



ARTS3289

8cW a YbUfm:]a 'UbX' <]ghc fm

HYfa 'H\ fYY' ##' &\$%-

7ci fgY`Cj Yfj]Yk

`GHUZZ7cbhUWhi8YHU]`g`

`7cbj Ybcfg`

B Ua Y	9a U]`	5j U]`UV]`]m	@cWU]hcb	D\cbY
F i h\`6U]bh	f"VU]bh# i bgk "YXi "Ui	A cbXUm! !("	A cfj Yb`6fck b` ' ()	- ' ,) ; , & + ,

GW\cc``7cbhUWhi#Zcfa U]hcb

GW\cc``cZ<i a Ub]hYg`UbX:@Ub[i U[Yg

@cWU]hcb. `GW\cc``C Z]WZ`A cfj Yb`6fck b`6i]X]b[ž@Yj Y``&ž&),

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

D\cbY. `ž*%&`- ' ,) `)* , %

: U! . `ž*%&`- ' ,) ; , +\$)

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

7ci fgY'8YHJ]`g

7fYX]hDc]bhr '*`

Gi a a UfmicZh\Y'7ci fgY

Gi VYWh5fYU.: [efack

8c`XcW a YbHf]Yg`h`h\Y`fi h3'7 Ub`k Y`fY`mcb`h\Ya`Ug`gci fWg`cZ`]g`h`fmB`b`h`]g`Wci fgY`mci`k`j`
k UH\z`UbU`mgY`UbX`XYVUH`ck`XcW a YbHfmiZ`a`g`Uj`Y`Vch`fYdfYgYbhX`UbX`fY]bj`YbhX`h\Y`dUgh`fca
h\Y`YUf]YghfUX]W`6c`g`Yj`_`d]cbYYfg`h`h\Y`ca`Y`a`cj`]Yg`cZ`h\Y`Zc`ff]Yg`z`h`h\Y`W`ffYbhi`gY`cZ`h\Y`d`cbY
WJa`YfU`h`fYW`fX`Ya`Yf[`YbWhiUbX`k`Ufz`UbX`Yj`Yb`h`h\Y`k`]X`]Z`XcW a YbHfmiZ`h`]g`Wci fgY`YI`d`cfYg`ck
XcW a YbHfmiZ`a`g`]bhYfdYh`h\]g`h`fmZ`a`U`Y`h`]g`h`fmUbX`]b`gca`Y`WgYg`z`W`Ub[`Y`h`]g`h`fm`

5ggYgga Ybh

5ggYgga YbhHUg_g`

5ggYgga YbhHUg_	K Y][\h	8i Y'8UHŸ	Gh XYbh@YUfb]b[Ci hWta Yg'5ggYggYX
A Ucf'9ggUm) \$i	%g#%g#&\$%- '\$) .\$\$'DA	%z&Z
Hi hcf]U`fYgdcbgYg`	&) i	%, #/\$#&\$%- '\$) .\$\$'DA	%z&Z
HYgh	&) i	Bch5dd`]WUV`Y	%z&Z

5ggYgga Ybh8YHU]`g

5ggYgga Ybh%`A Ucf'9ggUm

GHfhXUHŸ. `Bch5dd`]WUV`Y

@Yb[h. `&\$\$\$`k cfxg

8YHU]`g. `F YgYUfW`YggUm`&\$\$\$`k cfxg" `5bgk Yf]b[`U`gYhei Ygh]cb`gci fW`UbX`UbU`mgY`cbY`cf`a`cfY
XcW`a`YbhUfmZ]`a`g`UbX`'\]ghcf]WU]`gci fW`g`hc`a`U`_`Y`Ub`]bZcfa`YX`Uf[`i`a`Ybh`H`Y`ZYXVUW_]`g`]b`h`Y`Zcfa`cZU

GhUfhXUHY. '&&#/%#&\$%- '%\$. \$\$'5A

@Yb[h. 'Hk c'\ci fg

8YHU]`g. 'H\Y`hYgh]g`U`k f]hYb`hYghz`UbX`k]``UggYgg`gh XYbhg`'i bXYfghUbX]b[`cZ`YWñi fY`UbX`hi hc f]U`a UHf]U`
Zcf`h\Y`Ybh]fY`Wci fgY"'`#k]``hU`_Y`d`UWV`]b`h\Y`Z]bU`k`YY`_cZ`hYfa "H\YfY`k]``VY`bc`ZYXVUW`_Zcf`h\]g
UggYgga`Ybh`

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

H\Y`hYgh]g`Ub`]b!WUggz`WcgYX`Vcc`_`hYgh`

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`

D`YUgY`bch`h\YgY`k]`VY`dfcj]XYX`cb`a ccX`Y"

F YWca a YbXYX`F Ygci fWg

H\YgY`k]`VY`dfcj]XYX`cb`a ccX`Y"

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

Gh XYbhYj U`i Uh]cbg`UfY`hU`Yb`gYf]ci g`m]b`h`g`Wci fgYz`UbX`gh XYbhg`UfY`YI dYWfX`hc`Wca d`Yh`h`Y
A m9I dYf]YbW`ZYXVUW`Uh`h`Y`YbX`cZ`h`Y`Wci fgY" Gh XYbhg`Uj Y`dfYj]ci g`m`c] YX`h`g`Wci fgY"; fci d
dfYgYbhUh]cbg`Ufci bX`U`g]b[`Y`XcW a YbhUfmZ`a`fYW]j YX`Ygg`dcg]h] Y`ZYXVUW`Ug`Ub`UggYgga YbhUg`z
UbX`h`g`Ug`bck`VYYb`fYa`cj`YX"

Gi Va]gg]cb`cZ5ggYgga YbhHUg_g

Gi Va]gg]cb`cZ5ggYgga YbhHUg_g

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

≠mci`YbWci bhYf`U`dfcV`Ya`k`Yb`U`H`Ya`dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybh`h`fci`[`\`Hi`fb]h]b`z`d`YUgY`
H`Y`d`cb`Y`9I`H`fb`U`Gi`ddcfh`cb`-`,`)`'`'`'`%`cf`Ya`U]`h`Ya`cb`YI`H`fb`U`H`hgi`ddcfh`4`i`bgk`"YXi`"Ui`"Gi`ddcfh`
`ci`fg`UfY`,`.\$\$Ua`-`%\$.\$\$da`cb`k`YY`XUmg`UbX`-`.\$\$Ua`-`).\$\$da`cb`k`YY`YbXg`f`l`*)`XUmg`U`m`Y`Uf`l`"≠mci`
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybh`Xi`Y`hc`U`Z`U`h`k`]h`Hi`fb]h]b`mci`a`Um`Udd`m`Z`f`Ub`YI`H`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`H`fb`U`Gi`ddcfh`f`U`cb[`k`]h`Ub`mc`h`Y`f`f`Y`j`Ub`h`X`c`W`a`Y`b`h`g`l`hc`
]b`Wi`XY`Ug`Y`j`]X`Y`b`W`hc`gi`ddcfh`mci`f`YI`H`bg]cb`Udd`]W`h]cb`"≠mci`Ya`U]`9I`H`fb`U`Gi`ddcfh`mci`k`]"`

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`mWc`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`U`b[]b[`U`ZYk`k cfXg`UbX`d`fUgYg`k`Y`a cghmifYU]b]b[`hY`cf][]bU`
ghfi W`i 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[Y`hYf`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'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`]b'h'Y'I BGK 'Wca a i b]m
- `cWJh'gYfj]Wg'UbX']bZcfa Uhcb'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. #gj V'YWf i \]XYg" \]VfUfm'i bgk "YXi "Ui #` \]gY#JVci h' \]gY](#)

