



ARTS3874

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HYfa `Hk c` `##`&\$%-



GWcc`cZGcWJU`GWYbWg`#`I BGK `5ffg`UbX`GcWJU`GWYbWg

7ci fgY'8YHJ]`g

7fYX]hDc]bhtg`*`

Gi a a UfmicZ'h\Y'7ci fgY

Gi V'YWh5fYU. 'EaU[a`aYk S` V 3` fZdaba`aYk
H\]g`Wci fgY`WUb`U`gc`VY`gh X]YX`]b`h\Y`Zc`ck]b[`gdYW]U`]gU]cbg. `3gefcd`S` E fgV[Wel 6WhWab_ W f
E fgV[Wel

H\]g`Wci fgY`YI d`cfYg`h\Y`f]gY`cZ\i a Ub`f][\hg`X]gWci fgY`UbX`]hg`fY`U]cbg\]d`hc`ch\Yf`X]gWci fgY`g`cb
gi ZYf]b[`UbX`gcW]U`↑ gh]W`" `hZc`W`gY`g`cb`h\Y`YI dYf]YbW`cZj]W]a`g`cZ\i a Ub`f][\hg`UVi`gY`UbX`h\Y`dc`]h]Vg
cZa`YUb]b["Gh`XYbhtg`k]`Yb[U[Y`]b`W]hei`Yg`cZ`Uk`Ug`U`fYXi`W]cb]ghX]gWci fgY`cb`h\Y`gcW]U`VmYI d`cf]b[
h\Y`fY`U]cbg\]dg`VY`k`YYb`li a Ub`f][\hg`UbX`W`hi`fU`X]ZY`fYbW`g`gi`W`Ug`[YbXYfz`Y`h`b]W]mz`fY`][`cb`UbX
]bX][Ybci`g`W`hi`fYg`"H\Y`Ya`VcX]YX`gY`Z`gcW]U`]bhYfYdYbXYbW]mUbX`h\Y`UfW]hY`W]fY`cZ`gcW]U`]bgh]h`h]cbg
UfY`h\Y`VUW`Xfcd`h`fci [\`k` \]W]`h\Y`Wci fgY`YI d`cfYg`h\Y`h]bg]cbg`VY`k`YYb`i`b] YfgU`UbX`fY`U]h]]gh
i`bXYfgh]UbX]b[g`cZ\i a Ub`f][\hg`UbX`h\Y`f`fYU`]nU]cb`"Gh`XYbhtg`k]`VY`]b]fcXi`W`X`hc`h\Y`Z`bXUa`Yb]U`g`cZ
li a Ub`f][\hg`Z`h\Y`[`cVU`li a Ub`f][\hg`a`UW]bYf]mz`UbX`h\Y`Y`h]Mg`cZ\i a Ub]h]f]Ub`]bhYf]Yb]h]cbz`UbX`k`j`
Wc]bg]XYf`ck`gcW]c`c`]g]g`UbX`Ub]h]fcd`c`c`]g]g`\Uj`Y`g]h`X]YX`UbX`k`f]hY`b`UVci`h`li a Ub`f][\hg`"

7ci fgY`@YUfb]b[`Ci hWca Yg

%` 5dd`miU`_bck`YX[Y`cZ\i a Ub`f][\hg`hc`j`Uf]ci`g`cW]z`bU]h]cbU`UbX`h]f]U]gb]U]h]cbU`Wc]b]h]YI`hg
&` 5dd`fYW]U]h`h\Y`i`b] YfgU`]ghj`" `fY`U]h]]ghidcg]h]cbg]cb`W`hi`fY
" `I` bXYfgh]UbX`h\Y`Wc]b]h]ghY`X`h\Y`cf]Yg`cZ\i a Ub`f][\hg
(" `I` bXYfgh]UbX`h\Y`VUg]g`Zc`f`]bX]j]Xi`U`dfch]W]cb

HYUW]b[`GhfU]h[]Yg`

5g`U`h]fX`nY`Uf`Wci fgY`Z`h\Y`hYUW]b[`ghfU]h[`mfY`]Yg`cb`Ub`]b]h]bg]j`Y`"!`ci`f`g`Ya`]b]Uf`hc`U`ck`XYYd
X]gW`gg]cb`UbX`YI`W]Ub[Y`"

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7cbWdhXYj Y`cda Ybhk f]h]b[-'V`c[dcghg	(\$\$k cfxg k YY_m k YY_g:&hc %\$`	(\$i`	⊖ WUgg'ZYXVUW_ K YY_` ž H\fYY`dcghg gi Va]hYX`Zcfa Uf_]b[\$

5XX]h]cbU`XYHJ]g.

⊕WUggZYXVUW_k]`VY[]j Yb]b`K YY_ " Gh XYbht`k]`gY`YWh`fY`dcghg`Zcfa Uf_]b[`Uh`h`Y`YbX`cZK`YY_ +`C`bY`V`c[`dcghk]`VY`]bW`i`XYX`]b`h`Y`Z]bU`dcf]z`]c" H\Y`dcghk \]W`fY`U`h`g`a`cgh`W`cgY`m`h`c`h`Y` V`c`b`W`d`h`g`X`Y`j`Y`c`d`Y`X`]b`h`Y`Z]bU`Y`gg`U`mg`\`c`i`X`V`Y`]b`W`i`XYX`]b`h`Y`dcf]z`]c"

H\Y`V`c[`Y`b`f`]Y`g`f`Y`e`i`]fY`fY[i `Uf]m`U`b`X`f`c`i` h]bY`]b`h`Y`c`b`!`]bY`Y`b`j`]f`c`b`a`Y`b`h`C`b`Y`c`Z`h`Y`U`X`j`U`b`h`U[`Y`g`c`Z`h`]g` h`m`d`Y`c`Z`U`g`g`Y`g`g`a`Y`b`h`]g`h`U`h`]h`k`]`U`c`k` `m`c`i` `h`c`V`Y`d`f`Y`d`U`f`Y`X`Z`c`f`Y`W`h`f`Y`g`U`b`X`g`Y`a`]b`U`f`g`U`b`X`U`g`c`[]j`Y`g`m`c`i` `U` [`c`c`X`V`U`W`_`[`f`c`i` `b`X`Z`c`f`h`Y`c`h`Y`f`U`g`g`Y`g`g`a`Y`b`h`j`]b`h`j`g`V`c`i`f`g`Y`" `h`]g`U`f`Y`V`c`f`X`c`Z`m`c`i`f`Y`b`[`U[`Y`a`Y`b`h`k`]h`h`Y` V`c`i`f`g`Y`U`b`X`k`]h`h`Y`g`Y`h`f`U`X`]b[`g`U`b`X`U`g`c`U`c`k`g`m`c`i` `h`c`j`]Y`k`h`Y`Y`b`[`U[`Y`a`Y`b`h`c`Z`c`h`Y`f`g`h`X`Y`b`h`g`U`g`U`b` U`g`d`Y`W`h`c`Z`W`c`U`V`c`f`U`h`j`Y`X`Y`j`Y`c`d`a`Y`b`h`c`Z`_`b`c`k`Y`X`[`Y`"

C`b`U`k`YY_`m`V`U`g`]g`z`V`c[`dcghg`c`Z`U`f`c`i`b`X`(`\$\$`k`c`f`X`g`Y`U`W`U`f`Y`h`c`V`Y`W`c`b`f`]V`i`h`X`h`c`h`Y`V`c`i`f`g`Y`g`A`c`c`X`Y` V`c["5`g`h`Y`m`U`f`Y`d`f`Y`d`U`f`U`h`c`b`Y`i`Y`f`W`]g`Y`g`z`h`Y`m`a`i`g`h`V`Y`i`d`c`U`X`Y`X`T`W`d`W`h`Y`@`Y`W`h`f`Y`Z`c`f`h`Y`k`YY_`Z`c`f`k`\]W` h`Y`m`U`f`Y`d`f`Y`d`U`f`]b[`f`V`m`-`U`a`Y`U`W`H`i`Y`g`X`U`m`Z`f`c`a`4`'`'_`&`l`"H\Y`f`Y`U`f`Y`b`c`Y`i`h`Y`b`g`]c`b`g`[`f`U`b`h`X`Z`c`f`h`]g`h`U`g`_` U`g`]h`k`U`g`X`Y`g`[`b`Y`X`h`c`W`c`a`d`Y`h`X`k`YY_`V`m`k`YY_`"M`c`i`k`]`dcghk`YY_`m`V`c[`Y`b`f`]Y`g`z`9`J`9`B`≠`M`C`I`5`F`9`5`6`G`9`B`H`:`C`F`5`K`9`9`?"

H\Y`h`c`d`]W`g`Z`c`f`h`Y`V`c[`dcghg`U`f`Y`]g`h`X`]b`h`Y`k`YY_`!`V`m`k`YY_`W`U`g`g`[`i`]X`Y`"H\Y`g`Y`V`c[`dcghg`U`f`Y`a`Y`U`b`h`c` V`Y`]b`Z`c`f`a`U`z`h`c`i`[`h`z` `U`b`X`g`d`Y`W`U`h`j`Y`"H\Y`m`U`f`Y`d`c`g`h`g`z`b`c`h`a`]b`]Y`g`g`U`m`g`z`U`b`X`g`c`Z`Y`Z`Y`Y`h`c`i`g`Y`h`Y`Z`f`g`h` d`Y`f`g`c`b`z`'="M`c`i`a`U`m`U`g`c`i`g`Y`h`Y`V`c[`dcghg`h`c`W`c`a`a`Y`b`h`c`b`V`f`]Y`Z`W`]d`d`]b[`g`Z`f`c`a`X`]j`Y`f`g`Y`a`Y`X`]U`g`c`i`f`W`g` h`U`h`f`Y`U`h`Y`h`c`k`YY_`m`h`c`d`]W`g`U`b`X`Y`d`m`c`i` `h`c`Y`i`d`c`f`Y`_`Y`m`V`c`b`W`d`h`g`X`Y`j`Y`c`d`Y`X`]b`h`Y`V`c`i`f`g`Y`h`f`c`i`[` \` Y`j`Y`f`m`X`U`m`Y`i`U`a`d`Y`g`U`b`X`"j`Y`X`Y`i`d`Y`f`]Y`b`W`"H\Y`g`i`W`W`g`g`c`Z`h`]g`V`c`i`f`g`Y`X`Y`d`Y`b`X`g`z`]b`U`f`[`Y`a`Y`U`g`i`f`Y`z`c`b`

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DfYdUfUhgcb

F YUX'hfci [\`hY'Wci fgY'ci h]bY'hcfci [\`m'

H\]g'k YY_`=k]``]bffcXi W'`hY'Wci fgY'UbX'k Y'k]``X]gW gg'hY'UddfcUWX'hc'gYa]bUfg'UbX'Wci fgY
UggYgga Ybh'Df]cf'hc'ci f'Z]fghgYa]bUf'hd]W'h]b_UVci h'hY'Zc`ck]b['ei Ygh]cbg"8c'mci 'gYY'\i a Ub'f][\hg
Ug'U'[\`cVU`X]gWci fgY3'K \m# \mbchB'H\]b_UVci h'h]a Y'\cf]ncbg" `k \Uhk UmXc'mci 'gYY'\i a Ub'f][\hg
g]h UHX']b'cfYa Yf[]b['hfci [\`dUf]W'Uf'\]gcf]W'YdcW'g" `g'h]g'U''a]h]cb3'K \Uhx'c'mci 'h]b_]g'hY
W'bgYeI YbW'cZ\i a Ub'f][\hg'Ug'U': `cVU`8]gWci fgY

7cbg]XYf'hY'gi V'YWhicZ\i a Ub'f][\hg"5fY'mci 'WYUf'UVci hk \c'h\]g'gi V'YWh]g'UbX'Xc'mci 'h]b_'hY']XYU`g
ci h]bYX']b'hY'I 8<F 'UFY'fYU`]gYX']b'Yj YfnXUm`]ZY"'<Uj Y'U`cc_'Uh'hY'I b]j YfgU`8YWUfU]cb) 'li a `g

@Sf[a` S'fe_ ł J Yfgcž@cbXcb"

[K YY " . < i a Ub'f\]\[\hg'Ug'U'W'hi fY'cf'W'hi fY'UbX'i a Ub'f\]\[\hg3](#)

DfYdUfUhcjb

K \Uhk ci 'X'U'W'hi fY'cZ\i a Ub'f][\hg'cc_]Y3'K \Uhk ci 'X'XYZ]bY'j]B'K Y'Wci 'X'gUmhUh['cVU'W'hi fU' dc']hWg'jg'a cghj]g]V'Y'cf'UddUfYbh]b'U'X]gWci fgY'cZ\i a Ub'f][\hg'"b'k \Uhc'hY'f'k Umg'WUb'mci]XYbh]Zm W'hi fU'dc']hWg'Ug'j]g]V'Y'UbX'j]b'W'cbhYbh]cb3'7cbg]XYf'WUfYZ'`mi'hY'Uf[i a Yb]g'a ci bh'X'Vmi; ccXU'Y'UbX' f bU]hYZZUbX'hY]f'X]ZYfYbW'g"

GYhfYUX]b[

; ccXU'Yz'A Uf_ f&\$\$*E'Hck UfX'U'W]h]WU'5bh'fcdc'c[micZ<i a Ub'F][\hg'z'5gdW f3` fZdaba'ayk (+f1 E'dd" (,) !) %"

f bU]hYZZ'A]WUY'f&\$\$*E'<i a Ub'F][\hg'Ug'Xc'Uf'mz]b: g_ S` D[YZfe 3e Ba f[Le S` V ;Va'Sfckz'Df]bW'rcb I D'z'Df]bW'rcb'z'dd")' !' %\$\$"

[5XX\]hcbU'fYUX\]b\[](#)

9b['Y'A Yffmz'GU'mf&\$\$*E'HfUbg]bU]hcbU'<i a Ub'F][\hg'UbX'@cWU'5W]j]ga . 'A Udd]b['hY A]XX'Y'z'3_ WdUS` 3` fZdaba'ay[ef %\$, fWz' , !) %"

<Ufj Ymz'8Uj]X'f&\$\$*E'7cga cdc']hUb]ga 'UbX'hY'6UbU']hmicZ; Yc[fUd\]WU'9j]g']b'7ca UfcZZ'>YUb'Ub 7ca UfcZZ'>c\b'fYXg"E"? [*W` [S^5Sb[fS'fe_ S` V fZWUg'fgdWaX@Wb fTWdS'fe_ z'8i _Y'I b]j Yfg]hmiDfYg 8i f\Ua z'dd"&+% ' \$- "

; YUf'mz'7cbcf'f&\$\$*E'7Ub'<i a Ub'f][\hg'Gi fj]j Y3'7Ua Vf]X[Y'I b]j Yfg]hmiDfYggz'7Ua Vf]X[Y"

HUmicz'7 \UfYg'f&\$\$ (E? aVWd E aU[S^;_ SY[SdWz'8i _Y'I b]j Yfg]hmiDfYggz'8i f\Ua "

K YY (. A cXYfb]mžF Uh]cbU]mUbx`h\Y`ghUHy`<c`cWLi gh'a Ya cfmUbx`Yj_YfmXUm`]ZY

DfYdUfUH]cb

7 cbg]XYf`6Ui a Ub`g`Uf[i a Ybh`h`Uh`h`Y`<c`cWLi gh]g`U`i b]ei Y`ma cXYfb`d\Ybca Ybcb`UbX`k ci `X`bch`Uj Y VYYb`dcgg]V`Y`k]h`ci h`h`Y`gcWU`dfcW`ggYg`cZX]ZYfYbh]Uh]cbžXYdYfgcbU`nUh]cb`UbX`]bgfhi a YbHU` fUh]cbU`]mi`h`Uh`UfY`Ya VcX]YX`]b`a cXYfb`]bgfhi`h]cbg`<ck`XcYg`U`a cXYfb`bUh]cb!ghUHy`ž`]_Y`5i ghU`]Už dUfh]V]dUHy`]b`gfi W`i fU`migja]Uf`Zcfa g`cZ]bgfhi a YbHU`fYUgcb]b[`hcXUmž`GY`Y`]Zmci `Wb`ž]bX`YI Ua d`Yg`cZ]bgfhi`h]cbU`]gYX`XYdYfgcbU`nUh]cb`]b`h`Y`a YX]U`<ck`k`Y`Wb`W`b`W`d]h]cbg`cZ\i a Ub`f[\hg`UXXfYgg gfi W`i fYg`cZcV`YW]ž]W]h]cb`h`Uh`f`UbgZcfa`dYfgcbg]bhc`bi a VYfg3

GYh`fYUX]b[

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A cmbžGUa i Y`f&\$%(E`H\Y`h`h`fYgYW]cb`k]h`<c`cWLi ghA Ya cfm`]b`: g_ S` D]YZfe S` V fZWgeW`e aX : [efackžJ Yfgcž`cbXcb`7 \UdhYf`*ždd", +!- +"

A]fgWžA Uf]UbbY`/`Gd]mYfž`cY`f&\$%&E`K` \Uhg`k`fcb[`k]h`h`h`]g`d]W`i fY3`<agd S`^aX? aVWđ <W [eZ E fgV[Wž) f&E`&&- !&) &"

5XX]h]cbU`fYUX]b[g

5fYbXhž<UbbU\`f%`*(E7[UZ_ S` ` [<WgeS`W_ , 3 DWbad`a` fZW4S` S`fk aX7h[žJ]b[`DfYggžBYk Mcf_"

K YVYfžA UI`f%`(. E`6i fYUI`WUW`]b`8da` ? Sj`I`W`W`ž`f`Ubg`<"`<"; Yfh`/`7`"K`f[\hA`]`gžF`ci`hYX[Y`UbX`? Y[Ub`DUi`ž`cbXcb`UbX`BYk`Mcf`dd`%`*!&(\$"

? U`VYf[žGH`d\Yb`f&\$%) E? Sj`I`W`W`d`dMSV[`Ye`S`V`Ua`_`W`fSck`a` ? aVWđ [fkž6`UW`k`Y`Di`V`]g\]b[ž A`U`XYb`A`Ugg`/`C`I`ZcX`I`"?"

@Ubna Ubbž7`Ui XY`f% ,) L'E ZaSZ, S` adS^Z[efack aXFZW: a`āUSgefžDUbhYcb'6cc_gžBYk`Mcf_"

[K`YY`.\)`K`\]fbYgg\]b\[žgUWf\]Z\]W`UbX`\]bX\]ZYfYbWY](#)

DfYdUfUh]cb

⊖]bX]ZYfYbWY`hc`li`a`Ub`gi`ZYf]b[`f`c`h`Y`f`z`c`f`a`g`c`Z`gi`ZYf]b[`L`U`W`b`g`Y`e`i`Y`b`W`c`Z`U`H`ž`d`c`g`h`]b`X`i`g`h`]U`
a`c`X`Y`f`b`]m`i`U`b`X`[`c`V`U`]n`U`h`]c`b`3`K` \`U`h`d`c`]h`W`i`i`h`]m`i`W`b`h`Y`g`h`a`c`b`]U`g`c`Z`gi`ZYf]b[`\`U`j`Y`z`c`f`g`h`U`Y`g`ž`j`]W`h`a`g`c`Z`
j`]c`Y`b`W`c`f`B`;`C`g`3`K` \`]W`z`c`f`a`g`c`Z`k`]b`Y`g`g`]b[`W`c`b`b`Y`W`i`g`h`c`h`Y`g`i`ZYf]b[`c`Z`c`h`Y`f`g`3`7`c`b`g`]X`Y`f`h`Y`
W`c`b`W`d`h`c`Z`li`a`Ub`]h`U`f`]U`b`[`c`j`Y`f`b`a`Y`b`h`h`U`h`5`[`]Y`f`c`i`h`]b`Y`g`"7`c`"Y`W`h`U`b`Y`I`U`a`d`Y`z`c`a`a`Y`X`]U`g`c`i`f`W`g`c`Z`U`
d`Y`f`g`c`b`U`h`Y`g`h`a`c`b`]U`c`Z`]b`↑`g`h`W`U`b`X`h`]b`_`U`V`c`i`h`h`c`k`i`h`k`c`f`_`g`h`c`Y`g`h`U`_`U`_`b`a`'`,``,``,`V`c`i`h`h`c`k`i`i`Z`Y`g`g`a`Y`X`

6c`hUbg_]ž@f%- --L'6 [efS` fEgXXWd] Y, ? adS`fkl ? Ww[Sł S` V Ba`f[Uel 7 Ua Vf]X[Y`I b]j Yfg]mDfYggžBYk
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7U`Uk UmžF \cXU`f&\$\$+L`H\Y`F \Yfcf]WcZ5g]Ub`J U`i Yg'ž]b`7U`Uk UmžF \cbXU`UbX`< UffY`gcb!GHd\Ybgž
>i`jY`fYXg"L"7j b`ad] Y ;`fWd`Sf[a`S^: g_ S` D[YZfež7eeW f[S^DWSV[Yež@mbbY`F]YbbYf`Di`V]g\Yfgž
6ci`XYfž`dd""%&!%&%"

8i`Z]Y`XžA ""f&\$\$%L'9`âTS^YahWd`S` UWS` V fZW` W` i`Sdē, fZW_`WdY[`Y aXVWhWāb_`W f S` V eWUgd]fkž
@cbXcb/BYk`Mcf_`BYk`Mcf_`NYX`6cc_g"

;`cfXcbžF`i`h`f%-`*L'<`i`a`Ub]hUf]Ub`ēhYfj`Ybh]cb`VmhY`I`b]hYX`B`Uh]cbg.`fUežGca`U`Už`UbX`<U]h""`%
HYI`Ug`ēhYfbU]cbU`@Uk`>ci`fbU`((!)`*"

Di`dUj`UWžJ`UbYggUžf&\$\$`L'K`Uf`cb`hY`7ci`W`ž7gđabWS` <agd`S^aXE`aU[S^FZWāckl`j`+`f&L`%(`-!%+\$"

:`Y`Xa`Ubž5`Y`b`f&\$\$`L'8`Y`hY`ff]hcf]U`]gYX`K`Ufg`cZDi`V`]WGUZY`mł`E`aU[S^3`S`ke[e]`j`c`"(,`žbc`%ž`&\$\$`ž
dd"+`!`,`\$"

<Ughfi`dž?`"f&\$\$`L'J`]c`Y`bWY`žgi`ZYf]b[`UbX`\i`a`Ub`F`][`hg"5bh.fcdc`c[]WU`F`YZYW]cbg`3`fZđaba`āY[US^
FZWāck`'fł`Lž`dd""`\$-!`&`"

Dc`c`W_ž;`f]gY`XU`f&\$\$&L'D`l`c`h`[`fUd`\]b[`5`h`c`W]m`6`Y`W`ē`a`]b[`ē`W`ē`b]Wē`'j]b`6`U`h`W`Y`b`ž;`Yc`ZfYmž`Y`h`U`"
fYXg"L`B[Ufgd]`Y`3`fđ`U[fkž`B`Z`afa`Y`c`S`b`Z`k`[`5`d`ē[ež`F`YU`_h]cb`6cc_gž@cbXcbž`dd""*)`!`-`%"

GU]Xž9Xk`UfX`f%-`-(L`B`U]cbU`]ga`<`i`a`Ub`F`][`hg`UbX`ēhYfdYU]h]cbg`'j]b`6">c`b`g`c`b`fY`X`L`8d`W`W`a_`S`V
;`fWd`W`S`f[a`ž`F`Z`W`A`j`X`d`V`3_`W`ē`f`k`>W`U`f`g`d`W`ē`B`Y`k`M`c`f`_ž`6`U`g]W`6`c`c`_`g"

DfYdUfUqcb

⊕'k \Uhk Um]g'dfcdYfmZ bXUa YbU'rc \i a Ub'f] [\hg3'8c'k Y'_bck 'k \c'k Y'UFY'df]a Uf]mi\fc i [\ a UHYf]U'W 'hi fYg3'<ck 'j]g'U'Wta a cX]miU'hcfc i [\`mgcWU']nYX'h\]b['fBddUXi fU]E3

H\]b_'UVci hi\Y'I 8<F "K \Uhi []j Yg'h'i]Z'3' ⊕'k \Uhk Um]g']h'cf'Wb'hVY'U''j]b['XcW a YbB'H\Yb'\Uj Y'U `cc_'Uh\Y'7985K 'XcW a Yb]g' [\hd.##k k k "i b"cf\] # ca Ybk UH\#XUk #YXUk #YI h'Wcbj Ybhcb"\ra](#)

;`fWd Sf[a` S^<agd S^a` ? [adfk S` V 9 dgb D [YZfežJ c`" %žBc"&ždd"% %l%*%"

<UmbYgž8]bU: fUbWgWf&\$\$(Ł'! gYXž5Vi gYXž5ffYghYX'UbX'8YdcfH'X.'9I H'bx]b['a a][fU]cb'6YbY]hg
hc'DfcH'Wih'Y'J]W]a g'cZHfUZZ]W_]b['UbX'hc'GYW'fY'h'Y'DfcgYW'h]cb'cZHfUZZ]W_]Yfgž: g_ S` D [YZfe
CgSdWdk j c`"&*ždd"&&%&+&"

5ddUXi fU]ž5f↑ b'f&\$% Ł'7ca a cX]h]Yg'UbX'h'Y'Dc`h]W]cZJU'i Y'ž]b'H\Y: i h fY'Ug'7i 'h fU': UW'9ggUmg
cb'h'Y: cV'U'7cbX]h]cbžJ Yfgcž@cbXcbž7\Udh'f'ž'dd"-!*\$"

[5XX\]hcbU`fYUX\]b\[](#)

<i a Ub`F][\hg`UbX`9ei U`Cddcfh b]m7ca a]gg]cb`f%- - +L`BUh]cbU`Cj Yfj]Yk`')b`4d` Y[Y FZW_ : a_ Vž
@Sf[a` S^;` cg[ck [fa fZWEWbScSf[a` aX3TadY[S^S` V FaddW E fdS[f;e`S` VVd5Z[VdW Xba_ FZWd8S_ [Vž
dd`&+!' +"

A]Vž †
GYZ` YHfa]bU]hcb`DSUWS` V 5`SeežJc`"") žBc`"(ždd"*!)!+*"

K Ufk]Vž FZW5g`f[hSf[a` aXl Z[fW WēžEU[W UW : WŠfZ S` V DSU[S^6Wēf[k [
3gefđS[S A Y`Vci fbY`l b]j Yfg]hmDfYggž7 Uf`hcb"

Bi ggVUi a žA UfhU`f&\$\$(Ł: [V[Y Xba_ : g_ S` [fkž6 [eYgef E ZS_ W S` V fZW>Si žDf]bW`hcb`l b]j Yfg]hm
DfYggžDf]bW`hcb"

[JUb\]Yfž>YUb`f&\\$%Ł4WJa \[Y: g_ S` ž<ci gY`cZ5bUbg\]DfYggžBYk`Mcf`"](#)

[K YYž 7 UfY`cZhY`gY`Z \[i Ygh`YWi fY`Vm5ggcWUHy`DfcZYggcf`5`Yl UbXfY`@YZVj fY](#)

DfYdUfU]hcb

7cbg]XYf`hY`Uf[i a Ybha UXY`Vm@YZVj fY`cb`\ck`WUfY`cZhY`gY`ZfY`UHyX`hcb`i a Ub`f][\hg`"⇒XYU`mžmci
k]`Wca d`YHy`hY`fYWca a YbYXX`fYUX]b[`Ug`k Y`Ug`hY`gYhYfYUX]b["

GYhfYUX]b[.

5`Yl UbXfY`@YZVj fY`f&\$% Ł: g_ S` D[YZfe S` V 5SdWaxfZWE WX`8i ž

'bfcXi Wjcb'dd'%' - "

F YWca a YbXYX'fYUX]b[.

5`YI UbXfY`@YZVj fY'f&\$% Ł: g_ S` D [YZfe S` V 5SdWaXfZWE WX

5XX]h]cbU`fYUX]b[

5fYbXhž<UbbU\`f%-), ě`H\Y`DYfa UbYbW`cZĤY`K cfX`UbX`ĤY`K cf`cZ5fhž]b`FZW: g_ S` 5a` V[f[a` ž
I b]j Yfg]micZ7\]W]hc`DfYggž7\]W] cždd`%* +%+("

6UfhYgžF c`UbX`f%- ++ě`H\Y`8YUĤ`cZĤY`5i Ĥcf`" ě`a U[Y# i g]W#HYI hfBYk `McF_`<]`UbX`K Ub[ě`

8Y`7YfhYui žA `f%- , (ě`FZWBdSuf[UWax7hWkVSk >[XW I b]j Yfg]micZ7 U`]ZcfbU]`DfYggž6Yf_Y`Ym`

; cZa Ubž9fj]b[`f%- *- ě`FZWBdWfSf[a` aXE WX[`7hWkVSk >[XW`5`Yb`@UbYž`@cbXcb"

A cff]gž8Uj]X`6`f%- - *ě`5Vci hgi ZYf]b[. J c]Wž`[YbfYž`UbX`a cfU`Wěa a i b]m`8UYXU`i gž%&) f%ěž&) -(*"

Bi ggVUi a žA UfhU`7fUj Yb`f%- - +ě`7i`h] Uh]b[`<i a Ub]m`5`7`Ugg]WU`8YZYbgY`cZF YZfa `]b`@VYfU`
9Xi W]h]cb`f7 Ua Vf]X[Y.`<Ufj UfX`I b]j Yfg]miDfYggě`

CgVcfbYž7\UfYg`f%- +- ě`K "`<`"5i XYb.`H\Y`@]Z`cZU`DcYhfBYk `McF_`9j Ubg`UbX`7ca dUbtě`

GWUffmž9`U]bY`"f&\$&\$&ě`H\Y`X]Z]W`micZ]a U[]b]b[`cĤYf`dYcd`Y`" ě`: cf`@cj Y`cZ7 ci bfmB`A UfhU`7fUj Yb
Bi ggVUi a `UbX`>cg\i U`7c\Yb`fYXg`ě`fěcgfcb.`6YUWěbě`

[K YY`%\\$. HfUi a UžZcf\[\]j \]b\[UbX`Zi hi fYg](#)

DfYdUfUh]cb

<ck`]g`Wě`YW]j Y`a Ya cfmi gYX`]b`ĤY`dc`]h]Wg`cZgcW]U`hfUi a U3`5bX`\ck`XcYg`ĤY`dYfZfa UbW`cZ
a Ya cfmiUbX`Wěa a Ya cfUh]cb`cZgcW]U`hfUi a U`Wěbhf]Vi Ĥ`Ĥc`YZc`fng`cZFYWěbW]`Uh]cb`UbX`Zcf[]j YbYgg3`

?]ggž9`nUVYh`f&\$\$Ł`A cfU`5a V]hcb`k]h]b`UbX`6YmcbX`Dc`h]WU`7 cbghfU]brg. `F YZYW]cbg`cb`F YgrcfU]h] Y
>i gh]W`ž]b`F dgfZ Hž <gef[UW fZW? adS`fk aXfZWF dgfZ 5a_ _ [ee[a` ežYX``F cVYfhF chVYf[`UbX`8Ybb]g
H\ca dgcbžDf]bW]hcb`UbX`C I ŽcfX. `Df]bW]hcb`I D"

[Jc`Ž`A \]fcg`Uj`žHU` `cb`fUX\]WU`](#)

[Žcf\[\]j`YbYgg. \hřd. #k k k "UVWbYhUi #fUX\]cbU\]hcbU`#dfc\[fUa g#/\[\]XYUg#I Wi g\]cb!UbX!Ya VfUW\]#`'`%`*\\$](#)

<Ua VYfž6fUbXcb`UbX`F]WUfX`K]gcb``f&\$\$&Ł`Gma Vc`]W7`cgi fy`h]fci [\`A Ya cfmžF YdUfU]h]cb`UbX
F Yj Yb[Y`]b`Dcgh7 cbZ]W]GcW]Y]h]Yg`

<UbY_Y'g'5SUZ f&\$\$) L'ZA cXYfb/ '7 cbhYa dcFUfm: fUbWž%- fl Lž &, %&- *"

NYfi VUj Yž'9j]UHUf'&\$\$' "'F [W? Sbe, 5a ^WUfhW_ W_ adk S` V fZWEaU[S^E ZSbWaXfZWBSeft I b]j Yfg]hmicZ 7\]WU[c'DfYggž7\]WU[c"

F cb][Yfž@]g" %- - + "DUh'g'cZ7]hYbg\jd'UbX'hY'@Y[UWmicZ<i a Ub'F][\hg'J]c'Uh]cbg. 'H\Y'7 UgYg'cZF Y! XYa cWUhnYX'5f[Ybh]bU'UbX'I fi [i Um'"<agd S^aX: [efadUS^E aU[a'ayk %\$fl L&+\$!' \$- "

<Ua VYfž6fUbXcb'UbX'F]WUFX'K]gcb" f&\$\$&L'Gma Vc]W7`cgi fY'h'fci [\A Ya cfmžF YdUfUh]cb'UbX F Yj Yb[Y']b'Dcgh7cbZ]W'GcW]Yh]Yg'"<agd S^aX: g_ S` D[YZfe' %f%L')!)' "

7`cmXžH]a ch'mf%- -) L'Hcfh' fYž<i a Ub'F][\hgžUbX'hY'6cXmž]b'9`g\hU]bž>YUb'6Yh_Y'UbX'7`cmXž H]a ch'mfYXg"L' Ba f[ue S` V fZW: g_ S` 4aVkž3eeSg'fa` 6[Y' [fk' J UbXYfV]hžB Ug\j]`Yž&(' !&) +"

<Uj Yf_Ua dž5bgY`a 'UbX'J]ga Ubbž'7 cfbY']U'f%- - +L'< UVYUg'7 cfdi g. 'H\Y'@Uk 'g'8Yg]fY'hc'<Uj Y'hY'6cXm]b'8Y'J f]Yg'<YbhUbX'K YVYfžGUa i Y`fYXg"L'H[a 'W UW ;VW f[fk S` V E WXž6 WfWd_ [Sfa' žGhUbZcFX'I b]j Yfg] DfYggž7U]Zc]b]U"

A cff]gž@mx]U'f&\$\$&L'I bXYfghUbX]b['hc'fhi fY. 'hY'ghfYb[h'g'UbX'hY''ja]hg'cZgcWU'hYcfn'FZW;' fWd Sfa' S <agd S^aX: g_ S` D[YZfe %*f] L'Dd'%%&+!%(% %"

I f]VYžA "J "'f&\$\$ (L'8]ga Ya VYf]b['UbX'9I dY''b[. 'GYa Ubh]Wg'cZDc'h]WU'HYffcf']b'7c'ca V]U'']b'BgT'U 5g'fgdW %*f%L' +-!-)

F YWca a YbXYX'F Ygci fWg

7ci fgY'9j U'i Uh]cb'UbX'8Yj Y`cda Ybh

[7ci fgY'Yj U'i Uh\]cb'UbX'XYj Y`cda Ybh](#)

I WhS'gWkagdXWWTSU] fa ZWb [bdaHWfZWUagdeVžI W_ S] WUZS` YWē WsUZ kVsdTSeW a` efgVW f XWWTSU] žKag i [^ZShWSUUmēe fa Xad_ S^S` V [Xad_ S^XWWTSU] _ WUZS` [e_e Vgd] Y fZWeW_ WēfWžKagd

XWWTSUJ W egdWē fZSf fZWUagdeWUa` fW fi VWfhWk _ aVWS` V SeeWēe_ W f fSe] e dW_ S[Z[YZ k fSd'WWW
fa W egdWkagda` Ya[Y VWhWab_ W fi MSd [Y S` V W YSYW_ W f fZdagYZagf fZWeW_ WefWē B MSew
V[eUgee S` k UagdeWēdMSfW [eegWē i [fZ fZW5agdeW5a` hW ad[fZWXdef [efS` UWē

Gi Va]gg]cb`cZ5ggYgga YbhHUg_g

Gi Va]gg]cb`cZ5ggYgga YbhHUg_g

Hi fb]hb`Gi Va]gg]cb

zmc i`YbWci bhYf`U`dfcV`Ya`k` \Yb`U`H`Ya` dh]b[`hc`gi Va]hmc i`f`Ugg][ba YbhHfci [\`Hi fb]hbzd`YUgY
H`Y`d`l`cb`Y`9I`H`f`b`U`Gi` ddcfhcb`-`'` ,`)` " ` ' ` ' ` %cf`Ya` U]`H`Ya` `cb`YI`H`f`b`U`H`f`gi` ddcfh4` i` bgk` "YXi` "Ui` "Gi` ddcfh
`l`ci` fg`UfY` ,` .`\$\$Ua` -`-%\$.`\$\$da` `cb`k` YY`_`XUmg`U`b`X`-` .`\$Ua` -`i`)` .`\$da` `cb`k` YY`_`YbXg`f`l` *)` `XUmg`U`m`Y`U`f`l`" zmc i
UfY`i` bUV`Y`hc`gi Va]hmc i`f`Ugg][ba YbhXi`Y`hc`U`Z`U`i`h`k`]H`Hi`fb]hb`mc i`a` UmiUdd`mi`Z`f`Ub`YI`H`f`bg]cb`z`Vi`hmc i
a`i` ghf`Y`H]b`mc i`f`h]W`Y`h`bi`a` VYf`Z`ca` `9I`H`f`b`U`Gi` ddcfhf`U`cb[`k`]H`U`b`m`c`H`Y`f`f`Y`j` UbhXcW`a` Yb`hg`L`hc
]b`Wi`XY`Ug`Y`j`]XYbW`hc`gi` ddcfhmc i`f`YI`H`f`bg]cb`Udd`]W`h]cb" zmc i`Ya`U]`9I`H`f`b`U`Gi` ddcfhmc i`k`]`
Ui`hc`a`U`h]W`U`m`f`Y`W`]j`Y`U`h]W`Y`h`bi`a` VYf`z`Vi`h]Z`mc i`H`Y`d`l`cb`Y`mc i`k`]`b`YYX`hc`gd`Y`W`Z]W`U`m`Ug`_`Z`f`cb`Y`"
Hi`fb]hb`U`gc`d`fc`j`]XYg`i`d`XU`H`g`i`cb`H`Y`j`f`gm`gh`Ya` `gh`U`h`g`i`cb`H`k`]H`Y`f`"

; YbYfU`m`z`UggYgga YbhHUg_g`a`i` ghVY`gi Va]H`Y`X`Y`Y`W`f`cb]W`U`m`j`]U`Y`]H`Y`f`Hi`fb]hb`cf`U`A`cc`X`Y`
Ugg][ba Ybh`H`b`]bg`H`U`b`W`g`k` \Yf`Y`H`L`g`]g`b`ch`id`c`gg]V`Y`Z`]h`k`]`V`Y`g`H`Y`X`i`cb`mc i`f`W`ci`fg`Y`g`A`cc`X`Y`g`]H`Y`k`]H`
U`H`f`b`U`h]j`Y`gi Va]gg]cb`XY`H]`g`"

: cf`]b`Z`c`fa`U`h]cb`cb`l`ck`hc`gi Va]h]Ugg][ba Ybh`g`cb`]b`Y`j`]U`A`cc`X`Y` .` \`h`td`g` .`#`g`h`XY`b`h`i` bgk` "YXi` "Ui` #`ack`!
gi Va]h]Ugg][ba Ybh`a`cc`X`Y`"

5 WUXYa]W<c bYghmUbX`D`U[]Uf]ga

D`U[]Uf]ga `]g`i g]b[`hY`k cfXg`cf]XYUg`cZchYfg`UbX`dfYgYbh]b[`hYa `Ug`mci f`ck b" `hWUb`hU`Y`a Ubm
Zcfa gž`Zca `XY`]VYfUHY`WXYU]b[`hc`UWV]XYbhU`mW`dm]b[`Zca `U`gci fW`k]h`ci hUW`bck`YX[Ya Ybh`

I BGK `[fci dg`d`U[]Uf]ga `]bhc`hY`Zc`ck]b[`WUHY[cf]Yg.

7 cdm]b[.`i g]b[`hY`gUa Y`cf`j Yfmg]a]Uf`k cfXg`hc`hY`cf][]bU`hYI hcf]XYU`k]h`ci hUW`bck`YX[]b[`hY`
gci fW`cf`i g]b[`ei chU]cb`a Uf`g" `H\]g`U`gc`Udd`]Yg`hc`]a U[Ygž`UfhUbX`XYg][b`dfc`YWgž`Ug`k Y`Ug`
dfYgYbhU]cbg`k \YfY`gca YcbY`dfYgYbh]g`UbchYf`g`]XYUg`cf`k cfXg`k]h`ci hW`YX]h`

hUddfcdf]UHY`dUfUd`fUg]b[.`7`U`b[]b[`U`ZYk`k cfXg`UbX`d`fUgYg`k`Y`a cghmifYU]b]b[`hY`cf][]bU`
ghfi W`fY`UbX`#`f`dfc[fYgg]cb`cZ]XYUg`cZ`hY`cf][]bU`ž`UbX`]bZcfa U]cb`k]h`ci hUW`bck`YX[Ya Ybh`H\]g`U`gc`
Udd`]Yg`]b`dfYgYbhU]cbg`k \YfY`gca YcbY`dUfUd`fUgYg`UbchYf`g`]XYUg`cf`k cfXg`k]h`ci hW`YX]h`UbX`hc`
d]YW]b[`hc[YhYf`ei chYg`UbX`dUfUd`fUgYg`]bhc`U`bYk`k \c`Yž`k]h`ci hUddfcdf]UHY`fYZYfYbW]b["

7 c`i g]cb.`k cf_]b[`k]h`chYfg`Vi hdUgg]b[`cZ`hY`k cf_]Ug`U`dYfgcb`g`]bX]j]Xi U`k cf_]7 c`i g]cb`U`gc`
]bWi XYg`dfcj]X]b[`mci f`k cf_]hc`UbchYf`gh`XYbhVYZc`fY`hY`Xi Y`XUHYž`cf`Zc`f`hY`di fdcgY`cZ`hY`a

- i bXYfghUbx'mci f'f][\hg'UbX'fYgdcbg]V]h]Yg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[]Uf]ga ž'Wcdmf][\hž' BGK 'Gh XYbh7cXY'cZ7cbXi W'Ubx'5Ww'dhUV'Y'I gY'cZ I BGK '⇒H'F Ygci fW'g'Dc`]Wm
- VY'Uk UfY'cZh'Y'ghUbxUfXg'cZVY\Uj]ci f'YI dYW'X'cZYj Yfmcby'jb'h'Y'I BGK 'Wca a i b]m
- `cWJh'gYfj]Wg'UbX'jbZcfa Uh'cb'UVci hl BGK 'UbX'I BGK '@]VfUfm

Gca Y'cZh'YgY'UfYUg'k]`VY'ZJa]]Uf'hc'mci ž'ch'Yfg'k]`VY'byk "; U]b]b['U'gc`X'i bXYfghUbx]b['cZU`h'Y fY'UH'X'UgdYW'g'cZ9@G9'k]`Y'd'mci 'a U_Y'h'Y'a cghcZmci f'gh X]Yg'Uhl BGK ""

[\hd. #gj V'YWf i \]XYg" \]VfUfm'i bgk "YXi "Ui #` \]gY#JVci h' \]gY](#)

5 WUXYa]WbZcfa Uhcb`

: cfYggYbh]U`ghi XYbh]bZcfa Uhcb`fY`Uh]b[`hc.

- fYei Yghg`ZcfYI hYbg]cb/
- `UhY`gi Va]gg]cbg`[i]XY`]bYg/
- fYj]Yk`cZa Uf_g/
- I BGK`<YU`h`UbX`GUZY`midc`]WYg/
- YI Ua]bUh]cb`dfcVWXi fYg/
- gdYW]U`Vc]bg]XYfUh]cb`]b`hY`Yj Ybhcz]`bYgg`cf`a]gUXj Ybh fY/
- ghi XYbhYei]hmUbX`X]gUV`]`]m/
- UbX`chYfYggYbh]U`UWUXYa]W]bZcfa Uh]cbz`gYY

[\hdtg.#k k k "Uftg"i bgk "YXi "Ui #W ffYbh\]ghi XYbh\]bZcfa Uh\]cb`dfc\]Vc`g!\[i \]XY`\]bYg#](#)

⇒ U[Y`7 fYX]h

8Ya cz%- - +ž; Yf\UfX`F]W]hYf

7F ⇒ CG

7F ⇒ CG`Dfcj]XYf`7cXY.`\$\$\$- , ;