



ARTS2511

ⓂHYfa YX]UHŸ ; Yfa Ub'6

HYfa 'H\ŸŸ'##'&\$%-

7ci fgY`Cj Yfj JYk

`GHUZZ7cbhUW`i8YHUJ`g`

`7cbj Ybcfg`

B Ua Y	9a Uj`	5j Uj`UVj]m	@cWjhcb	D\cbY
8Yb]gY`< UbhY`	X"\UbhY`4 i bgk "YXi "Ui	VmUddc]bha Ybh	A cfj Yb`6fck b &' (- ' ,) '\$) - *

`@YWi fYfg`

B Ua Y	9a Uj`	5j Uj`UVj]m	@cWjhcb	D\cbY
8Yb]gY`< UbhY`	X"\UbhY`4 i bgk "YXi "Ui	VmUddc]bha Ybh	A cfj Yb`6fck b	

7ci fgY'8YHJ]`g

7fYX]hDc]bHg`*`

Gi a a UfmcZh\Y'7ci fgY

Gi VYWh5fYU.'9Wd_S` EfgV[Wé

ǂhYfa YX]UH'; Yfa Ub'6`Vi`]Xg'cb'h\Y'gi WWggZ`Wéa d`Yh'cb'cZǂhYfa YX]UH'5`cf'h\Y`Yei`j] U`YbhcZ%)
mYUfg'cZ; Yfa Ub`Ub[i U[Y`YUfb]b["`ǂWébgc`]XUH'g'UbX`YI hYbXg'mci f'dfYj`]ci g`mUWéi`]fYX'cfU`UbX

5ggYgga Ybh

5ggYgga YbhHUg_g`

5ggYgga YbhHUg_	K Y][\h	8i Y'8UHŸ	Gh XYbh@YUfb]b[Ci hŤa Yg'5ggYggYX
@]ghŸb]b[`UbX`F YgdcbX]b[`	%)	&, #/\$#&\$%-`%%\$\$'5A	%ž&ž(
Dcfhžc`]c`	(\$	Dcfhžc`]c` =`% #/\$žDcfhžc`]c` = &&#/%%	%ž&ž ž(ž)
HYgh	' \$	%) #/%#&\$%-`\$%\$\$'DA	%ž(

GHUfhXUHY. 'Bch5dd`]WV`Y

@Yb[h. `* \$`a]bg

8YHU]`g. 'H\Y`hYghk]`VY`WcbXi WYX`j]U`hY`@A G`]b`WUgg`fUddfcl ""* \$`a]bgE" 'H\Y`hYghWcbg]gth`cZ
Ui hca Uh]WU`mia Uf_YX`ei Ygh]cb`hmdYg`fY" ["a i`h]d`Y`WXc]WY`z`g\cfhUbgk Yfz`UbX`a UH\X]b[E`UbX`]bX]j]Xi U`m
[fUXYX`ei Ygh]cb`hmdYg`fcdYb!YbXYXz`g\cfhYI hgE": YYXVUW`_j]U`Ui hca Uh]WU`ffYW]cb`Ug`k Y`Ug`]bX]j]Xi U`
Wca a Ybth`UbX`gJa d`Y`Ubgk Yfg"

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

5ggYgga Ybh(. 'GdYU_]b['HUg_

GHUfhXUHY. 'Bch5dd`]WV`Y

@Yb[h. `%\$!%) `a]bg

8YHU]`g. 'Gh XYbth`WcbXi WU`g\cfhX]U`c[i Y`f) !, `a]bgE]b`dU]fg`cf`ga U`"[fci dg": YYXVUW`_j]U`a Uf_]b[
fi Vf]Wfba Uf_YX`]bX]j]Xi U`mE`UbX`]bX]j]Xi U`Wca a Ybth"

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

5 hYbXUbW F Yei]fYa Ybhg

5 hYbXUbW cZ@YWh fYg#hi hcf]U'g]g'a UbXUhcfm]b'h]g'Wci fgY"i bYI W gYX'UVgYbW Zfca 'a cfY'hUb'&\$i cZ@YWh fYg#hi hcf]U'g k]'fYgi 'h]b'hY'Uk UfX'U'ZU]'[fUXY" b @YWh fY#hi hcf]U'g'mci 'k]'UW] Y'mYb[U[Y k]h'WcfY'Wci fgY'WcbhYbZ'YbUV]b['mci 'hc'UhtU]b'7 @C '&/ " "

7 ci fgY'GWXYXi `Y

[J \]yk 'WUgg'ha YhUVY](#)

H]a YhUV`Y`

8 UH	HmdY	7 cbhYbh
K YY_%`%*`GYdhYa VYf! &\$`GYdhYa VYf	Hcd]W	? Ud]hY`*`"6Yfi ZgV]XYf".`dfcZYgg]cbg 5i ZHU_h/`A cXi``% D`YUgY`bchY`. `bc`hi hcf]U`]b`k YY_%
K YY_&.`&`GYdhYa VYf! &+`GYdhYa VYf	Hcd]W	? Ud]hY`*`"6Yfi ZgV]XYf".`dfcZYgg]cbg A cXi``&!(` .
K YY_".`\$`GYdhYa VYf! (`C WtcVYf	Hcd]W	? Ud]hY`+`":`Øf]a a Yf'i bX`Yk][(`")Z]ghmY`UbX`ZJa]m a cXY`gž`cj Y`UbX`fca UbW 5i ZHU_hžA cXi``%/`&
K YY_(.`+`C WtcVYf!`%`% C WtcVYf	Hcd]W	? Ud]hY`+`":`Øf]a a Yf'i bX`Yk][(`")Z]ghmY`UbX`ZJa]m a cXY`gž`cj Y`UbX`fca UbW A cXi``" bc`YWh fY`fdi V`]Wlc`]XUrt.
K YY_)`.`%(`C WtcVYf!`%`% C WtcVYf	Hcd]W	? Ud]hY`+`":`Øf]a a Yf'i bX`Yk][(`")Z]ghmY`UbX`ZJa]m a cXY`gž`cj Y`UbX`fca UbW A cXi``" Dc fhZc`]c`=Xi Y.`%`#%\$
K YY_*`.`&%`C WtcVYf!`&) C WtcVYf	Hcd]W	? Ud]hY`",`"?`Ui ZYbž`_Ui ZYbž`_Ui ZYb".`dfcXi Wgž Wcbgi a dh]cbž a U_]b[`WU]a gžUX] Yfh]gYa Ybhg` 5i ZHU_hžA cXi``%/`&
K YY_+.`&`,`C WtcVYf!`%`% Bcj Ya VYf	Hcd]W	? Ud]hY`",`"?`Ui ZYbž`_Ui ZYbž`_Ui ZYb".`dfcXi Wgž Wcbgi a dh]cbž a U_]b[`WU]a gžUX] Yfh]gYa Ybhg`

		A cXi `` / `(@]ghYb]b[/ `7ca dfY\Ybg]cb`HYgh`&, #/\$
K YY_ ; . (`Bcj Ya VYf! ; Bcj Ya VYf	Hcd]W	? Ud]hY` - ``9bX`]W` i fUi V`. hfUj Y` 5i zHU_hz`A cXi ``%!`
K YY_- . %%Bcj Ya VYf! %) `Bcj Ya VYf	Hcd]W	? Ud]hY` - ``9bX`]W` i fUi V`. hfUj Y` A cXi ``(? Ud]hY` %\$`"B UHØF`]W` B Uhi f". Ybj]fcba YbU`"]ggi Ygž Ub]a U'g 5i zHU_hz`A cXi ``% HYgh`%) #/%%
K YY_ %\$.`% `Bcj Ya VYf! &&`Bcj Ya VYf	Hcd]W	? Ud]hY` %\$`"B UHØF`]W` B Uhi f". Ybj]fcba YbU`"]ggi Ygž Ub]a U'g A cXi ``&!(DcfhZc`]c` =Xi Y. `&#/%%
K YY_ %%`&) `Bcj Ya VYf! &- `Bcj Ya VYf	Hcd]W	GdYU_]b[`HYgh`&) #/%%

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

3ebW] fW` Wg 4#b`ge >Wzđg` V 3dTW]feTgUZ Fw^\$ _ [f 5 6`fG6B` - +, !' !%&!*\$) \$%-!+Ł

F YWca a YbXYX`F Ygci fWg

F YWca a YbXYX`F Ygci fWg

6cc_`-3ebW] fW` Wg 4#b`ge 9 dS_ _ Sf[]`fG6B.- +, !' !%&!*\$) \$' &!*Ł

6cc_`-3ebW] fW` Wg 4#b`ge ;` fW e[hfcd[` WdfG6B.- +, !' !%&!*\$) \$&&!+Ł

Mci`a UmZ]bX`UXX]hcbU`hYI hg`cb;` Yfa Ub`[fUa a Uf`i gYZ`""H\Y`Zc`ck]b[`UFY`Uj U]UV`Y`UhihY`I` BGK @]VfUfm

F Y]a UbbžA cb]_Už7eeW f[S^9 Wd_ S` 9 dS_ _ Sdf]ga Ub]b[.`< i YVYfž&\$%(Ł

GdYWXhž: fUbn`YhU""žGVXf]hY` , Vi b[g[fUa a Uh_`f]ga Ub]b[.`< i YVYfž&\$%\$Ł

9`Y;` gVXcgga Ubb!<YbXYfg\chiUbX`@c]g`A ``: Yi YfYž`E UZSg_ e A gf`f` WaX9 Wd_ S` 9 dS_ _ Sđ` fX`YX" fBYk`Mcf_`A W fUk`!<]ž%- +Ł

5`žYX`9Xk UfX`< Ua a Yfž: S_ _ Wde 9 Wd_ S` 9 dS_ _ SdS` V GeSYWž`&bX`YX""f]cbXcb. `9""5 fbc`Xž%- %Ł

5gdY`hY`6%ž`C b`]bY`YI YfW]gYg`UbX`UXX]hcbU`a` UhYf]U`

Zffbe,!!i i i ž] WfžebdSUZW žWSebW] fWž` Wg!đ#!#` ° dW]fWd/_ VW[SfZW]` V`Q` [hVŠgQefd/ 4#B`ge` V`Q] SfW`adW \$

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

7ci fgYg`UFY`dYf]cX]W]`mfYj]Yk YX`UbX`gh`XYbfg`žYXVUW_]g`i gYX`tc`]a dfcj Y`hYa`""

: YYXVUW_]g`[UhYfYX`žca`gh`XYbfg`i g]b[`a n9! dYf]YbW"" Gh`XYbfg`UFY`YbWci fU[YX`tc`Wca d`Yh`hY]f gi fj Ymg`VmUVWYgg]b[`hY`dYfgcbU]gYX`k YV`]b_]j]U`hY`A ccX`Y`Wci fgY`g]hY

Gi Va]gg]cb`cZ5ggYgga YbhHUg_g

Gi Va]gg]cb`cZ5ggYgga YbhHUg_g

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

Ẓmci `YbWci bhYf`U`dfcV`Ya `k \Yb`U`H`Ya dh]b[`hc`gi Va]hmc i f`Ugg][ba YbhHfci [\`Hi fb]h]bžd`YUgY
H`Yd\cbY`9I H`fbU`Gi ddcfhcb`-` ,) `` `` ` %cf`Ya U]`H`Ya `cb`YI H`fbU`H`hgi 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`m`YUfL` Ẓmci
UfY`i bUV`Y`hc`gi Va]hmc i f`Ugg][ba YbhXi Y`hc`U`ZU`i`hik]H`Hi fb]h]b`mci `a UmiUdd`miZc`f`Ub`YI H`bg]cbžVi hmc i
a i ghfYH]b`mci f`h]W`Yhbi a VYf`Zca `9I H`fbU`Gi ddcfhfU`cb[`k]H`Ubmch`Yf`fY`Yj UbhXcW a YbHgk`hc
]bWi XY`Ug`Yj]XYbW`hc`gi ddcfhmci f`YI H`bg]cb`Udd`jW]h]cb" Ẓmci `Ya U]`9I H`fbU`Gi ddcfhmci `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`mW`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`Ug
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[YhYf`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][\hžI BGK 'Gh XYbh7cXY'cZ7cbXi WñUbX'5WwdfUV'Y'I gY'cZ I BGK '⇒H'F Ygci fW'g'Dc`]Wñ
- VY'Uk UfY'cZñY'ghUbXUfXg'cZVY\Uj]ci f'YI dYWñX'cZYj Yfmcby`]b'hY'I BGK 'Wca a i b]m
- `cWñH'gYfj]W'g'UbX']bZcfa Uhcb'UVci hl BGK 'UbX'I BGK '@]VfUfm

Gca Y'cZñYgY'UfYUg'k]`VY'ZJa]]Uf'hc'mci žcñYfg'k]`VY'byk " "; U]b]b['U'gc`X'i bXYfghUbx]b['cZU`ñY fY'UH'X'UgdYW'g'cZ9@G9'k]`ñY'd'mci 'a U_Y'hY'a cghcZmci f'gh X]Yg'Uhl BGK ""

[\hhd.##ji V'YWñ \]i \]XYg" \]VfUfm'i bgk "YXi "Ui #` \]gY#UVci hY`\]gY](#)

5 WUXYa]WbZcfa Uh]cb`

: cfYggYbh]U`ghi XYbh]bZcfa Uh]cb`fY`Uh]b[`rc.

- fYei Ygh]Zc`fYI h`bg]cb/
- `Uh]`gi Va]gg]cbg`[i]XY`]bYg/
- fYj]Yk `cZa Uf_g/
- I BGK `<YU`h`UbX`GUZY`midc`]WYg/

