



# Young Tyros Newsletter

February 2010

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GGMA

ZANAC

\*COPST - BION

How do you draw a heart in ciphertext?

\*Contribution of Personal Solving Technique

ACA Web Site Resources Page at [www.cryptogram.org](http://www.cryptogram.org)

Current and past Newsletter issues are available at this site. Thank you, ACA Webmaster, **PARROT**.

## Welcome New Solvers

We welcome new solvers, DELTA, RR TRACK, HUUNHUURTU and SCOCIA to the Cm Solvers List.

## Portax Cipher Period Determination

**BION**

The best method I know of to determine the period of a Portax was given by AAHJU is his computer columns for MJ and JA 2001. I think you could modify his approach so it would work with pencil and paper. If you look at the first paragraph in AAHJU's computer column for JA 2001, he mentions that you don't have to know the exact key to decrypt Portax ciphertext pairs that begin with the lower half of the alphabet (N to Z). For example WM is always decrypted as ts regardless of the position of the slide. The idea of his test is to line up the ciphertext in all the possible key lengths and decrypt just the cipher pairs that begin with N to Z. For each key length you get a collection of plaintext letters. Judge which collection has a frequency closest to Standard English.

See Editor's additional note below under **ND E-4 Portax**.

Send us one of your personal pet methodologies.

## Free Code and Cipher Books

These publications remain in our Young Tyro Library and are available to new Young Tyro members, free of charge. Send LIONEL, name, address, age and three Nom choices of the new member. We will select a book suitable for age, or you may pick one. Less than twelve years of age members will receive the bimonthly Junior Newsletter edition.

*Alvin's Secret Codes* – Hicks

*Crypt-Arithmetic* – Brooke

*Invitation to Cryptograms* – Williams

*Cryptanalysis* – Helen Gaines

*Crypto & Spygrams* – Gleason

*Codes, Secret Writing* – Gardner

*Codemaster* – Marvin Miller

*Cryptography* – Dwight Smith

*Codes and Secret Writing* – Zim

*Find Out About Secret Codes* – Beal

*Fun with Secret Writing* – Lamb

## Gimme A Break – ND Aristocrats (may be digraphs / trigraphs) (1) Unless otherwise stated ZANAC

A -1. a, as, is, she, the. A -2. It's (2), to (3), too, the (2), there. A -3. a,,can't, to, don't, the, these. A-4. the (2), than, th (5). A -5. to (3), and, the. A -6. to, the, high. A -7. a, to, the, where. A -8.a, and, at, th (2). A -9. a, of, on, to, go, the (2). A -10. that, the, to (3). A -11. is, as, of (2), often. A-12. ting, tion, to (2), you. A-13. ess, so (2), that. A-14. a (2), the (2). A-15. the (3), you (2). A-16. th (3), the. A-17. I, in, mind, the. A-18. about, th. A-19. yacht A-20. n (7), e (7), r (7), s (7), a (8), t (8), A-21. Pattern word "puzzle----". A-22. a(9), I (8), A-23. Pattern word "stim-----", of, for, A-24. made, dismal"). A-25. with, who, work.

ND Patristocrat Ciphers – (may be digraphs / trigraphs) (1) Unless otherwise stated) P-Sp-2 "h" alliteration.

P-1 th (5), the (2), P-2 th (2), the, P-3 it (2), the, to (2), P-4 th (4), the (2), to (2), P-5 in (2), the (2), to (2), P-6 er (2), re (2), P-7 that, you (6), P-8 and, the, ll (2), P-9 in (4), to (4), P-10 th (6), P-11 than (3), the, P-12 the, to, P-Sp-1 test, P-Sp-2 – Letter "h" alliteration accounts for 12 of 17 initial word letters.

**ND X-7 Unknown. Interesting Observation.**

**DYETI (Analyst GGMA)**

No extra-long word, and an apostrophe, so probably not German. The apostrophe ordinarily identifies French, Italian or Catalan. Pattern words make solving this one easy. Look at LNOLPDOP and QPCCPE in particular.

**ND X-11. German Playfair. Giants in the earth.**

**GGMA (Analyst GGMA)**

Extend crib to “generation eine.”

**ND-4 E-4 Portax. Third Law.**

**BOATTAIL**

Periods 5, 6 and seven fit the *ACA and You Handbook* guidelines for period length but only Period Six will leave you with an equal number of digraph pairs in your last two rows of ciphertext.

**ND E-9 Grille. Cooking up a con.**

**Mike Barlow (Analyst GGMA)**

This is a 6x6 grille, and cannot be solved as a columnar (which would be possible if the grille consisted of four 3x3 squares. Here is a crib to help: (from)

**ND C-9 Base Nine Square root.**

**Mantanza (Analyst GGMA)**

The online anagram finder gives us only 52 possible combinations. Since  $M * M = RT$ , M must be 3 or more ( $3 * 3 = 10$  in base 9). Also,  $IAV + LV = OTE$ , so E must be even. This should be enough to help you eliminate quite a few of the possible combinations. Enjoy!

**ND AC-937 Unknown**

**BOZOL (Analyst GGMA)**

With an IC of 54 and JQXZ at 7%, transposition ciphers are unlikely. It is not a Playfair, because of an AA digraph. My Bazerics solver failed to yield an answer. The Phillips IC analysis for period 40 is only 33, only 56 for squares 1 & 5. CM Bifid is unlikely – solving it without knowing either the period or a much longer crib would be very difficult. That narrows the list down to Bifid 6/7, Two-square, and Seriated Playfair. Good luck!

**JF X-9 Spanish Homophonic. Levantarse y brillo. (venida)**

**LIONEL**

Your *ACA and You Handbook* provides the process of using a four letter key – the key is Spanish for “son.”

**JF E-6 Null. Librarians agree. (book)**

**JABBERWOCK**

Here’s a null that offers sight reading solvability. Find the commonality of the crib letters appearance in the ciphertext where they appear in successive words and you will have the key. Nice work, JABBERWOCK.

**JF E-10 Redefence. Mary Bennet would agree. (will is)**

**GIZMO**

Four row cipher can be solved in two different row sequences (3142or 2143). Determine number of offsets.

**JF C-5 Fourth Root. (Three words, 0-9)**

**GGMA**

Don’t let this fourth root intimidate you. Only two values (4 or 5) generate a three digit value (UVE) to the fourth power. This will provide you with values for Y, U, H, A, V and E. It’s all downhill from there.

**Cipher Solving Lesson Plans**

**LIONEL**

Cipher solving lesson plans are available for: Affine & Hill Elementary School Mathematical Ciphers, Aristocrat, Baconian, Bazerics, Checkerboard, Foursquare, Fractionated Morse, Kasiski Period Determination, Monome-Dinome, Morbit, Null, Patristocrat, Pollux, Railfence, Sudoku and Swagman. Send \$1.00 for postage and handling for each Cipher Type requested to Lee Melair, 1828 Howe Lane, Maple Glen, PA 19002-2915.

Sunny Ciphering,

LIONEL

cc: ACA Executive Board