



ARTS3643

5Xj UbWX`K f]h[b[`]b`>UdUbYgY

HYfa `H\fYY`##`&\$&\$

7ci fgY'8YHJ]`g

7fYX]hDc]bHg '*`

Gi a a UfmicZ\hY'7ci fgY

H\]g'Wci fgY dfYgYbHg Ub'cdccfhi b]hmZcfmci 'hc'XYj Y'cd'fYUX]b['UbX'k f]h]b['g_]`g]b'>UdUbYgY'k]h'U'k]XY j Uf]YhmcZ\hY h[YbfYg"6mZcWg]b['cb'Ub[i U[Y'UbX'hYi hcf[Ub]gU]cb'cZX]ZYfYbh[YbfY'hYi hgZ'hY'Wci fgY dfcj]XYg'mci 'k]h'hY'W'U''Yb[Y'hc'WYUHY# f]h'Y'mci f'ck b'hYi h'5'k]XY'fUb[Y'cZ>UdUbYgY'hYi hg'k]''VY dfYgYbH'X'hc'Yi d'cfY'\ck 'Ub[i U[Y'i gU[Yg'X]ZYf'UW'cfX]b['hc'[YbfY" H\fc i [\'[YbfY!VUgYX'fYUX]b['cZ gY'Y'W'X'hYi hgZ'mci 'k]''XYj Y'cd'fYUX]b['g_]`gZ'UbX''UHYf'h'cgY'g_]`g'k]''VY'i gYX'hc'k f]h'Y'mci f'ck b >UdUbYgY'hYi hg''H\Y]bH'b]h]cb'cZ\h]g'Wci fgY]g'hc'Z f'h'Y'f'XYj Y'cd'mci f'UW'ei]g]h]cb'cZUXj UbW'X'g_]`g]b k f]h]b["

H\]g'Wci fgY]g'hUi [\h]b'>UdUbYgY"

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

%' K f]h'UbX'fYUX']b'>UdUbYgY'Uh'Ub'UXj UbW'X''Yj Y''VmYi h'YbX]b['h'Y'_bck'YX[Y'cZ'_Ub'] Wca dci bXgZj cWUVi 'Ufm'UbX'Yi dfYgg]cbg"
&" K f]h'U'bUffU]h] Y']b'>UdUbYgY"
' " K f]h'U'fYdcfhVmYj U'i U]h]b['U'hc'd]WUbX'Yi dfYgg]b['cd]b]cbg"
(" 9j U'i UH'g_]`g]b'Yj U'i U]h]b['ck b'dYfZcfa UbW']b'k f]h]b['UbX'fYUX]b["

HYUWX]b['GhfUH[]Yg'

H\Y'Wci fgY]g'hUi [\hVmk UmicZ\h'fY'Y'\ci fg''Y'W'h' fY'UbX'cbY!\ci f'h'hc]U'k YY_'m'`#''Y'W'h' fYgZ'mci 'k]'' YUfb'UVci h'h'Y'k Y''!_bck b'']h'fUfmik cf'_cZ'h'Y'k YY_]b'cfXYf'hc''YUfb'UXj UbW'X''Yj Y'cZj cWUVi 'UfmZ'_Ub']Z UbX'Yi dfYgg]cbg'hc'dc']g'\mci f'gYbg]h]]hm'hc'k f]h'Y'b'hYi hg" #h'hc]U'gZ'mci 'k]''dfUW]W'hYi hik f]h]b[" Hc]a dfcj Y'mci f'k f]h]b[Z'mci 'k]''VY[i]XYX'hc'VY'Wca Y'Uk UfY'cZ'mci f'Y i fgh i hc]U'k YY_'m

5ggYgga Ybh

5ggYgga YbhHUg_g`

5ggYgga YbhHUg_	K Y][\h	8i Y'8UHŸ	Gh XYbh@YUfb]b[Ci hWta Yg'5ggYggYX
B UffUHj Y`k f]h]b[`	' \$i	%* #/%#&\$&\$`\$). \$\$`DA	%ž&ž
E i]n`	&\$i	Bch5dd`]WVY	%
5bU`m]WV`K f]h]b[`	(\$i	&` #/%#&\$&\$`\$). \$\$`DA	%ž ž(

5ggYgga Ybh' . '5bU`mh]WU`K f]h]b[

GHUfhXUHY . 'Bch5dd`]WUV`Y

8YHU]`g.

Mci `Wffmici hfYgYUfW`cb`U`gY`YW`X`hd]WUbX`k f]h]U`fYdcfhf]bX]j]Xi U`k cf_ž(\$\$\$!) \$\$\$`WUfUW`YfgL`
Mci `k]`fYW`j Y`U`fYgi `hUbX`k f]h]b`ZYXVUW`" `H\]g`]g`h\Y`žbU`UggYgga Ybhžf`U`h]bXUbW`di fdcgYg"

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

GYY`A ccX`Y`žf`XYHU]`g"

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

5ggYgga Ybh(. `GY`Z5ggYgga Ybh

GHUfhXUHY . `&`#`\$`-`#`&`\$`\$`%`&`.\$`\$`DA

8YHU]`g.

Mci `UggYgg`mci `f`ck`b`d`Yfžfa`UbW`cb`fYUX]b[``]h]fUW`hik`cf_`UbX`h]i`hk`f]h]b[`VmifYZYW]b[`cb`mci`f`YUfb]b[
UW]j`]h]Yg`f]b`UbX`ci`hg]XY`WUggž`gY`ž`UbX`d`YYf]W`ffYW]cbg`" `H\]g`]g`h\Y`X`Xi`f]b[`WUgg`žf`)`k`YY_g
f%\$a`]bg`#`YY_ž`&i`#`YY_ž`"

Mci `k]`fYW`j Y`U`bi`a`Yf]W`a`Uf`" :`YYXVUW`j`]U`WUgg`X]gW`gg]cb`"5XX]h]cbU`ZYXVUW`k`]`VY`[`]j`Yb
i`dcb`fYei`Ygh`"

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

GYY`A ccX`Y`žf`XYHU]`g"

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`

- 6cc_-'F]gci `bc`_c_i [c`_mc_i _Ug\c`f&\$\$&Ł
- 6cc_-'8cfUY`a cb`bc`? Ub^ž>mi`_i [c`c`Hgi`_U]k U_Yfi`f&\$\$ Ł
- 6cc_-'!`8cfUY`a cb`bc`Mc^†^†_i [c`%\$\$`f&\$\$) Ł

F YWca a YbXYX`F Ygci fWg

F]_U]WU`b` \hfdg.##JXXcbg`a cn]`U"cf[#U#Z]fYZcI #JXXcb#f]_U]WU`b`
` \hfd.##k k k "[Uj c`"hi`!hc`_mc`"UW`d`#`UX#d\`fUg]b[#bXYI

\hfd.##k k k "[Uj c`"hi`!hc`_mc`"UW`d`#`UX#dU[Yg#`g]b[#d\`fUg]b[

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

: cfa U`Yj U`i Uh]cb`k]`VY`Wc`Y`WYX`j]U`A m9I dYf]YbWZ`UbX`k]`VY`i gYX`rc`ja dfcj Y`Z`h`fY`j]YfUh]cbg`cZ`h]g
Wc`i fgY`" `bZcfa U`žfYU`h]a Y`Z`YXVUW`_j]g`U`gc`j Yfmk Y`Wca YžY]h\Yf`]b`dYfgcb`cf`h\fcI [\`U`dYfa UbYbhm
cdYb`Zcfi a`Zcf`X]gW`gg]cb`cZgi [[Ygh]cbg`UbX`Wca a Ybth"

Gi Va]gg]cb`cZ5ggYgga YbhiHUg_g

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

≠mci`YbWci bHYf`U`dfcV`Ya`k` \Yb`UH`Ya` dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`h`fci`[`\`Hi`fb]h]b`z`d`Y`Ug`Y`
HY`Yd`cb`Y`9I`HY`fb`U`Gi`ddc`fh`cb`-`,`,)``''`%`cf`Ya`U]`h`Ya`i`cb`YI`HY`fb`U`HY`hgi`ddc`fh`4`i`bgk`"YXi`"Ui`""`Gi`ddc`fh`
`l`ci`fg`UfY`,`.\$`\$Ua`-`-%`\$.\$`\$da`i`cb`k`YY`_X`Umg`U`bX`-`.\$`\$Ua`-`-`).`\$`\$da`i`cb`k`YY`_Y`bX`g`f`l`*)`X`Umg`U`m`Y`U`f`l`"≠mci`
UfY`i`b`UV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`Xi`Y`hc`U`Z`Ji`h`k`]h`Hi`fb]h]b`mci`a`Um`Udd`m`Z`f`U`b`YI`HY`bg]cb`z`Vi`hmc`i`
a`i`gh`f`Y`h]b`mci`f`h]W`Y`hbi`a`VY`f`Z`ca`9I`HY`fb`U`Gi`ddc`fh`f`U`cb[`k`]h`U`b`m`c`h`Y`f`f`Y`Y`U`b`h`X`c`W`a`Y`b`h`g`k`h`c`
]b`Wi`XY`U`g`Y`j`]X`Y`b`W`hc`gi`ddc`fh`mci`f`YI`HY`bg]cb`Udd`]W`h]cb`"≠mci`Ya`U]`9I`HY`fb`U`Gi`ddc`fh`mci`k`]`
Ui`h`ca`U`h]W`U`m`f`Y`W`]j`Y`U`h]W`Y`hbi`a`VY`f`z`Vi`h]Z`mci`HY`Yd`cb`Y`mci`k`]`b`Y`Y`X`hc`gd`Y`W`Z]W`U`m`U`g`_`Z`f`c`b`Y`"
Hi`fb]h]b`U`gc`d`fc`j`]X`Y`g`i`d`X`U`h`Y`g`c`b`h`Y`]f`g`m`g`h`Y`a`i`g`h`U`h`g`c`b`H`k`]h`Y`f`"

;`Yb`Y`f`U`m`z`U`gg`Y`g`g`a`i`gh`V`Y`gi`Va`]h`Y`X`Y`Y`W`f`c`b]W`U`m`j`]U`Y`]h`Y`f`Hi`fb]h]b`c`f`U`A`cc`X`Y`
U`gg][`ba`Yb`h`i`h`]b`g`h`U`b`W`g`k` \Y`f`Y`h`l`g`]g`b`c`h`d`c`g`g]V`Y`z`]h`k`]`V`Y`g`h`U`h`Y`X`c`b`mci`f`W`ci`fg`Y`g`A`cc`X`Y`g`]h`k`]h`
U`h`Y`fb`U`h]`Y`gi`Va`]gg]cb`X`Y`h]g`"

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

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

D`U[]Uf]ga `]g`i`g]b[`h`Y`k`cfXg`cf`]XYUg`cZc`h`Yfg`UbX`d`fYgYbh]b[`h`Ya`Ug`mci`f`ck`b``#WUb`hU`_`Y`a`Ubm
Zcfa`gZ`Zca`X`Y`]VYfU`h`V`X`Y`U`h]b[`h`c`U`W`W`X`Y`b`h`U`m`i`W`c`d`m]b[`Z`ca`U`g`ci`f`W`k`]h`ci`h`U`W`_`b`ck`Y`X[`Ya`Y`b`h`

I`B`G`K` `[`f`ci`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]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'Y'fg'k]`VY'bYk " "; U]b]b['U'gc`X'i bXYfghUbx]b['cZU`'h'Y fY'UH'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.##gi V'Y'W'i \]X'Yg" \]VfUfm'i bgk "YXi "Ui #' \]gY#\]Vci h' \]gY](#)

