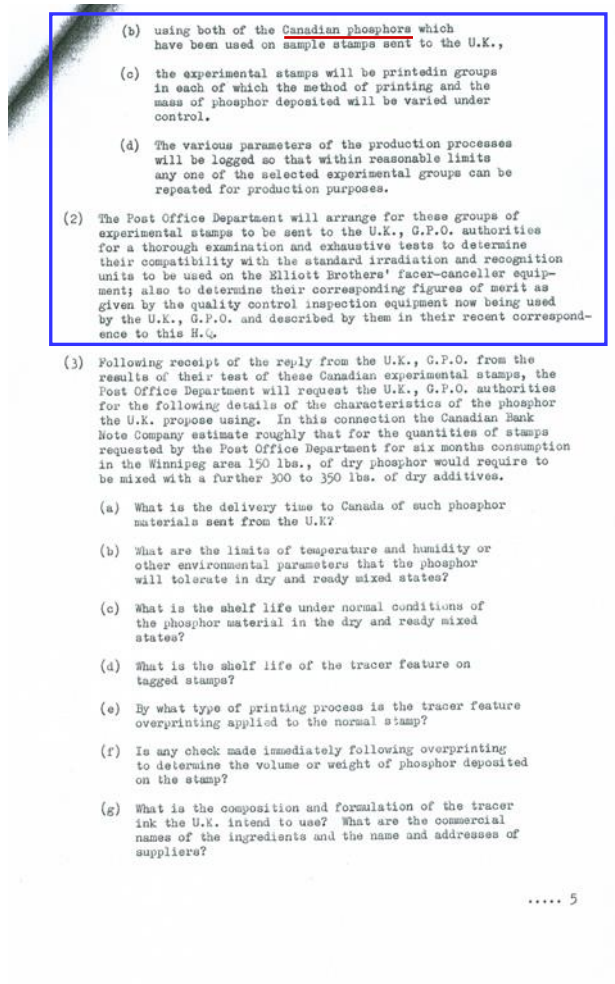
(3) Due to the shortness of the time available to the point where production of stamps for distribution in Winnipeg must start, it is proposed to continue with the use of Canadian phosphors in experimental tagged stamps, proceed with the preparation of samples for transfer to the U.K. as outlined in (2) and to defer the purchase of phosphor materials of British origin.

ACTION

(1) The Canadian Bank Note Company will prepare a series of experimental runs of stamps of the 4¢ and 5¢ denominations in the common graphic design. These experimental stamps will be tagged

(a) with lines of dimensions given in the U.K., G.P.O. specification,

..... 4



(b) using both of the Canadian phosphors which have been used on sample stamps sent to the U.K.,

(c) the experimental stamps will be printedin groups in each of which the method of printing and the mass of phosphor deposited will be varied under control.

(d) The various parameters of the production processes will be logged so that within reasonable limits any one of the selected experimental groups can be repeated for production purposes.

(2) The Post Office Department will arrange for these groups of experimental stamps to be sent to the U.K., G.P.O. authorities for a thorough examination and exhaustive tests to determine their compatibility with the standard irradiation and recognition units to be used on the Elliott Brothers' facer-canceller equipment; also to determine their corresponding figures of merit as given by the quality control inspection equipment now being used by the U.K., G.P.O. and described by them in their recent correspondence to this H.Q.

(3) Following receipt of the reply from the U.K., G.P.O. from the results of their test of these Canadian experimental stamps, the Post Office Department will request the U.K., G.P.O. authorities for the following details of the characteristics of the phosphor the U.K. propose using. In this connection the Canadian Bank Note Company estimate roughly that for the quantities of stamps requested by the Post Office Department for six months consumption in the Winnipeg area 150 lbs., of dry phosphor would require to be mixed with a further 300 to 350 lbs. of dry additives.

(a) What is the delivery time to Canada of such phosphor materials sent from the U.K?

(b) What are the limits of temperature and humidity or other environmental parameters that the phosphor will tolerate in dry and ready mixed states?

(c) What is the shelf life under normal conditions of the phosphor material in the dry and ready mixed states?

(d) What is the shelf life of the tracer feature on tagged stamps?

(e) By what type of printing process is the tracer feature overprinting applied to the normal stamp?

(f) Is any check made immediately following overprinting to determine the volume or weight of phosphor deposited on the stamp?

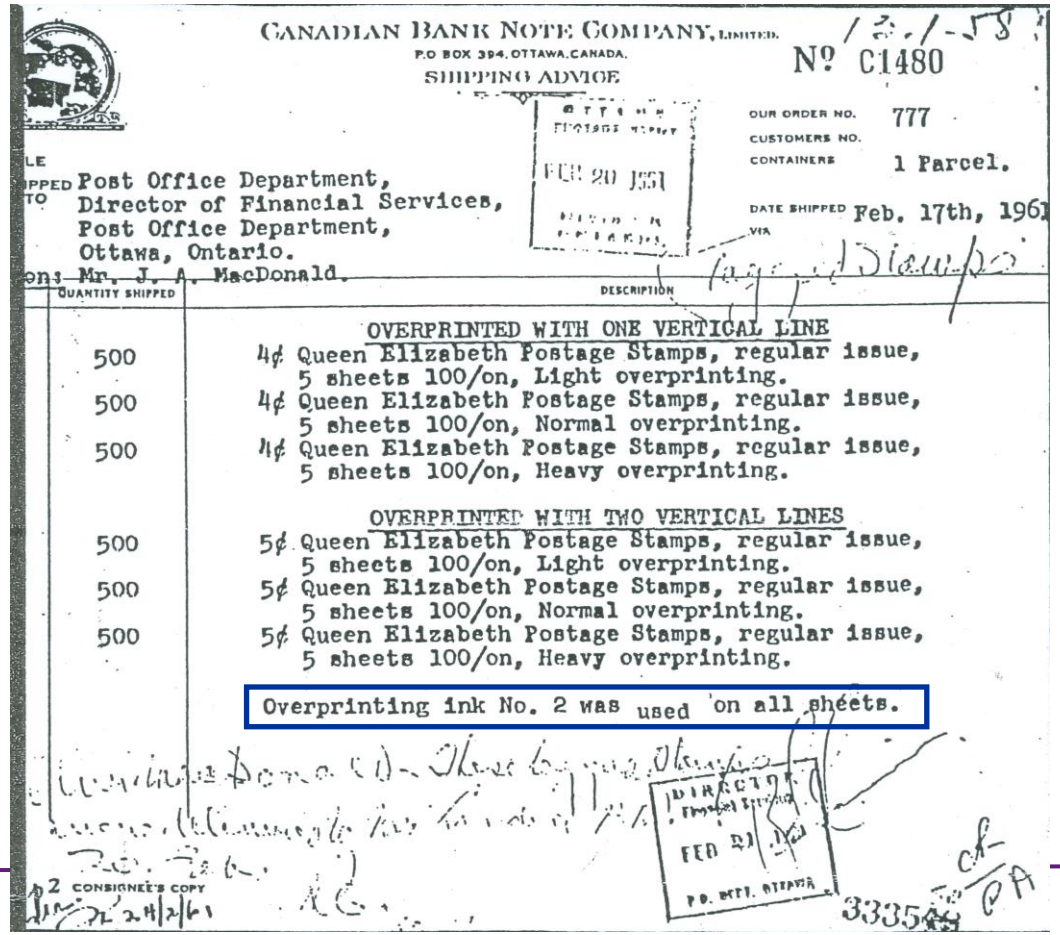
(g) What is the composition and formulation of the tracer ink the U.K. intend to use? What are the commercial names of the ingredients and the name and addresses of suppliers?

..... 5

Zatka Philately

Trial #4?

- Shipping advice from CBN for test ‘tagged’ stamps dated Feb 17, 1961



CANADIAN BANK NOTE COMPANY, LIMITED.
P.O BOX 394, OTTAWA, CANADA.
SHIPPING ADVICE
Nº C1480

OUR ORDER NO. 777
CUSTOMERS NO.
CONTAINERS 1 Parcel.
DATE SHIPPED Feb. 17th, 1961
VIA

Post Office Department,
Director of Financial Services,
Post Office Department,
Ottawa, Ontario.
Attn: Mr. J. A. MacDonald.

QUANTITY SHIPPED	DESCRIPTION
	OVERPRINTED WITH ONE VERTICAL LINE
500	4¢ Queen Elizabeth Postage Stamps, regular issue, 5 sheets 100/on, Light overprinting.
500	4¢ Queen Elizabeth Postage Stamps, regular issue, 5 sheets 100/on, Normal overprinting.
500	4¢ Queen Elizabeth Postage Stamps, regular issue, 5 sheets 100/on, Heavy overprinting.
	OVERPRINTED WITH TWO VERTICAL LINES
500	5¢ Queen Elizabeth Postage Stamps, regular issue, 5 sheets 100/on, Light overprinting.
500	5¢ Queen Elizabeth Postage Stamps, regular issue, 5 sheets 100/on, Normal overprinting.
500	5¢ Queen Elizabeth Postage Stamps, regular issue, 5 sheets 100/on, Heavy overprinting.

Overprinting ink No. 2 was used on all sheets.

2 CONSIGNEE'S COPY

FEB 20 1961

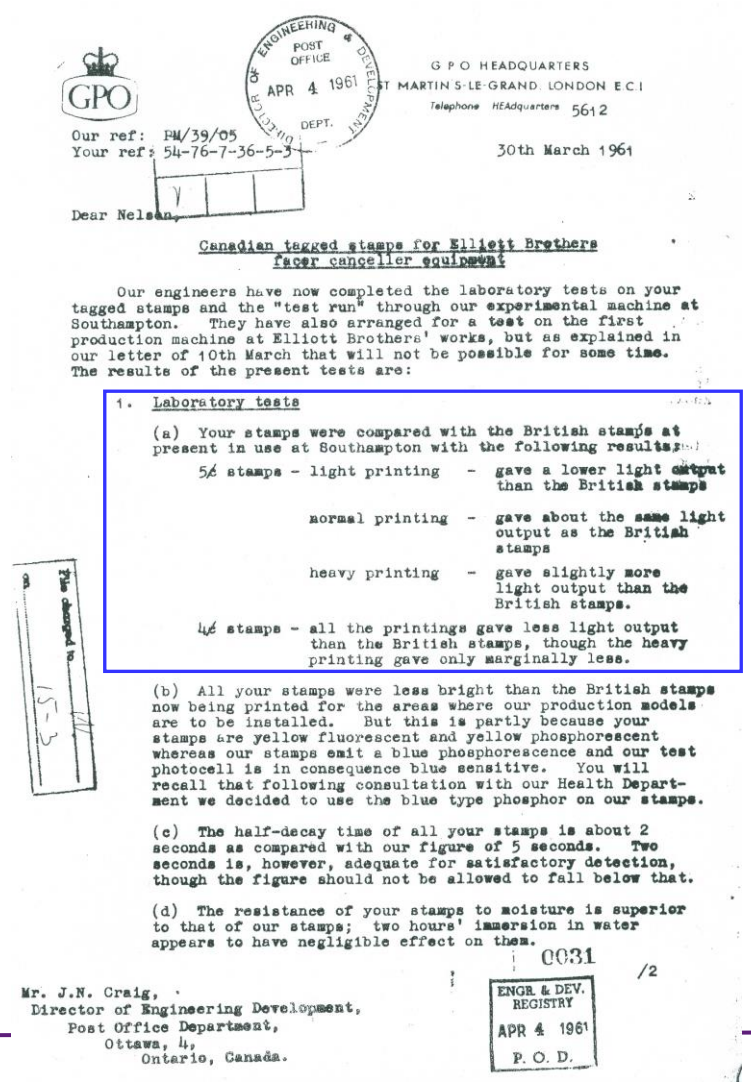
FEB 21

P.O. DEPT. OTTAWA

Trial #4?

- Invoice from CBN for test ‘tagged’ stamps dated Feb 17, 1961
- Mar 30, 1961 letter from GPO to POD…

Trial #4?



GPO

POST OFFICE ENGINEERING & DEVELOPMENT DEPT. APR 4 1961

G P O HEADQUARTERS
ST MARTIN'S-LE-GRAND, LONDON E.C.1
Telephone HEAdquarters 5612

Our ref: PH/39/05
Your ref: 54-76-7-36-5-3

30th March 1961

Dear Nelson,

Canadian tagged stamps for Elliott Brothers facer canceller equipment

Our engineers have now completed the laboratory tests on your tagged stamps and the "test run" through our experimental machine at Southampton. They have also arranged for a test on the first production machine at Elliott Brothers' works, but as explained in our letter of 10th March that will not be possible for some time. The results of the present tests are:

1. Laboratory tests

(a) Your stamps were compared with the British stamps at present in use at Southampton with the following results:

5¢ stamps - light printing - gave a lower light output than the British stamps

normal printing - gave about the same light output as the British stamps

heavy printing - gave slightly more light output than the British stamps.

4¢ stamps - all the printings gave less light output than the British stamps, though the heavy printing gave only marginally less.

(b) All your stamps were less bright than the British stamps now being printed for the areas where our production models are to be installed. But this is partly because your stamps are yellow fluorescent and yellow phosphorescent whereas our stamps emit a blue phosphorescence and our test photocell is in consequence blue sensitive. You will recall that following consultation with our Health Department we decided to use the blue type phosphor on our stamps.

(c) The half-decay time of all your stamps is about 2 seconds as compared with our figure of 5 seconds. Two seconds is, however, adequate for satisfactory detection, though the figure should not be allowed to fall below that.

(d) The resistance of your stamps to moisture is superior to that of our stamps; two hours' immersion in water appears to have negligible effect on them.

0031 /2

Mr. J.N. Craig,
Director of Engineering Development,
Post Office Department,
Ottawa, 4,
Ontario, Canada.

ENGR. & DEV. REGISTRY APR 4 1961 P. O. D.

2 Test run on Southampton machine

Only two items failed - a 5¢ medium and a 5¢ heavy. In each case, however, we think the failure was caused by gum being inadvertently put on the face of the stamp when the dummy mail was made up. Other stamps with a lighter gum deposit did not fail.

In all the circumstances we think that provided you use your heavy printing the stamps can be expected to perform satisfactorily.

I hope this reply will give you all the information you need and that you will now be able to go ahead with your experiments, but if you would like any further help please do not hesitate to let me know.

Our engineers are much impressed with the imperviousness of your stamps to moisture and they have asked us whether we could adopt your type of ink. Would it be an embarrassment to you if I ask for details of the ink you are using? If it would, please ignore this enquiry.

All the stamps are in safe custody, and when the tests on the production model have been carried out, we will make sure they are destroyed.

My kindest regards,

Yours sincerely,

Stanley Scott

(STANLEY SCOTT)

Zatka Philately

Trial #4?

Report by Post Office Engineers
27th June, 1961

Considerable effort has been directed towards obtaining results and figures which would furnish a comprehensive reply to the Canadian queries. To this end an experimental test rig has been built which simulates the facing machine, using the same type U/V tube and photo-multiplier, but having controlled adjustment of all parameters.

In the experimental machine (on which the Canadian stamps were given a practical test) the stamps are excited by U/V light for about 200 mS and are then read by photo-multipliers at intervals of 170 mS and 350 mS after leaving the active portion of the U/V tube.

In the equipment now being manufactured by Elliott Brothers similar U/V tubes and belt speeds are employed so that the excitation time is the same. The emitted signals are read at intervals of up to 330 mS thus giving on balance a slightly better performance than the original experimental machine.

The enclosed graphs have been obtained on this test rig and they show the output signal from the photo-multiplier for all the three phosphor intensities used on the Canadian stamps and the two English phosphors for a series of different settings of the gain of the photo-multipliers, (applied voltage).

The line marked "Pre-set operating level" relates to the voltage of the minimum acceptable signal on the experimental facing machine. This acceptance level can be adjusted, but lowering it inevitably introduces false operation due to stray light, phosphorescence in the envelope paper, etc.

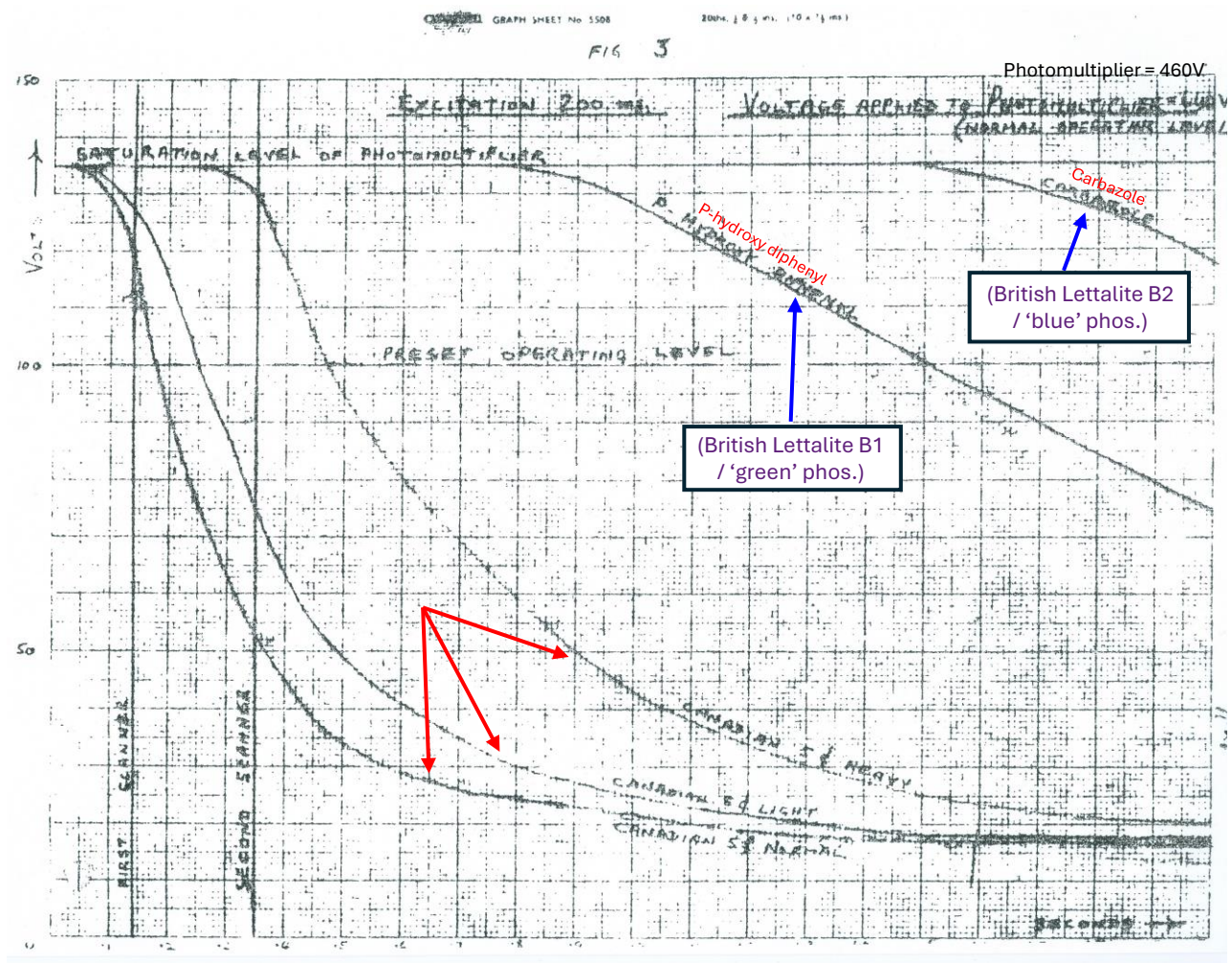
It will be noticed that on figures 2, 3 and 4 the positions of the curves for the "light" and "normal" printings are the reverse of what would have been expected. This represents the results actually obtained, and is probably explained by discrepancies in the printing of different sheets of the Canadian stamps. It was because of such discrepancies as this that we were reluctant to advocate the use of other than the "heavy" printing.

It will be seen that with normal operating conditions, and 640V applied to the photo-multipliers reduced quite appreciably to obtain an operating signal from either the "light" or "normal" printed stamps.

Figure 2 indicates that either the "light" or "normal" printing should give an acceptable signal with 680V applied to the photo-multiplier. This, however, leaves little margin in hand below the maximum permissible voltage of 720V to allow for adjustment for the effects of ageing of the photo-multipliers.

The effect of ageing of the U/V tubes is of significance with the English phosphors which require about 500 mS for saturation, but will be of practically no significance with the Canadian phosphors, which saturate in about 100 mS.

In all the circumstances we still think that our original recommendation to use the "heavy" printing is the prudent course to adopt: a reduction to "normal" or "light" (which are virtually indistinguishable) will possibly prejudice the working of the machine.



Trial #4?

- Invoice from CBN for test ‘tagged’ stamps dated Feb 17, 1961
- Mar 30, 1961 letter from Elliott to POD…
- Minutes of POD and CBN meeting from May 24, 1961…

Trials

MINUTES OF MEETING
OFFICE OF DIRECTOR OF FINANCIAL SERVICES
POST OFFICE HEADQUARTERS - BLACKBURN BLDG.
24th May 1961

"TAGGED STAMPS FOR SEFACAN"

The meeting was held in the office of the Director of Financial Services.

Present

Mr. J. A. MacDonald	-	P.O. Dept.	- Director of Financial Services
Mr. H. D. W. Wethey	-	P.O. Dept.	- Chief Engineer
Mr. A. H. Bouchette	-	C.B.N. Co.	- Vice-President
Mr. H. Jackson	-	C.B.N. Co.	- Plant Superintendent
Mr. G. Hutton	-	C.B.N. Co.	- Chemist
Mr. J.R. Carpenter	-	P.O. Dept.	- Financial Branch
Mr. J.S. Forester	-	P.O. Dept.	- Mechanization Development Division
Mr. D.J. O'Connor	-	P.O. Dept.	- Mechanization Development Division

PURPOSE

The meeting was held at the request of the Canadian Bank Note Company who sought information on two points.

(1) Had Post Office learned enough from the UK GPO engineers to say which of the three sample weights of phosphorescent overprinting was required on Canadian tagged stamps.

Note:- The three weights of phosphorescent overprinting were on sample stamps produced by C.B.N. Company (cf minutes of meeting of 20th January/61) and sent by P.O. Dept. to the UK GPO for checks on the suitability of the tracer feature.

(2) A specification couched in terms of the response to satisfactory tagged stamps of a meter or monitor which could be used for production quality control.

DISCUSSION

The latest information on the general suitability of our sample tagged stamps and their compatibility with the demands of production SEFACAN equipment was reviewed. It was noted:

(1) The UK GPO had advised us to print the tracer feature with the "heavy" deposition as used on our sample tagged stamps.

(2) Post Office Department is awaiting a reply from the UK to our enquiry on the advisability of using only the "medium" deposition.

(3) Post Office Department is awaiting reports from the UK GPO on the performance of Canadian sample tagged stamps on Elliott Brothers' production models of SEFACAN.

(4) The UK GPO engineers have stated their opinion that our tagged stamps, whose secondary emission peaks in the yellow band, will not be unduly penalized by comparison to blue emissive UK stamps, when offered to blue sensitive sensors in SEFACAN. Canadian tagged stamps when exposed

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.... 2

to conditions equivalent to those in SEFACAN have been stated by UK GPO engineers to have specific responses intermediate between UK tagged stamps used in the Southampton experiment and new production UK tagged stamps intended for areas destined to use ELLIOTT BROTHERS' SEFACAN equipment.

(5) The UK GPO have stated that it is impracticable to change from blue - to yellow - sensitive photosensors on SEFACAN. It seems probable therefore that we should avoid our "light" deposition of phosphorescent ink on tagged stamps.

(6) The UK GPO engineers noted that our 4¢ sample tagged stamps irrespective of the weight of phosphorescent deposition generally had lower relative responses than either British tagged stamps or Canadian tagged stamps of other denominations. We feel this lower response of the 4¢ stamp probably is due to the single phosphorescent bar being sited on a part of the graphic design of the stamp where the colour tone is comparatively dark and there is a consequent derating of the phosphorescent emission.

(7) The UK GPO engineers noted in their tests on Canadian sample tagged stamps that "the resistance of (the sample) stamps to moisture is superior to that of (UK) stamps".

In the discussion the following observations were made:

(1) The comments by UK engineers on the sample Canadian tagged stamps suggest that stamps produced to these standards will give satisfactory operation with SEFACAN. Despite the difference in the points in the spectrum at which the Canadian phosphorescent ink (yellow) and the UK phosphorescent ink (blue) peak, P.O. Dept. do not ask that Canadian Bank Note Company change to a blue emissive phosphorescent ink.

(2) P.O. Dept. should buy a quantity of the newer production UK tagged stamps to provide references with which the performance of our own production stamps could be compared and to provide data for the design of the equipment for the quality control of production tagged stamps.

(3) We can afford to defer for a few weeks(i.e., up to 1st July 1961) the start of production on Canadian tagged stamps for Winnipeg based on machine operation in January 1962. In this period we hope to learn from the UK of the performance of the sample tagged stamps on the production SEFACAN equipment. From these results P.O. Dept. hopes to be able to decide which of the three weights of phosphor deposition to request for production Canadian tagged stamps.

(4) Tagged stamps for distribution in Winnipeg are to include the supply of the two cent denomination for Christmas sales.

(5) The Canadian Bank Note Company interpreted the British interest in the relative imperviousness to water of Canadian sample tagged stamps as being directed to the resistance to deterioration of the graphic design. The P.O. Dept. believes the GPO engineers have noted that the GPO engineers have noted that the phosphorescent overprinting on Canadian tagged stamps suffers little reduction in response by prolonged immersion.

.... 3

(6) The Canadian Bank Note Company need guidance to acquire for their tagged stamp programme a device which will indicate simply and reliably whether a tagged stamp will be suitable for use on SEFACAN. The standard set by this device to be arrived at either independently from a knowledge of the demands of the SEFACAN equipment or by interpolation from whichever of the three weights (light, medium, heavy) of phosphorescent deposition on the sample tagged stamps which Post Office Department will require.

DECISIONS

(1) Production of tagged stamps for Winnipeg will start not later than 1st July 1961.

(2) The tracer ink to be used will be the one used on the sample stamps sent to the UK.

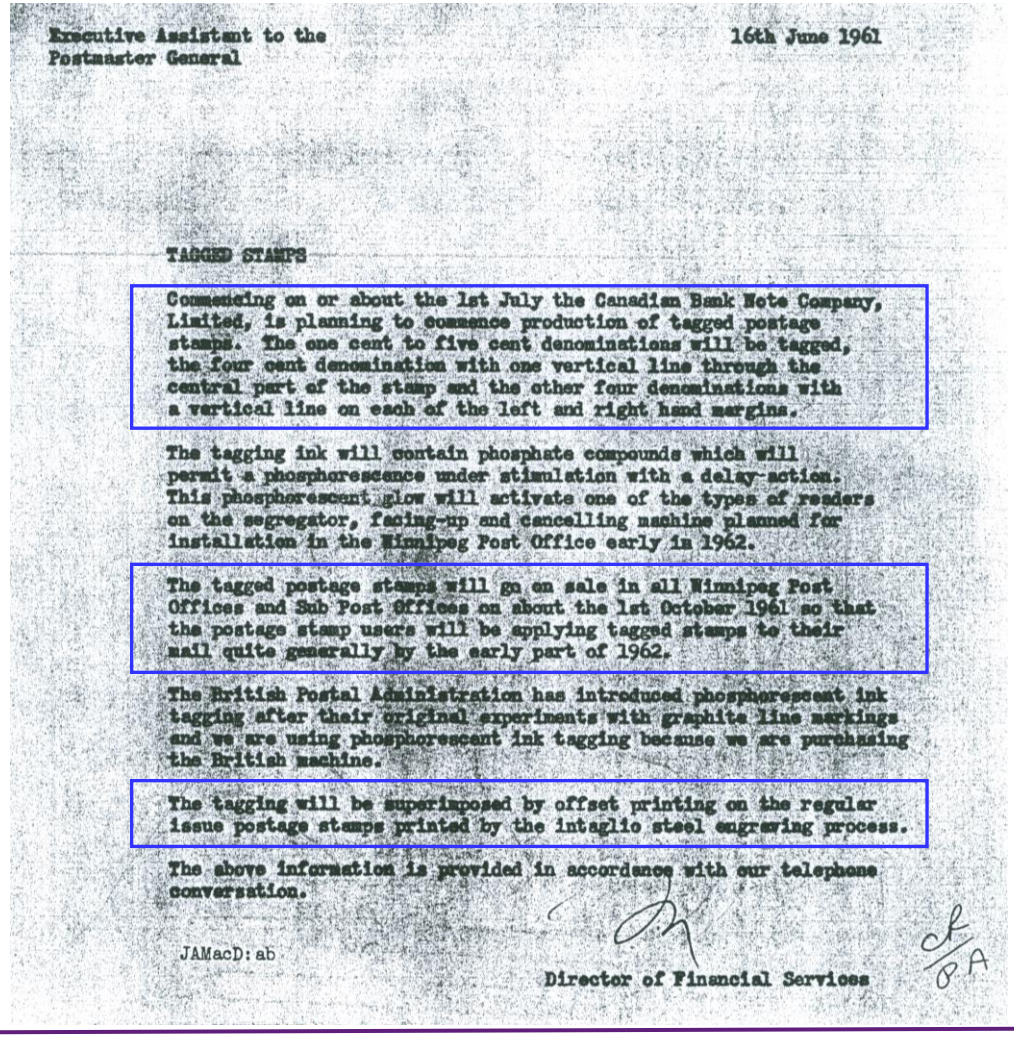
(3) In the absence of information from the UK we should assume we need to use the "heavy" deposition.

(4) Canadian Bank Note Company will consult National Research Council on techniques and methods for imposing a quality control on the tagged stamps in production and for advice on existing equipments which, with a minimum of modification, will serve in this rôle.

Trials

- Invoice from CBN for test ‘tagged’ stamps dated Feb 17, 1961
- Mar 30, 1961 letter from Elliott to POD:
- Minutes of POD and CBN meeting from May 24, 1961:
- Letter dated June 16, 1961 to Executive Ass’t of Postmaster General:

Marking of Stamps



Executive Assistant to the
Postmaster General

16th June 1961

TAGGED STAMPS

Commencing on or about the 1st July the Canadian Bank Note Company, Limited, is planning to commence production of tagged postage stamps. The one cent to five cent denominations will be tagged, the four cent denomination with one vertical line through the central part of the stamp and the other four denominations with a vertical line on each of the left and right hand margins.

The tagging ink will contain phosphate compounds which will permit a phosphorescence under stimulation with a delay action. This phosphorescent glow will activate one of the types of readers on the segregator, facing-up and cancelling machine planned for installation in the Winnipeg Post Office early in 1962.

The tagged postage stamps will go on sale in all Winnipeg Post Offices and Sub Post Offices on about the 1st October 1961 so that the postage stamp users will be applying tagged stamps to their mail quite generally by the early part of 1962.

The British Postal Administration has introduced phosphorescent ink tagging after their original experiments with graphite line markings and we are using phosphorescent ink tagging because we are purchasing the British machine.

The tagging will be superimposed by offset printing on the regular issue postage stamps printed by the intaglio steel engraving process.

The above information is provided in accordance with our telephone conversation.

JAMacD:ab

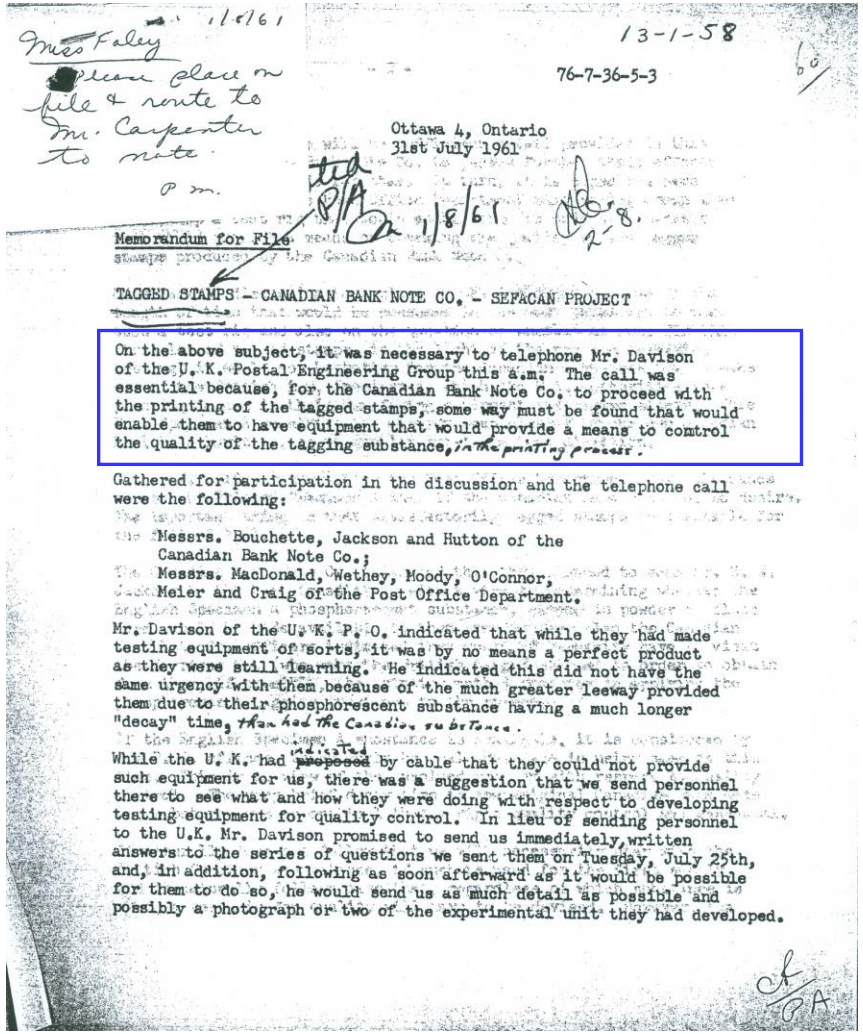
Director of Financial Services

8A

Marking of Stamps

- Memorandum for File by POD dated July 31, 1961…

Marking of Stamps



Miss Foley
Please place on file & route to Mr. Carpenter to note.
P m.

13-1-58

76-7-36-5-3

Ottawa 4, Ontario
31st July 1961

Memorandum for File

TAGGED STAMPS - CANADIAN BANK NOTE CO. - SEFACAN PROJECT

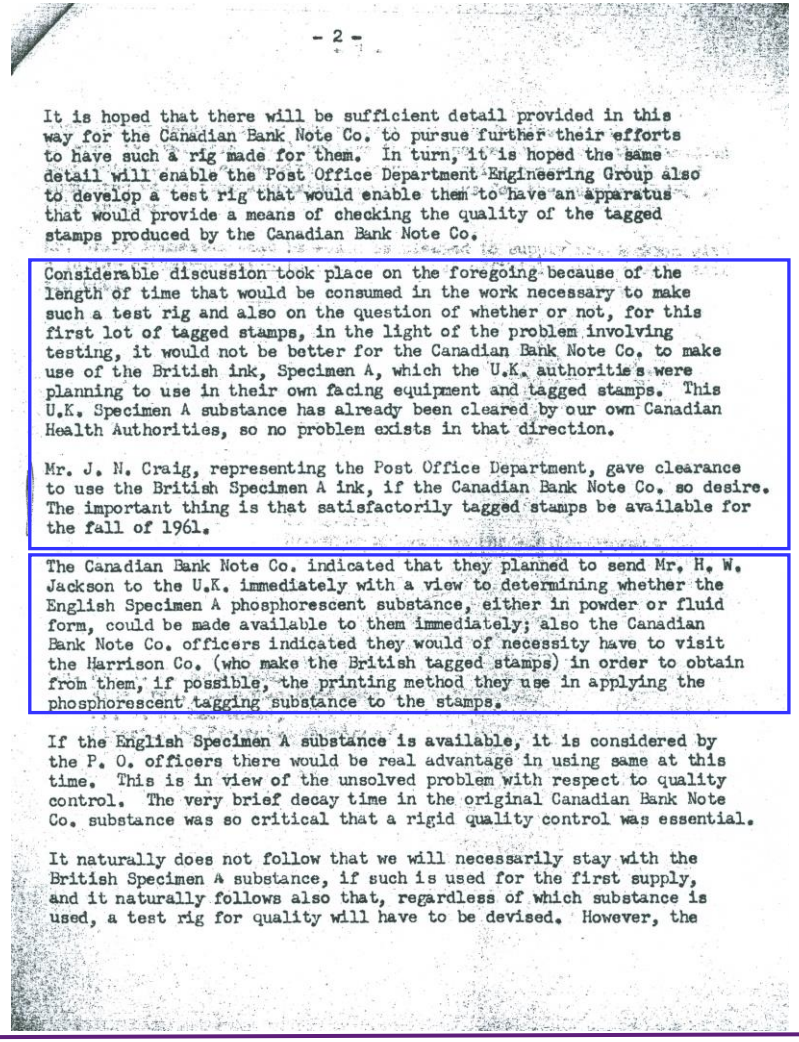
On the above subject, it was necessary to telephone Mr. Davison of the U.K. Postal Engineering Group this a.m. The call was essential because, for the Canadian Bank Note Co. to proceed with the printing of the tagged stamps, some way must be found that would enable them to have equipment that would provide a means to control the quality of the tagging substance, in the printing process.

Gathered for participation in the discussion and the telephone call were the following:

Messrs. Bouchette, Jackson and Hutton of the Canadian Bank Note Co.;
Messrs. MacDonald, Wethey, Moody, O'Connor, Meier and Craig of the Post Office Department.

Mr. Davison of the U.K. P.O. indicated that while they had made testing equipment of sorts, it was by no means a perfect product as they were still learning. He indicated this did not have the same urgency with them because of the much greater leeway provided them due to their phosphorescent substance having a much longer "decay" time, than had the Canadian substance.

While the U.K. had proposed by cable that they could not provide such equipment for us, there was a suggestion that we send personnel there to see what and how they were doing with respect to developing testing equipment for quality control. In lieu of sending personnel to the U.K. Mr. Davison promised to send us immediately, written answers to the series of questions we sent them on Tuesday, July 25th, and, in addition, following as soon afterward as it would be possible for them to do so, he would send us as much detail as possible and possibly a photograph or two of the experimental unit they had developed.



- 2 -

It is hoped that there will be sufficient detail provided in this way for the Canadian Bank Note Co. to pursue further their efforts to have such a rig made for them. In turn, it is hoped the same detail will enable the Post Office Department Engineering Group also to develop a test rig that would enable them to have an apparatus that would provide a means of checking the quality of the tagged stamps produced by the Canadian Bank Note Co.

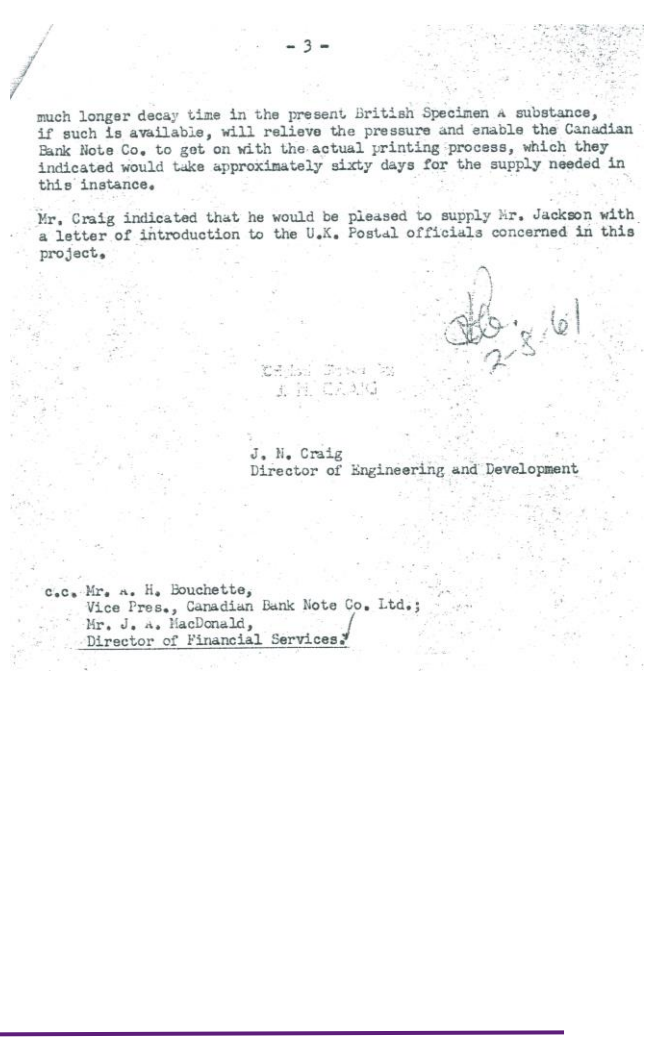
Considerable discussion took place on the foregoing because of the length of time that would be consumed in the work necessary to make such a test rig and also on the question of whether or not, for this first lot of tagged stamps, in the light of the problem involving testing, it would not be better for the Canadian Bank Note Co. to make use of the British ink, Specimen A, which the U.K. authorities were planning to use in their own facing equipment and tagged stamps. This U.K. Specimen A substance has already been cleared by our own Canadian Health Authorities, so no problem exists in that direction.

Mr. J. N. Craig, representing the Post Office Department, gave clearance to use the British Specimen A ink, if the Canadian Bank Note Co. so desire. The important thing is that satisfactorily tagged stamps be available for the fall of 1961.

The Canadian Bank Note Co. indicated that they planned to send Mr. H. W. Jackson to the U.K. immediately with a view to determining whether the English Specimen A phosphorescent substance, either in powder or fluid form, could be made available to them immediately; also the Canadian Bank Note Co. officers indicated they would of necessity have to visit the Harrison Co. (who make the British tagged stamps) in order to obtain from them, if possible, the printing method they use in applying the phosphorescent tagging substance to the stamps.

If the English Specimen A substance is available, it is considered by the P. O. officers there would be real advantage in using same at this time. This is in view of the unsolved problem with respect to quality control. The very brief decay time in the original Canadian Bank Note Co. substance was so critical that a rigid quality control was essential.

It naturally does not follow that we will necessarily stay with the British Specimen A substance, if such is used for the first supply, and it naturally follows also that, regardless of which substance is used, a test rig for quality will have to be devised. However, the



- 3 -

much longer decay time in the present British Specimen A substance, if such is available, will relieve the pressure and enable the Canadian Bank Note Co. to get on with the actual printing process, which they indicated would take approximately sixty days for the supply needed in this instance.

Mr. Craig indicated that he would be pleased to supply Mr. Jackson with a letter of introduction to the U.K. Postal officials concerned in this project.

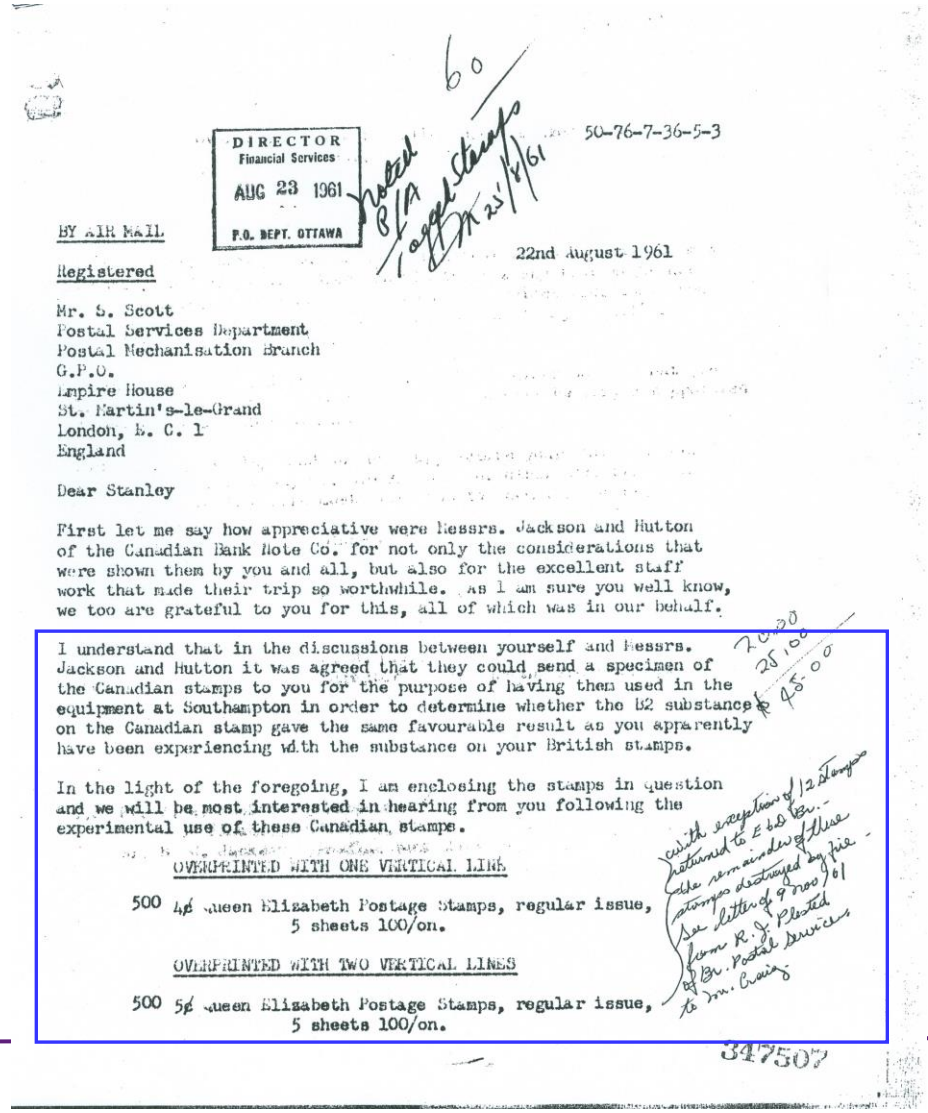
J. N. Craig
Director of Engineering and Development

c.c. Mr. A. H. Bouchette,
Vice Pres., Canadian Bank Note Co. Ltd.;
Mr. J. A. MacDonald,
Director of Financial Services.

Marking of Stamps

- Memorandum for File by POD dated August 17, 1961:
  - Compiled after a visit to the GPO
  - Noted that GPO is NOT using “A or B phosphoresces”
  - [Lettalite] B1 being used instead (typo?)
- Letter dated August 22, 1961 to GPO…

Trial #5



DIRECTOR
Financial Services
AUG 23 1961
P.O. DEPT. OTTAWA

50-76-7-36-5-3

BY AIR MAIL

Registered

22nd August 1961

Mr. S. Scott
Postal Services Department
Postal Mechanisation Branch
G.P.O.
Empire House
St. Martin's-le-Grand
London, E. C. 1
England

Dear Stanley

First let me say how appreciative were Messrs. Jackson and Hutton of the Canadian Bank Note Co. for not only the considerations that were shown them by you and all, but also for the excellent staff work that made their trip so worthwhile. As I am sure you well know, we too are grateful to you for this, all of which was in our behalf.

I understand that in the discussions between yourself and Messrs. Jackson and Hutton it was agreed that they could send a specimen of the Canadian stamps to you for the purpose of having them used in the equipment at Southampton in order to determine whether the B2 substance on the Canadian stamp gave the same favourable result as you apparently have been experiencing with the substance on your British stamps.

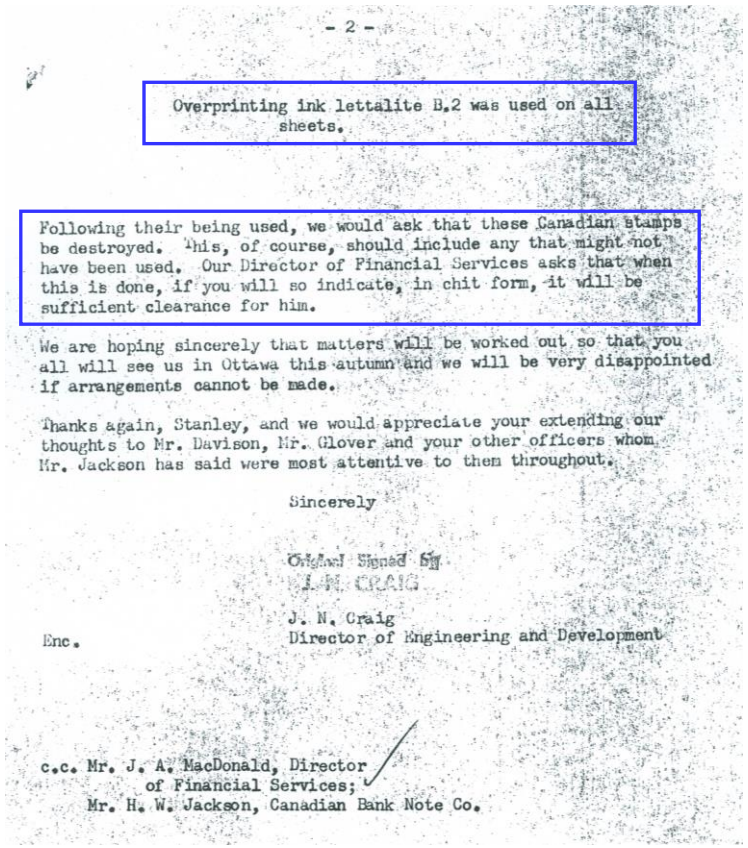
In the light of the foregoing, I am enclosing the stamps in question and we will be most interested in hearing from you following the experimental use of these Canadian stamps.

OVERPRINTED WITH ONE VERTICAL LINE

500 4¢ Queen Elizabeth Postage Stamps, regular issue, 5 sheets 100/on.

OVERPRINTED WITH TWO VERTICAL LINES

500 5¢ Queen Elizabeth Postage Stamps, regular issue, 5 sheets 100/on.



- 2 -

Overprinting ink lettalite B.2 was used on all sheets.

Following their being used, we would ask that these Canadian stamps be destroyed. This, of course, should include any that might not have been used. Our Director of Financial Services asks that when this is done, if you will so indicate, in chit form, it will be sufficient clearance for him.

We are hoping sincerely that matters will be worked out so that you all will see us in Ottawa this autumn and we will be very disappointed if arrangements cannot be made.

Thanks again, Stanley, and we would appreciate your extending our thoughts to Mr. Davison, Mr. Glover and your other officers whom Mr. Jackson has said were most attentive to them throughout.

Sincerely

Original Signed By
J. N. CRAIG

J. N. Craig
Director of Engineering and Development

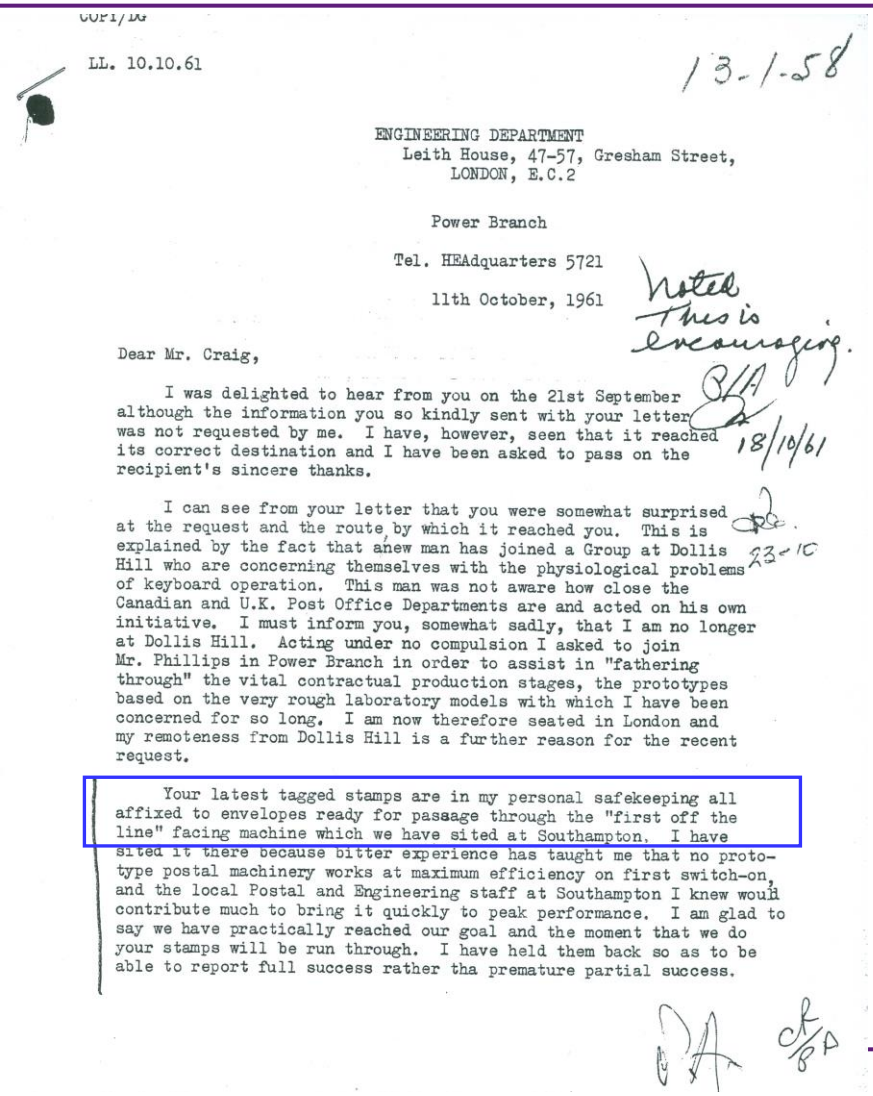
Enc.

c.c. Mr. J. A. MacDonald, Director of Financial Services;
Mr. H. W. Jackson, Canadian Bank Note Co.

Trial #5

- Minutes of Meeting with POD and CBN dated August 22, 1961:
  - GPO reported that Lettalite B2 to be the standard for British phosphor tagging
    - ‘Blue’ phosphor
    - Carbazole is a constituent of the ink
  - No safety issues with carbazole
  - *Additional 500 stamps of each of two values (4c and 5c) sent to GPO w/ Lettalite B2 tagging*
  - *POD to receive from CBN first shipment of tagged stamps on October 15, 1961; subsequent shipments November 1 and November 15.*
- Letter from the GPO to POD dated October 11, 1961…

Trial #5



COPY/DG

LL. 10.10.61

13-1-58

ENGINEERING DEPARTMENT
Leith House, 47-57, Gresham Street,
LONDON, E.C.2

Power Branch

Tel. HEAdquarters 5721

11th October, 1961

noted
This is
encouraging.

Dear Mr. Craig,

I was delighted to hear from you on the 21st September although the information you so kindly sent with your letter was not requested by me. I have, however, seen that it reached its correct destination and I have been asked to pass on the recipient's sincere thanks.

18/10/61

I can see from your letter that you were somewhat surprised at the request and the route by which it reached you. This is explained by the fact that anew man has joined a Group at Dollis Hill who are concerning themselves with the physiological problems of keyboard operation. This man was not aware how close the Canadian and U.K. Post Office Departments are and acted on his own initiative. I must inform you, somewhat sadly, that I am no longer at Dollis Hill. Acting under no compulsion I asked to join Mr. Phillips in Power Branch in order to assist in "fathering through" the vital contractual production stages, the prototypes based on the very rough laboratory models with which I have been concerned for so long. I am now therefore seated in London and my remoteness from Dollis Hill is a further reason for the recent request.

Your latest tagged stamps are in my personal safekeeping all affixed to envelopes ready for passage through the "first off the line" facing machine which we have sited at Southampton. I have sited it there because bitter experience has taught me that no prototype postal machinery works at maximum efficiency on first switch-on, and the local Postal and Engineering staff at Southampton I knew would contribute much to bring it quickly to peak performance. I am glad to say we have practically reached our goal and the moment that we do your stamps will be run through. I have held them back so as to be able to report full success rather tha premature partial success.

With regard to delivery of your equipment, I can say that the first suite is in process of being installed in our South Eastern London District Office and will be carrying traffic at the end of October. As you are to have the second suite to be completed, I trust delivery to you will not be long delayed - unless of course, this trouble with the Canadian Standards Association which Mr. O'Conner reports to me does not check matters badly.

With regard to your regrets of not seeing me with the Brigadier and Mr. Scott in Washington, I can only say that I am flattered to think that I will be missed, and your regrets cannot be greater than mine; the day we meet again will be a very happy one for me. I send my regards and best wishes to Mrs. Craig, your son and yourself.

Yours sincerely

(Sgd.) Geoff Copping

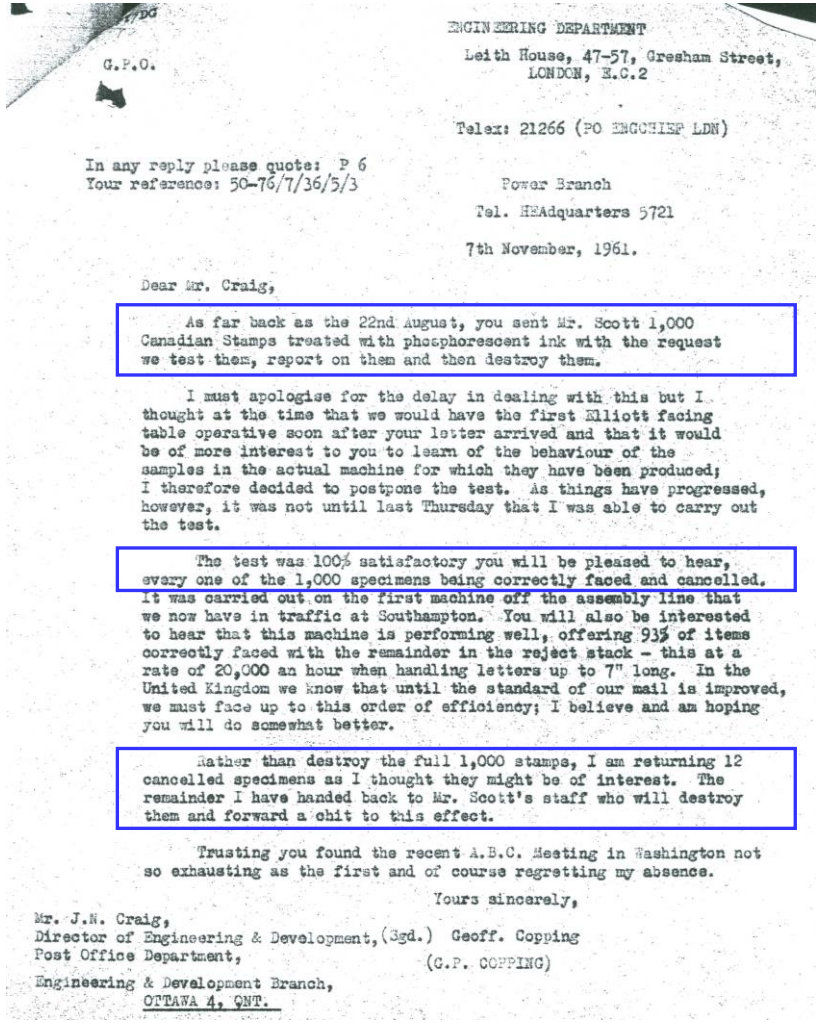
G. P. COPPING.

J.N. Craig, Esq.,
Director of Engineering & Development,
Post Office Department,
Ottawa 4,
Ontario, Canada.

Trial #5

- Minutes of Meeting with PDO and CBN dated August 22, 1961:
  - GPO reported that Lettalite B2 to be the standard for British phosphor tagging
    - ‘Blue’ phosphor
    - Carbazole is a constituent of the ink
  - No safety issues with carbazole
  - *Additional 500 stamps of each of two values (4c and 5c) sent to GPO w/ Lettalite B2 tagging*
  - *POD to receive first shipment of tagged stamps on October 15, 1961 from CBN, subsequent shipments November 1 and November 15.*
- Letter from the GPO to POD dated October 11, 1961…
- Letter from the GPO to POD dated November 7, 1961…

Stamp Testing w/ Lettalite B2 Tagging



G.P.O.

ENGINEERING DEPARTMENT
Leith House, 47-57, Gresham Street,
LONDON, E.C.2

Telex: 21266 (PO ENGCHIEF LDN)

In any reply please quote: P 6
Your reference: 50-76/7/36/5/3

Power Branch
Tel. HEAdquarters 5721

7th November, 1961.

Dear Mr. Craig,

As far back as the 22nd August, you sent Mr. Scott 1,000 Canadian Stamps treated with phosphorescent ink with the request we test them, report on them and then destroy them.

I must apologise for the delay in dealing with this but I thought at the time that we would have the first Elliott facing table operative soon after your letter arrived and that it would be of more interest to you to learn of the behaviour of the samples in the actual machine for which they have been produced; I therefore decided to postpone the test. As things have progressed, however, it was not until last Thursday that I was able to carry out the test.

The test was 100% satisfactory you will be pleased to hear, every one of the 1,000 specimens being correctly faced and cancelled. It was carried out on the first machine off the assembly line that we now have in traffic at Southampton. You will also be interested to hear that this machine is performing well, offering 93% of items correctly faced with the remainder in the reject stack - this at a rate of 20,000 an hour when handling letters up to 7" long. In the United Kingdom we know that until the standard of our mail is improved, we must face up to this order of efficiency; I believe and am hoping you will do somewhat better.

Rather than destroy the full 1,000 stamps, I am returning 12 cancelled specimens as I thought they might be of interest. The remainder I have handed back to Mr. Scott's staff who will destroy them and forward a chit to this effect.

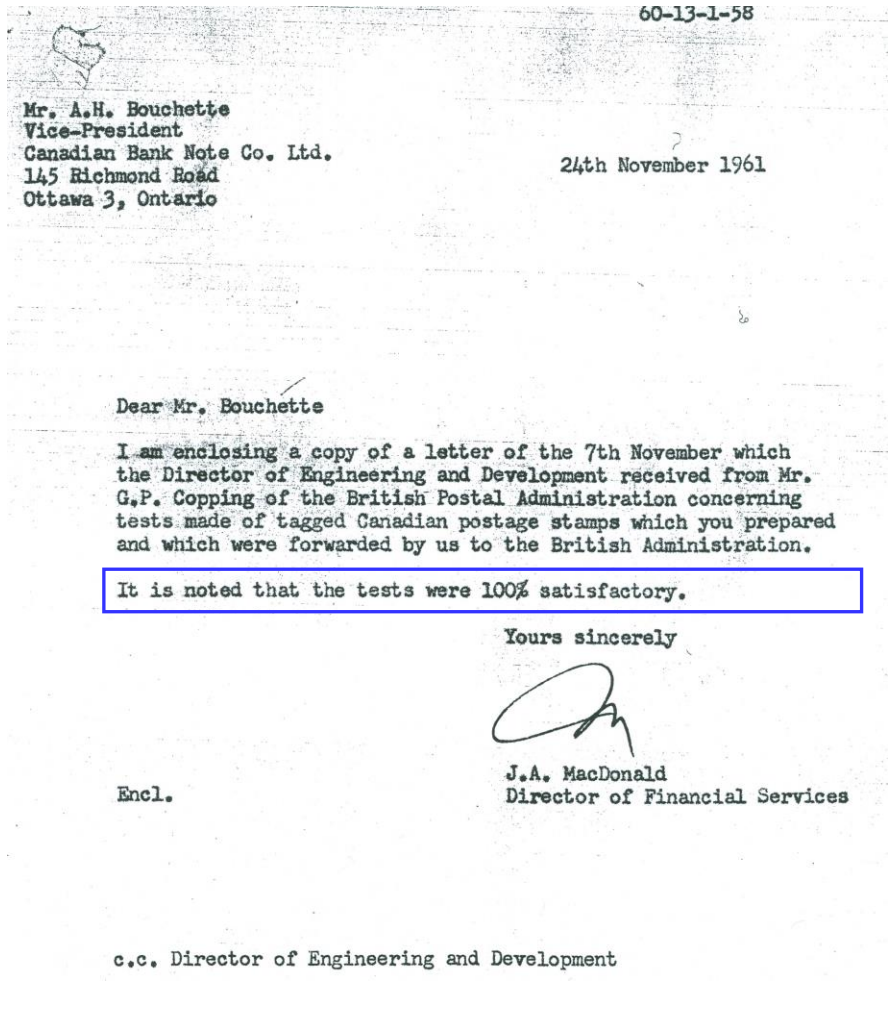
Trusting you found the recent A.B.C. Meeting in Washington not so exhausting as the first and of course regretting my absence.

Yours sincerely,

(Sgd.) Geoff. Copping

(G.P. COPPING)

Mr. J.N. Craig,
Director of Engineering & Development,
Post Office Department,
Engineering & Development Branch,
OTTAWA 4, ONT.



60-13-1-58

Mr. A.H. Bouchette
Vice-President
Canadian Bank Note Co. Ltd.
145 Richmond Road
Ottawa 3, Ontario

24th November 1961

Dear Mr. Bouchette

I am enclosing a copy of a letter of the 7th November which the Director of Engineering and Development received from Mr. G.P. Copping of the British Postal Administration concerning tests made of tagged Canadian postage stamps which you prepared and which were forwarded by us to the British Administration.

It is noted that the tests were 100% satisfactory.

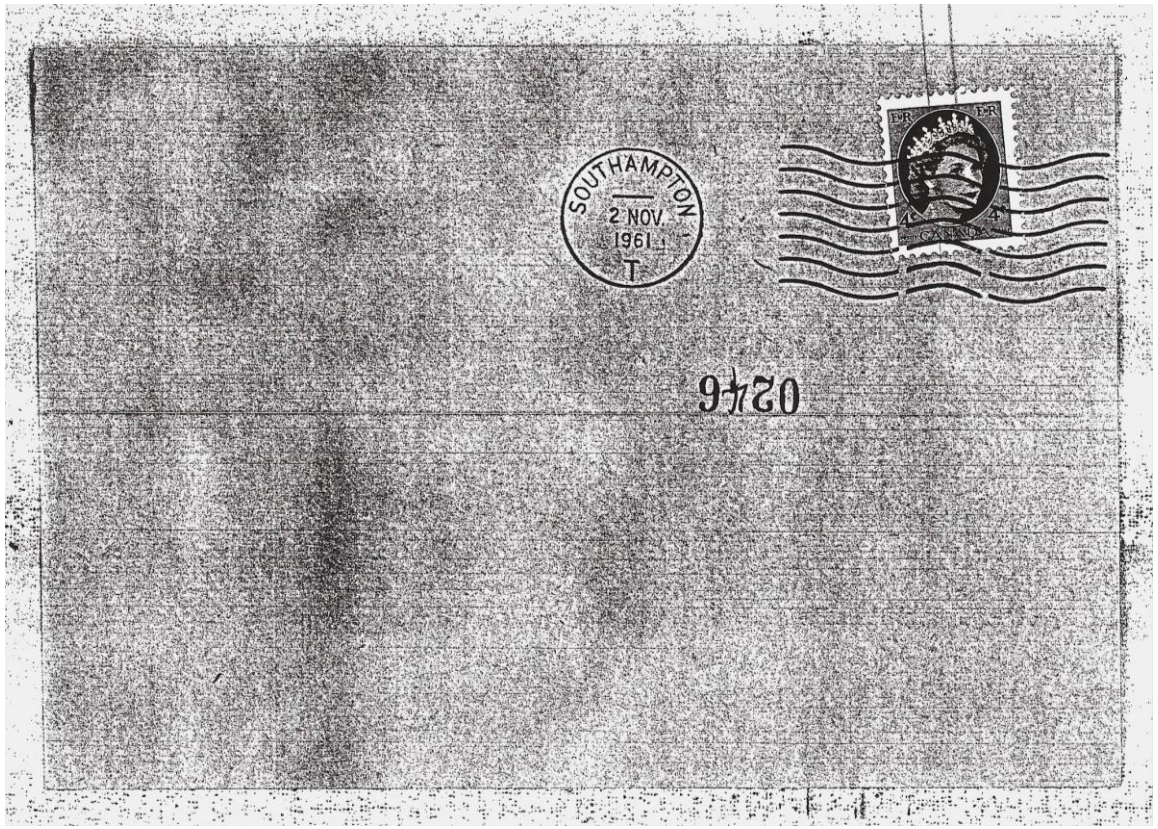
Yours sincerely

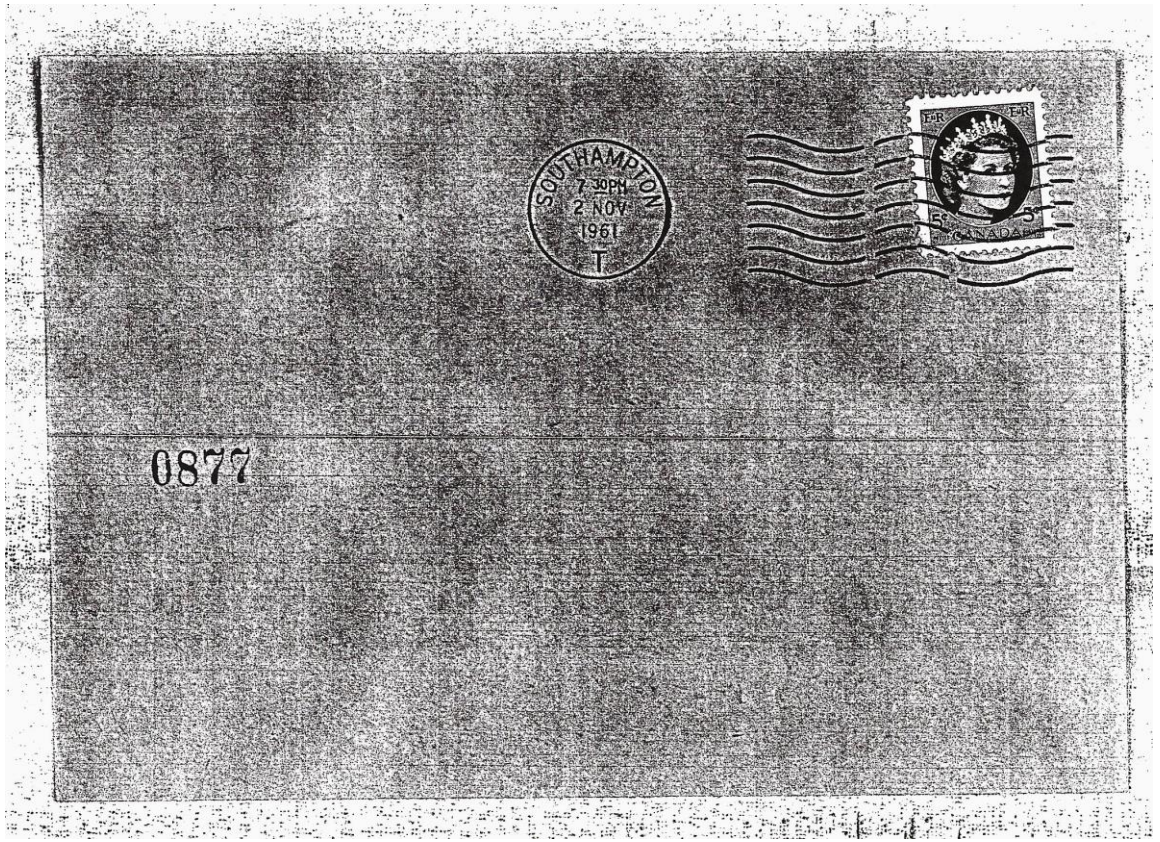
J.A. MacDonald
Director of Financial Services

Encl.

c.c. Director of Engineering and Development

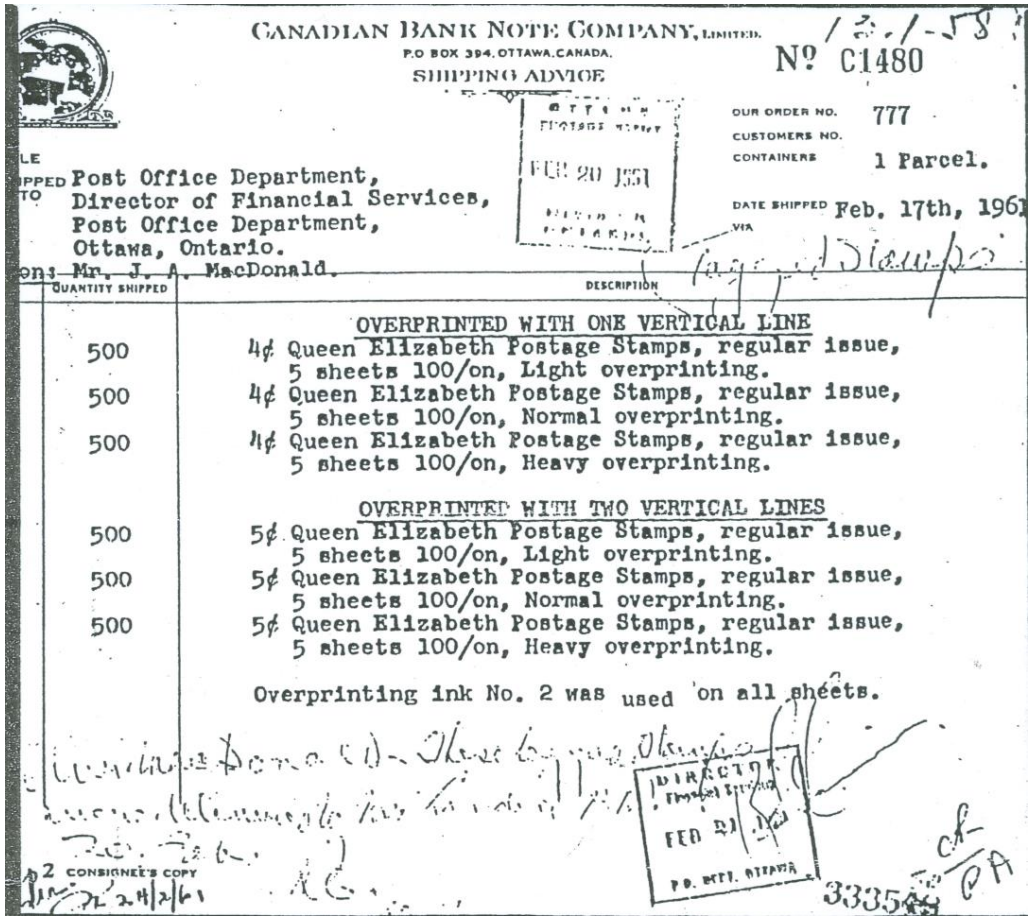
Trial #5


SOUTHAMPTON
2 NOV
1961
T
0246


SOUTHAMPTON
7:30PM
2 NOV
1961
T
0877

February 17, 1961 Test Stamps (Trial #4)

- Stamps supplied after Feb 17, 1961
- 5 sheets of each tagging type and value produced and sent by CBN to POD.
- Used Canadian tagging ink.
- 2 sheets of each test value / type survived:
  - Tagging fluoresces AND phosphoresces



CANADIAN BANK NOTE COMPANY, LIMITED.
P.O BOX 394, OTTAWA, CANADA.
SHIPPING ADVICE
Nº C1480

OUR ORDER NO. 777
CUSTOMERS NO.
CONTAINERS 1 Parcel.
DATE SHIPPED Feb. 17th, 1961
VIA

Post Office Department,
Director of Financial Services,
Post Office Department,
Ottawa, Ontario.
Mr. J. A. MacDonald.

QUANTITY SHIPPED	DESCRIPTION
	OVERPRINTED WITH ONE VERTICAL LINE
500	4¢ Queen Elizabeth Postage Stamps, regular issue, 5 sheets 100/on, Light overprinting.
500	4¢ Queen Elizabeth Postage Stamps, regular issue, 5 sheets 100/on, Normal overprinting.
500	4¢ Queen Elizabeth Postage Stamps, regular issue, 5 sheets 100/on, Heavy overprinting.
	OVERPRINTED WITH TWO VERTICAL LINES
500	5¢ Queen Elizabeth Postage Stamps, regular issue, 5 sheets 100/on, Light overprinting.
500	5¢ Queen Elizabeth Postage Stamps, regular issue, 5 sheets 100/on, Normal overprinting.
500	5¢ Queen Elizabeth Postage Stamps, regular issue, 5 sheets 100/on, Heavy overprinting.

Overprinting ink No. 2 was used on all sheets.

2 CONSIGNEE'S COPY

FEB 20 1961

FEB 21

Zatka Philately

February 17, 1961 Test Stamps

February 17, 1961 Test Stamps

- Certified in 2013 by the Greene Foundation as genuine experimental stamps

February 17, 1961 Test Stamps

Zatka Philately

Gaps in Information

- What discussions took place between 1955 and 1959?
- What testing of the British phosphor inks, as well as that from CBN, was done in 1960?
- When was the ‘French’ – tagged 5c Wilding value produced and why? Where was it tested?
- Why were some of the phosphors used in the stamp trials changed, and whose products were they?
- What is the tagging ink used on the actual ‘Winnipeg-tagged’ stamps? British Lettalite B2 glows under short-wave UV only!

Summary

- Significant work took place from at least 1955 by POD to define how mechanization could be used to allow rapid cancellation of letter mail.
  - Culminated with ‘tagged’ stamps issued in Winnipeg for large-scale testing on January 13,1962
  - SEFACAN machine used to face and cancel the tagged stamps in Winnipeg
- Several tests of phosphor-marked stamps were carried out, but not all are documented in Library and Archives Canada
- Some stamps from two of the trials survived and are now in collector hands

Summary

- Significant work took place from at least 1955 by POD to define how mechanization could be used to allow rapid cancellation of letter mail.
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  - SEFACAN machine used to face and cancel the tagged stamps in Winnipeg
- Several tests of phosphor-marked stamps were carried out, but not all are documented in Library and Archives Canada
- Some stamps from two of the trials survived and are now in collector hands
- *A fascinating documentary story of one of the key changes / improvements made to Canadian stamps*

Zatka Philately

Acknowledgements

- Dr. Jim Watt for patiently coordinating the search effort related to this work in the Canadian Postal Archives
- Library and Archives Canada for access to the documents on this subject. More may still be ‘hiding’…
- The Greene Foundation for their thorough study of the archival documents and the trial stamps to determine that the submitted stamps are genuine
- Anyone else who may have contributed to the search for relevant documents and who has not been acknowledged before…