

## 9`< cX`UXcf`Yf`Y]XYh`Y]bYb'; Y[YbUb[f]ZZ XYg'=K:

K ]Y'; Ycf[Y'Cfk Y``Y]ba U`b]Wh [Ubn'VYa Yf\_h'\Uh K À\fYbX']W\X]YgʻgW\fY]VYžʻghUfhYb`\cW\n]j ]`]g]YfhY
A YbgW\Yb 'Hfc``Ub[f]ZZY'i bX'j Yfgi W\Ybža Y]bYb'Cb`]bY!FiZ
ni 'nYfghÒfYb"'G]Y 'Ya dZ]bXYb'\_Y]bY': Y]bXgW\UZh[Y[Yb'a]W\U`gʻ♣X]j ]Xi i a žʻbcW\]W\[Y[Yb'g]Y"'G]Y'hi b` bi f`]\fY
DZ]W\h ž'k]Y'XUgʻGdf]W\k cfhgU[h"8]Y a Y]ghYb'j cb']\bYbž
XUfUb'\UVY']W\'\_Y]bYb'Nk Y]ZY`žʻg]bX'[i h\Yfn][Yž
[YgYhnYghfYi Y'A YbgW\Ybž'X]Y'b]Ya U`gʻ]a 'HfUi a 'XUfUb
XYb\_Yb'k ØfXYbž']a 'Df]j Uh`YVYb'[fc» Y'J Yf`Yi a Xi b[Yb'i bX
<UggfYXYb'ni 'VY[Y\Yb"K Ybb'YgʻUbXYfYfgY]hgʻY]bYa 'j cb
]\bYb'[Y`]b[hža Y]bYb'Fi Z'a]h'Y]bYa '[i h'd`Uhn]YfhYb'Hk YYh
ni 'gdfYb[Ybž'k YfXYb'g]Y'XUZØf'b]Ya U`gʻgW\`YW\hYf`gW\`UZYb''
G]Y'X]YbYb']\fYa 'GhUa a ž'XYf'X]Y'A UW\h' Ua d∧Y``]d/

 $K ]Y'; Ycf[Y'Cfk Y``Y]ba U`'b]Wh'[Ubn'VYa Yf_h'\Uh. \\$ 

K À\fYbX']W\'X]Yg'gW\fY]VYž'ghUfhYb'\cW\n]j ]`]g]YfhY A YbgW\Yb'Hfc``Ub[f]ZZY'i bX'j Yfgi W\Ybž'a Y]bYb'Cb`]bY! Fi Z'ni 'nYfghÒfYb"'

G]Y 'Ya dZ]bXYb'\_Y]bY: Y]bXgW\UZh'[Y[Yb'a]W\'U`g

♣X]j ]Xi i a ž'bcW\']W\'[Y[Yb'g]Y''G]Y'hi b' bi f']\fY'DZ]W\h ž
k ]Y 'XUg'Gdf]W\k cfh'gU[h''8]Y a Y]ghYb'j cb']\bYbž'XUfUb
\UVY']W\'\_Y]bYb'Nk Y]ZY`ž'g]bX'[i h\Yfn][Yž'[YgYhnYghfYi Y
A YbgW\Ybž'X]Y'b]Ya U`g']a 'HfUi a 'XUfUb'XYb\_Yb'k ØfXYbž
]a 'Df]j Uh`YVYb'[fc» Y'JYf`Yi a Xi b[Yb'i bX'<UggfYXYb'ni
VY[Y\Yb''K Ybb'Yg'UbXYfYfgY]hg'Y]bYa 'j cb']\bYb'[Y`]b[hž
a Y]bYb'Fi Z'a ]h'Y]bYa '[i h'd`Uhn]YfhYb'Hk YYh'ni
gdfYb[Ybž'k YfXYb'g]Y'XUZØf'b]Ya U`g'gW\`YW\hYf'gW\`UZYb''
G]Y'X]YbYb']\fYa 'GhUa a ž'XYf'X]Y'A UW\h'\Uhž'g]Y'j ca

Ni '6Y[]bb'XYf'[fc»Yb'A Ya Y!?f]Y[Y'XYf'Dcgh!7cj]X!ŸfU'k i gghYb X]Y'A YbgW\Yb'b]W\h'fYW\hž']bk]Yk Y]h'a ]h'Y]bYa 'Y]bn][Yb'Hk YYh [fc»Y'JYfa Ò[Yb'[Yk cbbYb'i bX'j Yf'cfYb'k YfXYb'\_cbbhYb"'9g k Uf'Ui W\b]W\h'\_\Ufž'k Yf'[Y[Yb'k Yb'\_\Aa dZhY'cXYf'k Ufi a "'8]Y N]j]`]gUh]cb'VfUi W\hY'NY]hž'i a 'XYb'I a ZUb['i bX'X]Y'DUfUa YhYf XYg'bYi Yb'; fc»Yb'Gd]Y`g'ni 'j YfghY\Yb"'K Ug'Ui Z'XYa 'Gd]Y`ghUbX"'K Ug'X]Y'9]bgUhnfY[Y`b'k ]f\_`]W\k UfYb"'K ]Y'@YVYb Ui g[Y`ÒgW\h'i bX'j Yf'cfYb'k ØfXYb"

8]YaY]ghYb; Y`Y\fhYb`g]bX`g]WX`Yhnh`Y]b][ž`XUgg`Y]b`\_f]h]gWXYf 6fYbbdi b\_h`Ua`%+"`¾Jbi Uf`\_Uaž`XYa`HU[ž`Ub`XYa`9``<cX`UXcfžY]bYf`XYf`ZfØ\YghYb`gci j YfÀbYb`5XcdhUbhYb`Y]bYf`i b]j YfgY``Yb I bUV\Àb[][\_Y]hgYf\_`Àfi b[\_j cb`XYb`?fÀZhYb`XYf`NYbhfU`]g]Yfi b[žjYfgY\Ybh`]WX`dfcj cn]Yfh`k i fXY`<mark>Y]b`ZU`gWXYf</mark>`6Yf]WXh`ØVYf`X]Y<YfUVghi Zb[`XYf`?fYX]hk ØfX][\_Y]hj cb`9``GU`j UXcf`Xi fWX A ccXmg"

K UgʻX]Yʻa Y]ghYbʻHfc``]b[!GhfUhY[Ybʻb]Yʻ\_ca a YbʻgU\Ybžk Ufžk]Y X]YʻDfcj c\_Uh]cbʻni ʻY]bYfʻ8; 5:!8YZYbg]j Yʻa ]hʻ\c\Ybʻ9]bgÀhnYb Yg\_U`]YfYbʻk ØfXYʻA UbʻOj Yf"' ≠ XYbʻ\_ca a YbXYbʻHU[Ybʻk i fXYb HUi gYbXYʻj cbʻXYnYbhfU`]g]YfhYbʻ?fÀZhYbʻa ]hʻ@UgYfUi [Ybʻj cbʻ9` <cX`UfXcfgʻa Ya Y!VYhf]YVYbYa ʻDfÀg]XYbhYbʻBUm]Vʻ6i \_Y`Y j YfgUa a Y`hži a ʻXYa ʻnYbhfU`]g]YfhYbʻ?bchYbbYhnk Yf\_'Y]bY ?Ua dU[bYʻj cbʻ]ffYdUfUV`Ya ʻGW\cW\_i bXʻ9\fZ fW\hini ni ZØ[Yb"'

5VYf`XYf`? Ua dZ`k Uf`bcW\`b]W\hij cfVY]"`BUW\`XYf`I a [fi dd]Yfi b[i bX`K]YXYfUi ZZØ``i b[i bX`k]Y`k Y]h[Y\YbX`j ca `U``]]YfhYb K]XYfghUbX`Yfk UfhYhž'j YfÒZZYbh`]W\hYb`X]Y`nYbhfU`]g]YfhYb`?bchYb]\fY`Y][YbY`FØ[Y"`9g`\_Ua `]b`: cfa `XYf`6Yk UZZbi b[ `XYg`Øb[ghYb

GhUVgVYf]WXhg`XYg`¥: 'j ca '&, "'≯Jbi Ufž`XYf`b]WXh`k Yb][Yf`U`g`%%(<]bk Y]gY`Ui Z`X]Y`9]bZØ\fi b['j cb'6]hWc]b`Xi fWX`9`'<cX`UXcf Ybh\]Y`h"

?f]h]gWXY'6YcVUWXhib[Yb'kUfYb.

G]WX 'Ui Z'< YVY 'k ]f\_i b[ 'ni 'j Yf`UggYb'i bX'XUa ]h'X]Y
GhUUhgj YfgWXi `Xi b[ 'ni 'Yf\Ò\Ybž'i a ']b'6]hWc]b'a ]h'XYf
9fk Ufhi b[ 'Y]bYg'\_cbh]bi ]Yf`]WX Yb'DfY]gUbgh]Y[ g'ni
]bj Ygh]YfYb'i bX'[ `Y]WX nY]h][ 'XYb'A Uf\_h'ZØf'XYb'9fk YfV
j cb'6]hWc]b'ni 'h]a Ybž']gh'\_Y]bY'XUi Yf\UZhY'@Ògi b[ ž'i a
: ]bUbn]Yfi b[ gVYgWX fÀb\_i b[ Yb'ni '`cW\_Yfb"'A U» bU\a Yb
gc``hYb'gc'\_cbn]d]Yfh'gY]bž'XUgg'g]Y'X]Y'GWX k UWXYb
i bhYfghØhnYbž'bUWX hY]`][ Y'J YfhY]`i b[ gYZZY\_hY'a ]b]a ]YfYb
i bX'`YhnhYbX`]WX'\]ghcf]gWXY'a ]hhY`Zf]gh][ Y
K UWX ghi a gfUhYb'YffY]WXYb'fg]Y\Y'HYI hhUVY``Y'ZØf'Y]b
j YfUbgWXUi `]WXYbXYg'GnYbUf]cŁ"

## I bX XUg.

8]YJYfk YbXi b[jcb'6]hWc]b'V]f[hYf\YV`]WXYF]g]\_Yb'i bX'gc`hY'b]WXh'U`g'cZZ]n]Y``Y'K À\fi b['a]h GhUhi g'U`g'[YgYhn`]WXYg'NU\`i b[ga]hhY`jYfk YbXYh k YfXYb'fK: ž';: GF'&\$&\L''?fmdhc!HYWXbc`c[]Yb'i bX X][]hU`Y'NU\`i b[ggmghYaY'k]Y'7\]jc'\UVYb'XUg'DchYbn]U`žNU\`i b[Yb'YZZ]n]YbhYf'ni '[YghU`hYb'i bX'XUXi fWX'X]Y Z]bUbn]Y``Y'+b\_`i g]cb'ni 'jYfVYggYfb'i bX'XUXi fWX'X]Y Z]bUbn]Y``Y'+b\_`i g]cb'ni 'jYfVYggYfb'i bX'XUg'K UWXghi a 'ni i bhYfghØhnYb'''GY]bY'DfY]gj c`Uh]`]hÀh'a UWXh'Yg'YXcWX'U`g NU\`i b[ga]hhY`žFYWXbi b[gY]b\Y]h'cXYf K YfhUi ZVYK U\fi b[ga]hhY`]bYZZ]n]Ybh''8i fWX'X]Y 9]bZØ\fi b['jcb'6]hWc]b''U`g'[YgYhn`]WXYg'NU\`i b[ga]hhY` k YfXYb'Yf\YV']WXYF]g]\_Yb'ZØf'X]Y': ]bUbnghUV]`]hÀhž'X]Y :]bUbn!'i bX'A Uf\_h]bhY[f]hÀhii bX'XYb'JYfVfUi WXYfgWXi hn Y]b[YZØ\fh''8 UfØVYf'\]bUi g'gWXUZZh'Y]b'OZZYbh`]WXYf 6UW ahcd'ni f'; Yk À\f`Y]ahi b['XYf'ZfY]Yb'?cbj Yfh]V]`]hÀh

j cb '6]hWc]b ']b 'I G!8c``Uf 'Y]b Y '9j Ybhi U`j YfV]b X`]W\\_Y]h''

K Ybb 'X]Y 'J Yfk Yb Xi b[ 'j cb '6]hWc]b 'XYi h`]W\ 'ni b]a a hž

\_Ubb 'g]Y 'XUg '8c``Uf]g]Yfi b[ gfY[ ]a Y 'f]g\_]YfYb ž' XUg 'g]W\ 'U`g

YfZc`[ fY]W\ Yf 'bca ]b Y``Yf '5b\_Yf 'ZØf' X]Y 'K ]fhgW\ UZh

Yfk ]YgYb '\ Uh''

 $\label{eq:local_control_of_cont$ 

 $6]hWc]bg'k \varnothing fXYb'a ]h'Y]bYa 'F]g]\_c[Yk]Wkh'j cb''%2&) $ DfcnYbh']b'X]Y'\OWkghY'F]g]\_c\_UhY[cf]Y'Y]b[Yghi Zh''$ 

 $5 \cdot Y < c \times Z b i b [Yb \cdot Ui Z \cdot X] Y \cdot ? f A Z h Y \cdot X Y f \cdot 8 Y n Y b h f U \cdot ] g] Y f i b [ '\ ] b [Yb \cdot V U \cdot X U i Z \cdot X Y a 'G d] Y \cdot " = a 'A ca Y b h \ [Y \ Y b \ X] Y \cdot A Y a Y ! ? f] Y [Y \cdot K Y] h Y f " \ " \ "$ 

EiY``Y.:]bUbW]U``H]a Yg

8 YhU]`g

6 Ygi WX Yb 'G]Y 'i bg 'Ui Z. '\_fmd hc!bYk g"Uh