

# Appendix

to

## XOR-Concatenation combined with Bit Conversion

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### Preface

Basis of this examination is the paper „XOR-Concatenation combined with Bit Conversion“

<http://www.telecypher.net/Convert.pdf>

To demonstrate the effects of insignificant modifications of the >start sequence< to perform the CypherMatrix® procedure three cases are analysed:

Basic sequence: **H**orse racing on the banks of Clearwaterbay

1<sup>st</sup> modification: **L**orse racing on the banks of Clearwaterbay

2<sup>nd</sup> modification: Horse racing on the **u** banks of Clearwaterbay

3<sup>rd</sup> modification: Horse racing on the banks of Clearwaterba**x**

In each modification only **one bit** (at the beginning, in the middle and at the end) is changed. All other Data including the plaintext to be inserted „The WORD is a symbol and a delight which sucks up men and scene“ remain identical.

The results may be checked by the free downloading program **CypherXT.exe** at

<http://www.telecypher/DOWNLOAD.HTM>

### **First modification**

In first case only one bit is modified in the first byte. All other bits remain unchanged.

Basic sequence: **H**orse racing on the banks of Clearwaterbay

Modified sequence: **L**orse racing on the banks of Clearwaterbay

**H** = hex 49 = dec 72 = bin 01001**0**00

**L** = hex 4C = dec 76 = bin 01001**1**00

The procedure results to the following Data for the first cycle:

Control sum (Hk): 6830344

Partial hash value (Hp): 600066212335

Total hash value (Hp+Hk): 600073042679

**Alpha** (Hp+Hk MOD 255)+1: **90**  
**Beta** (Hk MOD 169)+1: **41**  
**Gamma** ((Hp+Code) MOD 196)+1: **165**

The CypherMatrix of the first cycle results as follows:

**CypherMatrix (16x16)**

1	9D 0B 6E 43 8E EF B5 B4 7F 5F 37 74 DA 1A EB AD	16
17	3F 58 26 97 C4 66 92 1F 31 8F 40 55 DB 7C 8A A9	32
33	A7 67 C6 E2 AB 76 FB 06 2E 70 7E B1 05 EE 77 D0	48
49	02 E8 52 CA 56 8D 68 D8 F1 6B A6 94 78 5E 90 D5	64
65	57 23 A2 DC 65 3A F6 21 D3 48 98 6A 88 BE CD 38	80
81	1D 53 EC 18 CF D7 25 0E B6 D1 C0 71 EA 6D 34 E6	96
97	6C FC CC F8 8C 03 3B B3 35 91 E9 75 51 95 42 E0	112
113	09 10 12 14 4D 00 3C 93 15 AC 84 7B 44 28 4C 5D	128
129	BD CB AE 13 59 24 9A C1 54 62 01 47 20 F9 39 F5	144
145	A3 9B CE 7A F0 2B D4 9C FA 63 27 32 2F A4 1C 85	160
161	C9 E4 9E D6 6F 49 50 89 61 69 F7 BB BC 4B B9 BA	176
177	11 60 C7 16 17 5C A1 BF 82 7D 3E 33 B8 D2 DD A5	192
193	2D 86 79 E1 99 81 04 4A B2 96 D9 F3 30 4E 72 E3	208
209	C3 22 0D 1E 3D 8B 19 C8 E7 0F 80 FF 9F 5B 0A C5	224
225	C2 DF AA 0C AF 1B E5 83 FE B7 07 2C 41 F4 2A DE	240
241	45 A8 F2 A0 64 87 73 5A 36 4F FD 29 ED 08 B0 46	256

Extracting the „Ciphertext alphabet“ from the above CypherMatrix is achieved by the parameter Alpha at position 90 (+omited 1 element = 91).

**Ciphertext alphabet (array 128 characters)**

Index	1 - 16:	À q ê m 4 æ l ü Ì ø Œ ; ³ 5 ` é
Index	17 - 32:	u Q • B à M < " ¬ „ { D ( L ] ½
Index	33 - 48:	Ë ® Y \$ š Á T b G ù 9 ö £ > Î z
Index	49 - 64:	ð + Ô œ ú c ' 2 / « … É ä ž Ö o
Index	65 - 80:	I P % a i ÷ » ¼ K ¹ ° ` Ç \ i ç
Index	81 - 96:	, } > 3 , Ò ¥ - t y á ™ □ J - Ù
Index	97 - 112:	ó 0 N r ã Ã = < È ç € Ÿ [ Å Â ª
Index	113 - 128:	ˆ â f p · A ô * E ˆ ò d † s Z

**Ciphertext alphabet: hexadecimal**

C0 71 EA 6D 34 E6 6C FC CC F8 8C 3B B3 35 91 E9  
75 51 95 42 E0 4D 3C 93 AC 84 7B 44 28 4C 5D BD  
CB AE 59 24 9A C1 54 62 47 F9 39 F5 A3 9B CE 7A  
F0 2B D4 9C FA 63 27 32 2F A4 85 C9 E4 9E D6 6F  
49 50 89 61 69 F7 BB BC 4B B9 BA 60 C7 5C A1 BF  
82 7D 3E 33 B8 D2 A5 2D 86 79 E1 99 81 4A 96 D9  
F3 30 4E 72 E3 C3 3D 8B C8 E7 80 9F 5B C5 C2 AA  
AF E5 83 FE B7 41 F4 2A 45 A8 F2 A0 64 87 73 5A

**Matrix key (at offset: Gamma = 165 + 1 = 166 --> 42 bytes)**

49 50 89 61 69 F7 BB BC 4B B9 BA 11 60 C7 16 17 5C A1 BF 82 7D  
3E 33 B8 D2 DD A5 2D 86 79 E1 99 81 04 4A B2 96 D9 F3 30 4E 72

**Block key (at offset: Beta = 41 + 1 = 42 --> 63 bytes)**

70 7E B1 05 EE 77 D0 02 E8 52 CA 56 8D 68 D8 F1 6B A6 94 78 5E  
90 D5 57 23 A2 DC 65 3A F6 21 D3 48 98 6A 88 BE CD 38 1D 53 EC  
18 CF D7 25 0E B6 D1 C0 71 EA 6D 34 E6 6C FC CC F8 8C 03 3B B3

**XOR - concatenation before bit-conversion**

24 16 D4 25 B9 38 82 46 C8 3B B9 76 EC 48 AB 88 06 C4 FB 14 7E  
F1 BB 33 03 C3 FC 01 5F 9A 48 B4 20 EC 4A FF D6 A4 5B 75 73 9F  
6D AC BC 56 2E C3 A1 E0 1C 8F 03 14 87 02 98 EC 8B EF 66 55 D6

**demonstrated in 8-bit XOR-sequences**

00100100 00010110 11010100 00100101 10111001 00111000 10000010  
01000110 11001000 00111011 10111001 01110110 11101100 01001000  
10101011 10001000 00000110 11000100 11111011 00010100 01111110  
11110001 10111011 00110011 00000011 11000011 11111100 00000001  
01011111 10011010 01001000 10110100 00100000 11101100 01001010  
11111111 11010110 10100100 01011011 01110101 01110011 10011111  
01101101 10101100 10111100 01010110 00101110 11000011 10100001  
11100000 00011100 10001111 00000011 00010100 10000111 00000010  
10011000 11101100 10001011 11101111 01100110 01010101 11010110

**converted into 7-bit sequences**

0010010 0000101 1011010 1000010 0101101 1100100 1110001 0000010  
0100011 0110010 0000111 0111011 1001011 1011011 1011000 1001000  
1010101 1100010 0000000 1101100 0100111 1101100 0101000 1111110  
1111000 1101110 1100110 0110000 0011110 0001111 1111000 0000001  
0101111 1100110 1001001 0001011 0100001 0000011 1011000 1001010  
1111111 1110101 1010100 1000101 1011011 1010101 1100111 0011111  
0110110 1101011 0010111 1000101 0110001 0111011 0000111 0100001  
1110000 0000111 0010001 1110000 0011000 1010010 0001110 0000010  
1001100 0111011 0010001 0111110 1111011 0011001 0101011 1010110

No bit added and no bit removed. In the series of „0“ and „1“ the order remain unchanged.

**Hexadecimal 7-bit index values after > bit conversion <**

12 05 5A 42 2D 64 71 02 23 32 07 3B 4B 5B 58 48 55 62 00 6C 27  
6C 28 7E 78 6E 66 30 1E 0F 78 01 2F 66 49 0B 21 03 58 4A 7F 75  
54 45 5B 55 67 1F 36 6B 17 45 31 3B 07 21 70 07 11 70 18 52 0E  
02 4C 3B 11 3E 7B 19 2B 56

**Decimal index values (+1) to address the array > Ciphertext alphabet <**

19 6 91 67 46 101 114 3 36 51 8 60 76 92 89  
73 86 99 1 109 40 109 41 127 121 111 103 49 31 16  
121 2 48 103 74 12 34 4 89 75 128 118 85 70 92  
86 104 32 55 108 24 70 50 60 8 34 113 8 18 113  
25 83 15 3 77 60 18 63 124 26 44 87

**Encrypted > Cipher text < derivated from > Ciphertext alphabet <**

•æá%o>ãâê\$ÔüÉ`™†KÒNÀ[b[GsEÂ=ð]éEqz=¹;®m†°ZA, ÷™Ò<½'ÿ“ ÷ +Éü® üQ¯ ¬ > ‘êçÉQÖ  
„õ¥

95 E6 E1 89 9B E3 E5 EA 24 D4 FC C9 60 99 86 4B D2 4E C0 5B 62  
5B 47 73 45 C2 3D F0 5D E9 45 71 7A 3D B9 3B AE 6D 86 BA 5A 41  
B8 F7 99 D2 8B BD 27 9F 93 F7 2B C9 FC AE AF FC 51 AF AC 3E 91  
EA C7 C9 51 D6 A0 84 F5 A5

## Second Modification

In second case a bit in the middle of the >start sequence< is modified. All other bits remain unchanged.

Basic sequence: Horse racing on the **e** banks of Clearwaterbay

Modified sequence: Horse racing on the **u** banks of Clearwaterbay

**e** = hex 65 = dec 101 = bin 011**0**0101

**u** = hex 75 = dec 117 = bin 011**1**0101

The procedure results to the following Data for the first cycle:

Control sum (Hk): 6850816

Partial hash value (Hp): 603919983751

Total hash value (Hp+Hk): 603926834567

**Alpha** (Hp+Hk MOD 255)+1: **183**

**Beta** (Hk MOD 169)+1: **64**

**Gamma** ((Hp+Code) MOD 196)+1: **177**

The CypherMatrix of the first cycle results as follows:

### CypherMatrix (16x16)

1	B9	B2	CC	F7	4F	AA	D7	A1	EB	6E	5E	4A	C2	A5	1A	35	16
17	82	0C	3F	C5	9D	3B	3D	17	E8	FC	60	07	13	24	D3	0A	32
33	DF	41	ED	6A	6D	B0	94	71	EC	E5	87	DB	3E	D1	1C	76	48
49	E0	DC	A8	30	12	F6	08	A6	43	29	45	C3	65	B1	FA	81	64
65	75	A0	E2	9E	38	67	9C	95	44	33	96	7D	1E	CD	9A	D2	80
81	AD	BB	56	01	AF	10	58	90	E3	7C	09	A7	4C	1B	74	BD	96
97	47	83	06	72	DA	F1	4B	6C	59	B7	48	1D	40	6F	92	D9	112
113	C9	54	D5	BA	36	15	85	7F	2E	88	CE	0E	A2	03	2C	AB	128
129	1F	42	70	93	0D	EE	99	F3	91	4D	0B	BF	D4	AC	C0	05	144
145	E1	21	79	CF	46	98	00	26	B6	97	E4	BC	FE	AE	61	E9	160
161	68	77	37	16	49	6B	50	2B	CB	C6	39	86	E7	5B	FF	66	176
177	F0	FB	8A	22	5C	C7	53	7B	D6	DE	20	52	73	D8	28	8B	192
193	78	11	23	04	B3	8D	31	B5	62	0F	32	25	80	C1	8E	51	208
209	5D	A4	EA	14	D0	19	2A	9B	3C	F8	5A	E6	C8	69	EF	3A	224
225	2D	89	63	8F	B8	F9	7A	27	A3	4E	57	34	84	DD	BE	A9	240
241	5F	2F	64	7E	CA	02	B4	8C	C4	55	F4	9F	F5	FD	18	F2	256

Extracting the „Ciphertext alphabet“ from the above CypherMatrix is achieved by the parameter Alpha at position 183 (+ omitted 5 elements = **188**).

### Ciphertext alphabet (array 128 characters)

Index 1 - 16: R s Ø ( < x # ³ □ 1 µ b 2 % € Á  
Index 17 - 32: Ž Q ] ı ê Đ \* > < ø Z æ È i i :  
Index 33 - 48: - % c □ , ù z ' f N W 4 „ ¼ © \_  
Index 49 - 64: / d ~ Ê ´ Œ Ä U ó Ÿ ö ý ò ¹ Ì ÷  
Index 65 - 80: O ª x j ë n ^ J Â ¥ 5 , ? Å □ ;  
Index 81 - 96: = è ü ` \$ Ó A í j m " q ì á † >  
Index 97 - 112: Ñ v à " 0 ö | C ) E ã e ú □ u  
Index 113 - 128: â ž 8 g œ • D 3 - } Í š Ò » v

### Ciphertext alphabet: hexadecimal

52 73 D8 28 8B 78 23 B3 8D 31 B5 62 32 25 80 C1  
8E 51 5D A4 EA D0 2A 9B 3C F8 5A E6 C8 69 EF 3A  
2D 89 63 8F B8 F9 7A 27 A3 4E 57 34 84 BE A9 5F  
2F 64 7E CA B4 8C C4 55 F4 9F F5 FD F2 B9 CC F7  
4F AA D7 A1 EB 6E 5E 4A C2 A5 35 82 3F C5 9D 3B  
3D E8 FC 60 24 D3 41 ED 6A 6D 94 71 EC E5 87 3E  
D1 76 E0 A8 30 F6 A6 43 29 45 C3 65 FA 81 75 A0  
E2 9E 38 67 9C 95 44 33 96 7D CD 9A D2 AD BB 56

### Matrix key (at offset: Gamma = 177 + 5 = 182 --> 42 bytes)

C7 53 7B D6 DE 20 52 73 D8 28 8B 78 11 23 04 B3 8D 31 B5 62 0F  
32 25 80 C1 8E 51 5D A4 EA 14 D0 19 2A 9B 3C F8 5A E6 C8 69 EF

### Block key (at offset: Beta = 64 + 2 = 66 --> 63 bytes)

A0 E2 9E 38 67 9C 95 44 33 96 7D 1E CD 9A D2 AD BB 56 01 AF 10  
58 90 E3 7C 09 A7 4C 1B 74 BD 47 83 06 72 DA F1 4B 6C 59 B7 48  
1D 40 6F 92 D9 C9 54 D5 BA 36 15 85 7F 2E 88 CE 0E A2 03 AB 1F

### XOR - concatenation before bit-conversion

F4 8A FB 18 30 D3 C7 00 13 FF 0E 3E AC BA A1 D4 D6 34 6E C3 30  
39 FE 87 5C 68 87 28 7E 18 D4 20 EB 72 52 AD 99 22 0F 31 97 3B  
68 23 04 E1 F9 BC 24 F5 D7 53 7B A5 1E 40 EC EE 7D C1 66 C5 7A

### demonstrated in 8-bit XOR-sequences

11110100 10001010 11111011 00011000 00110000 11010011 11000111  
00000000 00010011 11111111 00001110 00111110 10101100 10111010

10100001 11010100 11010110 00110100 01101110 11000011 00110000  
 00111001 11111110 10000111 01011100 01101000 10000111 00101000  
 01111110 00011000 11010100 00100000 11101011 01110010 01010010  
 10101101 10011001 00100010 00001111 00110001 10010111 00111011  
 01101000 00100011 00000100 11100001 11111001 10111100 00100100  
 11110101 11010111 01010011 01111011 10100101 00011110 01000000  
 11101100 11101110 01111101 11000001 01100110 11000101 01111010

**converted into 7-bit sequences**

1111010 0100010 1011111 0110001 1000001 1000011 0100111 1000111  
 0000000 0000100 1111111 1110000 1110001 1111010 1011001 0111010  
 1010000 1110101 0011010 1100011 0100011 0111011 0000110 0110000  
 0011100 1111111 1010000 1110101 1100011 0100010 0001110 0101000  
 0111111 0000110 0011010 1000010 0000111 0101101 1100100 1010010  
 1010110 1100110 0100100 0100000 1111001 1000110 0101110 0111011  
 0110100 0001000 1100000 1001110 0001111 1100110 1111000 0100100  
 1111010 1110101 1101010 0110111 1011101 0010100 0111100 1000000  
 1110110 0111011 1001111 1011100 0001011 0011011 0001010 1111010

No bit added and no bit removed. In the series of „0“ and „1“ the order remain unchanged.

**Hexadecimal 7-bit index values after > bit conversion <**

7A 22 5F 31 41 43 27 47 00 04 7F 70 71 7A 59 3A 50 75 1A 63 23  
 3B 06 30 1C 7F 50 75 63 22 0E 28 3F 06 1A 42 07 2D 64 52 56 66  
 24 20 79 46 2E 3B 34 08 60 4E 0F 66 78 24 7A 75 6A 37 5D 14 3C  
 40 76 3B 4F 5C 0B 1B 0A 7A

**Decimal index values (+1) to address the array > Ciphertext alphabet <**

123 35 96 50 66 68 40 72 1 5 128 113 114 123 90  
 59 81 118 27 100 36 60 7 49 29 128 81 118 100 35  
 15 41 64 7 27 67 8 46 101 83 87 103 37 33 122  
 71 47 60 53 9 97 79 16 103 121 37 123 118 107 56  
 94 21 61 65 119 60 80 93 12 28 11 123

**Encrypted > Cipher text < derivated from > Ciphertext alphabet <**

Íc > d<sup>a</sup>¡'JR<VâžĪmō = •Z"ŋý#/ÈV = •"c€£ ÷ #Z ×<sup>3¾</sup>0üA | , } ^ © ý ' ŋ Ñ Á | - , Í • Ñ U â è ò O D ý ; ì b æ μ Í

CD 63 3E 64 AA A1 27 4A 52 8B 56 E2 9E CD 6D F5 3D 95 5A A8 8F  
FD 23 2F C8 56 3D 95 A8 63 80 A3 F7 23 5A D7 B3 BE 30 FC 41 A6  
B8 2D 7D 5E A9 FD B4 8D D1 9D C1 A6 96 B8 CD 95 C3 55 E5 EA F2  
4F 44 FD 3B EC 62 E6 B5 CD

### Third Modification

In third case only in the last byte a bit is modified. All other bits remain unchanged.

Basic sequence: Horse racing on the banks of Clearwaterba**y**

Modified sequence: Horse racing on the banks of Clearwaterba**x**

**y** = hex 79 = dec 121 = bin 0111100**1**

**x** = hex 78 = dec 120 = bin 0111100**0**

The procedure results to the following Data in the first cycle:

Control sum (Hk): 6821893

Partial hash value (Hp): 599009959554

Total hash value (Hp+Hk): 599016781447

**Alpha** (Hp+Hk MOD 255)+1: **113**

**Beta** (Hk MOD 169)+1: **40**

**Gamma** ((Hp+Code) MOD 196)+1: **8**

The CypherMatrix of the first cycle results as follows:

#### CypherMatrix (16x16)

1	83	92	B3	9C	D0	69	3E	4F	9F	2B	A8	C6	58	9E	6F	C8	16
17	2D	F1	E9	AB	7C	C5	44	F6	20	F8	8D	90	68	04	81	0F	32
33	43	4C	80	17	C9	6E	27	E1	D7	05	84	EB	61	B7	F4	5F	48
49	71	D8	A0	3B	07	1A	4E	88	AD	BA	13	CB	52	00	CD	3C	64
65	50	FC	C4	73	93	EA	CE	1B	41	38	6D	67	B6	C2	42	40	80
81	4B	1D	31	E8	5C	26	62	0D	BB	25	95	E4	F5	54	30	1F	96
97	91	49	AC	3F	14	60	D3	D9	06	8E	33	70	3A	2A	C0	97	112
113	59	B8	98	32	DF	15	C3	D1	D6	6B	66	D2	3D	7F	4A	46	128
129	B5	FF	AF	39	76	E0	03	18	0B	ED	56	87	01	B0	64	7B	144
145	47	F7	11	75	4D	A9	0E	DC	6A	CA	0C	10	7E	12	72	02	160

161	9A 7D 0A 23 F2 8A 6C EF F0 53 89 21 FA 8F 37 34	176
177	29 D5 22 DE 74 A1 F9 35 51 DB A6 1E 09 1C 79 5E	192
193	82 57 2E 55 C1 8C A7 7A 99 48 B2 24 B1 45 BD E3	208
209	B9 2C 2F E6 FE 08 AE 63 65 CF 5B 9B 77 36 E7 AA	224
225	A5 DD 5D FD 8B F3 BF 94 85 5A BE BC C7 78 86 EC	240
241	DA EE CC 19 A3 16 E5 28 B4 A2 A4 9D 96 FB E2 D4	256

Extracting the „Ciphertext alphabet< from the above CypherMatrix is achieved by the parameter Alpha at position 113 (+ omitted 2 elements = 115).

**Ciphertext alphabet (array 128 characters)**

Index 1 - 16:	~ 2 Ã Ñ Ö k f Ò = □ J F μ ¯ 9 v
Index 17 - 32:	à í V ‡ d { G ÷ u M © j Ê ~ r š
Index 33 - 48:	} # ò Š l ï ð S % ! ú □ 7 4 ) Õ
Index 49 - 64:	t ; ù 5 Q   y ^ , W . U Á Œ Š z
Index 65 - 80:	™ H \$ E ½ ã ¹ / æ þ ® c e Ĩ [ >
Index 81 - 96:	w 6 ç ª ¥ ] ý < ó ¿ " ... Z ¾ ¼ Ç
Index 97 - 112:	x † ì Ú î Ì £ å ( ´ ç π □ - û â
Index 113 - 128:	Ô f ' ³ œ Ð i > Ö Ÿ + ¨ Æ X ž o

**Ciphertext alphabet: hexadecimal**

98 32 C3 D1 D6 6B 66 D2 3D 7F 4A 46 B5 AF 39 76  
E0 ED 56 87 64 7B 47 F7 75 4D A9 6A CA 7E 72 9A  
7D 23 F2 8A 6C EF F0 53 89 21 FA 8F 37 34 29 D5  
74 A1 F9 35 51 A6 79 5E 82 57 2E 55 C1 8C A7 7A  
99 48 24 45 BD E3 B9 2F E6 FE AE 63 65 CF 5B 9B  
77 36 E7 AA A5 5D FD 8B F3 BF 94 85 5A BE BC C7  
78 86 EC DA EE CC A3 E5 28 B4 A2 A4 9D 96 FB E2  
D4 83 92 B3 9C D0 69 3E 4F 9F 2B A8 C6 58 9E 6F

**Matrix key (at offset: Gamma = 8 --> 42 bytes)**

4F 9F 2B A8 C6 58 9E 6F C8 2D F1 E9 AB 7C C5 44 F6 20 F8 8D 90  
68 04 81 0F 43 4C 80 17 C9 6E 27 E1 D7 05 84 EB 61 B7 F4 5F 71

**Block key (at offset: Beta = 40 --> 63 bytes)**

E1 D7 05 84 EB 61 B7 F4 5F 71 D8 A0 3B 07 4E 88 AD BA 13 CB 52  
00 CD 3C 50 FC C4 73 93 EA CE 1B 41 38 6D 67 B6 C2 42 40 4B 1D  
31 E8 5C 26 62 BB 25 95 E4 F5 54 30 1F 91 49 AC 3F 14 60 D3 D9

**XOR - concatenation before bit-conversion**

B5 BF 60 A4 BC 2E E5 B0 7F 18 AB 80 5A 27 3D F1 C0 D8 7C A7 72  
61 A3 58 70 9D E4 17 F6 86 A7 7C 29 4C 4D 10 DE AB 21 28 6B 6E  
44 8B 37 55 42 CE 55 B5 89 90 3A 10 7E FF 2D 8C 4C 77 05 BD BC

**demonstrated in 8-bit XOR-sequences**

10110101 10111111 01100000 10100100 10111100 00101110 11100101  
10110000 01111111 00011000 10101011 10000000 01011010 00100111  
00111101 11110001 11000000 11011000 01111100 10100111 01110010  
01100001 10100011 01011000 01110000 10011101 11100100 00010111  
11110110 10000110 10100111 01111100 00101001 01001100 01001101  
00010000 11011110 10101011 00100001 00101000 01101011 01101110  
01000100 10001011 00110111 01010101 01000010 11001110 01010101  
10110101 10001001 10010000 00111010 00010000 01111110 11111111  
00101101 10001100 01001100 01110111 00000101 10111101 10111100

**converted into 7-bit sequences**

1011010 1101111 1101100 0001010 0100101 1110000 1011101 1100101  
1011000 0011111 1100011 0001010 1011100 0000001 0110100 0100111  
0011110 1111100 0111000 0001101 1000011 1110010 1001110 1110010  
0110000 1101000 1101011 0000111 0000100 1110111 1001000 0010111  
1111011 0100001 1010100 1110111 1100001 0100101 0011000 1001101  
0001000 0110111 1010101 0110010 0001001 0100001 1010110 1101110  
0100010 0100010 1100110 1110101 0101010 0001011 0011100 1010101  
1011010 1100010 0110010 0000011 1010000 1000001 1111101 1111111  
0010110 1100011 0001001 1000111 0111000 0010110 1111011 0111100

No bit added and no bit removed. In the series of „0“ and „1“ the order remain unchanged.

**Hexadecimal 7-bit index values after > bit conversion <**

5A 6F 6C 0A 25 70 5D 65 58 1F 63 0A 5C 01 34 27 1E 7C 38 0D 43  
72 4E 72 30 68 6B 07 04 77 48 17 7B 21 54 77 61 25 18 4D 08 37  
55 32 09 21 56 6E 22 22 66 75 2A 0B 1C 55 5A 62 32 03 50 41 7D  
7F 16 63 09 47 38 16 7B 3C

**Decimal index values (+1) to address the array > Cipher alphabet <**

91 112 109 11 38 113 94 102 89 32 100 11 93 2 53  
40 31 125 57 14 68 115 79 115 49 105 108 8 5 120  
73 24 124 34 85 120 98 38 25 78 9 56 86 51 10  
34 87 111 35 35 103 118 43 12 29 86 91 99 51 4  
81 66 126 128 23 100 10 72 57 23 124 61

**Encrypted > Cipher text < derivated from > Cipher alphabet <**

”ãñJiÔ¾ÌóšÚJZ2QsrÆ, ¯E’[’t(œÖÖ > æ ÷ ”#¥ > †iuĬ = ^]ùñ#ýûòðđĐúFÊ]”ùÑwHXoGÚñ/,G”Á

94 E2 9D 4A EF D4 BE CC F3 9A DA 4A 5A 32 51 53 72 C6 82 AF 45  
92 5B 92 74 28 A4 D2 D6 3E E6 F7 A8 23 A5 3E 86 EF 75 CF 3D 5E  
5D F9 7F 23 FD FB F2 F2 A3 D0 FA 46 CA 5D 94 EC F9 D1 77 48 58  
6F 47 DA 7F 2F 82 47 A8 C1

**Final Remarks**

The fundamental explanations will be found in the paper **XOR-Concatenation combined with Bit Conversion**

<http://www.telecypher.net/Convert.pdf>

and the WEB-site

<http://www.telecypher.net/CORECYPH.HTM>

**Munich, in June 2006**

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