

< chY``XY`F ca Y`k YWX gY`h`6YhfY]VYf. 6YXYi hYh`XUg`l a Vfi WX`ZØf`6Yf`]b3</pre>

8 Y f'6 Y hfY] V Y fk Y W \ g Y \cdot X Y g' < c h Y \cdot X Y 'F ca Y 'k] f Z h': f U [Y b 'ni f 6 Y f`] b Y f @ I i g \ch Y \cdot Y f] Y 'U i Z h H f c h n 'g h U V] \cdot Y f H c i f] g a i g n U \cdot Y b \cdot V \cdot Y] V h'6 Y f`] b 'H c d! F Y] g Y n] Y \cdot "



6YVY`d`Uhnž'%\$%+, '6Yf`]bž'8Yi hgWX`UbX'!'9]b'bYi Yg'?Ud]hY`ghY\h'VYj cf'ZØf'XUg'< chY`'XY'Fca Y']b'6Yf`]b"'8]Y'Vf]h]gWXY<chY`[fi ddY'FcWWc': cfhY'k]fX'XYb'6Yhf]YV'XYg'fYbca a]YfhYb: ØbZlGhYfbY!<chY`g'Ua'6YVY`d`Uhn'ni a'9bXY'C_hcVYf'Y]bghY``Yb"8]Yg'[YgWX]Y\h']a'FU\aYb'XYg'5i g`Ui ZYbg'XYg'DUWXhj YfhfU[gžXYf'gY]h'XYf'9fÒZZbi b['XYg'<chY`g']a'\J\f'&\$\\$*']b'?fUZh'k Uf"

8 Ug'<chY`XY`Fca YžY]b`Ui ZZÀ``][Yf`HY]`XYf`6Yf`]bYf
@ Li g\chY``Yf]Yžk]fX`_ØbZh]['j cb`XYf`]hU`]Yb]gW\Yb'; fi ddc
GhUhi hc`gY`Vgh`[YZØ\fhž`X]Y`XUg'; YVÀi XY`5bZUb[`&\$&('j cb`7U`Yi g
7 Ud]hU``DUfhbYfg`Yfk cfVYb`\Uh'': Øf'j]Y`Y`]gh`XUg'<chY``XY`Fca Y
j]Y``a Y\f`U`g'bi f`Y]b`Cfh`ni a `, VYfbUW\hYb/Yg`]gh`Y]b`gh]`j c``Yf
FØW_ni [gcfhž`XYf`gY]h`ZUgh`&\$`\$J\fYb`Dfca]bYbhY`k]Y'; Ycf[Y

 $\label{eq:charge} $$7 \cdot ccbYmibX'< Y]X]??`ia `Ubn]Y\h''`GY]h'gY]bYf'9fÔZZbib[``\Uh'XUg< chY``Y]bY`ZUgn]b]YfYbXY'; YgWX]WXhY`XifWX`YVhž'k Uf'ZfØ\Yf< Uidhg]hn`XYf'8fYgXbYf'6Ub_'ibX`X]YbhY']b`XYf'88F`U`g'?]bcgck]Y`U`g'G]hn`XYf`G98!6Yn]f_g`Y]hib[''$

8]Y'<YfUi gZcfXYfi b[Yb'XYf'6fUbWXY

8Yf'K YWXgY`XYg'6YhfY]VYfg'k]fZh'YXcWX: fU[Yb'ØVYf'X]Y'Ni_i bZh XYf'@lig\chY`Yf]Y']b'6Yf`]b'UiZ''6Yf`]b'@jjY'VYf]WXhYhžXUgg 7\f]gh]Ub'HÀbn`Yfž'DfYggYgdfYWXYf'jcb'J]g]h6Yf`]bž'6YXYb_Yb YXcWX'U`g'jcfY]`]['Ubg]Y\h'ibX'UiZ'X]Y'ghUV]`Yb'Hcif]gaignU\`Yb]b'XYf'GhUXh'\]bk Y]gh''FibX'*\$'DfcnYbh'XYf'; ÀghY'_caa Yb'Uig 8YihgWX`UbX'ibX'g]bX'dfY]gVYkiggh/'XYbbcWX'nY][Yb'X]Y <U`V'U\fYgnU\`Ybž'XUgg'XYf'Hcif]gaiggY_hcf']ai; fc*Yb'ibX; UbnYb'[YgibX']gh''9g'[]Vh'nk Uf'Y]b'8YZ]n]h'Ub', VYfbUWXhib[YbUig'XYa'5ig`UbXž']bgVYgcbXYfY'jcb'; ÀghYb'Uig'@fUY``ibXFigg`UbXž'XcWX'YbhghY\Yb'dcg]h]jY'9bhk]W_`ib[Yb'VY]'FY]gYbXYbUig'@AbXYfb'k]Y'7\]bUž'\DX'GdUb]Yb'ibX'XYb'IG5"

8]Y'6Yf`]bYf'<chY``Yf]Y'ØVYffUgWkh'b]Wkh'bi f'a]h']\fYb
VYY]bXfi W_YbXYb': ØbZGhYfbY!<chY`g'i bX'Y]bYa 'VfY]hYb'DcfhZc`]c
Ub'8]Ybgh`Y]ghi b[Yb"'@Ui h'GhUh]ghU'n]Y\h'6Yf`]b''À\f`]Wk'ZUgh'%'
A]``]cbYb'; ÀghY'Ubž'k Ug'X]Y'GhUXh'ni f'[YZfU[hYghYb']b
8Yi hgWk`UbX'a UWkh"'=a 'Yi fcdÀ]gWkYb'JYf[`Y]Wk'`]Y[h'g]Y'\]bhYf
AYhfcdc`Yb'k]Y'@cbXcbž'DUf]g'i bX'=ghUbVi `"

6`]W_']b'X]Y'Ni _i bZh

CV'X]Y'bYi Y'@Y]hi b['VY]'; fi ddc'GhUhi hc'J YfÀbXYfi b[Yb'a]h'g]W\Vf]b[hž'V`Y]Vh'UVni k UfhYb"'6]g\Yf'\Uh'X]Y']hU`]Yb]gW\Y'; fi ddY\VYfY]hg'a Y\fYfY'@ilig!<chY`gž'XUfi bhYf'XUg'GUb'8ca Yb]WcDU`UWY']b'HUcfa]bUž'YfZc`[fY]W\'VYhf]YVYb"'8]Y'Y]bn][Ufh][YbAYf_aU`Y'XYg'<chY``XY'FcaYž'k]Y'X]Y'IaVUi hYbž'VY]'XYbYb60fcg']b'Gi]hYb'i bX'X]Y'GW\U`hYf\U``Y']b'Y]bYb'6U``gUU`ia[Yk UbXY`h'k i fXYbž'`UXYb'XUni 'Y]bž'g]W\'_fYUh]j'a]h'XYfni_ØbZh][Yb'5igf]W\hi b['UigY]bUbXYfnigYhnYb"

±bg[YgUa h``Àggh'g]W\'gU[Ybž'XUgg'XYf'FØW_ni ['jcb'FcWWc':cfhY

 $b] WXh'[`Y] WXVYXYihYbX'a]h'Y]bYa`FØW_gWX`U[`ZØf'X]Y`6Yf`]bYf @ Iig\chY``Yf]Y`]gh"`8]Y`GhUXh'V`Y]Vh'Y]b'nYbhfU`Yf'Gd]Y`d`Uhn'ZØf FY]gYbXY`Uig'U``Yf'KY`hž'ibX`XUg'<chY``XY`FcaY'k]fX'g]WXYf`]WXUiWX`kY]hYf\]b'Y]bY'VYXYihYbXY`Fc``Y`]a`]bhYfbUh]cbU`Yb'=aU[Y6Yf`]bg'qd]Y`Yb"$

8 Y hU]`g	
Cfh	6YVY`d`Uhnž'%\$%+, '6Yf`]bž'8YihgW\`UbX
EiY``Yb	k k k "VYf`]bYf!nY]hi b["XY
	• k k k "VYf`]b!`]j Y"XY
	XY "ghUh]ghU"Wc a

6Ygi WXYb G]Y i bg Ui Z. i bgYfY!\chY`g"XY