



ARTS3758

; `cVU`7 \Ub[Y`ϕhYfbg\]d

HYfa `C.bY`#`&\$&\$



GWcc`cZGcWJU`GWYbWg`#`! BGK `5ftg`UbX`GcWJU`GWYbWg

7 ci fgY`Cj Yfj JYk

`GHUZZ7cbhUWhi8YHJ`g`

`7cbj Ybcfg`

B Ua Y	9a Uj`	5j Uj`UVj`]m	@cWWhcb	D\cbY
Gi gUbbY`GWa YjX`	g"gwAa YjX`4 i bgk "YXi "Ui	VmUddc]bha Ybh	%, `A cfj Yb 6fck b	Z*%f&L`-' ,) &(\$)

GWcc``7cbhUWhi`bZcfa Uhjcb

GWcc``cZGcWU`GWYbWg

Fcca`%) -

A cfj Yb`6fck b`7&\$

Ya Uj`.gcgg4 i bgk "YXi "Ui

d\cbY. \$&`-' ,)`% \$+

7ci fgY'8YHJ>`g

7fYX]hDc]bHg`*`

Gi a a UfmicZ\hY'7ci fgY

Gi VYWh5fYU.'9`aTS^6WhWab_ W f

H\]g`Wci fgY'dfcj]XYg'mci `k]h`hY'i b]ei Y`cddcfh b]mhc`[U]b`]bhYfbUh]cbU`YI dcgi fY`UbX`XYYdYf
i bXYfghUbX]b[`cZ\hY`dc`]h]W]zgcW]U`UbX`W`h`fU`Wc`bhYI hcZU`XYj Y`cda YbhWc`bhYI h`5`][bYX`k]h`I BGK `g
Ya d\Ug]g`cb`k cf`_]bhY[fUH`X`YUfb]b[z`h]g`Wci fgY`]g`U`gfh W`h`fYX`UbX`gi ddcfh`X`k cf`_d`UW`a Ybh
XYg][bYX`h`c`[]j Y`mci `dfUW]W]YI dYf]YbW`]b`hUW`]b[`XYj Y`cda YbhW`U`Yb[Yg`h`fci [\`k cf`_]b[`k]h`U`bcb!
[cj Yfba YbhU`cf[Ub]gUh]cb`]b`U`gdYW]Z`YX`Wci bfm]gY`h]b["H\]g`k]`VY`U`cbY`cZU`_]bX`YI dYf]YbW`h`c`Y`d`
mci `i bXYfghUbX`\ck `dUfh]W]dU`c`fm`UbX`Wc`bhYI H]gYbg]h]j Y`XYj Y`cda Ybhk cf`_g`]b`dfUW]W`"

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

%`K`cf`_Ug`Ub`]bX]j]Xi U`z`gY`Za`ch] U`h`X`z`Y`UfbYf`]b`U`dfcZ`Ygg]cbU`dfUW]W`Wc`bhYI h`z`U`h`Y`bh]j Y`h`c`h`Y`
XmbUa]W]c`Z`h`Y`]b]g]h]h`h]cb`cf`cf[Ub]gUh]cb`"
&`F`YZY`W`icb`UbX`Yj`U`i`U`h`k`cf`_d`UW`W`dfUW]W]z`dfcZ`Ygg]cbU`XYj Y`cda Ybh`z`UbX`Y`Ufb]b["
`" `7`ca`a`i`b]W]h`Y`ZY`W]j`Y`m`UV`ci`h`XYj`Y`cda`Ybh]b`h`Y`c`fm`UbX`d`fUW]W`V`c`h`c`f`U`m`UbX`]b`U`f`Ub[`Y`c`Z`
k`f]h`Y`b`z`c`f`a`g`"

HYUW]b[`G`h`f`U`h`[]Yg`

H\Y`W`b`f`U`W`c`a`d`c`b`Y`b`h`c`Z`h`]g`W`c`i`f`g`Y`]g`U`Z`Y`X`d`U`W`a`Y`b`h`k`]h`U`X`Y`j`Y`c`d`a`Y`b`h`c`f`[`U`b`]g`U`h`]c`b`U`b`X`d`f`c`j`]X`Y`g`
g`h`X`Y`b`h`g`U`i`b]ei Y`cddcfh b]m]h]b]h]bg]j Y`k`cf`_]b]hY[fUH`X`Y`Ufb]b["

H\]g`Wci fgY`i`g`Y`g`D`f`c`V`Ya`!`6`U`g`Y`X`@`Y`U`f`b]b[`f`D`6`@`k` \`]W`X`d`i`h`g`h`Y`g`h`i`X`Y`b`h`U`h`h`Y`W`b`f`Y`c`Z`h`Y`Y`U`f`b]b[
`c`i`f`b`Y`m`z`f`Y`e`i`]f]b[`h`Y`a`h`c`d`U`m`U`b`U`W]j`Y`f`c`Y`]b`h`Y`Y`U`f`b]b[`d`f`c`W`g`g`"

H\Y`f`Y`U`f`Y`g`Yj`Y`f`U`f`Y`U`g`c`b`g`z`c`f`i`g]b[`D`6`@`]b`h`]g`W`c`i`f`g`Y`.

h`f`Y`j`c`j`Y`g`U`f`c`i`b`X`h`Y`g`h`i`X`Y`b`h`h`U`D`6`@`Y`b]j]f`c`b`a`Y`b`h`g`h`i`X`Y`b`h`g`U`f`Y`d`Y`f`g`c`b`U`m`f`Y`g`d`c`b`g]V`Y`z`c`f`k` \`U`h`
h`Y`m`Y`U`f`b`"H\Y`m`h`U`Y`d`U`f`h]b`X]g`W`g`g]c`b`g`z`g`U`f`Y`_`b`c`k`Y`X[`Y`U`b`X`z`h`c`[`Y`h`Y`f`k`]h`h`Y`f`c`g`h`c`f`[`U`b]g`U`h]c`b`
z`c`f`a`i`U`h`Y`m`c`i`f`c`k`b`Y`U`f`b]b[`c`V`Y`W]j`Y`g`"

@`Y`U`f`b]b[`X`m`b`U`a`]W]m`6`m`U`d`d`f`c`U`W]b[`X`Y`j`Y`c`d`a`Y`b`h`e`i`Y`g`h]c`b`g`]b`d`f`U`W]g`Y`z`g`h`i`X`Y`b`h`g`W`b`U`d`d`m`
h`Y`c`f`Y`h]W]Y`U`f`b]b[`U`b`X`f`Y`Z`Y`W`h`c`b`h`Y`Y`U`f`b`Y`X`k` \`Y`[`U]b]b[`b`Y`k`_`g`_`g`"H\Y`m`W`b`U`g`c`]X`Y`b`h]Z`m[`U`d`g`]b`
h`Y`f`_`b`c`k`Y`X[`Y`h`U`h`h`Y`m`W`b`z`i`d`c`b`f`Y`h`f`b]b["H\Y`c`d`d`c`f`h`b]m]h`c`f`Y`Z`Y`W`h`c`b`h`Y`Z`Y`X`Y`I`d`Y`f]Y`b`W`
Y`b`U`b`W`g`g`h`i`X`Y`b`h`g`f]U`V]j]m]h`c`V`Y`W`c`a`Y`U`b`c`V`g`Y`f`j`U`b`h`W`U`b[`Y`I`d`f`U`W]h]c`b`Y`f`"

5`W`c`i`]f]b[`g`_]`g`z`c`f`Z`Y.`5`b`]b]h]bg]j`Y`k`cf`_]YI`d`Y`f]Y`b`W`W`b`d`f`c`j`]X`Y`g`h`i`X`Y`b`h`g`k`]h`h`Y`Z`f`g`h]U`g`h`Y`c`Z`k` \`U`h]h`
a`Y`U`b`g`h`c`V`Y`U`X`Y`j`Y`c`d`a`Y`b`h`d`f`c`Z`Y`g`g]cbU`U`b`X`[`U]b]g`_]`g`h`Y`m`U`f`Y`i`b`_`Y`m]h`c`U`W`c`i`]f`Y`]b`U`W`U`g`g]f`c`c`a`
g`Y`h]b["'5`Z`Y`X`" h]b[h]b[h]b[h]b[h]b[W`

5ggYgga Ybh

D`YUgY`Wcbgi `hiA ccX`Y"

5ggYgga YbhiHUg_g`

5ggYgga YbhiHUg_	K Y][\h	8i Y`8UH`	Gh XYbh@YUfb]b[Ci hWca Yg`5ggYggYX
D`YUgY`Wcbgi f[Ub]gU]cb 5ggYgga Ybhi			

DUfh%`K YY_`mfYZYWj Y`>ci fbU`9bf]Yg`UfY`hc`VY`k f]hYb`cj Yf`hY`Wci fgY`cZ`hY`]b`hY`fbg`d`fUVci h) \$\$
k cfXg`dYf`Yb`f`m`g`hU`h]b[`]b`K YY_`&`fK YY_`%]g`XYX]W`hYX`hc`hY`Zcfa Uhj Y`@YUfb]b[`7`cb`fUW`K`Y
fY`Wca a YbX`hY`gY`V`c[g`UfY`k f]hYb`cb`K`cfX`DfY`gg`f`h`tdg.##`cfX`dfY`gg`Wca`#`k`\\W`U`ck`g`mci`hc`]bj`]hY
Zc`ck`Yfg`"H`]g`a`YUbg`mci`W`b`g`UfY`mci`f`fY`ZYW]c`bg`fk`]h`UV`]`mhc`UXX`d`d`c`h`g`k`]h`ZJa`]`mUg`k`Y`Ug
hY`Wci`fgY`W`bj`Yb`Yf`"b]`]hY`"g`W`a`Y`X`]`"f`B`f`Gi`g`Ubb`Y`G`W`a`Y`X`E`hc`mci`f`V`c[`"9`UW`V`c[`]g`Xi`Y`cb`hY
A`cbX`Umc`Z`hY`gi`Vg`Yei`Ybhk`YY_"`Mci`cb`m`Uj`Y`hc`k`f]hY`U`hc`U`c`Z`*`V`c[`g`z`gc`W`b`U`Z`c`f`X`hc`a`]gg`U`k`YY_
k`\\Yb`mci`UfY`j`YfmVi`gm`

K f]hYb`ZYXVUW`cb`V`c[`g`]g`d`fcj`]XYX`k`]h`b`U`k`YY_`c`Zgi`Va`]gg]cb"

DUfh&.`I`dcb`Wca`d`Y`h`cb`c`Z`hY`"b`hY`fbg`d`g`h`XYb`h`g`UfY`hc`Wca`d`Y`U`"V`c[`g`f`h`ci`UfY`cb`m`U`ck`YX`hc`YX]h
Zc`f`9`b[`]g`\\;`f`Ua`a`Uf`#`G`dY`"b[`QUg`U`dc`f`h`Z`"c`"`@`b`]bY`Gi`Va`]gg]cb`j`]U`Hi`fb]h]b`cb`A`cc`X`Y`Q

K f]hYb`ZYXVUW`UbX`U`bi`a`Yf]W`"["f`UXY`k`]`VY`d`fcj`]XYX`k`]h`b`hY`b`k`cf_]b[`X`Umg`c`Zgi`Va`]gg]cb"

Gi`Va`]gg]cb`b`chY`g`cb`]bY

Hi`fb]h]b`g`Y`h]b[.`H`\\]g`Ugg][`ba`Ybh]g`gi`Va`]hYX`h`fci`[`\\`Hi`fb]h]b`UbX`gh`XYb`h`g`W`b`g`Y`Y`Hi`fb]h]b`g]a`]Uf]m
fY`d`c`f`g`"

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

H\YfY`UfY`bc`YI dYWX`fYgci fWg`Zcf`ghi XYbHg"

F YWca a YbXYX`F Ygci fWg

D`YUgY`Wcbgi`hA ccX`Y"

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

Gh XYbHg`Wb`i gY`hY]f`V`c[g`fUbx`Ya U]E`hc`dfcj]XY`ZYXVUW`hc`hY`7ci fgY`7cbj YbYf`cb`U`k YY`mVUg]g"
H\YfY`]g`U`gc`Ub`cddcfhi b]miZ`f`cfU`ZYXVUW`Xi f]b[`hY`fYh`fb`XYVf]Y]b[" Gh XYbHg`k]`U`gc`VY`Ug`YX`hc`
Wca d`Yh`U`g`cfhcb`]bY`YI]hgi fj Ymhc`Y`d`i`g`ja`dfcj Y`hY`XY`]j YfmcZ`hY` ; `cVU`7`Ub[Y`#hY`fbg`d" K Y`
\Uj Y`VYYb`VYYb`a`U_]b[`UX`gfa`YbHg`hc`h`g`Wci fgY`VUgYX`cb`ghi XYbhZYXVUW`fVc`h`Wcbh`YbhUbX`
UggYgga YbHg`E`m`Uf`UbX`UfY`Wcbh]bi]b[`hc`gf]j Y`hc`ja`dfcj Y`ghi XYbh`YUfb]b[`UbX`YI dYf]YbW"

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`U`g
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`Ub[]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'Wc'dmf][\hž' BGK 'Gh XYbh7cXY'cZ7cbXi W'Ubx'5W'W'dhUV'Y'I gY'cZ I BGK '⇒H'F'Ygci f'W'g'Dc'W'h
- VY'Uk UfY'cZ'Y'ghUbxUfXg'cZVY\Uj]ci f'YI dY'W'X'cZYj Yfmcby'j]b'h'Y'I BGK 'W'a a i b]m
- 'cW'W'h'gYfj]W'g'UbX'j]bZ'fa U]cb'UVci hl BGK 'UbX'I BGK '@]VfUfm

Gca Y'cZ'Y'gY'UfY'Ug'k]''VY'ZJa]]Uf'hc'mci ž'c'h'Yfg'k]''VY'bYk "'; U]b]b['U'gc'X'i bXYfghUbx]b['cZU''h'Y fY'U'Y'X'UgdY'W'g'cZ9@-G9'k]''\Y'd'mci 'a U_Y'h'Y'a cghcZmci f'gh X]Yg'Uhl BGK ""

[\h'hd.##ji V'Y'W'i \]X'Yg''j\]VfUfm'i bgk "YXi "Ui #' \]gY#\]Vci h' \]gY](#)

5 WUXYa]WbZcfa Uh]cb`

: cfYggYbh]U`ghi XYbh]bZcfa Uh]cb`fY`Uh]b[`rc.

- fYei Ygh]ZcfYI hYbg]cb/

