



ARTS2384

Dc`j]WU`D\]`cgcd\m

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

GWXcc``cZ<i a Ub]hYg`UbX`@Ub[i U[Yg`#`! BGK `5ftgz8Yg][b/ `5fWX jhYWh fy

7ci fgY'8YHJ]`g

7fYX]hDc]bHg`*`

Gi a a UfmicZ`h`Y'7ci fgY

H\Y`W`ei fgY`dfcj]XYg`mci `k]h`U`gc`]X`Zci bXU]cb]b`dc`]h]W]`d\`]cgcd\mVma YUbg`cZWcgY`fYUX]b[g`cZ
W]b]fU`hYI hg`Vmi]h]b_Yfg`gi W`Ug`H\ca Ug`<cVYgZ`>c\b`@cW_Y`UbX`<UbbU\`5fYbXH`Dc`]h]W]`d\`]cgcd\m
YI Ua]bYg`h`Y`bU]i fY`UbX`^ gh]Z]W]h]cb`Zcf`h`Y`]bg]h]i h]cbg`cZ[cj Yfba Yb]h`h`Y`U]a g`cZ[cj Yfba YbhUbX`h`Y
XYg]fYX`ci h`W`a Yg`gi W`Ug`Z`Y`Y`X`ca ž`Yei U`]m]UbX`^ gh]W`"I b`_Y`dc`]h]W]`g]W]YbW]`]h]g`bchidi fY`m
XYgW]d]h] Y`Vi hU`gc`bcfa U]h] YžUg_]b[`k` \mk`Y`g`lci `X`\Uj`Y`W]f]U]b`_]bXg`cZ]bg]h]i h]cbgZ`\ck`h`Y`VUg]W
gf]i W]i fY`cZgcW]Y]mg\ci `X`VY`cf[Ub]gYXZ`UbX`\ck`U``cZ`h`YgY`a][\hVY`h]UbgZ`fa YX`"Hcd]W]g`W`j YfYX`k`]`
]bW]i XY`h`Y`"ja]hg`cZghU]h`Ui h]cf]mž`h`Y`gcW]U`W`b]f]UW]ž`h`Y`fc`Y`UbX`a YUb]b[Z`bYgg`cZ`W`bgYb]h`dck`Yfž
f][\hgžgYW`Uf]ga ž`dfcdYf]mž`XYa cW]UW]iUbX`W`bW]dh]cbg`cZ`h`Y`di V]Wdc`]h]W]`gd\YfY"

7ci fgY`@YUfb]b[`Ci h`W`a Yg

%"

5ggYgga Ybh

5ggYgga YbhFi Vf]W9ggUmGHUbxUfXg

	< 8	8B	7F	DG
9I dcg]h]cb'cZ]ggi Yg	7 cbj Ymg']b'U Wc\YfYbha UbbYf'U WYUF'UbX'dfcZci bX Wca dfY\Ybg]cb'cZ h\Y']ggi Yg"	7 cbj Ymg']b'U Wc\YfYbha UbbYf'U WYUF Wca dfY\Ybg]cb'cZ h\Y']ggi Yg"	7 cbj Ymg']b'U Wc\YfYbha UbbYf'U Wca dfY\Ybg]cb'cZ h\Y']ggi Yg"	7 cbj Ymg' U Wca dfY\Ybg]cb'cZ h\Y']ggi Yg"
5bU'mg]g	9I \]V]hg'g_]`g UggcW]UHYX'k]h h\Y'd\]cgcd\]WU' UbU'mg]g'cZHYI hgž cZYf]b[']bbcj Uhj Y UbX']bg][\hž`]bhYfdFYhU]cbg"	9I \]V]hg'g_]`g UggcW]UHYX'k]h h\Y'd\]cgcd\]WU' UbU'mg]g'cZHYI hgž g\ck]b[]bXYdYbXYbW'cZ h\ci [\h'	9I \]V]hg'gca Y g_]`g'UggcW]UHYX k]h' h\Y d\]cgcd\]WU' UbU'mg]g'cZHYI hg"	9I \]V]hg'gca Y fYZYW]cb'cb'h\Y]ggi Yg'Wcj YfYX"
8]gW]d`]bUfm Wcbj Ybh]cbg	8Ya cbgfhUHYg XYHJ]YX'UHYbh]cb hc'UbX'gi WYggZ` YI YW]h]cb'cZU k]X'fUb[Y'cZ Wcbj Ybh]cbg dUfh]W'UF'hc'h\Y UWXYa]WYggUm]b d\]cgcd\mž]bWi X]b[cf[Ub]gU]h]cbž WcbhYbž dfYgYbhU]h]cbž fYZfYbW]b[ž Zcfa UH]b['UbX g]m]gh]W]Xc]W]g"	8Ya cbgfhUHYg Wcbg]ghYbhi gY'cZ]a dcf]Ubh Wcbj Ybh]cbg dUfh]W'UF'hc'h\Y UWXYa]WYggUm]b d\]cgcd\mž]bWi X]b[cf[Ub]gU]h]cbž WcbhYbž dfYgYbhU]h]cbž fYZfYbW]b[ž Zcfa UH]b['UbX g]m]gh]W]Xc]W]g"	t c`ck g YI dYW]h]cbg Uddfcdf]UHY'hc d\]cgcd\mUbX'h\Y UWXYa]WYggUm Zcf'VUg]W cf[Ub]gU]h]cbž WcbhYbžUbX dfYgYbhU]h]cb"	5hYa dhg'hc'i gY'U Wcbg]ghYbhgm]hYa Zcf'VUg]W cf[Ub]gU]h]cb'UbX dfYgYbhU]h]cb"
7]hU]h]cbg'UbX ei c]h]cbg	8Ya cbgfhUHYg W]h]W]m'fYZYW]j Y i gY'cZfY'Yj Ubh gci fW]g'hc UXj UbW Uf[i a Ybh'	8Ya cbgfhUHYg fYZYW]j Y'i gY'cZ fY'Yj Ubh]gci fW]g hc'gi ddcfh dcg]h]cb"		

K f]h]b['Ub'UWUXYa]WYggUma YUbg'_YYd]b[']b'a]bX'gYj YfU'fUg_g.
 UE'UWVW fUHY'mVcbj Ym]b['h'Y'a YUb]b['cZh'Y'df]a UfmiHYI hf'k \Uh]g'h'Y'h'YI h' U'Yj]XYbW'Zcf'mei f
]bHYfdFYHh]cb3E/
 VE'fYZYW]b['cb'h'Y'dcgg]V'Y'k YU_bYggYg'UbX'ja d']W]h]cbg'cZh'Y'Ui h'cf'g'dcg]h]cbg'fk \Uh]gf]_Yg'mei 'Ug
 Wcb'h]b]h]ci g']b'h'Y'fYUX]b['UbX'cf'k \Uh'Z'ck g'Z'ca ']h]E/
 W'g]h' U]h]b['mei f']bHYfdFYHh]cb']b'fY'U]h]cb'h'c'YI]g]h]b['Wca a YbhUf]Yg'fKcYg'mei f'fU_Y'cb'h'Y'h'YI hX]ZYf'Z'ca
 k \Uh'ch'Y'fg'\Uj Y'a UXY'cZ]h'UbX'Wb'mei 'dfc]]XY'fYUgcbg'Zcf'mei f'ck b'k UmcZfYUX]b['h'Y'h'YI h]E"
 K]h'ci h'fU'—Ub'UWVW fUHY'YI dcg]h]cb'cZh'Y'df]a UfmiHYI h—mei 'a U_Y']h'\UfXYf'Zcf'mei f'fYUXYf'h'c'gYY'Zcf
]bg]h'UbW'Z'h'Uh'mei f'W]h]W'f'Ya Uf_g'gh]_Y'\ca Y'fUbX'Xc'b'ch'gh'UbX'U' "]'Yf'V'ck " 'cb'U'Z[a Ybh'cZ'mei f
]a U[]b'U]h]cb'E"
 K]h'ci h'fU'—h'Y'YI dfYgg]cb'cZ'mei f'ck b'fYZYW]h]cbg'cb'h'Y'df]a UfmiHYI h—mei 'a U_Y']h'\UfXYf'Zcf'mei f
 fYUXYf'h'c'gYY'h'Uh]gca Y'h]b[']g'VY]b['gU]X'h'Uh'Ug'b'ch'VY'Yb'gU]X'VY'Zcf'Y"
 K]h'ci h'fU'—Yb[U[Ya Ybhk]h'g'Y'WcbX'Ufmi']h'Y'fU'h' fY—mei 'a U_Y']h'\UfXYf'Zcf'mei f'fYUXYf'h'c'gYY'\ck'mei f
]bHYfdFYHh]cb'Wcb'h]Vi h'Yg'h'c'Wcb'h'Ya dcfUfmiUWUXYa]Wi bXYfgh'UbX]b['cZ'h'Y']ggi Yg'Uh]gh'U_Y'Z'bY]h'Yf
 fYd']W]h]b['k \Uh'ch'Y'fg'\Uj Y'U'fYUXmgU]X'b'cf'Z']b['Z'ci 'cZ'h'Y'f'Uf[i a Ybh'g"
 B6"?'YYd]b['fU'Z'fV'UbX'fW']b'a]bX']g'YI h'Ya Y'mX]Z]W'h'UbX'b'Yj Yf'VY'Wca Yg'gh]fU] [\h'Z'fk UfX" 'Hc'f'm'Z
 \ck Yj Yf'Z']g'h'c'g'Yh'ci h]b'h'Y'f[\hX]fYW]cb"

5g'U'fi 'Y'cZ'h'i a V'Z'fYZ'ff]b['h'c'Wca a Ybh'U'c'fg'k \Yb'h'Y'm'W]h]W]g'Y'cf'Y'UV'cf'U'h'c'b'h'Y'df]a UfmiHYI h]g
 VY'h'Y'f'h'Ub'f'YZ'ff]b['h'c'h'Ya 'k \Yb'h'Y'm]g]a d'm'd'Uf'Ud'\f'Ug'Y']h'c'f'f'Yd'Y'U'hk]X'Y'm'_b'ck b'Z]W]g'Wcb'W'fb]b[']h]g
 Wca d'cg]h]cb'c'f']b'Zi Yb'W' "]h]g'Yj Yb'VY'h'Y'f'k \Yb'mei 'W]b'di h'Z'fk UfX'Ub'Uf[i a Ybh'cZ'mei f'ck b']b
 fYg'd'cb'g'Y'h'c'U'Wca a Ybh'U'c'f'g'W]h]W]g'a 'cf'Y'UV'cf'U'h]cb'cZ'h'Y'df]a UfmiHYI h'

5ggYgga Ybh'Ug_g

5ggYgga Ybh'Ug_g	K Y] [\h	8i Y'8UH'	Gh XYbh@YUfb]b[Ci h'Wca Yg'5ggYggYX
F YgYUfW'YggUm%) \$\$'k cfXg'	')	\$&#+\$&#&#&#\$(. \$\$'DA	%&' Z'(Z)
F YgYUfW'9ggUm&\$\$\$'k cfXg') \$	% #\$, #&#&#&#\$(. \$\$'DA	%&'&Z' Z'(Z)
A ccX'Y'Dcgh'	%)	% #\$, #&#&#&#\$(. \$\$'DA	%&'&Z' Z'(

5ggYgga Ybh'8YH]`g

5ggYgga Ybh% 'F YgYUfW'YggUm%) \$\$'k cfXg

Gh'f'h'XUH'. B'ch5dd']WV'Y

@Yb[h. %) \$\$'k cfXg

8YH]`g.

Gh XYbh'k f]h'U'f'YgYUfW'YggUm! %) \$\$'k cfXg"

: YYXVUW_k]`'fU_Y'h'Y'Z'ca 'cZU'fi V'f]WUbX']bX]]X] U'Wca a Ybh'g"

5XX]h]cb'U'XYH]`g.

9ggUm'h'd]W'g'k]`'VY'dcgh'X'cb'A ccX'Y'Uh'h'Y'gh'f'h'cZ'h'fa "

Hi fb]hb'gYhb[. 'H\]g'Ugg][ba Ybh]g'gi Va]h'X'h'fci [\ 'Hi fb]hb'UbX'ghi XYbhg'WUb'gYY'Hi fb]hb'g)a]'Uf]hm
fYdcfng"

Vcc_k \]Y'mci 'UfY'gh''fYUX]b[']'

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

		h\Y`Y[]h)a UWmUbX`dck Yf`cZh\Y`ghUHY3
K YY_ ; . %> i `m! '> i `m	@YWh fY	5fYbXhZ`A ` DWha`gfa`z`dd`%&%) Hcd]Wg. `Dck Yfz`j `c`YbW`UbX`h\Y`j Uf]Yh]Yg`cZ ZFYXca
	Hi hc]U`	K \Uh]g`dck Yf3`K \UhXcYg`dc`]h]W`dUfh]W]dUhc]b UXX`hc`VY]b[`i a Ub3
K YY_ - . !> i `m! " \$> i `m	@YWh fY	5fYbXhZ`A ` DWha`gfa`z`dd`%\$*!&\$*` Hcd]Wg. `H\Y`Z`i bXU]hcbg`cZghUHYg`UbX`h\Y d\]`cgcd\]W`]a dcfhcZdc`]h]W` \]g]hcfm
	Hi hc]U`	K \mXcYg`5fYbXhW`h\Y` : fYbW`F Yj c`i hcb`U Z]i fY`UbX`h\Y`5a Yf]W]b`F Yj c`i hcb`U`gi VV]gg3`8c \Yf`fYUgcbg`VYUf`gW]i h]bm3
K YY_ %\$. '> i [i gh! `* 5i [i gh	@YWh fY	5fYbXhZ`A ` DWha`gfa`z`dd`&\$+!`+` Hcd]Wg. `H\Y`j Uf]Yh]Yg`cZfYj c`i hcb`UbX`h\Y`dc`]h]W` Vc]g]h`cZh\Y`fYUgcbg`Zcf`UW]hcb
	Hi hc]U`	K \UhUfY`h\Y`Yggcbg`hc`VY`XfUk b`Zca`h\Y fYj c`i hcbg`cZh\Y`Ugh]k c`VW]h] f]Yg3

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

H\YfY`UfY`h\YY`fYeI]fYX`hYI hg`Zcf`h\]g`Wci fgY"5`UfY`Uj U]UV`Y`Zcf`di fWUgY`Zca`h\Y`I`BGK`6cc_g\cd"

%`H\ca Ug`<cVVYgž>Wh[SfZS`žYX"7"6"A UWd\Yfgcb`f@cbXcb.`DYb[i]bž%- ,) Ł"
&">c\b`@cW_YžFZWEWJa`V Fd\sf[eWaX9 ahWd`_ W fS`V 3 >WfWd5a`UWd [Y Fa Wsf[a`fA]bYc`Už
BM`8cj Yfž&\$\$&Ł"
' "`<UbbU\`5fYbXfžA`DWha`gf[a`f@cbXcb.`DYb[i]bž&\$\$*Ł"

F YWca a YbXYX`F Ygci fWg

5`]ghcZfYWca a YbXYX`gYWcbXUfmfYUX]b[g`k]`VY`Uj U]UV`Y`cb`A`ccX`Y`UbX`j]U`@Y[Ubhc"

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

Gh XYbthg`Uj Y`h\Y`cddcfh b]mhc`dfcj]XY`ZYXVUW`cb`h\Y`Wci fgY`Vch`Zcfa U`m! j]U`h\Y`YbX!cZhfA
A m9I dYf]YbW`gi fj Ymi`UbX`]bZcfa U`m! j]U`Y!a U]`cf`ZJW!hc!ZJW"

Gi Va]gg]cb 'cZ5ggYgga YbhiHUg_g

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

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'fgi ddcfh4 i bgk "YXi "Ui "'Gi ddcfh
\ci fg'UfY', .\$\$Ua '—%\$.\$\$da 'cb'k YY_XUmg'UbX'-. \$\$Ua '—) .\$\$da 'cb'k YY_YbXg'fI *) 'XUmg'U'mYUfI" 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'Zc'f'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 YbHgE'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]W]m'fYW]j Y'U'h]W_Yhbi a VYfž'Vi h]Zmci 'HY'Yd\cbY'mci 'k]'b'YX'hc'gdYW]Z]W]m'Ug_ 'Zc'f'cbY"
Hi fb]h]b 'U'gc'dfcj]XYg'i dXUH'g'cb'H'Y]f'gmgh'Ya 'ghU'hi g'cb'Hk]HYf"

; YbYfU'mž'UggYgga YbhiHUg_g'a i ghVY'gi Va]HYX'Y'YW'fcb]W]m'j]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]bZcfa UH]cb'cb'\ck 'hc'gi Va]hUgg][ba YbHg'cb]bYj]U'A ccX'Y. \hhdg.#gh XYbhi 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]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
-

5 WUXYa]W=Zcfa Uh]cb

: cf`YggYbh]U`ghi XYbh]bZcfa Uh]cb`fY`Uh]b[`tc.

- fYei Yg]Zcf`YI H`bg]cb/
-