



ARTS3639

>UdUb`jb`Dcdi`Uf`7 i`hi fY

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

7ci fgY`Cj Yfj]Yk

GhJZ`7cbhJW`8YhJ]`g

7cbj Ybcfg

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GWx cc``7cbhJW`bZcfa U]h]cb

7ci fgY'8YHJ`g

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Gi a a UfmicZh\Y'7ci fgY

6mi g]b['h\Y'VfcUX'gcW]U'h\Ya Yg'cZdcgH%- () '>UdUbYgY'dc`j]WgžYwčbca]Mg'UbX'W`hi fU'XYj Y'cda Ybž
h.]g'Wči fgY'UHYa d]g'rc'dfcXi W'Ub'U'hYfbUHj Y'gcW]c!W`hi fU'h]a Y`]bY'VmWčbg]XYf]b['\ck'h\YgY'h\Ya Yg
k YfY'UbX'UfY'fYdfYgYbH\X`]b'Xca Yg]W>UdUbYgY'dcđi 'Uf'W`hi fY''6mfYUX]b['U'bi a VYf'cZgYhH\I hg'UbX
cH Yf'a UHf]U'gždfYgYbH]b['UbX'i bXYfU_]b['U'a U'čf'dfc'YWžmci 'UHYa dhfc'Ubgk Yf'h\Y'ei Yg]cbgž'\ck
UbX'k \mk Ug'YUW\ h\Ya Y'fYdfYgYbH\X`]b'h\Y'dcđi 'Uf'W`hi fYg'cZh\Y'XUm3

H\]g'Wči fgY'g'hUj [\h]b'9b[`]g\ 'UbX'k]h'fYUX]b[g]b'9b[`]g\"

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

- % " 8]gW gg]ggj Yg'XYU`]b[`k]h'h\Y'fc'Yg'h\Uhi>UdUbYgY'dcđi 'Uf'W`hi fY'd'Um]b'h\Y'XYj Y'cda YbhcZ
Xca Yg]Wž>UdUbYgY'W`hi fU'\]g]rcfm]g]bW'K K =]b'WUgg'UbX'cb`]bY"
- & " 5bU'mgY'UbX'gmbh\Yg]gY'ggj Yg'cZ>UdUbYgY'dcđi 'Uf'W`hi fY'i g]b['fYZ'fYbW'gž]b'k f]h]b['UbX'cfU'
dfYgYbH]h]cb"
- ' " 5f]W'UH'UbX'W]h]W'mfYZYWick b`]b]h]U`]bHfYg]g'UbX'YI dYf]YbW'g'YUfb]b['UbX'čf'Yb[U[]b[`k]h
>UdUb"
- (" 8 Yg][b'UbX'YI YW h'U'Wč'UVcfUHj Y'dfc'YWicb'>UdUbYgY'dcđi 'Uf'W`hi fY"
-) " 9j U'i UH'UbX'fYZYWicb'YUfb]b['UVci hUbX'YI dYf]YbW'g'k]h'>UdUbYgY'dcđi 'Uf'W`hi fY`]bg]XY'UbX
ci hg]XY'h\Y'WUggfcca "

Hi hf]U'g'YI dUbX'cb`YVh fY`W`bH`bhUbX'mci`UFY`ghfcb[`mYbW`i fU[YX'hc`Yb[U[Y`]b`U`fUb[Y`cZUW]j`]hYg
fY`UH`X'hc`YUW`h`Ya Y`i bXYf`YI d`cfU]cb"8i f]b[`k YY_g' !%\$Z`h hf]U`WUggYg`k`]"VY`YX`Vmigh XYbh
`YUXYfg`cZ`h`Y`k YY_`fgYY`h`Y`UggYgga YbhgYW]cb`VY`ck`L`"Mci`UFY`U`gc`YbW`i fU[YX'hc`gYUfW`Z`f`h`Yf
fYUX]b[g`]b`fY`U]cb`hc`h`Y`_Ym]ggi Yfg`k`ZYUW`k YY_`Z`f`V`fc`UXYb]b[`mci`f`i bXYfghUbX]b[`cZ`h`Y`]ggi Y`UbX
Yb\UbW]b[`mci`f`W]h`W]`h`]b_]b[`g_]""6ch`@YVh fYg`UbX`Hi hf]U'g`UfY`U`gc`h`Y`h`a Y`UbX`d`UW`k`Y`fY
UggYgga Ybh`c`W`W`fg" @A G`d`fc`j`]XYg`Ub`cb!`]bY`d`U`h`Z`fa`#gdUW`Z`f`mci`hc`d`c`gh]ggi Yg`fU]gYX`]b`WUgg"

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5ggYgga YbhHUg_g

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5bbchUHŸX'6]V`c[fUd\mi	&)	\$&# \$+ #&\$&%\$(. \$\$'DA	%ž'&ž'
Hi hcf]U`@YUXYf`	&)	GY Y' UXX]h]cbU`']bZcfa Uh]cb VY`ck "	%ž'&ž' ž)
Dfc'YWh) \$	>i `mi&' 'fj]XYcŁžUbX'5i [i gh- fŸggUmt	%ž'&ž' ž(ž)

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5ggYgga Ybh% '5bbchUHŸX'6]V`c[fUd\m

GHUfhXUHŸ.

DfY!h hc fJ U`dfYdUfUhc b. `WU`&`\ci fg/YUX`hY`h hc fJ U`WUgg. `WU`%\ci f/dcg h hc fJ U`UWj jhmUbX X]gW gg]cb. `WU`%\ci f`fa]b]a i a `(\ci fg`Zcf`hY`k \c`Y`hUg_£"

A Uf_g`UbX`ZYXVUW`VUgYX`cb`U`fi Vf]W

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

!8i Y`XUH`g.

%`8]gW gg]cb`a UHf]U`g`hc`VY`dcghYX`cb`A`ccX`Y`VmA`cbXUm(`da`cZ`hY`k`YY`_`mci`Y`UX`hY`WUgg"

&`GY`Z`fY`ZY`W]cb`cZ`mci`f`Y`UX`Y`fg`]d`fY`dc`f`hc`VY`gi`Va`]hYX`cb`A`ccX`Y`5gg][`ba`YbhVcl`Vm: f]XUm(`da`cZ`hY`k`YY`_`mci`Y`UX

hY`WUgg"

Gi Va]gg]cb`bchYg. `GYY`UXX]h]cbU`]bZcfa U]cb`VY`ck

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

5ggYgga`Ybh`. `Dfc`YWh

GHUfhXUH. `K`YY`_`(`Uh`hY`U`UH`gh

@Yb[`h. `%\$a]bg[`fci`d`j`]XYc`dfYgYbhU]cb`Z`%\$\$\$`k`cfXg`]bX]j`]Xi`U`YggUm

8YHJ]`g.

H\]g`]g`hY`Z`bU`UggYgga`YbhZcf`UH`Y`bX`Ub`W`di`fdcgYg":`YYXVUW`_`j`]U`a`Uf_g`UbX`fi`Vf]W`-`bX]j`]Xi`U`ZYXVUW`_`]g`Uj`U]`UV`Y`i`dcb`fYei`YghU`Z`Y`f`hY`Y`bX`cZ`h`fa`"

:]ghm`z`gh`XYbh`g`Zcfa`U`[`fci`d`cZ`(!)`k`]h`c`h`Y`f`gh`XYbh`"GYW`bX`m`z`fY`gY`U`f`W`]b`hc`hY`hc`d]W]g`WUff]YX`ci`h`Vm`fY`Z`Y`ff]b[`hc`fY`UX]b[`g`UbX`]b`X]gW`gg]cb`k`]h`c`h`Y`f`[`fci`d`a`Ya`VY`fg`"H\]fX`n`z`hY`[`fci`d`dfY`gY`bhU`g`cfh`j`]XYc`fU`dd`fcl`]a`UH`m`%\$`a`]bg`£`cb`@A`G`UbX`Y`UX`g`U`h`hc`fJ`U`X]gW`gg]cb`Xi`fb[`k`YY`g`-`!`%\$`f&`i`[`fci`d`k`cf`£`"@U`gh`n`z`fY`ZY`W]b[`cb`hY`j`]XYc`dfY`gY`bhU]cb`z`]bX]j`]Xi`U`gh`XYbh`k`f]h`U`%\$\$\$`k`cfX`YggUm`cb`hY`gUa`Y`hc`d]W`f&`i`£"

H\]g`]g`hY`Z`bU`UggYgga`YbhZcf`UH`Y`bX`Ub`W`di`fdcgYg":`YYXVUW`_`j`]U`a`Uf_g`UbX`fi`Vf]W`-`bX]j`]Xi`U`ZYXVUW`_`]g`Uj`U]`UV`Y`i`dcb`fYei`YghU`Z`Y`f`hY`Y`bX`cZ`h`fa`"

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

Mci`bY`YX`hc`j`]Yk`hY`j`]XYc`g`dcghYX`Vm`chY`f`[`fci`dg`hc`d`U`f]W]d`UH`]b`hY`X]gW`gg]cb`gYgg]cbg`]b`K`YY`g`-`UbX`%\$"

GYY`A`ccX`Y`Zcf`Z`f`hY`f`]bZcfa`U]cb"

Gi Va]gg]cb`bchYg. `J`]XYc`gi`Va`]gg]cb`cb`HYUa`g`7`UbbY`z`UbX`YggUm`gi`Va`]gg]cb`Vm`K`cfX`XcW`a`Ybhcb`Hi`fb]h]b

Hi fb]hb'gYhb[. 'H\]g'Ugg][ba Ybh]g'gi Va]hX'h'fci [\ 'Hi fb]hb'UbX'ghi XYbhg'Xc' bchgYY'Hi fb]hb
g]a]Uf]mfYdcfrg"

5 hYbXUbW F Yei]fYa Ybhg

5 hYbXUbW]g fYei]fYX Zcf Vch YW h fYg UbX h hcf]Ug" l bYI W gYX UVgYbW Zca a cFY hUb' &\$i cZ YW h fY#i hcf]U WUggYg k] fYgi h]b hY Uk UfX cZU ZU] fUXY"

h'@YW h fY#i hcf]Ug mci k] UW h j Y mYb[U[Y k]h Wc fY Wci fgY Wc bhY b hZ YbUV]b[mci hc U h U]b 7 @C %&Z UbX')"

5 hYbXUbW cZVch YW h fYg UbX h hcf]Ug]b K YY_g - UbX %\$ UfY a UbXU hcfm]b h]g Wci fgY Xi Y hc dfc YW h X]gW gg]cb gYgg]cbg"

@YW h fY U h Y b X U b W] g W X Y W _ Y X h f c i [\ ` c [g c b ` 6 ` U W _ V c U f X W c ` ` U V c f U h Y # Y W h f Y f Y W c f X] b [z U b X h h c f] U U h Y b X U b W] g W X Y W _ Y X V m h h c f] U ` [f c i d X] g W g g] c b "

7 ci fgY GWYXi Y

[J \]Yk WUgg h a Y h U V Y](#)

H]a Y h U V Y

8 U h Y	H m d Y	7 c b h Y b h
K YY_ '% ' %A Um! (' > i bY	@YW h fY	@YW h fY % 7 ci fgY h b h c X i W h] c b l b X Y f g h U b X] b [' > U d U b Y g Y ' D c d i ` U f ` 7 i ` h f Y ` G h X] Y g @YW h fY & . 9 U f m & \$ \$ \$ ` > D 7 ` 6 c c a
	Hi hcf]U	8]gW gg]cb YI Y f W] g Y
	5ggYgga Ybh	7 cbgi h U h] c b ` Z c f ` 5 b b c h U h Y X ` 6] V `] c [f U d \ m %
K YY_ '& . '+ > i bY ! % % > i bY	@YW h fY	@YW h fY % ` 9 U f m & \$ \$ \$ ` > D 7 ` 6 c c a @YW h fY & . % () ! % -) -
	Hi hcf]U	A c W _ h h c f] U ` ` Y U X Y f h U g _
	5ggYgga Ybh	7 cbgi h U h] c b ` Z c f ` 5 b b c h U h Y X ` 6] V `] c [f U d \ m &
K YY_ ' . %) ' > i bY ! % > i bY	@YW h fY	@YW h fY % ` 5 g r m b W f c b c i g ` Y W h f Y f f Y W c f X] b [` Y W h f Y h c b % () ! % -) - ` X i Y h c ` d i V `] W \ c `] X U m ` @YW h fY & . % () ! % -) - ` H i h c f] U ` ` @ Y U X Y f f Y Z Y W h] c b
	Hi hcf]U	H i h c f] U ` ` @ Y U X Y f G Y g g] c b %
	5ggYgga Ybh	7 cbgi h U h] c b ` Z c f ` 5 b b c h U h Y X ` 6] V `] c [f U d \ m `
K YY_ (. % & > i bY ! ` &) > i bY	@YW h fY	@YW h fY % ` % * \$! % * - @YW h fY & . % * \$! % * - ` H i h c f] U ` ` @ Y U X Y f f Y Z Y W h] c b
	Hi hcf]U	H i h c f] U ` ` @ Y U X Y f G Y g g] c b &
K YY_) . & , ' > i bY ! ` & > i m	@YW h fY	@YW h fY % ` % + \$! % + - @YW h fY & . % + \$! % + - ` H i h c f] U ` ` @ Y U X Y f f Y Z Y W h] c b

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

7ci fgY`fYUX]b[g`UfY`cb`@Y[Ubhc`j]U`A ccX`Y

F YWca a YbXYX`F Ygci fWg

6cc_`-` :` +\$` fNU`_j fcb]_i fi` :`gYb[c`B]\cb`bc`+\$!bYbE1`H\Y`7\fcb]WY
f&\$(%`L`

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

: cfa U`ZYXVUW`_Zca`'ghi XYbhg`k]`VY`Wc`Y`WYX`j]U`a m9I dYf]YbWZ`UbX`k]`VY`i gYX`hc`]a dfcj Y
Z`h`i`fY`]h`fU]cbg`cZ`h`]g`Wc`i`fgY`" `bZcfa U`fYU`!h`a Y`ZYXVUW`_]g`U`gc`j Yfmk Y`Wca Y`Y`]h`Yf`]b`dYfgcb`cf
h`fci [\`A`ccX`Y`Zc`fi`a`Zc`f`gi` [[Ygh]cbg`UbX`Wca`a`Ybhg`"

Gi Va]gg]cb 'cZ5ggYgga YbhiHUg_g

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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'ggi ddcfh4 i bgk "YXi "Ui "'Gi ddcfh
\ci fg'UfY', .\$\$Ua '—%\$.\$\$da 'cb'k YY_XUmg'UbX'-. \$\$Ua '—) .\$\$da 'cb'k YY_YbXg'fl *) 'XUmg'U'mYUfl" Ʒmci
UfY'i bUV'Y'hc'gi Va]hmc i f'Ugg][ba YbhiXi Y'hc'U'Zi '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 YbHg'k'hc
]bWi XY'Ug'Yj]XYbVW'hc'gi ddcfhmc i f'YI HYbg]cb'Udd'jW]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'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'g]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]bYj]U'A ccX'Y. \h'hdg.#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` `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` `W`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` `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` `[`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
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