



## ARTS2485

9l d`cf]b[ `: fYbVX `@]b[ i ]gh]Vg

HYfa `H\fYY`##`&\$&\$

7ci fgY`Cj Yfj ]Yk

GHJZ7cbHJW`8YHU]`g

7cbj Ybcfg

B Ua Y	9a U]`	5j U]`UV]`]m	@cW]h]cb	D\cbY
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@cW]h]cb. `GWcc``C Z]WžA cfj Yb`6fck b`6i ]X]b[ ž`@Yj Y``&ž&),

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D\cbY. `ž`\*%&`- ' , ) `)%\*, %

: Ul. `ž`\*%&`- ' , ) ; , +\$)

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

7ci fgY'8YHJ]`g

7fYX]hDc]bHg`\*`

Gi a a UfmcZh\Y'7ci fgY

H\]g`Wci fgY`hJi [ \h]b'9b[ `]g\`cZYfg'U'gmghYa Uh]WWca dUf]gcb'cZ: fYbWk`UbX'9b[ `]g\`Ug'ZJf'Ug'gci bXgž

5ggYgga Ybh

5ggYgga YbhHUg\_g`

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HYgh	) \$i	8i f]b[ ``YWñ fYgžf]k YY_` . &, #-\$- #&\$&\$\$/f]]k YY_) . %&#/\$#&\$&\$	%ž&
Dfc YWñ	) \$i	C fU`dfYgYbhU]cb`Xi Y`cb k YY_` , `Vm) `da žGi bXUm \$, #/9/9#&\$&\$\$/h\Y`k f]hYb fYdcfh]g`Xi Y`Xi f]b[ `hY`YI Ua dYf]cX. `cb`&+ #/9/9#&\$&\$`Vm) da "	` ž(

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GHUfhXUHŸ. `Bch5dd`]WVY

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8YHU]`g.

Hk c`]b!WUgg`hYgh`cZWU") \$`a ]bi hYg`YUWX`Wcj Yf]b[ `hY`WcbYbhcZhY`Wci fgY`j ]U`dfcV`Ya `gYhg`UbX`g`c`fh  
YggUmei Ygh]cbg""h\Y`gi a a Uhj Y`hYgh`UFY`dfYWW`XYX`VmZcfa Uhj Y`k YY\_`mcb`]bY`UbX`#`f`h`fcf]U`YI YfW]gYg"

: YYXVUW\_j ]U`]b!WUgg`X]gW`gg]cbž`Yffc`f`Wc`ffYW]cbž`UbX`k f]hYb`Wta`a`Yb]g"

Hi fb]h]b`gYh]b[ .`





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K YY_) . %&C WtcVYf! '* C WtcVYf	Hcd]W	H\Y 'Zcfa U]cb'UbX'a YUb]b[ 'cZk cfXg fWcb]bi U]cbE"  B Ua Yg'cZcVW dU]cbg'UbX' [ YbXYf' ]bW] gj] Y 'Ub[ i U[ Y"  GYa ]bUF'9I YfW]gYg"
	5ggYgga Ybh	H9GH'! &) i 'fW]') \$'a ]b"Zcb' ]bYzXi f]b[ 'hY'YVW] fYE
K YY_*. %' C WtcVYf! '& C WtcVYf	@YW] fY	BC '@97 HI F 9' C B 'K 99? '*  ,
	Hi hcf]U'	BC 'HI HCF -5@C B 'K 99? '*
K YY_+. '&* C WtcVYf!' '\$ C WtcVYf	Hcd]W	H\Y [ fUa a Uf'cZ: fYbW. 'a cfd\c'c[ m]UbX'grnb]U  9I d'cf]b[ 'hY: fYbW 'Ub[ i U[ Y. '7 \UdhYfg'+/ ;  HfUX]h]cbU' / 'Zcfa U'XYZ]b]h]cbg'cZW]Y [ cf]Yg'cZ k cfXg  GYa ]bUF'YI YfW]gYg
K YY_). '&'Bcj Ya VYf! '* Bcj Ya VYf	Hcd]W	H\Y [ fUa a Uf'cZ: fYbW. f]7 cb]bi U]cbE  : fca 'k cfXg'hc'gYbhYbW]g  GYa ]bUF'YI YfW]gYg
	5ggYgga Ybh	; fci d'cfU'dfYgYb]U]cbg!' &) i 'f]b' hc'&\$'a ]bi hYgZ gi Va ]hYX'cb' ]bY'cb'J c]W]H\ fYUX'j ]U'A ccX'YE"  K UhW 'UbX'dcghW'a a Ybhg'cb'k c'chYf' [ fci dgfi cb' ]bY'dfYgYb]U]cbg'VYzcfY'k YY_-' 'h hcf]U"
K YY_-. '- 'Bcj Ya VYf! % 'Bcj Ya VYf	@YW] fY	H\Y [ fUa a Uf'cZ: fYbW. fWcb]bi U]cbE  7 ca dUf]gcb'VYhk YYb': fYbW 'UbX'9b[ ' ]g\  : YYXVUW_ 'UbX'X]gW gg]cb'cZcfU'dfYgYb]U]cbg fXi f]b[ 'h hcf]U'gE"  GYa ]bUF'YI YfW]gYg
K YY_%. '%* 'Bcj Ya VYf! &\$'Bcj Ya VYf	Hcd]W	H\Y [ fUa a Uf'cZ: fYbW. fWcb]bi U]cbE"  7 cbW] g]cb'cZhY'W'a dUfU]j Y'UddfcUW 'hc': fYbW  DfYdUfU]cb'cZhY'Z]bU'Ugg][ ba YbhfXi Y'Xi f]b[

## F Ygci fWg

### DfYgWf]VYX`F Ygci fWg`

- @cX[Y`5`"WfS^f&\$\$`'0%`-`+0"7j b`ad[`Y fZW8dW UZ`>S`YgSYW`@cbXcbž5fbc`X"
- 5XX]hcbU`a UYf]U`g`dfcj ]YX`j ]U`A ccX`Y"

### F YWca a YbXYX`F Ygci fWg

K Y`UXj ]gY`mci`'hc`di fWUgY`Y]hYf`cbY`cZhY`Zc`ck ]b[`i[ fUa a Uf`fYZYfYbW`Vcc`g`k f]hYb`]b`9b[`]g\.

- A cftcb`>`f&\$\$`-`E`7`Y`feZ`9`dS`\_`\_`SdXdEfgVW`fe`aX8dW`UZ`"H\Y`C`]j ]U`UbX`<`]`DfYgg"

H\]g`Vcc`\_`UXcdhg`U`Wca`dUfU]j`Y`UddfcUW`VYhk`YYb`9b[`]g\`UbX`:`fYbW`"9UW`hYfa`cf`WcbWdh]g`Zfgh`]  
]b]fcXi`WX`]b`fY`U]cb`hc`h\Y`9b[`]g\`Ub[`i`U[`Y`VYZc`fY`VY]b[`YI`d`U]bYX`]b`fY`U]cb`hc`:`fYbW`"Mci`WUb`fY`]  
]gY`Vch`mci`f[`fUa`a`Uf`cZ9b[`]g\`UbX`mci`f[`fUa`a`Uf`cZ`:`fYbW`"H\Ybž`mci`WUb`Xc`YI`YfW]gYg`]b



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`Ybhi`h`fci`[`\`Hi`fb]h]b`z`d`Y`Ug`Y`  
HY`Yd`l`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`\_X`Umg`U`bX`-`.\$\$Ua`-`,`)`. \$\$da`i`cb`k`YY`\_Y`bX`g`f`l`\*)`X`Umg`U`m`Y`U`f`l`"Ʒmci`  
UfY`i`b`UV`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`U`b`YI`HY`bg]cb`z`Vi`hmc`i`  
a`i`gh`fY`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`U`b`m`c`h`Y`f`f`Y`Y`U`b`h`X`c`W`a`Y`b`h`g`k`h`c`  
]b`Wi`X`Y`U`g`Y`j`]X`Y`b`W`hc`gi`ddc`fh`mci`f`YI`HY`bg]cb`Udd`]W`h]cb`"Ʒmci`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`l`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`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`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`]b'h'Y'I BGK 'Wca a i b]m
- `cWJh'gYfj ]W'g'UbX'j]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.##ji V'YW'i \]XYg" \]VfUfm'i bgk "YXi "Ui #' \]gY#JVci h' \]gY](#)

