



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'cddcfh b]hmZcfmci 'hc'XYj Y'cd'fYUX]b['UbX'k f]h]b['g_]`g]b'>UdUbYgY'k]h'U'k]XY j Uf]YhmcZHYI 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]HY'mci f'ck b'HYI H'5'k]XY'fUb[Y'cZ>UdUbYgY'HYI hg'k]''VY dfYgYbHYX'hc'YI d'cfY'\ck ''Ub[i U[Y'i gU[Yg'X]ZYf'UWwcfX]b['hc'[YbfY''H\fcI [\'[YbfY!VUgYX'fYUX]b['cZ gY'YWYX'HYI hgZ'mci 'k]''XYj Y'cd'fYUX]b['g_]`gZ'UbX''UHYf'h'cgY'g_]`g'k]''VY'i gYX'hc'k f]HY'mci f'ck b >UdUbYgY'HYI hg''H\Y]bHY'b]cb'cZ\h]g'Wci fgY]g'hc'Z f'hYf'XYj Y'cd'mci f'UWci]g]h]cb'cZUXj UbWYX'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]HY'UbX'fYUX']b'>UdUbYgY'UhUb'UXj UbWYX''Yj Y''VmYI hYbX]b['hY'_bck'YX[Y'cZ_Ub^
Wca dci bXgZj cWUVi 'UfmUbX'YI dfYgg]cbg"
&" K f]HY'U'bUffUHj Y']b'>UdUbYgY"
' " K f]HY'U'fYdcfhVmYj U'i Uh]b['U'hc]WUbX'YI dfYgg]b['cd]b]cbg"
(" 9j U'i UHY'g_]`g]b'Yj U'i Uh]b['ck b'dYfZcfa UbWY']b'k f]h]b['UbX'fYUX]b["

HYUWX]b['GhfUH[]Yg'

H\Y'Wci fgY]g'hUi [\hVmk UmicZ\hYfY'\ci fg''YWh' fY'UbX'cbY!\ci f'hi hcf]U'k YY_'m'`b''YWh' fYgZ'mci 'k]''
'YUfb'UVci h'hY'k Y''_bck b'']HYfUfmik cf_'cZ\hY'k YY_]b'cfXYf'hc''YUfb'UXj UbWYX''Yj Y'cZj cWUVi 'UfmZ'_Ub^Z
UbX'YI dfYgg]cbg'hc'dc']g\mci f'gYbg]h]]hmhc'k f]HYb'HYI hg" `b'hi hcf]U'gZ'mci 'k]''dfUW]WY'HYI hik f]h]b[" Hc
]a dfcj Y'mci f'k f]h]b[Z'mci 'k]''VY [i]XYX'hc'VYWca Y'Uk UfY'cZmci f'Y i fgh i hcf]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`Z]bU`UggYgga YbhZcf`U`h]bXUbW`di fdcgYg"

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

GYY`A ccX`Y`Zcf`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`dYfZcfa 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`WUggLžgY`Z`UbX`dYf!W`ffYW]cbg" `H\]g`]g`h\Y`X`Xi f]b[`WUgg`Zcf)` `k YY_g
f%\$a]bg#`YY_ž&i` #`YY_Ł"

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`Zcf`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 Ub` \hfdg.##JXXcbg`a cn]`U"cf[#U#Z]fYZcl #JXXcb#f]_U]WU Ub#
` \hfd.##k k k "[Uj c`hi`!hc_mc`"UW`d#ŁX#d\`fUg]b[#bXYI

\hfd.##k k k "[Uj c`hi`!hc_mc`"UW`d#ŁX#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`W`X`j]U`A m9I dYf]YbW`ž`UbX`k]`VY`i gYX`rc`ja dfcj Y`ž`h`fY`j]Y`fUh]cbg`cZ`h]g
Wc`i fgY`"ŁZcfa U`ž`fYU``h]a Y`Z`Y`X`V`U`W`_`]g`U`gc`j Yfmk Y`Wc`a Y`ž`Y`h`Y`f`]b`d`Y`fg`cb`c`f`h`fci [\`U`d`Y`fa UbYbhm
cdYb`Zc`fi a`Zc`f`X`]g`W`gg]cb`c`Zgi [[Ygh]cbg`UbX`Wc`a a Yb`hg"

Gi Va]gg]cb`cZ5ggYgga YbhiHUg_g

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

≠mci`YbWci bHYf`U`dfcV`Ya`k` \Yb`UHYa` dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`YbhiHfci`[`\`Hi`fb]h]b`z`d`YUgY`
HY`Yd`cbY`9I`HYfbU`Gi`ddcfhcb`-`,`)`"``"``%cf`Ya`Uj`h`Ya`cb`YI`HYfbU`HY`hgi`ddcfh4`i`bgk`"YXi`"Ui`"Gi`ddcfh`
`lci`fg`UfY`,`.\$\$Ua`-`-%\$.\$\$da`cb`k`YY`XUmg`UbX`-`.\$\$Ua`-`).\$\$da`cb`k`YY`YbXg`f1`*)`XUmg`U`mY`Uf2`≠mci`
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`YbhiXi`Y`hc`U`Zi`h`k`]h`Hi`fb]h]b`mci`a`UmUdd`m`Zc`f`Ub`YI`HYbg]cb`z`Vi`hmc`i`
a`i`ghfYhU]b`mci`f`h]W`Yhbi`a`VYf`Zca`9I`HYfbU`Gi`ddcfhU`cb[`k`]h`Ubmc`h`Yf`fY`Yj`UbhXcW`a`YbHg`L`hc`
]bWi`XY`Ug`Yj`]XYbVW`hc`gi`ddcfhmc`i`f`YI`HYbg]cb`Udd`]W]h]cb`≠mci`Ya`Uj`9I`HYfbU`Gi`ddcfhmc`i`k`]`
Ui`hca`U]WU`m`fYW]j`Y`U`h]W`Yhbi`a`VYf`z`Vi`h]Zmci`HY`Yd`cbY`mci`k`]`b`Y`Y`X`hc`gd`Y`W]Z]WU`m`Ug`_`Zc`f`cbY`
Hi`fb]h]b`U`gc`dfcj`]XYg`i`dXUH`g`cb`h`Y]f`gmgh`Ya`g`hU`h`g`cb`Hk`]hYf`"

;`YbYfU`m`z`UggYgga`YbhiUg_g`a`i`ghVY`gi`Va`]hYX`Y`Y`Wfcb]WU`mj`]U`Y]h`Yf`Hi`fb]h]b`cf`U`A`ccX`Y`
Ugg][`ba`Ybhi`h`]bghU`bVW`g`k` \YfY`h`g`]g`bchidcgg]V`Y`z`]hk`]`VY`gh`U`H`X`cb`mci`f`Wci`fgY`g`A`ccX`Y`g]h`k`]h`
U`HYfbU]h]`Y`gi`Va`]gg]cb`XYhU]g`"

:`cf]b`Zcfa`U]cb`cb`lck`hc`gi`Va`]hUgg][`ba`YbHg`cb]bY`j`]U`A`ccX`Y`.\`h`hdg`#`gh`XYbhi`bgk`"YXi`"Ui`#ck`!
gi`Va`]hUgg][`ba`Ybhi`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]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'j]b'h'Y'I BGK 'Wca a i b]m
- `cWJh'gYfj]Wg'UbX'j]bZcfa 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 ""

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

