



# ARTS2631

HYfa YX]UH'>UdUbYgY'6

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

GWcc`cZ<i a Ub]hYg'UbX'@Ub[ i U[ Yg'`# 'I BGK `5ftg'UbX'GcWU'`GWYbWg

7ci fgY`Cj Yfj ]Yk

GHJZZ'7cbHJW`8YHJ]`g

7cbj Ybcfg

B Ua Y	9a U]`	5j U]`UV]`]m	@cW]h]cb	D\cbY
Gi a ]_c`]XU	g"]XU4 i bgk "YXi "Ui	H65`cb`A ccX`Y	A cfj Yb`6fck b`&+&	- ' , ) `` + ( )

Hi hcf g

B Ua Y	9a U]`	5j U]`UV]`]m	@cW]h]cb	D\cbY
5hca ]`C \Ua U	U"c\Ua U4 i bgk "YXi "Ui		A cfj Yb`6fck b`&\$(`	- ' , ) `` + *'
BcVi U_]5_U[ ]	b"U_U[ ]4 i bgk "YXi "Ui		A cfj Yb`6fck b`&\$(`	- ' , ) `` + *'

GWXcc``7cbHJW`bZcfa Uh]cb

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

@cW]h]cb. `GWXcc``C Z]W]ZA 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]bHg`\*`

Gi a a UfmcZh\Y'7ci fgY

H\Y`Wti fgY`ZcW`gYg'cb'>UdUbYgY`Wta a i b]WU]cb']b'i ddYf'VY[ ]bbYfg`Yj Y`h\fc i [ \`X]ZYfYbhhd]Wg'h\Uh

H\Y`Wci fgY`i gYg'; Yb\_]`&Ug`U`hI hVcc\_`"H\Y`Zc`ck ]b[ `) `hcd]Wg`UfY`Wcj YfYX`]b`h\Y`Ugh) `WUdhYfg`cZh\Y  
Vcc\_`

%`"````Dc`]hYbYgg`f\c bcf]Z]W]b`Zcfa U`Wca a i b]W]h]cbE

&`"````Dc`]hYbYgg`f\i a V`Y`]b`Zcfa U`Wca a i b]W]h]cbE

'`"````7ca d`U]bhUbX`bi ]gUbW

(`"````9Xi W]h]cb

)`"````F Yj ]Yk `cZh\Y`hYfa `UbX`Z`h`fY`d`Ub

5ggYgga Ybh

5ggYgga YbhHUg\_g

5ggYgga YbhHUg_	K Y][ \h	8i Y'8UH	Gh XYbh@YUfb]b[ Ci hWta Yg'5ggYggYX
7`Ugg`HYghg`	' \$i	Hi hf]U`WUgg]b`K ) `UbX`cbY \ci f`YWf`fY`b`K - fBcj Ya VYf`%&t	%z)
9I Ua `	' )i	8i f]b[ `hY`YI Ua `dYf]cX	%z&z z)
Dfc`YWf`Dcfh`c`]c`	&\$i	fYdcfh#c[ `hc`VY`dcghYX`cb A ccX`Y`k`]h`]b`hk`c`XUmg`UZhf YUW`UWf]`]m`	%z(
7ca dcg]h]cb`UbX DfYgYbhU]cb`	%i	A i`hd`Y`8i`Y`XUH`g`"GYY 5XX]h]cbU`]bZcfa U]cb`VY`ck	%z&z z)

5ggYgga Ybh8YfU]`g

5ggYgga Ybh%`7`Ugg`HYghg

GhUfhXUH. `Bch5dd`]WV`Y

@Yb[ h. `&\$`a ]bi hYg`dYf`hYgh

8YfU]`g.

Mci `k ]`Wta d`Yh`hk`c`ei ]hnyg`cZWU`"&\$`a ]bi hYg`YUW`z`Wta df]g]b[ `U`Wta V]bU]cb`cZX]WU]cb`UbX

H\]g'jg'U'&! \ci f'YI Ua ]bU]cb' ]b' h\Y'Zcfa U'YI Ua ]bU]cb'dYf]cX" H\Y'YI Ua ]bU]cb'Wcbg]ghg'cZa i'hd`Y Wxc]W'ei Ygh]cbg'UbX'g\c f h c'`cb[ 'Ubgk Yf'ei Ygh]cbg" Mci f'a Uf\_`k ]`VY'Uj U]UV'Y'cb'@A G'UbX'mci `WUb Wcbgi `hk ]h' h\Y'`YWh' fYf'Zcf'Z f h\Yf'ZYXVUW\_" H\]g'jg' h\Y'Z]bU'UggYgga YbhZcf'U h\Y'bxUbW'`di fdcgYg"

5XX]h]cbU'XYHJ]g.

Mci Zcf'mci f'ZJa ]ma Ya VYfgZ'a i ghbcha U\_Y'Ubm]fUj Y'UffUb[ Ya Ybhi bh' h\Y'YI Ua `h]a YHUV'Y'jg fY'YUgYX"

5ggYgga Ybh' . `Dfc'YWh'DcfhZc`]c

GHUfhXUH'.

8YHJ]g.

Mci `k ]`gY'YWh'UbX'Wca d'YH'`YUfb]b[ 'UW]j ]hYg'UW'cgg'h\Y'gYa YghYf'cb'U'fY[ i 'Uf'VUg]g'fUddfcl ]a UH'm' \$ a ]bg'dYf'k YY\_`E'UbX'fYdcf hcb' h\Ya `]b'>UdUbYgY' ]b' h\Y'Zcfa `cZU'DcfhZc`]c'cb'@A G": YYXVUW\_j ]U'a Uf\_g UbX'fi Vf]W

5XX]h]cbU'XYHJ]g.

7\YW\_U'gYdUfUH'XcW a YbhZcf'Z f h\Yf']bZcfa Uh]cb'cZYUW'UW]j ]m' A ccX'Y'fYdcf hgdUW'k ]`VY'WcgYX'cb'Gi bXUmZ' Bcj Ya VYf'&&'f( da E"

Gi Va ]gg]cb' bchYg.Dcghh\Y'`c[ #Ydcf hfk ]h'Yj ]XYbW' ]ZfYei ]fYX'c'cb'A ccX'Y'Zcf'U'`UW]j ]hYg"

Hi fb]h]b'gYh]b[ . H\]g'jg' bchU'Hi fb]h]b'Ugg][ ba Ybh

5ggYgga Ybh( . `7ca dcg]h]cb'UbX'DfYgYbhU]cb

GHUfhXUH'.

@Yb[ h.

Gi Va ]gg]cb'bcHfg.Hi fb]hb']g'i gYX'Zcf'h\Y'ZfghXfUZhgi Va ]gg]cb'Zcf'mci f'WUgg'hi hcf''H\Y'ch\Yf  
gi Va ]gg]cbg'UfY'j ]U': cfi a 'cb'A ccX'Y"

Hi fb]hb'gYH]b[ . H\]g'Ugg][ ba Ybh]g'gi Va ]hYX'h'fci [ \ 'Hi fb]hb'UbX'ghi XYbhg'Xc'bcHgYY'Hi fb]hb  
g]a ]Uf]mifYdcfng"





<p>K YY_) . %&amp;'C Wtc VYf!' %* C Wtc VYf</p>	<p>@YWh fY  Hi hc f]U'</p>	<p>@YWh fY '% '7 \UdhYf' &amp;%fBi ]gUbWfI7 i 'hi fYž ; fUa a Ufž'UbX'DfUWf]WV' @YWh fY '&amp; . '7 \UdhYf' &amp;%fBi ]gUbWfI7 i 'hi fYž F YUX]b[ 'UbX'K f]h]b[ 'ZcW g . 7 'Ugg'HYghfI7 cj Yfg'7 \UdhYfg' % - 'UbX' &amp;\$Ł HU_]b[ 'UVci hibi ]gUbWf' mci '\Uj Y'YI dYf]YbWfX"</p>
<p>K YY_*. %&amp;'C Wtc VYf!' &amp; C Wtc VYf</p>	<p>@YWh fY Hi hc f]U' DfYgYbU]h]cb</p>	<p>Bc'YWh fY'h ]g'k YY_" Bc'h hc f]U'h ]g'k YY_" DfYgYbU]h]cb XfUZhifWca dcg]h]cbŁ ]g'Xi Y'Uh( da cb': f]XUmž' C Wtc VYf' &amp;' 'cb'h fb]h]b"</p>
<p>K YY_+. '&amp;'C Wtc VYf!' '\$ C Wtc VYf</p>	<p>@YWh fY  Hi hc f]U'</p>	<p>@YWh fY '% '7 \UdhYf' &amp;%fBi ]gUbWfI7 i 'hi fYž ; fUa a Ufž'UbX'DfUWf]WV' @YWh fY '&amp; . '7 \UdhYf' &amp;%fBi ]gUbWfI7 i 'hi fYž ; fUa a Uf'UbX'DfUWf]WV' HU_]b[ 'UVci hYf'] ]cb'UbX'VY' ]YZ]b' &gt;UdUb</p>
<p>K YY_ . . '&amp;'Bcj Ya VYf!' * Bcj Ya VYf</p>	<p>@YWh fY  Hi hc f]U'</p>	<p>@YWh fY '% '7 \UdhYf' &amp;%fBi ]gUbWfI7 i 'hi fYž ; fUa a Ufž'UbX'DfUWf]WV' @YWh fY '&amp; . '7 \UdhYf' &amp;%fBi ]gUbWfI7 i 'hi fYž ; fUa a Uf'UbX'DfUWf]WV' Wcb]h]bi Yg @YWh fY '% '7 \UdhYf' &amp;%fBi ]gUbWfI7 i 'hi fYž ; fUa a Uf'UbX'DfUWf]WV' Wcb]h]bi Yg'k ]h' F YUX]b[ 'UbX'K f]h]b[ 'ZcW g DfUWf]WV' fYei Ygh]b[ 'k ]h' WLi gU]j Y'j YfVg"</p>
<p>K YY_ - . - 'Bcj Ya VYf! 'Bcj Ya VYf</p>	<p>@YWh fY</p>	<p>@YWh fY '% '7 \UdhYf' &amp;' fi i hi fY'D'Ubfi7 i 'hi fYž ; fUa a Ufž'UbX'DfUWf]WV' Wcb]h]bi Yg @YWh fY '&amp; . '7 'Ugg'HYghUbX'7 \UdhYf' &amp;' '7 cb]h]bi Yg</p>

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

- ; Yb\_]`=
- ; Yb\_]`=K cf\_Vcc\_

F YWca a YbXYX`F Ygci fWg

BchUj U]UV`Y

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

: cfa U`ZYXVUW`Zca`ghi XYb]k`j`VY`Wc`YWYX`j`U`a`m9I`dYf]YbWZ`UbX`k`j`VY`i`gYX`hc`]a`dfcj`Y`Z`h`fY`  
]h`fU]cbg`cZ]g`Wc`i`fgY`"`#Zcfa`U`fYU`!h]a`Y`ZYXVUW`]g`U`gc`j`Yfmk`Y`Wca`Y`Y]h`Yf`]b`dYfgcb`cf`h`fci`[\`U`  
A`ccX`Y`Zc`fi`a`Zc`f`gi`[[`Ygh]cb`UbX`Wca`a`Yb]g`"

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`XUmg`UbX`-`.\$\$Ua`-`).\$\$da`i`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`Ybhi`Xi`Y`hc`U`Z`Ji`h`k`]h`Hi`fb]h]b`mci`i`a`Um`Udd`m`Z`f`Ub`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`Ub`m`c`h`Y`f`f`Y`Y`Ub`h`X`c`W`a`Y`b`h`g`k`h`c`  
]b`Wi`XY`Ug`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`Ug`\_`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`Ugg`Y`gga`Yb`hi`U`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`  
Ugg][`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`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`"

:`c`f`]b`Z`c`fa`U`h]c`b`c`b`l`c`k`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`#`c`k`!  
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`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]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'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']b'h'Y'I BGK 'W'a a i b]m
- 'cW'W'h'gYfj ]W'g'UbX' ]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 cgh'cZ'mci f'gh X]Yg'Uhl BGK ""

[\h'hd.##gi V'Y'W'i \]X'Yg" \]VfUfm'i bgk "YXi "Ui #' \]gY#\]Vci h' \]gY](#)

