

H<K '?]Y``fYjc`ih]cb]Yfh`GdcfhYf`YVb]g. JF!6f]``Y`ZØf'<Y]a gd]Y`Y`^Yhnh'jYfZØ[VUf°

H<K '?]Y``ghUfhYh`JF!<Y]a gd]Y`!9f`YVb]g`]b`XYf`H<K! :5BK 9@H"'6Ygi W\Yb`G]Y`i bg`i bX`Yf`YVYb`G]Y`Gdcfh`bYi`! h\A][`]W\`[Y\OZZbYh^°



GhYZUb; fchYžghY``j YfhfYhYbXYf@Y]hYf

I bhYfbY\a Ybg_ca a i b]_Uh]cb'XYf': ÒfXY'GdUf_UggYž'\YVh'\Yfj cfž k]Y'k]W\h]['\delta bcj Uh]cbYb'k]Y'X]YgY'ZØf'XYb'Gdcfh'g]bX"'8]Y'H<K!: 5BK 9@H'YfÒZZbYh'XUa]h'HØfYb'ni 'bYi Yb'9f'YVb]gk Y`hYb"'8]Y 5fYbU'j]fhi Y``'ni 'VYgi W\Yb'i bX'X]Y'HYW\b]_'Ui gni dfcV]YfYbž a UW\h'XUg'9j Ybh'ni 'Y]bYa 'A i gg'ZØf'YXYb'<UbXVU``ZUb"'8]Y 2 ZZbi b[gnY]hYbž'Ub'XYbYb'X]Y'H<K!: 5BK 9@H'ni [Àb[`]W\']ghz'g]bX j cb'A cbhU['V]g'A]hhk cW\'i bX': fY]hU['j cb'%\$'V]g'%+'I\fz'Ua 8cbbYfghU['V]g'%, 'I\f'i bX'gUa ghU[g'V]g'%('I\f"

9]b 6`]W_]b X]Y Ni _i b Zh XYg < Ub XVU ``g

5`]gU'HØfW_žgY]h'A]hhY'¾ b]'&\$&('nk Y]hY'; YgW\ÀZhgZØ\fYf]b'XYg
H<K'?]Y`ž'hfY]Vh'X]YgY'9bhk]W_`i b['YbhgW\Y]XYbX'j cfUb"'¬\f\N]Y`
]gh'Ygž'XYb'JYfY]b'U`g'kY`hkY]h'YfghYb'<UbXVU``Wi V'ni
dcg]h]cb]YfYbž'XYf'JF!HYW\bc`c[]Y'ZØf'@jY!, VYfhfU[i b[Yb'bi hnh"
9]b'gdUbbYbXYg'Jcf\UVYbž'XYbb'X]Y'5ha cgd\ÀfY'Y]bYg
<UbXVU``gd]Y`g'_Ubb'XcW\'bi f'gW\kYf'Ui g'XYf': YfbY'j Yfa]hhY`h
kYfXYb"8cW\'a]h'JF'Vf]W\h'aUb'U```X]Y'6Uff]YfYbž'X]Y'i bg'j cb
XYf'9ggYbn'XYg'Gd]Y`g'hfYbbYb'_ObbhYb"'8]Y'[Yd`UbhY
, VYfhfU[i b['Y]bYg'<Y]agd]Y`g'a]h'JF!6f]``Y'ZØf'Y]b'Ui g[YkÀ\`hYg
HYghdi V`]_i a'ZUbX'VYfY]hg'9bXY'AU]'&\$&('ghUhh'i bX'\Uh'XUg
DchYbn]U`ž'X]Y'Ni_i bZh'XYq'H]W_Yhi Yf_Ui Zq'ni 'fYj c`i h]cb]YfYb"'

HØfW_']gh'g]W\'XYf'<YfUi gZcfXYfi b[Yb'VYki gghž'X]Y'X]YgY'HYW\b]_a]h'g]W\'Vf]b[h"'Hfchn']\fYf'I bg]W\Yf\Y]h'VYnØ[`]W\'XYf'Ei U`]hÀh i bX'FYgcbUbn'XYg'JF!HYghg'g]Y\h'g]Y'[fc»Yg'DchYbn]U`.
I bUV\Àb[]['jcb'<U``Yb_UdUn]hÀhYb'_ObbhY'Yg'ZØf'Ui gj Yf_Ui ZhY Gd]Y`Y'bYi Y'K Y[Y'[YVYb"'8Yf'H]W_Yhj Yf_Ui Z'_ObbhY'i bVY[fYbnh k YfXYbž'k Ug'ZØf'j]Y`Y': Ubg'Y]bYb'HfUi a ']b'9fZØ``i b['[Y\Yb `UggYb'_ObbhY"'8cW\'VYj cf'a Ub']b'X]Y'Ni _i bZh'gdf]b[hž'k]fX'XYf HYgh'UV[Yk UfhYhž'i a 'a]h'XYf'<6@i bX'GhfYUa]b[X]YbghYb'k]Y 8 mb'a O[`]W\Y'; YgW\ÀZhga cXY``Y'ni 'Ybhk]W_Y`b"

=a a Yfg]j Y HYW bc`c[]Yb]a 'Gdcfha Uf_Yh]b[

8]Y '9bhk]W_`i b['XYg'H<K '?]Y`'dUggh'dYfZY_h']b'Y]bYb'[fÒ» YfYb HfYbX. '=a a Yf'a Y\f'Gdcfha Uf_Yb'bi hnYb'HYW.bc`c[]Yb'k]Y J]fhi U`'FYU`]hm'fJFŁ'i bX'5i [a YbhYX'FYU`]hm'f5FŁž'i a 'XUg 9f`YVb]gʻZØf`: Ubgʻni `]bhYbg]j]YfYb"`fccca "Wca `VYf]W\hYhž`XUgg gc`W\Y`HYW\bc`c[]Yb'b]W\h'bi f`U`g`Y`Y[UbhY`Gd]Y`YfY]Yb'[Y`hYbž gcbXYfb'_cb_fYhY`HfUbgZcfa Uh]cbgdchYbn]U`Y`]a `Gdcfha Uf_Yh]b[V]YhYb"'B]_Y`dZØ[h'VY]gd]Y`gk Y]gY`bYi Y`5W_Yf`a]h'A YhUj YfgY! A Uf_Yh]b[`i bX`B: Hgži a `bYi Y`+bhYfU_h]cbga Ò[`]W_Y]hYb'ni gW\UZZYb"'

GhY``Yb`G]Y`g]W\'j cf.: Ubg`VYgi W\Yb`Y]b`GhUX]cb`U`g`5j UhUfY`i bX Yf`YVYb`Gd]Y`Y`]b`j]fhi Y``Yb`I a [YVi b[Yb`cXYf`Ub`5F!

\$\delta ghU``Uh]cbYb\(\tilde{z}\)k c`g]Y`]bhYfU[]YfYb`_\(\tilde{O}\)bbYb\(\tilde{z}\)c\bY`hYi fY`<\YUXgYhg

j Yfk YbXYb`ni `a \(\tilde{Q}\)gY`B]Y`A \(\tilde{O}\)[`]W_Y]hYb`g]bX`gW\]Yf

i bVY[fYbnh\(\tilde{o}\)f\(\tilde{Q}\)f\(\tilde{Q}\)f\(\tilde{Q}\)f\(\tilde{Q}\)f\(\tilde{Q}\)f\(\tilde{g}\)f\

Ni gUa a Yb[YZUggh'nY][h'g]W\ž'XUgg'XYf'H<K'?]Y``a]h'gY]bYf

\$\delta\$ [h]Uh]j Yž'J F']b'XYb'< UbXVU```ni ']bhY[f]YfYbž'b]W\h'bi f'Y]bY'[i hY

J cffY]hYffc``Y'gd]Y`hž'gcbXYfb'Ui W\'XUg': Ub!9f`YVb]g'bUW\\U`h][

j YfVYggYfb'_\ObbhY''\deltabcj Uh]j Y'HYW\bc`c[]Yb'Yf\OZZbYb'bYi Y

<cf]ncbhY'i bX'`UggYb'XUg'GdcfhYf`YVb]g']b'Y]bYa''[Ubn'bYi Yb

@]W\h'YfgW\Y]bYb'''Gc'_\ObbhY'XYf'< UbXVU``'b]W\h'bi f'XUg'GhUX]cbž

gcbXYfb'Ui W\'X]Y'\Y]a]gW\Yb'K c\bn]a a Yf'YfcVYfb'''i bX'XUg']gh

Y]b'gdUbbYbXYf'5i gV`]W_'ZØf'U``Y': Ubg'

8 Y hU]`g	
Cfh	N]Y[Y`hY]WX'' \$ž'&(%(''?]Y`ž'8Yi hgWX`UbX
Ei Y``Yb	• h\k!\UbXVU``"XY
	• k k k "g\n"XY
	• k k k "fccca "Wca

6Ygi WXYb G]Y i bg Ui Z. k ca, + "XY