



ARTS3664

? cfYUb`HfUbg`Uh]cb

HYfa`Cby`#`&\$&%

GWXcc`cZ<i a Ub]hYg`UbX`@Ub[i U[Yg`#`! BGK`..5 frg`UbX`GcWU`GwYbWg

7ci fgY`Cj Yfj]Yk

GHJZZ7cbHJW`8YHU]`g

7cbj Ybcfg

B Ua Y	9a U]`	5j U]`UV]`]m	@cW]h]cb	D\cbY
GYcb[!7\i`G\]b	g"g\]b4 i bgk "YXi "Ui	K YXbYgXUm%&!%/ : f]XUm%&da `cfVm Uddc]bha Ybh	cb`]bY`fA ccX`Y 7c``UVcfUH/ A g`HYUa gŁ/ A 6&* &Ł	f\$&Ł- ' ,)!' + &(`fA g HYUa gŁ

GWcc``7cbHJW`bZcfa Uh]cb

GWcc``cZ<i a Ub]h]Yg`UbX`@Ub[i U[Yg

@cW]h]cb. `GWcc``C Z]W]ŽA cfj Yb`6fck b`6i]X]b[Ž`@Yj Y``&ž&),

C dYb]b[`<ci fg. `A cbXUm! : f]XUmž- Ua `!) da

D\cbY. Ž`*%&`- ' ,) `* , %

: U! . Ž`*%&`- ' ,) ; +\$)

9a U]: [\U`4 i bgk "YXi "Ui](#)

7 ci fgY'8YHJ]`g

7 fYX]hDc]bHg`*`

Gi a a UfmicZ\hY'7 ci fgY

H\]g`Wci fgY`dfcj]XYg`U`dUfU!dfcZygg]cbU`Yj`Y`fUbg`U]cb`dfc[fUa`]b`? cfYUb`Zfca`U`fUg_!VUgYX
UddfcUWX`"H\Y`df]a Ufma YX]i a`cZ]bgf]i W]cb`]g`? cfYUb`UbX`9b[]g\`"H\Y`Wci fgY`]b]fcXi VWg`fUbg`U]cb
hYcf]Yg`UbX`dfUW]W]g`]b`? cfYUbzYI Ua]bYg`hYWX]bei Yg`Zcf`UbU`m]b[`UbX`fYbXYf]b[`hYI hg`cZX]ZYfYbh
g]mYg`UbX`Wca`d`YI]mz`UbX`UXXfYggYg`Wfcgg!]b[i]gh]WUbX`Wfcgg! W`hi fU`dfcV`Ya g`fY`Yj Ubh]c
dfcZygg]cbU`fUbg`U]cbz]bWi X]b[`YI]W]# fUa a U]W]`dfcV`Ya g`UbX`Yh\]W]`ja d`]W]h]cbg`"H\Y`ZcW`g`cZ\hY
Wci fgY`]g`hc`i d[fUXY`mci f`g_]`g`cZhfUbg`U]cb[`9b[]g\`]b]c`? cfYUb`UbX`U]m]b[`Zci bXU]cbg`Zcf`dfcZygg]cbU`
fUbg`U]cb`"Mci`k`]"VY`YI dcgYX`hc`U`fU]b[Y`cZU] hYb]h]W]hYI hg`UbX`U`j Uf]YhmicZ]cd]W]]bWi X]b[`gcW]c!
W`hi fU`zYXi W]h]cbU`z]Wca a YfW]U`UbX`dc`]h]W]`hY`Ya`Yg`"

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

%` 7 cbj YfhWca`d`YI`k`f]h]b`gci fW`hYI hg`]b`9b[]g\`]b]c`? cfYUbz`Wc]bj Ym]b[`XYHJ]YX`]b]zfa U]cb
Zi Yb]h]mz`UW]W`fU]h`mz`UbX`Uddfcdf]U]h`mz`UbX`i`g]b[`U`g]m]Y`Uddfcdf]U]h`hc`hY`Wc]b]hYI`h]UbX`hYI`h]m]dY
&` 5 f]h]W`U]h`U`fU]b[Y`cZ]cd]W]]cb`dfcZygg]cbU`Yh\]W]]cf`gcW]c! W`hi fU`]ggi Yg`fY`U]cb[`hc`fUbg`U]cb
'`" 9I`d`U]b`fUbg`U]cb`a`Yh\cXg`UbX`hYWX]bei Yg`UbX`]b[i]gh]W]hYI["`j`cW]Vi`Ufmz`hY`fa`g`zYI`dfYgg]cbg]z
Yh\]W]`UbX`gcW]c! W`hi fU`UgdYW]g`cZdfcZygg]cbU`fUbg`U]cb

HYUWX]b[`GhfU]h[]Yg`

F U]cbU`Y.

H\]g`Wci fgY`]g`]bWi XYX`hc`YbUV`Y`ghi XYb]h]c`XYj`Y`cd`dUfU!dfcZygg]cbU`fUbg`U]cb`g_]`g`h`Uhk`]"
Yb\UbW]`mci`f`dfUW]W]`Ug`U`Wca`dYh]bh]fUbg`U]cf`]b`? cfYUb`" #fYZYW]g`U`dcg]h]cb`h`Uhgh`XYb]h]dfUW]W]
k`]h]b`hY`Z]Y`X`k`]"fYei`]fY`bU]h] Y`cf`bYU]bU]h] Y`Yj`Y`g`cZdfcZ]Y]bW]h]UbX`g_]`g`hc`YbUV`Y`cb[c]b[
XYj`Y`cda`Ybh]b]j`Uf]ci`g`dfcZygg]cbU`UfYUg`]bj`c`j`]b[`fUbg`U]cb`"

H\Y`hYUWX]b[`k`]"VY`U]" bYX`k`]h`hY`U]a`g`z`YUfb]b[`ci`hWca`Yg`UbX`UggYgga`Ybh]Ug`g`cZ\h]g`Wci`fgY
XYgW]VYX`UVcj`Y`gc`Ug`hc`UWX]Yj`Y`XYg]fYX`fYgi`hg`"H\Y`Ub[i U[Y`cZ]bgf]i W]cb`UbX`Wca`a`i`b]W]h]cb`]g
a`U]b]m`? cfYUb`"GdYU_]b[z`fYUX]b[`UbX`k`f]h]b[`g_]`g`k`]"VY`]b]hY[fU]hXz`k`]h`U`gh]cb[`Ya`d\Ug]g`cb`fYUX]b[
UbX`k`f]h]b[`g_]`g`h]fci [\`fUbg`U]cb`dfUW]W]g`"6`ch`fUg_!VUgYX`UbX`[fUa`a`Uf]fUbg`U]cb`UddfcUWX`Yg`k`]"
VY`UXcd]hX`"

HYUWX]b[`GhfU]h[]Yg.

H\Y`Wci fgY`]bj`c`j`Yg`YW]i`fYg`UbX`h`hc]f]U`g`]b`hY`Z]W]!hc!Z]W]`a`cXY`"@YW]i`fYg`UfY`k`hYfY`VUg]W]fUbg`U]cb

5ggYgga Ybh

5ggYgga YbhHUg_g

5ggYgga YbhHUg_	K Y][\h	8i Y'8UHr	Gh XYbh@YUfb]b[Ci hWta Yg'5ggYggYX
J cWVVi `Ufmi6Ub_`	%)	&, #\$(#&\$&%\$%\$\$'DA	&
<ca Yk cf_'5gg][ba Ybhg`	&)	K YX	

‰

5XX]h]cbU`XYHJ]`g.

D`YUgY`bchY`hUhY`bi a VYf`cZ\ca Yk cf_`Ugg][ba Ybtg`Ug`VYYb`UX↑ghYX`Zca`hYb`h`gYj Yb": cf`a cfY]bZ`fa Uh]cb`cb`hY`fUbg`Uh]cb`\ca Yk cf_`d`YUgY`fYZf`h`A ccX`Y#@A G"

Gi Va]gg]cb`bchYg. `9UWX`\ca Yk cf_`Ugg][ba Ybha i ghVY`gi Va]hYX`j]U`A ccX`Y`VmiH`Y`Xi Y`XUH`Y"

Hi fb]h]b`gYH]b[.`H\]g`]g`bchU`Hi fb]h]b`Ugg][ba Ybh

5ggYgga Ybh' .`HfUbg`Uh]cb`HYgHg

GHUfhXUH. `% #& #&\$\$%&\$. \$\$`DA

@Yb[h. `Uddfcl ""` \$\$`k cfXg`YUWX

8YHJ]`g.

Hk c`hYgHg`cZW""cbY`\ci f`YUWX`fI \$i` `YUWX`E`Xi f]b[`gdYWZ]YX`WUggYg""9UWX`W`bg]gHg`cZfUbg`Uh]cb`UbX Yh]Mg`W`ca dcbYbtg""K f]hYb`W`ca a Ybtg`k]`VY`dfcj]YX""H\Y`gYW`bX`hYgh]g`hY`Z]bU`UggYgga YbhiZ`f UH`bXUbW`di fdcgYg"

5XX]h]cbU`XYHJ]`g.

9UWX`hYghW`bHJ]bg`%&`Yh]Mg`ei Ygh]cbgZ`gYyb`hYl`hg`UbX`i`bgYyb`hYl`hg"

Gi Va]gg]cb`bchYg. `Mci`a i ghgi Va]hmi`f`hYgh`Ubgk`Yf`dUdYfg`j]U`A ccX`Y`VmiH`Y`gdYWZ]YX`XUH`UbX`h`a`Y"

Hi fb]h]b`gYH]b[.`H\]g`]g`bchU`Hi fb]h]b`Ugg][ba Ybh

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

⊖!\ci gY`gh XmdUW_`hc`VY`dfcj]XYX`Vmñ\Y`Wci fgY`Wcbj Ybcf`UbX`hYUW\]b[`ghUZZ`k` \]W`k`]`VY`Uj`U]`UV`Y`cb
@A G#A ccX`Y`"

F YWca a YbXYX`F Ygci fWg

6U_YfzA "f% - &L" ⊖`ch\Yf`k`cfXg.`U`Wci fgY`Vcc_`cb`hfUbg`U]cb`"@cbXcbžBM`F`ci`hYX[`Y`"8c`Yfi`dž7`"/`5"

Gi Va]gg]cb 'cZ5ggYgga YbhiHUg_g

Hi fb]h]b 'Gi Va]gg]cb

Ʒmci 'YbWci bHYf'U'dfcV'Ya 'k \Yb'UH'Ya dh]b['hc'gi Va]hmc i f'Ugg][ba YbhiH'fci [\ 'Hi fb]h]bž'd'YUgY
HY'Yd\cbY'9I HYfbU'Gi ddcfhcb'-',) " ' ' %cf'Ya U] 'H'Ya 'cb'YI HYfbU'HY'fgi ddcfh4 i bgk "YXi "Ui "'Gi ddcfh
\ci fg'UfY', .\$\$Ua '—%\$.\$\$da 'cb'k YY_XUmg'UbX'-. \$\$Ua '—) .\$\$da 'cb'k YY_YbXg'fI *) 'XUmg'U'mYUfI" Ʒmci
UfY'i bUV'Y'hc'gi Va]hmc i f'Ugg][ba YbhiXi Y'hc'U'ZU' 'hk]H'Hi fb]h]b'mci 'a UmUdd'm'Zcf'Ub'YI HYbg]cbž'Vi hmc i
a i ghfYHU]b'mci f'h]W_Yhbi a VYf'Z'ca '9I HYfbU'Gi ddcfhfU'cb['k]H'UbmcH'Yf'fY'Yj UbhXcW a YbHgE'hc
]bWi XY'Ug'Yj]XYbVW'hc'gi ddcfhmc i f'YI HYbg]cb'Udd']W]h]cb" Ʒmci 'Ya U] '9I HYfbU'Gi ddcfhmc i 'k]
Ui 'ca UH]WU'm'fYW]j Y'U'h]W_Yhbi a VYfž'Vi h]Zmci 'HY'Yd\cbY'mci 'k]'b'YX'hc'gdYW]Z]WU'mUg_ 'Zcf'cbY"
Hi fb]h]b'U'gc'dfcj]XYg'i dXUH'g'cb'H'Y]f'gmgh'Ya 'ghU'hi g'cb'Hk]HYf"

; YbYfU'mž'UggYgga YbhiHUg_g'a i ghVY'gi Va]HYX'Y'YW'fcb]WU'mj]U'Y]H'Yf'Hi fb]h]b'cf'U'A ccX'Y
Ugg][ba YbH' 'b]bg]UbVW'g'k \YfY'H'lg]g'bc]hdccg]V'Yž]hk]'VY'ghUH'X'cb'mci f'Wci fgY'g'A ccX'Y'g]H'k]H
U'HYfbUH] Y'gi Va]gg]cb'XYHU]g"

: cf]bZ'fa UH]cb'cb'\ck 'hc'gi Va]hUgg][ba YbHg'cb]bY'j]U'A ccX'Y. \hhdg.#gh XYbH'i bgk "YXi "Ui #ck!
gi Va]hUgg][ba YbH'a ccX'Y

5 WUXYa]W< cbYgmiUbX`D`U[]Uf]ga

D`U[]Uf]ga `]g`i`g]b[`h`Y`k`c`f`X`g`c`f`]X`Y`U`g`c`Z`c`h`Y`f`g`i`U`b`X`d`f`Y`g`Y`b`h]b[`h`Y`a`i`U`g`m`c`i`f`c`k`b`" `#`W`U`b`h`U`_`Y`a`U`b`m`
Z`c`f`a`g`Z`Z`c`a`X`Y`]V`Y`f`U`h`Y`V`X`Y`U`h]b[`h`c`U`W`W`Y`X`Y`b`h`U`m`i`W`c`d`m]b[`Z`c`a`i`U`g`c`i`f`W`k`]h`c`i`h`U`W`b`c`k`Y`X[`Y`a`Y`b`h`

I`B`G`K`i`[`f`c`i`d`g`d`U[]Uf]ga `]b`h`c`h`Y`Z`c`c`k`]b[`W`U`h`Y`[`c`f]Y`g.

- i bXYfgHUbX'mci f'f][\hg'UbX'fYgdcbg]V]]hYg'Ug'U'gh XYbhUhl BGK
-

5 WUXYa]WbZcfa Uh]cb

: cfYggYbh]U`gh XYbh]bZcfa Uh]cb`fY`Uh]b[`tc.

- fYei Yghg`Zcf`YI H`bg]cb/
- `UhY`gi Va]gg]cbg`[i]XY`]bYg/
- fYj]Yk `cZa Uf_g/
- I BGK `<YU`h`UbX`GUZY`mdc`]WYg/
- YI Ua]bUh]cb`dfcW`Xi fYg/
- gdYW]U`W`bg]XYfUH]cb`]b`hY`Yj Ybhcz]`bYgg`cf`a]gUXj Ybh fY/
- gh XYbhYei]mUbX`X]gUV`]m/
- UbX`c`hYf`YggYbh]U`UWUXYa]W]bZcfa Uh]cbz`gYY

[\ftdg.#k k k "Uftg"i bgk "YXi "Ui #W ffYbhgh XYbh\]UWUXYa \]W\]bZcfa Uh\]cb#dfchW`g`\[i \]XY`\]bYg#](#)

⇒ a U[Y`7 fYX]h

@ci fW. `F cmU`m]ZYY`ja U[Yg/
\ftdg.#k k k "]ghcW`d\chc"W`a #d\chc#g`_cfYU3d`fUgY1`_cfYU` gcfh]a cgtdcdi `UfQ

@YgW]dh]cb. `GYci `ZGci h`? cfYU`W]m]g_m]bY`b][\ft]a Y`g_m]bYQ

7F ⇒ CG

7F ⇒ CG`Dfcj]XYf`7cXY. `\$\$\$- , ;

5W_bck `YX[Ya Ybhcz]7ci b]fm

K Y`UW_bck `YX[Y`hY`6YXY[U`dYcd`Y`k` \c`UfY`hY`fUX]h]cbU``W`ghcX]Ubg`cZ`hY`UbXg`cb`k` \]W`I` BGK
? Ybg]b[hcb`W]a di g]g`cW]hYX"